Transcript: Sugar Cravings, Red Meat, and Your Health | Max Lugavere | EP 456

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**[00:00:00]** and with Alzheimer's Disease by the time

**[00:00:01]** you know a person is diagnosed your

**[00:00:03]** brain's ability to derive energy to

**[00:00:05]** create energy from glucose which is its

**[00:00:07]** primary fuel substrate is diminished by

**[00:00:09]** about 50% any power outage in that organ

**[00:00:14]** is going to lead to failure

**[00:00:21]** [Music]

**[00:00:30]** hello everybody today I'm talking with

**[00:00:33]** Max luga who flew in from LA to

**[00:00:36]** Washington DC to have this conversation

**[00:00:39]** with me he's a journalist who's become

**[00:00:42]** quite a well-known scientific researcher

**[00:00:45]** and popularizer but also a creative

**[00:00:48]** investigator in his own right he wrote a

**[00:00:50]** Trilogy of books The Genius Trilogy one

**[00:00:54]** on Foods one on life and one a recipe

**[00:00:57]** book on the kitchen and is also the

**[00:01:00]** producer of a documentary that'll be

**[00:01:02]** released at the end of June 2024 called

**[00:01:04]** little empty boxes all of that was

**[00:01:07]** motivated by his mother's experience

**[00:01:10]** with a form of dementia known as um that

**[00:01:13]** involves the degeneration of these

**[00:01:15]** neurological tissues known as Louis

**[00:01:17]** bodies uh it's not Alzheimer's or

**[00:01:20]** frontal temporal dementia it's another

**[00:01:22]** form of dementia and he was very shocked

**[00:01:26]** by his mother's illness which she

**[00:01:29]** developed when she was in her late 50s

**[00:01:32]** and

**[00:01:34]** also by the dir of effective treatment

**[00:01:37]** that was available to her and ended up

**[00:01:39]** obsessively concentrating on Research

**[00:01:42]** into the dementias in general concluding

**[00:01:45]** as have many people in the last decade

**[00:01:48]** that the dementia spectrum of illnesses

**[00:01:52]** and that includes Parkinson's by the way

**[00:01:54]** might well be

**[00:01:57]** preventable with interven ions that are

**[00:02:00]** early enough in life and that many of

**[00:02:02]** those interventions might be dietary in

**[00:02:06]** nature and we discuss why that is and

**[00:02:10]** talk about the carnivore diet as well as

**[00:02:12]** a potential uh

**[00:02:17]** diagnostic investigative tool for the

**[00:02:20]** analysis of complex disease in general

**[00:02:22]** and well I suppose in some ways

**[00:02:25]** celebrate the possibility that dietary

**[00:02:28]** modulation might prove to be the

**[00:02:32]** treatment of choice on the prevention

**[00:02:35]** side for these terrible degenerative

**[00:02:38]** neurological diseases so join us for

**[00:02:42]** that so I'm interested in diet I suppose

**[00:02:47]** despite myself I would say because it's

**[00:02:50]** not my natural domain of interest um I'm

**[00:02:53]** more interested in psychological matters

**[00:02:55]** let's say than physical or physiological

**[00:02:58]** matters I know they overlap but my

**[00:03:01]** attention doesn't naturally gravitate

**[00:03:04]** that way but I have definitely learned

**[00:03:08]** that many of the things that I would

**[00:03:11]** have been tempted to assume were

**[00:03:15]** psychological aren't I mean I've known

**[00:03:17]** for a long time for example that

**[00:03:20]** endogenous

**[00:03:21]** depression the schizophrenic disorders

**[00:03:24]** and manic depression I never thought of

**[00:03:26]** those as psychological disorders I

**[00:03:28]** thought no those people are sick we just

**[00:03:29]** don't know what's wrong with them so I

**[00:03:31]** spoke with Chris Palmer in some detail

**[00:03:33]** on my podcast and I just met him again

**[00:03:36]** in Boston he's got a couple of research

**[00:03:41]** projects finishing up he's got 15 on the

**[00:03:44]** goal looking at treatment of those

**[00:03:46]** disorders with diet and the first three

**[00:03:49]** have been spectacularly successful

**[00:03:52]** so

**[00:03:54]** diet right so let's start with your

**[00:03:57]** Genius work and and line for people what

**[00:04:00]** you're what those are and what you're

**[00:04:02]** doing um with them and why let's start

**[00:04:05]** with that sure so I've written a uh a

**[00:04:08]** Trilogy of books The Genius Trilogy as

**[00:04:11]** it were and um my first book was called

**[00:04:12]** genius foods and it came out in

**[00:04:14]** 2018 and it's a Tome to uh and an homage

**[00:04:18]** really to the science of both dementia

**[00:04:22]** prevention as well as the burgeoning

**[00:04:25]** field that's being referred to as

**[00:04:27]** nutritional Psychiatry so how right diet

**[00:04:30]** plays a role in you know

**[00:04:33]** mediating mental health um in so far as

**[00:04:37]** it does play a role there's this this

**[00:04:39]** really you know exciting area of

**[00:04:40]** research looking at how our diets are

**[00:04:42]** you know are able to influence our moods

**[00:04:46]** which I think is incredibly exciting um

**[00:04:48]** I followed that up with a book called

**[00:04:50]** the Genius life which was a more was a

**[00:04:53]** more lifestyle Centric guide um and then

**[00:04:56]** my third book came out in

**[00:04:58]** 2020 I'm sorry 2022 and it was a

**[00:05:01]** cookbook kind of bringing everything

**[00:05:02]** together but um my work really I would

**[00:05:06]** say primarily explores the intersection

**[00:05:08]** between diet and lifestyle and brain

**[00:05:10]** health and the reason why I wrote these

**[00:05:13]** books um is because I was personally

**[00:05:16]** affected by uh Dementia by a form of

**[00:05:19]** dementia called Louis body dementia

**[00:05:21]** which prior to even receiving that

**[00:05:24]** diagnosis um in my family it's a

**[00:05:27]** condition that my mom suffered from um

**[00:05:30]** I became obsessed with trying to

**[00:05:32]** understand all that I could how old was

**[00:05:33]** she when that happened she was 58 years

**[00:05:35]** old right when she first started to show

**[00:05:37]** these amorphous symptoms that what did

**[00:05:40]** what symptoms did she show so she had um

**[00:05:43]** symptoms that both uh occurred

**[00:05:47]** concurrently um some of them were

**[00:05:49]** movement related so rigidity balance

**[00:05:53]** issues stiffness I guess rigidity and

**[00:05:55]** stiffness are similar um but uh yeah

**[00:05:59]** yeah a real lack of coordination um you

**[00:06:02]** know reduced swinging in the arms you

**[00:06:04]** know I'm not a medical doctor so I

**[00:06:05]** didn't have any framework with which to

**[00:06:07]** understand what I was seeing my mom

**[00:06:09]** exhibit I thought you know movement

**[00:06:11]** symptoms that's a musculoskeletal

**[00:06:13]** condition right has to be um but then in

**[00:06:17]** tandem with those symptoms she also

**[00:06:19]** displayed Stark cognitive dysfunction

**[00:06:22]** and um it's not necessarily that she you

**[00:06:25]** know started to

**[00:06:27]** forget simple things like you know who

**[00:06:30]** she was who who her who her family

**[00:06:32]** members were but it seemed as though her

**[00:06:35]** I've likened it to when you have too

**[00:06:36]** many tabs open in your browser window

**[00:06:38]** it's just like the frame rate starts to

**[00:06:40]** stutter and that's sort of what I what I

**[00:06:42]** saw in my mom who was very much still in

**[00:06:44]** the prime of her life had all the

**[00:06:45]** pigment in her hair you know raised

**[00:06:47]** three boys ran a

**[00:06:48]** business and I had been a journalist

**[00:06:51]** prior to that I had been a generalist

**[00:06:53]** journalist um since College since

**[00:06:55]** graduating college I uh worked for a I

**[00:06:59]** had worked for a TV network that was

**[00:07:00]** co-founded by Al Gore um it wasn't a

**[00:07:03]** political Network and uh I certainly you

**[00:07:05]** know was never really that into politics

**[00:07:08]** um but I was uh sort of like this young

**[00:07:10]** kid who was given the Reigns of this TV

**[00:07:14]** network that reached 100 million homes

**[00:07:15]** in the US and so when my mom became sick

**[00:07:19]** I how old were you when she BEC when she

**[00:07:21]** was diagnosed she was uh I was in my

**[00:07:25]** late 20s okay yeah um and I had just

**[00:07:29]** come off of that position and I was in

**[00:07:31]** between jobs and um more so than than

**[00:07:35]** being a journalist at the time I was

**[00:07:36]** just a scared son you know I was a

**[00:07:38]** scared son seeing you know these awful

**[00:07:40]** symptoms these

**[00:07:41]** mysterious there's not much worse than a

**[00:07:43]** degenerative neurological disease yeah

**[00:07:46]** they're brutal those things they take

**[00:07:47]** you apart like Adam by Adam exactly and

**[00:07:51]** and I had there was no precedent in my

**[00:07:53]** family so I you know as soon as that

**[00:07:57]** that the immediate trauma of of

**[00:07:59]** realizing that my mom had something

**[00:08:01]** serious going on with her brain health

**[00:08:03]** MH it was a it was the most profound

**[00:08:06]** call to action that I've ever felt in my

**[00:08:08]** entire life to do what I could to

**[00:08:10]** understand to the best of my ability why

**[00:08:12]** this would have happened to a woman at

**[00:08:14]** the age at which it did why were you so

**[00:08:16]** compelled to do you think why were you

**[00:08:17]** so compelled to transfigure your life to

**[00:08:21]** come to the service of your

**[00:08:23]** mom love I mean you know my mom was the

**[00:08:26]** most important person in my life and

**[00:08:30]** I'm the first born in an incredibly

**[00:08:31]** small family um and uh I've always had

**[00:08:34]** an incredibly close relationship with my

**[00:08:36]** mother and

**[00:08:39]** um right so this wasn't okay it wasn't

**[00:08:42]** okay whenever I had so much as a cough

**[00:08:44]** growing up I mean moments later I found

**[00:08:47]** myself in the pediatrician's office and

**[00:08:50]** when my mom became sick you know the

**[00:08:53]** those around her were

**[00:08:56]** not all that set up to really

**[00:08:59]** understand what was going on I mean

**[00:09:01]** we're not you know we as a society today

**[00:09:03]** we Outsource so many different forms of

**[00:09:06]** literacy right we Outsource culinary

**[00:09:08]** literacy to GrubHub to our apps you know

**[00:09:10]** we Outsource financial literacy to our

**[00:09:12]** financial handlers um health literacy is

**[00:09:14]** like it's a huge you know area it's a

**[00:09:17]** it's a huge unknown like we all

**[00:09:20]** collectively have you know these really

**[00:09:22]** scary knowledge gaps which only become

**[00:09:24]** apparent to you when you know you're

**[00:09:27]** then you just get more scared because

**[00:09:29]** you start to understand how big the

**[00:09:30]** knowledge gaps are I've never recovered

**[00:09:32]** from finding out that the food pyramid

**[00:09:34]** was a scam yeah that's just that was

**[00:09:38]** just the degree to which that's a scam

**[00:09:41]** is I don't know is there a worse medical

**[00:09:43]** crime in history than that no I mean

**[00:09:46]** telling Americans to load up on 7 to 11

**[00:09:48]** servings of grains every single day yeah

**[00:09:51]** yeah and to to find out that that was a

**[00:09:53]** market Ploy by the Department of

**[00:09:54]** Agriculture and that they went against

**[00:09:56]** the advice even of their own Consultants

**[00:09:59]** warn them that they would produce an

**[00:10:01]** epidemic of obesity and diabetes which

**[00:10:03]** is well and not to to say nothing of

**[00:10:06]** depression and dementia which is exactly

**[00:10:09]** what we have now exactly it's like I

**[00:10:12]** don't know what what you even do when

**[00:10:14]** you find out that that's true yeah and

**[00:10:16]** the and the unwarranted demonization of

**[00:10:18]** natural fat containing foods

**[00:10:20]** nutrient-dense foods like animal Source

**[00:10:22]** foods which continue to be demonized

**[00:10:24]** even by the American diabetic assoc is

**[00:10:27]** it Association Society I don't remember

**[00:10:30]** still pushing thetion that you know

**[00:10:33]** diabetics can eat carbohydrates like

**[00:10:35]** actually I don't think so I don't think

**[00:10:37]** that's a very good idea since they're

**[00:10:39]** converted to sugar for example and then

**[00:10:42]** they're essentially glucose intolerant

**[00:10:44]** right like it's a it's it's Madness and

**[00:10:47]** um and you know with that with that

**[00:10:49]** demonization of these like natural Whole

**[00:10:51]** Foods I mean we live in a time where 60%

**[00:10:53]** of the calories that your average

**[00:10:54]** American consumes comes from what are

**[00:10:55]** called Ultra processed foods so the an

**[00:10:57]** the center of the supermarket exactly

**[00:10:59]** antithesis to Whole Foods right so the

**[00:11:01]** idea that we're still demonizing Whole

**[00:11:03]** Foods to me is insane yeah yeah and

**[00:11:06]** causes Insanity too so it's not just

**[00:11:08]** insane it's a cause of insanity yeah

**[00:11:11]** yeah I mean that is not what do you

**[00:11:13]** think of RFK just out of curiosity

**[00:11:16]** because there I'm sorry that's a

**[00:11:17]** nonsecular in a sense but not exactly

**[00:11:19]** like I've never seen another politician

**[00:11:22]** make an issue of Health yeah right of of

**[00:11:26]** General Health at the level that we're

**[00:11:28]** discussing it viously covid became an

**[00:11:30]** issue and public health is an issue but

**[00:11:32]** Kennedy is the only candidate I've ever

**[00:11:34]** seen who's calling out the reprehensible

**[00:11:38]** mostly corporate actors who are

**[00:11:42]** poisoning well everyone fundamentally

**[00:11:45]** yeah and yeah I think he's an incredibly

**[00:11:47]** important voice in that regard and I

**[00:11:49]** hope that no matter what happens um in

**[00:11:52]** November I hope that he finds a way to

**[00:11:54]** continue his advocacy I mean I'm I'm uh

**[00:11:57]** obviously you know completely aligned

**[00:11:59]** with you know with the notion that we we

**[00:12:01]** do need to begin start doing things

**[00:12:03]** differently well what's the Obesity what

**[00:12:06]** what's the percentage of Americans now

**[00:12:08]** who are obese by 2030 1 and two and this

**[00:12:11]** is not just overweight this is like

**[00:12:13]** Frank obesity right right right and so

**[00:12:15]** the morbidly obese will be one in five

**[00:12:19]** yeah yeah unbelievable it's it's

**[00:12:21]** unbelievable and obesity is a risk

**[00:12:23]** factor for everything pretty much

**[00:12:25]** everything yeah MH yeah and and the Cure

**[00:12:28]** isn't fat positivity no no definitely

**[00:12:32]** not no I mean you can be more or less

**[00:12:34]** healthy at a at any given size but it's

**[00:12:37]** less healthy to be obese than it is to

**[00:12:40]** be normal weight you know I can

**[00:12:42]** understand the fat positive people in

**[00:12:44]** one way you know I would say before I

**[00:12:47]** learned what I did learn about diet I

**[00:12:50]** was I was never particularly judgmental

**[00:12:53]** about people who are obese you know I

**[00:12:56]** did I suppose to some degree accept the

**[00:12:59]** idea that fewer calories a little more

**[00:13:03]** exercise you lose weight and perhaps

**[00:13:07]** that would I say that some more

**[00:13:09]** willpower would be of use I don't know

**[00:13:11]** if I ever really believed that because I

**[00:13:13]** dealt with people who had all sorts of

**[00:13:14]** different problems and reducing it to

**[00:13:17]** something like inadequate

**[00:13:19]** willpower yeah you got to be very

**[00:13:21]** careful about doing such things but now

**[00:13:23]** when I see obese people I think it's

**[00:13:26]** really too bad that you're ill yeah y it

**[00:13:30]** is a disease and it's a it's a there I I

**[00:13:34]** feel a strong sense of empathy for them

**[00:13:37]** because you know them they're being

**[00:13:39]** gaslit essentially that's for sure

**[00:13:41]** because what you hear over and over

**[00:13:43]** again is this idea that all foods fit

**[00:13:45]** there are no such thing as good foods or

**[00:13:47]** bad

**[00:13:48]** foods and that might be true at a

**[00:13:51]** population Health level you know I mean

**[00:13:53]** like and and there's no single food

**[00:13:56]** that's going to cause obesity in an

**[00:13:58]** individual right it's a it's a it's a

**[00:13:59]** dietary pattern of the over you know you

**[00:14:02]** typically involving the over consumption

**[00:14:04]** of these Ultra processed foods well

**[00:14:05]** you're you're more likely to overc

**[00:14:07]** consume the foods that are what would

**[00:14:08]** you say pathologically delicious yeah

**[00:14:11]** right be made pathologically delicious

**[00:14:14]** the high sugar foods in particular it's

**[00:14:16]** very difficult to resist them and no

**[00:14:17]** wonder yeah there was a a seminal NIH

**[00:14:20]** funded study led by Kevin Hall who's a

**[00:14:23]** highly regarded obesity researcher who

**[00:14:24]** found that you know when you give people

**[00:14:28]** an Ultra cess diet to consume and you

**[00:14:30]** tell them to eat two Sati it's called ad

**[00:14:32]** lium feed in the

**[00:14:34]** literature they end up consuming a

**[00:14:37]** calorie surplus of 500 additional

**[00:14:38]** calories so you do that every single day

**[00:14:40]** for a week that's a pound of fat gain

**[00:14:42]** every single week right right and

**[00:14:44]** conversely when they gave them these

**[00:14:45]** minimally processed foods they saw them

**[00:14:47]** eat to the same degree of satiety

**[00:14:49]** fullness yeah but coming in effortlessly

**[00:14:51]** at a calorie deficit of about 300

**[00:14:53]** calories so that's that's an 800 calorie

**[00:14:55]** S I wonder if that has anything to do

**[00:14:57]** with seasonality of grain

**[00:14:59]** you know well because I'm curious is our

**[00:15:01]** our initial agricultural ancestors

**[00:15:05]** especially in colder climates it's like

**[00:15:08]** maybe you wanted to pack on an extra 20

**[00:15:10]** PBS before winter hit you know and so

**[00:15:12]** maybe that's an evolutionary adaptation

**[00:15:14]** to ensure that from September to

**[00:15:18]** December let's say that you took full

**[00:15:21]** advantage of the Harvest so that if lean

**[00:15:23]** times come it makes sense hey because

**[00:15:26]** Islanders who've been on Islands for

**[00:15:29]** many many generations are much likely

**[00:15:31]** much more likely to become overweight on

**[00:15:33]** a North American diet and you're much

**[00:15:35]** more likely to go through starvation

**[00:15:38]** periods on an island as a population and

**[00:15:41]** so people who are very what either

**[00:15:44]** efficient in their metabolisms or

**[00:15:46]** perhaps liable to overeat in times of

**[00:15:49]** Plenty would have been people who

**[00:15:50]** survived so you know because it's

**[00:15:53]** interesting right if there if there's a

**[00:15:54]** stable degree to which you'll overeat

**[00:15:57]** high calorie foods that indicates that

**[00:15:59]** there's like there's a reason for that

**[00:16:01]** that's not just random yeah so it's an

**[00:16:03]** Adaptive survival mechanism those of us

**[00:16:05]** who are the most adapt at putting on and

**[00:16:08]** storing fat would make it through the

**[00:16:10]** Famine of winter yeah the winter well

**[00:16:12]** and you can see why that wouldn't happen

**[00:16:14]** in the case of animal products because

**[00:16:17]** your cows your Lambs your goats Etc they

**[00:16:20]** can survive the winter no problem you

**[00:16:21]** don't have a storage problem there yeah

**[00:16:23]** and so and and you don't have a

**[00:16:25]** seasonality problem so there's no reason

**[00:16:26]** to pig out so to speak right okay okay

**[00:16:30]** okay so let's go back to your to your

**[00:16:32]** mother so one of the a also awful things

**[00:16:34]** about neurological diseases is

**[00:16:37]** that you're very damaged by the time

**[00:16:40]** symptoms show up I've read with

**[00:16:42]** Parkinson's for example the relevant

**[00:16:43]** neurological tissue is 95% gone by the

**[00:16:46]** time any symptoms appear right so that's

**[00:16:49]** brutal yeah so with Parkinson's disease

**[00:16:53]** about half by the time you are diagnosed

**[00:16:56]** with the condition about half of the the

**[00:16:59]** dopaminergic neurons in the substantia

**[00:17:01]**  are already already dead and those

**[00:17:04]** are the neurons that produce dopamine

**[00:17:05]** that that control movement and the like

**[00:17:08]** um and this is a this is a condition

**[00:17:09]** like many other chronic non-communicable

**[00:17:11]** conditions today they don't begin

**[00:17:13]** overnight they begin they you know

**[00:17:15]** simmer they're simmering over a span of

**[00:17:17]** decades prior to the onset of symptoms

**[00:17:20]** well you can

**[00:17:21]** predict probability of developing

**[00:17:23]** dementia with verbal fluency measures

**[00:17:26]** taken in people's

**[00:17:27]** 20s right right there's long-term study

**[00:17:30]** of nuns they had fluency measures taken

**[00:17:32]** when they were very young and so that's

**[00:17:34]** an early indicator of we don't know

**[00:17:37]** exactly what is it is it that the

**[00:17:40]** dementia process is already occurring

**[00:17:42]** that young or is that an indication that

**[00:17:44]** the neurological substrate is less

**[00:17:46]** robust it's not obvious well so yeah in

**[00:17:49]** inflammation certainly plays a role in

**[00:17:52]** reducing cognitive function being

**[00:17:54]** overweight when people typically lose

**[00:17:56]** weight um they see an improvement in

**[00:17:58]** their in their cognitive function yeah

**[00:18:00]** well you know the best I looked for a

**[00:18:03]** long time into the

**[00:18:04]** literature pertaining to maintenance of

**[00:18:07]** cognitive function across time because

**[00:18:09]** there's a linear decrease in your fluid

**[00:18:12]** intelligence so that's G essentially the

**[00:18:15]** central measure of cognitive ability it

**[00:18:18]** starts to decline in your early 20s it's

**[00:18:20]** pretty linear and so that's you know

**[00:18:22]** that's a drag and then you might say

**[00:18:24]** well what can you do to Forstall that

**[00:18:26]** and there are many companies none of

**[00:18:28]** which seem to exist anymore on the

**[00:18:29]** internet that were claiming that you

**[00:18:31]** know daily cognitive exercises could

**[00:18:33]** increase your IQ or forall cognitive

**[00:18:35]** degeneration but the literature always

**[00:18:38]** indicated that uh your best bet in that

**[00:18:41]** regard was both aerobic and non- aobc

**[00:18:44]** exercise because the brain is such

**[00:18:47]** a

**[00:18:49]** rapacious metabolic it has such

**[00:18:51]** rapacious metabolic demand if you're

**[00:18:54]** physiologically compromised then your

**[00:18:56]** brain's going to suffer first so the

**[00:18:58]** best so funny he the best thing for your

**[00:19:00]** brain is to be a gym jock so that's

**[00:19:02]** really hilarious in a terrible

**[00:19:04]** way the less your business spends on

**[00:19:07]** operations on multiple systems and on

**[00:19:09]** delivering your product or service the

**[00:19:11]** more money you keep but with higher

**[00:19:13]** expenses on materials employees

**[00:19:16]** distribution and borrowing everything

**[00:19:18]** costs more to reduce costs and headaches

**[00:19:20]** smart businesses are graduating to

**[00:19:22]** netsuite by Oracle netsuite is the

**[00:19:25]** number one Cloud Financial system

**[00:19:27]** bringing accounting financi Cal

**[00:19:28]** management inventory and HR into one

**[00:19:31]** platform and one source of Truth with

**[00:19:34]** netw Suite you can reduce it costs cut

**[00:19:36]** the cost of maintaining multiple systems

**[00:19:38]** and improve efficiency by bringing all

**[00:19:40]** your major business processes into one

**[00:19:43]** platform and slashing manual tasks and

**[00:19:45]** errors over 37,000 companies have

**[00:19:48]** already made the move why haven't you by

**[00:19:50]** popular demand netsuite has extended its

**[00:19:52]** one-of-a-kind flexible financing program

**[00:19:55]** for a few more weeks head to

**[00:19:56]** netsuite.com JB P that's nets.com

**[00:20:01]** jbp nets.com

**[00:20:06]** jbp okay so you saw

**[00:20:09]** this terrible illness take hold of your

**[00:20:13]** mother and that motivated you motivated

**[00:20:15]** you to

**[00:20:16]** what well I'd always been interested in

**[00:20:19]** Fitness and Nutrition um privately and

**[00:20:22]** in fact when I started college my intent

**[00:20:24]** was to go into medicine which I ended up

**[00:20:26]** pivoting away from when I realized that

**[00:20:29]** you know I really was a competent

**[00:20:32]** Storyteller and creative um person and

**[00:20:36]** uh and I ended up switching to a double

**[00:20:38]** major in film and psychology in college

**[00:20:41]** which uh you know in on the one hand

**[00:20:44]** kept one foot in the world of science

**[00:20:46]** you know as a as an

**[00:20:48]** undergraduate um but then also I I

**[00:20:51]** really kind of fell in love with

**[00:20:52]** documentary filmm the idea of being able

**[00:20:53]** to tell important stories um and that

**[00:20:57]** was really my passion and that's what

**[00:20:58]** led to to this role getting to produce

**[00:21:01]** content for this TV network backed by Al

**[00:21:03]** Gore so this is what what this is what

**[00:21:05]** led ultimately to my foray into the

**[00:21:08]** world of smart entertainment so

**[00:21:10]** essentially creating content telling

**[00:21:12]** stories investigating you know ideas

**[00:21:15]** that um I felt were under discust and

**[00:21:19]** uh and when my mom became sick you know

**[00:21:22]** I had this passion this lifelong passion

**[00:21:24]** for nutrition for health I knew where to

**[00:21:26]** find quality primary literature

**[00:21:29]** peer-reviewed research how do you know

**[00:21:31]** that well in part due to my um my

**[00:21:36]** passion for it you know so i' I'd been

**[00:21:37]** familiar with PubMed um and you know and

**[00:21:41]** all those sources uh and then as an

**[00:21:44]** investigator you know as a journalist

**[00:21:45]** you're I mean the the term journalism

**[00:21:48]** today you know it's taken on a bit of a

**[00:21:49]** different meaning but um you're of

**[00:21:52]** course not trained as rigorously as a

**[00:21:54]** PhD but you are trained to you know like

**[00:21:57]** identify sources that are credible um

**[00:22:00]** and be able to parse them from sources

**[00:22:01]** that are less so you're trained to ask

**[00:22:04]** questions to Dawn a skeptic's hat yeah

**[00:22:07]** and those are the skills that I had when

**[00:22:09]** my mom became sick and I'm not saying

**[00:22:10]** that you know diving into the medical

**[00:22:12]** literature as it pertains to dementia

**[00:22:15]** prevention this burgeoning field of

**[00:22:17]** research was easy for me at first it's

**[00:22:19]** not easy for anyone it's not easy for

**[00:22:20]** anybody and also most Physicians never

**[00:22:22]** do it like the public has an idea that

**[00:22:25]** there's not a lot of distinction between

**[00:22:27]** a physician and a scientist

**[00:22:29]** or they believe that Physicians are

**[00:22:30]** scientists and most Physicians believe

**[00:22:33]** that but they're not correct and most

**[00:22:35]** Physicians aren't trained to read

**[00:22:37]** research or assess it critically and

**[00:22:39]** certainly not to participate in this

**[00:22:41]** generation and so well the reason I'm

**[00:22:44]** bringing that up is because there's no

**[00:22:46]** reason to assume that if you're a

**[00:22:48]** journalist and you have the cognitive

**[00:22:50]** ability and persistence to plow through

**[00:22:52]** the literature that you couldn't learn

**[00:22:54]** how to assess it you can it's hard

**[00:22:56]** because the scientific presuppose a

**[00:22:59]** pretty high level of pre-existing

**[00:23:02]** knowledge and so often if you dive into

**[00:23:04]** a new field you have to go back down

**[00:23:05]** into the simpler sources to just

**[00:23:09]** understand even the Lexicon but it's not

**[00:23:11]** like it's impossible yeah but I that's

**[00:23:13]** something that I actually quite enjoy

**[00:23:15]** you know I would I would read papers and

**[00:23:17]** I would read the you know I started just

**[00:23:18]** reading the introductions and the

**[00:23:20]** discussions and the conclusions and I

**[00:23:21]** would cross reference and I would you

**[00:23:23]** know if there was something that I

**[00:23:24]** didn't understand this is prior to AI I

**[00:23:26]** would just cross reference it in the

**[00:23:28]** hopes that some other scientist who is

**[00:23:30]** maybe more verbally fluent would have

**[00:23:32]** described the thing that I was

**[00:23:34]** interested in in learning more about in

**[00:23:36]** a different way that would lead to it

**[00:23:38]** clicking in my brain that aesthetic aha

**[00:23:40]** you know but um but yeah so that was

**[00:23:42]** just like a Relentless

**[00:23:45]** Um passion that had become an OB

**[00:23:48]** Obsession because it was I was seeing

**[00:23:50]** the consequences of how much time do you

**[00:23:53]** think at that time when it was a

**[00:23:54]** Relentless Obsession how much time do

**[00:23:56]** you think you were spending every every

**[00:23:58]** day doing that research every waking

**[00:24:01]** moment and I was for how long for how

**[00:24:03]** many like months or um it was probably a

**[00:24:07]** span of I mean it was a span of about

**[00:24:10]** six years prior to even you know the the

**[00:24:14]** the potent the the the idea of of you

**[00:24:18]** know having a book like being able to

**[00:24:20]** write a book was even like so that's

**[00:24:21]** about the equivalent of an extremely

**[00:24:23]** rigorous Master's and PhD program six

**[00:24:25]** years well that's about the same I would

**[00:24:27]** say for people who really hit it hard

**[00:24:29]** it's 6 years of obsessive work now it's

**[00:24:33]** do you have any idea how many papers you

**[00:24:35]** read thousands thousands yeah yeah um

**[00:24:39]** and I also I you know at the time I had

**[00:24:41]** become friendly with somebody who gave

**[00:24:43]** me their academic credentials to log in

**[00:24:45]** through their University librar so I can

**[00:24:47]** download papers for free yeah something

**[00:24:49]** that should be available to everyone

**[00:24:51]** since the taxpayer funds the bloody

**[00:24:53]** research yeah and um but then also along

**[00:24:57]** the along somewhere early on in my

**[00:24:59]** journey I realized that I had an

**[00:25:00]** aptitude for what I was doing and for

**[00:25:02]** you know my ability to not just digest

**[00:25:04]** and synthesize into a cohesive narrative

**[00:25:06]** what it was that I was reading but that

**[00:25:09]** I was able to communicate in a way that

**[00:25:11]** you know I started to Garner the respect

**[00:25:13]** of the physicians in the doctor's

**[00:25:15]** offices that I would attend to with my

**[00:25:17]** mother and ultimately I became fairly

**[00:25:20]** close

**[00:25:22]** um friends and collaborators with

**[00:25:25]** researchers in the field so at a certain

**[00:25:27]** point this was when what years was this

**[00:25:29]** around 2011 okay

**[00:25:32]** um

**[00:25:35]** I I started attending scientific

**[00:25:38]** conferences and um I started sharing

**[00:25:41]** what it was that I was learning and yeah

**[00:25:45]** it was just a it was

**[00:25:47]** a you know it was a journey that was

**[00:25:50]** arduous at first but I just I I I kept

**[00:25:52]** reading and reading and synthesizing and

**[00:25:55]** reaching out to people how did you

**[00:25:56]** support yourself while you were doing

**[00:25:57]** this it was very hard I mean I wasn't

**[00:25:59]** making any money I I actually because of

**[00:26:02]** what my what it was that my mom was

**[00:26:03]** going through I was living in La at the

**[00:26:04]** time I ended up basically um sacrificing

**[00:26:09]** my La life and moving back to New York

**[00:26:11]** to to be closer to my mom to tend to her

**[00:26:14]** and to you know in in essence become a

**[00:26:18]** caregiver of sorts not the primary

**[00:26:19]** caregiver but to help out with her and

**[00:26:23]** um and this is what I was going to say

**[00:26:24]** so I also at a certain point realized

**[00:26:26]** that I had something that very few

**[00:26:28]** people civilians very few civilians have

**[00:26:30]** and that is Media credentials and so

**[00:26:32]** really early on I realized that I could

**[00:26:34]** exploit my media credentials I wasn't

**[00:26:36]** famous but I had been on TV I was

**[00:26:38]** verified on Twitter and I started

**[00:26:40]** reaching out to researchers and

**[00:26:42]** scientists whose work I had been reading

**[00:26:44]** to ask questions and to essentially get

**[00:26:46]** in the room with them so to speak to be

**[00:26:49]** able to you know if there were any Ling

**[00:26:51]** lingering questions or I needed you know

**[00:26:53]** something clarified or what have you and

**[00:26:55]** I ended up forging relationships with

**[00:26:57]** these researchers because they saw the

**[00:26:59]** passion that I had for understanding

**[00:27:01]** this topic the relative dir of awareness

**[00:27:04]** that there was around you know dementia

**[00:27:06]** as a potentially preventable condition

**[00:27:08]** and um and yeah that was a journey that

**[00:27:11]** began at this point over 10 years ago

**[00:27:13]** but um but yeah it's been incredibly

**[00:27:15]** fruitful in the sense that not only have

**[00:27:17]** I been able to write these three books

**[00:27:19]** but I actually got to collaborate with

**[00:27:22]** one of my mentors in science Richard

**[00:27:23]** Isaacson who's a you know he's been he's

**[00:27:26]** a neurologist at Wild Cornell New York

**[00:27:28]** Presbyterian who from day one has been

**[00:27:30]** you know really pushing this idea of his

**[00:27:32]** name Richard Isaacson Richard would he

**[00:27:35]** be a good guest oh he's he's phenomenal

**[00:27:38]** yeah he's um he's a neurologist he's a

**[00:27:40]** neurologist who essentially helped to

**[00:27:43]** create the field that is now referred to

**[00:27:45]** as dementia prevention back when nobody

**[00:27:47]** was talking about back back before the

**[00:27:50]** the notion of being able to prevent this

**[00:27:52]** condition was even thought of as a

**[00:27:54]** possibility um it was something that he

**[00:27:57]** was uh really advocating for um and and

**[00:28:00]** studying and and you know and and

**[00:28:02]** raising funding for these clinical

**[00:28:03]** trials that he himself had run and so I

**[00:28:05]** got to collaborate on a paper with him

**[00:28:07]** um oh yeah that's a good deal yeah

**[00:28:09]** published by Springer in 2019 it was a

**[00:28:11]** um a chapter in a textbook on the

**[00:28:15]** basically a an overview

**[00:28:18]** review um looking at the the clinical

**[00:28:23]** practice of dementia prevention and

**[00:28:24]** making that accessible to other

**[00:28:25]** clinicians because as you referenced you

**[00:28:27]** know most Physicians are in fact

**[00:28:29]** technicians you know and many but not

**[00:28:32]** all Physicians are essentially have

**[00:28:34]** become paper pushers for the pharmac

**[00:28:36]** phal well they're well and you can

**[00:28:38]** understand that in some sense I mean

**[00:28:40]** before the pharmaceutical companies were

**[00:28:42]** utterly corrupt they did serve an

**[00:28:44]** educational function for General

**[00:28:46]** Practitioners let's say who were

**[00:28:48]** overwhelmed by their practice and who

**[00:28:49]** didn't have the time to keep up on the

**[00:28:51]** relevant literature on each disease and

**[00:28:54]** that's not surprising because that's

**[00:28:55]** really hard but it does mean they can be

**[00:28:58]** captured and that certainly happened I

**[00:29:00]** mean I worked with pharmacists for quite

**[00:29:03]** a long time in the I say 200000 to 2010

**[00:29:07]** something like that watching how they

**[00:29:11]** were marginalized but also with

**[00:29:14]** Physicians watching how the

**[00:29:16]** pharmaceutical

**[00:29:18]** companies educated and then captured

**[00:29:21]** them and that's not well it's not a

**[00:29:23]** particularly pretty site although I do

**[00:29:25]** understand how it happened and I can

**[00:29:28]** also understand the pharmaceutical

**[00:29:29]** company's economic motives it's not

**[00:29:31]** inexpensive to produce new drugs it's

**[00:29:33]** also very difficult and they do have to

**[00:29:34]** be marketed so um that's all very

**[00:29:37]** complicated all right so you wrote this

**[00:29:40]** chapter that's a that's a hell of an

**[00:29:42]** accomplishment for someone who's not a

**[00:29:43]** formal scientist and so why don't you

**[00:29:47]** let we'll go back to the genius Trilogy

**[00:29:49]** I think in a moment or two but I would

**[00:29:51]** like to hear now that we're into this a

**[00:29:53]** little bit more about what you learned

**[00:29:55]** about Theology of Dementia in general

**[00:29:57]** and and about its prevention because

**[00:29:59]** that's going to be both of those are

**[00:30:00]** going to be news to virtually everybody

**[00:30:02]** who's watching and listening so well um

**[00:30:06]** depending on where you look the

**[00:30:07]** estimates are that at least 40% of

**[00:30:11]** dementia cases are attributable to what

**[00:30:15]** are called modifiable risk factors so

**[00:30:18]** you know you have your non-modifiable

**[00:30:20]** risk factors which are your age you know

**[00:30:24]** age is still the number one risk factor

**[00:30:25]** for dementia Unfortunately today gender

**[00:30:28]** women are at twice the risk as compared

**[00:30:30]** to men um and your genes you can't

**[00:30:33]** change your genes although you can

**[00:30:34]** change your expression right you kind

**[00:30:36]** influence the expression of your genes

**[00:30:37]** right but those three things age gender

**[00:30:40]** genes you know those are your

**[00:30:41]** non-modifiable risk factors but then you

**[00:30:42]** have about 12 if not more modifiable

**[00:30:45]** risk factors so these are the risk

**[00:30:47]** factors that essentially fall under your

**[00:30:49]** control you have a degree of agency and

**[00:30:50]** that is I think what is so exciting and

**[00:30:53]** empowering um and so just to you know

**[00:30:56]** discuss a few of them

**[00:30:58]** and happy to double click on any that

**[00:31:00]** you find compelling most compelling you

**[00:31:03]** know obesity for example that's one of

**[00:31:05]** them we know that we have agency when it

**[00:31:08]** comes to whether or not we are obese

**[00:31:10]** right there's a lot at least it's

**[00:31:11]** potentially controllable yeah is it okay

**[00:31:13]** so is it obesity per se or is it is it

**[00:31:16]** do you know if it's directly related to

**[00:31:18]** pattern of fat distribution like is

**[00:31:20]** visceral fat a worse marker for

**[00:31:22]** potential dementia than body mass index

**[00:31:25]** do we know yeah well there is an

**[00:31:27]** association so so as waste circumference

**[00:31:29]** grows there seems to be an inverse

**[00:31:32]** relationship between total brain volume

**[00:31:34]** so there seems to be an impact of you

**[00:31:37]** know perhaps the inflammatory cyto

**[00:31:39]** kindes produced by that visceral osity

**[00:31:41]** we know that you know fat is an

**[00:31:42]** endocrine organ essentially um and that

**[00:31:46]** the the atopos that you accumulate

**[00:31:49]** around your viscera I mean that seems to

**[00:31:51]** be the most pro-inflammatory yeah yeah

**[00:31:53]** right okay okay so that is the link it's

**[00:31:55]** it's inflammatory cyto kindes with

**[00:31:58]** visceral abdominal fat right but also

**[00:32:01]** even

**[00:32:02]** subcutaneous obesity is associated with

**[00:32:05]** impaired insulin signaling right so type

**[00:32:08]** 2 diabetes is another modifiable risk

**[00:32:10]** factor we know that many people today

**[00:32:12]** are struggling from glucose intolerance

**[00:32:14]** type 2 diabetes free diabetes Well we

**[00:32:17]** should be able to get that up to

**[00:32:18]** everyone suffering from it if we keep on

**[00:32:20]** the track that we're on yeah I mean I

**[00:32:22]** know that this is a horrible fact so the

**[00:32:26]** blood sugar curves that are used to

**[00:32:28]** diagnose you as diabetic when you're 20

**[00:32:31]** are age adjusted as you age so if you

**[00:32:34]** take the typical 60-year-old and use the

**[00:32:37]** 20-year-old curves many of the average

**[00:32:40]** 60y olds would be diabetic by 20-year-

**[00:32:43]** old standards or pre-diabetic which

**[00:32:45]** means they're pre-diabetic like there's

**[00:32:47]** no reason for those curves to be age

**[00:32:49]** adjusted as far as I can tell and so

**[00:32:51]** that's a that means that diabetes as a

**[00:32:55]** factor among people 60 and older is

**[00:32:58]** radically underdiagnosed and if diabetes

**[00:33:00]** is a risk factor for uh for dementia

**[00:33:03]** which we know because I've heard OB I've

**[00:33:05]** heard dementia referred to it's got to

**[00:33:08]** be for at least 20 years by people in

**[00:33:10]** the know as type 3 diabetes yeah right

**[00:33:13]** right yeah actually the neuropathologist

**[00:33:14]** who coined that term type 3 diabetes is

**[00:33:17]** um she's in my documentary little empty

**[00:33:18]** boxes which um I she's not to my

**[00:33:22]** knowledge been in any other public

**[00:33:24]** facing you know content um but I thought

**[00:33:28]** that that was an

**[00:33:29]** incredible um way to frame what's her

**[00:33:32]** name Suzanne Damon she's a Suz Suzanne

**[00:33:35]** Suzanne yeah Suzanne she's deamonte yeah

**[00:33:39]** she's a Brown

**[00:33:40]** University and and so it's funny that

**[00:33:43]** more attention hasn't been paid to her

**[00:33:44]** cuz that's a big deal if it's right like

**[00:33:46]** it's a big deal big deal yeah so you

**[00:33:48]** talked about non-modifiable and

**[00:33:50]** modifiable risk factors and we went

**[00:33:51]** through obesity and diabetes which are

**[00:33:53]** also linked what else what else is

**[00:33:55]** modifiable hypertension so so high blood

**[00:33:58]** pressure about 50% of adults today have

**[00:34:01]** hypertension we're starting to see

**[00:34:02]** prehypertension in in adolescence as

**[00:34:05]** well oh good um but one of the seminal

**[00:34:07]** studies in the field of De dementia

**[00:34:09]** prevention is referred to it's known as

**[00:34:11]** the Sprint mind trial which found that

**[00:34:13]** when people were with hypertension were

**[00:34:15]** aggressively treated via pharmacological

**[00:34:17]** means for their hypertension they saw a

**[00:34:19]** dramatic risk reduction for the

**[00:34:22]** development of cognitive cognitive

**[00:34:24]** impairment U mild cognitive impairment

**[00:34:26]** in fact which is considered like a pre a

**[00:34:28]** pro PR Drome of dementia a form of

**[00:34:30]** pre-dementia if you will um but we know

**[00:34:33]** that you know lifestyle modification

**[00:34:36]** dietary exercise for example all are you

**[00:34:40]** know as effective as drugs and um when

**[00:34:43]** you're when you have hypertension

**[00:34:44]** essentially the blood vessels that are

**[00:34:45]** supplying blood nutrients oxygen um to

**[00:34:48]** the brain are essentially damaged and so

**[00:34:51]** yeah hypertension is incredibly damaging

**[00:34:53]** to the

**[00:34:55]** brain are you tired of feeling sluggish

**[00:34:57]** down or just not your best self take

**[00:34:59]** control of your health and vitality with

**[00:35:01]** balance of nature balance of nature

**[00:35:02]** fruit and veggies are a great way to

**[00:35:04]** make sure you're getting your essential

**[00:35:05]** nutritional ingredients every single day

**[00:35:07]** they use an advanced cold vacuum process

**[00:35:09]** that encapsulates fruits and vegetables

**[00:35:11]** into Whole Food supplements without

**[00:35:12]** sacrificing their natural antioxidants

**[00:35:14]** the capsules are completely void of

**[00:35:16]** additives fillers extracts synthetics

**[00:35:18]** pesticides or added sugar the only thing

**[00:35:20]** in balance of nature fruit and veggie

**[00:35:22]** capsules are well fruits and veggies

**[00:35:24]** right now you can order with promo code

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**[00:35:40]** preferred customer plus get a free

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**[00:35:44]** ofn nature.com promo code Jordan for 35%

**[00:35:47]** off your first preferred order plus a

**[00:35:48]** free bottle of fiber and

**[00:35:52]** spice you said there were 12 I think we

**[00:35:55]** should can we go through all of them we

**[00:35:56]** can go through yeah I mean so those are

**[00:35:59]** the those are the ones that I think that

**[00:36:00]** are Mo that are most relevant to diet

**[00:36:04]** but I think it's important at at this

**[00:36:07]** you know juncture

**[00:36:09]** to state that diet is not the only

**[00:36:11]** nutrition is not the only variable here

**[00:36:13]** so I'll never know what caused my mom's

**[00:36:16]** dementia um unfortunately although it's

**[00:36:18]** a it's a you know an investigation

**[00:36:20]** that's going to continue on through the

**[00:36:22]** rest of my life but you know nutrition

**[00:36:23]** is one slice of the pie and so among the

**[00:36:26]** the modifiable risk factors you have you

**[00:36:29]** know non-nutrition related um risk

**[00:36:32]** factors such as exposure to excessive

**[00:36:34]** air pollution on a chronic basis which

**[00:36:37]** as of the 2020 Lancet Commission on

**[00:36:40]** dementia was finally acknowledged as

**[00:36:42]** being a risk factor for the for the

**[00:36:45]** development of dementia um we've seen

**[00:36:48]** studies run in for example uh Mexico

**[00:36:53]** City um where they've seen pathological

**[00:36:56]** changes that are associated with

**[00:36:58]** Alzheimer's disease in the cavers of

**[00:37:00]** adolescence and children you know people

**[00:37:02]** who have who have died in Mexico City

**[00:37:04]** who have been exposed um over the course

**[00:37:06]** of their lives to you know excessive

**[00:37:09]** levels of air pollution like fine

**[00:37:10]** particulate matter pm2.5 for example

**[00:37:13]** that they see an undue aggregate of you

**[00:37:17]** know amalo beta for example which is the

**[00:37:19]** the the protein that forms the plaques

**[00:37:22]** that you know is one of the defining

**[00:37:24]** infammatory consequence too or does

**[00:37:25]** anybody know yes it is yeah there's an

**[00:37:28]** inflammatory consequence there's a

**[00:37:29]** cardiovascular consequence to being

**[00:37:31]** exposed to air pollution um with regard

**[00:37:34]** to your cardiovascular system we know

**[00:37:35]** that what's good for the heart is good

**[00:37:36]** for the brain um and conversely what's

**[00:37:39]** bad for the heart is bad for the brain

**[00:37:40]** and so air pollution you know plays a

**[00:37:42]** major a major role um an area that uh I

**[00:37:46]** think is incredibly exciting um also

**[00:37:49]** very scary but but ultimately empowering

**[00:37:52]** is you know looking at certain

**[00:37:54]** environmental

**[00:37:55]** pollutants um like certain industrial

**[00:37:58]** solvents for example um there's a

**[00:38:02]** compound that there's another fantastic

**[00:38:04]** neurologist who uh has become a friend

**[00:38:06]** and colleague and I think his work is

**[00:38:07]** incredibly important his name is Ray

**[00:38:09]** dorsy Dr Ray dorsy he's a University of

**[00:38:10]** Rochester

**[00:38:12]** neurologist who has done a lot of work

**[00:38:15]** um exposing the link between exposure to

**[00:38:18]** certain chemical solvents that are still

**[00:38:20]** in widely being used in the United

**[00:38:22]** States like Tri chloroethylene and

**[00:38:25]** perchloroethylene and the Ed ology of

**[00:38:28]** Parkinson's disease and related

**[00:38:30]** conditions like Louis body dementia

**[00:38:31]** which is the condition that my mom

**[00:38:32]** suffered from um and so we know that you

**[00:38:36]** know what we breathe what we eat these

**[00:38:38]** are all having an impact on our health

**[00:38:41]** but now the evidence is really starting

**[00:38:43]** to emerge that you know that the brain

**[00:38:47]** is not you know does not sit in this

**[00:38:49]** privileged Ivory Tower where it's immune

**[00:38:51]** somehow to you know what it is that

**[00:38:54]** we're eating and the compounds that

**[00:38:55]** we're you know inhaling the brain sits

**[00:38:58]** directly downwind of you know a lot of

**[00:39:01]** the insults that are being waged by

**[00:39:03]** Modern Life modern living you know the

**[00:39:05]** the the the trappings of modern society

**[00:39:08]** come at a cost and we're starting to see

**[00:39:11]** that they now have are likely having an

**[00:39:13]** impingement in our Collective brain

**[00:39:15]** health so you know one of these

**[00:39:18]** compounds TR chloroethylene which I I I

**[00:39:20]** just referenced is still being used to

**[00:39:22]** spot clean in dry cleaning applications

**[00:39:24]** and it's an incredibly volatile compound

**[00:39:27]** it readily evaporates it easily you know

**[00:39:29]** infiltrates

**[00:39:30]** groundwater

**[00:39:32]** um and uh obviously occupational

**[00:39:36]** exposure to these compounds is really

**[00:39:37]** bad um but there have been a a a small

**[00:39:42]** handful of epidemiologic studies that

**[00:39:44]** show that exposure to to a compound like

**[00:39:46]** tce for example is associated with a

**[00:39:48]** 500% increased risk of the development

**[00:39:51]** of Parkinson's disease M um this is a

**[00:39:54]** compound that was used medically up

**[00:39:55]** until the 70s it was used

**[00:39:58]** with you know to decaffeinate Coffee it

**[00:40:01]** was used as a anesthetic for pregnant

**[00:40:04]** women um it's still being used as a

**[00:40:06]** metal Degreaser and again it's used to

**[00:40:07]** spot clean in dry cleaning applications

**[00:40:10]** now I'm skeptical of all my suits yeah

**[00:40:13]** well you definitely want to not dry

**[00:40:16]** clean or at least make sure that the dry

**[00:40:17]** cleaner that you're using is a a quote

**[00:40:19]** unquote Dre green dry cleaner because

**[00:40:22]** you know I think they'll be less likely

**[00:40:23]** to be using these kinds of compounds um

**[00:40:26]** but it's really scary stuff my mom was

**[00:40:28]** somebody who worked in the Garment

**[00:40:29]** industry um in New York City and so you

**[00:40:31]** know she likely was exposed to these

**[00:40:33]** kinds of of compounds on a regular basis

**[00:40:36]** um certain herbicides and pesticides we

**[00:40:39]** know are you know occupationally linked

**[00:40:43]** to these kinds of conditions like

**[00:40:45]** Parkinson's disease we breathe them in

**[00:40:46]** through our nose right they have they

**[00:40:48]** don't undergo the same degree of

**[00:40:50]** detoxification as an ingested compound

**[00:40:53]** they can very easily bypass the bloodb

**[00:40:55]** brain barrier you know they act the old

**[00:40:57]** factory bulb actually um a decline in

**[00:41:00]** sense of smell is one of the earliest

**[00:41:02]** features of a preclinical feature of

**[00:41:05]** cognitive decline dementia and even

**[00:41:09]** parkinsonism and so you know as far as

**[00:41:12]** these conditions are these these

**[00:41:14]** compounds are in our environment I think

**[00:41:16]** that that's you know on the one hand

**[00:41:18]** it's very scary but it's also empowering

**[00:41:19]** the more awareness that we can have

**[00:41:21]** about reducing our exposure to these

**[00:41:22]** compounds I think it's it's crucially

**[00:41:25]** important so that's you know that's

**[00:41:27]** another of the the modifiable r yeah

**[00:41:30]** that's on the toxic exposure side yeah

**[00:41:32]** which I think is incredibly important my

**[00:41:33]** second book The Genius life was really

**[00:41:35]** you know looked at that or you know how

**[00:41:37]** much of the how much of a overlap do you

**[00:41:40]** think there is between the dietary risk

**[00:41:44]** and the toxic exposure risk because

**[00:41:46]** obviously well and we'll get into this

**[00:41:48]** after we're done this section of the

**[00:41:49]** conversation but

**[00:41:51]** obviously there's the carbohydrate

**[00:41:53]** diabetes obesity link but then there's

**[00:41:56]** food talk toxicity link too cuz lots of

**[00:41:59]** things that we think are edible would

**[00:42:01]** rather not be eaten and they have well I

**[00:42:04]** mean I've known for years that the

**[00:42:06]** typical plant people are worried about

**[00:42:08]** the pesticides that are on plants and

**[00:42:10]** fair enough but they're not nearly as

**[00:42:13]** worried about the pesticides that are in

**[00:42:14]** plants and there are plenty of them

**[00:42:16]** because well plants don't like being

**[00:42:18]** eaten by bugs and most of them aren't

**[00:42:20]** that happy about being eaten by us

**[00:42:21]** either and so they have got very potent

**[00:42:24]** chemical defenses and they're not

**[00:42:26]** trivial and I've wondered because of my

**[00:42:28]** experiences with diet I mean I lost a

**[00:42:30]** lot of weight because of the diet that

**[00:42:32]** I'm on and I kept it off and that's

**[00:42:34]** quite the bloody Miracle that's for sure

**[00:42:36]** it's really something to like I weigh

**[00:42:38]** what I weighed when I was in my 20s you

**[00:42:41]** know that's really something when you're

**[00:42:42]** 62 it's like what the hell who knew that

**[00:42:46]** was possible and I have about the same

**[00:42:49]** bodily composition that I did when I was

**[00:42:51]** in my 20s

**[00:42:53]** and some of that's obviously from not

**[00:42:56]** eating carb hydrates

**[00:42:59]** but there are other improvements that

**[00:43:01]** I've experienced that have made me

**[00:43:03]** wonder like I I had sasis it's gone and

**[00:43:08]** some of the psoriasis patches had lasted

**[00:43:10]** well literally decades and they're gone

**[00:43:13]** and I think oh

**[00:43:16]** well I was obviously eating something

**[00:43:18]** that was causing that is that

**[00:43:20]** carbohydrate linked who the hell knows

**[00:43:22]** but is it food toxicity linked or or

**[00:43:26]** immunologic iCal allergic I don't know

**[00:43:30]** well I think that most people and this

**[00:43:32]** is where the whole the you know the the

**[00:43:33]** debate about the carnivore diet and and

**[00:43:35]** all that I think becomes really

**[00:43:37]** interesting um you know a robust

**[00:43:41]** organism such as yourself should be able

**[00:43:43]** to consume some of these plant quote

**[00:43:46]** unquote defense compounds and Garner a

**[00:43:50]** degree of you know additional strength

**[00:43:52]** in so doing right there's this notion of

**[00:43:55]** hormesis where you know load doses of a

**[00:43:58]** of a certain stressor you know or

**[00:44:00]** toxicant if you will might actually

**[00:44:02]** cause a a response in the system that

**[00:44:05]** actually leads to an upleveling of

**[00:44:08]** robustness of vigor of strength

**[00:44:10]** pharmacon means something like a little

**[00:44:12]** bit of the poison that kills you cures

**[00:44:14]** you

**[00:44:15]** yeah and so that's where I think if you

**[00:44:17]** have a robust for example gut microbiome

**[00:44:20]** you know um I think that most people

**[00:44:23]** should be able to derive value from

**[00:44:25]** these kinds of of of that's that's the

**[00:44:28]** theory I mean when you look at the

**[00:44:30]** average Health state of the typical

**[00:44:31]** person it makes you wonder right and

**[00:44:33]** I've wondered how far down the rabbit

**[00:44:35]** hole you have to go to get to the bottom

**[00:44:37]** given how obese people are and well what

**[00:44:40]** I've seen as the consequences of a

**[00:44:42]** relatively radical dietary shift so well

**[00:44:45]** that's obviously one of the reasons I

**[00:44:46]** wanted to talk to you today let's let's

**[00:44:48]** turn then we went through quite a few of

**[00:44:49]** the modifiable risk factors let's turn

**[00:44:52]** from that if that's okay unless there's

**[00:44:54]** any others that you'd like to

**[00:44:55]** specifically highlight we could turn to

**[00:44:57]** that to what you have been what you

**[00:45:00]** found in relationship to diet and what

**[00:45:02]** you've been recommending so are there

**[00:45:04]** other modifiable risk factors that you

**[00:45:06]** think are worth concentrating on we went

**[00:45:08]** through diet and exposure to pollutants

**[00:45:11]** and toxicity any anything else that's

**[00:45:13]** directly relevant yeah well there's a a

**[00:45:16]** newly identified risk factor and that is

**[00:45:17]** hearing loss um and that's you know

**[00:45:19]** again newly identified so all the the

**[00:45:23]** the verdict the all the research the the

**[00:45:25]** research that we need to make know clear

**[00:45:27]** recommendations other than if you have

**[00:45:28]** hearing loss a hearing aid actually is a

**[00:45:30]** potentially you know can be a potential

**[00:45:33]** Boon to health oh oh so it's actually

**[00:45:36]** the loss of the auditory input yeah and

**[00:45:38]** not a correlation between the

**[00:45:40]** degeneration of the ear and the

**[00:45:41]** degeneration of the brain or both corre

**[00:45:44]** no I mean I think in so far as we know

**[00:45:46]** that social isolation which is which is

**[00:45:49]** another yeah you become more and more

**[00:45:51]** isolated you know in your in your own

**[00:45:54]** world and I think that that's probably

**[00:45:55]** harmful we have a depression sure um

**[00:45:58]** sure depression is another one uhhuh and

**[00:46:01]** and you know these are these estimates

**[00:46:03]** are are typically conservative so I I

**[00:46:05]** said at the onset about 40% which was

**[00:46:08]** the number that was given you know most

**[00:46:10]** recently in this 2020 lanit Commission

**[00:46:12]** on on dementia prevention but I think

**[00:46:14]** that I think I think it's very likely

**[00:46:16]** that um the majority of of cases at

**[00:46:19]** least with regard to Alzheimer's disease

**[00:46:22]** um and likely also even these

**[00:46:24]** parkinsonian conditions which you know

**[00:46:26]** it's becoming increasingly clear that

**[00:46:28]** there's an environmental toxicant aspect

**[00:46:30]** to them I think that the majority um and

**[00:46:33]** this is just my opinion based on my you

**[00:46:35]** know assessment of the literature are

**[00:46:37]** likely preventable we don't have all the

**[00:46:39]** data yet um but I think given what we do

**[00:46:42]** currently know we don't have to sit idly

**[00:46:44]** on our hands you know for example

**[00:46:46]** there's a class of drugs that are widely

**[00:46:48]** being used today on a frequent basis

**[00:46:52]** called um anti-cholinergic drugs and

**[00:46:54]** there are too many to list um but

**[00:46:56]** certain you know allergy medications

**[00:46:58]** sleep aids over-the-counter sleep aids

**[00:47:00]** you know have we've seen or associated

**[00:47:02]** with a starkly increased chronic use are

**[00:47:05]** is associated with a starkly increased

**[00:47:06]** risk for the development of dementia

**[00:47:08]** which is not something that was

**[00:47:09]** considered in this paper um so you know

**[00:47:13]** I think I do think that that most cases

**[00:47:16]** are potentially preventable and another

**[00:47:18]** reason why I believe this to be the case

**[00:47:20]** is

**[00:47:21]** that Alzheimer's disease is not genetic

**[00:47:24]** you know it's we have genetic risk

**[00:47:25]** factors the most welldefined mind of

**[00:47:28]** which being the apo4 alal which about

**[00:47:30]** one in four people carry and depending

**[00:47:32]** on whether you carry one or two copies

**[00:47:34]** of this snip your risk increases

**[00:47:37]** anywhere between two and 14 fold but

**[00:47:38]** these are not this is not a

**[00:47:39]** deterministic gene so with Alzheimer's

**[00:47:41]** disease 23% of cases are you know the

**[00:47:45]** early onset variant or familial um which

**[00:47:49]** is deterministic but the vast majority

**[00:47:53]** early

**[00:47:53]** onset so there's a certain uh genetic

**[00:47:58]** mutation that in certain lineages will

**[00:48:01]** essentially guarantee that a person

**[00:48:03]** develops Alzheimer's disease but this is

**[00:48:05]** a very rare form of it and it's a

**[00:48:08]** completely different monster than late

**[00:48:11]** onset sporadic Alzheimer's disease and

**[00:48:14]** similarly with Parkinson's disease the

**[00:48:16]** heritability of Parkinson's disease is

**[00:48:18]** incredibly low 1 to 2% of cases so these

**[00:48:21]** are all conditions that are I think

**[00:48:23]** mediated in large part by you know your

**[00:48:27]** environment you might have a certain

**[00:48:28]** genetic you know predisposition but you

**[00:48:32]** know for the vast majority of people

**[00:48:33]** that develop these conditions it's not

**[00:48:35]** due to their genes it's due to the

**[00:48:37]** interplay between their genes and the

**[00:48:39]** environment in which they live right

**[00:48:42]** right so it it's making them more

**[00:48:44]** susceptible to environmental assault

**[00:48:47]** essentially you can take for example um

**[00:48:50]** you know somebody with the apoe4 alil

**[00:48:52]** who again in the United States is at

**[00:48:54]** seemingly at dramatically increased risk

**[00:48:57]** but you might move them to a less

**[00:48:58]** industrialized part of the world like

**[00:49:00]** iidon Nigeria for example where they've

**[00:49:01]** done you know this research or southern

**[00:49:03]** Italy and you see that risk all but

**[00:49:06]** abolished and so it really is about the

**[00:49:08]** the genes and where we've you know where

**[00:49:12]** where we've tasked these genes you know

**[00:49:15]** the environment that we've tasked these

**[00:49:16]** genes with having to contend with right

**[00:49:19]** right right okay so let's turn to diet

**[00:49:21]** now you have these three books and then

**[00:49:24]** I we want to we don't want to forget

**[00:49:26]** your film either yeah yeah so these

**[00:49:28]** three books in The Genius Trilogy Foods

**[00:49:30]** life and kitchen let's go if if you

**[00:49:33]** think that's reasonable let's go through

**[00:49:34]** them one by one Foods life and kitchen

**[00:49:37]** so Foods so what were you outlining in

**[00:49:39]** that book yeah so you know I think my

**[00:49:42]** Approach has never been to demonize

**[00:49:45]** Foods certainly not Whole Foods um but

**[00:49:48]** with genius Foods I you should tell

**[00:49:50]** people what a whole food is just so they

**[00:49:52]** know yeah so Whole Foods don't have

**[00:49:53]** extensive ingredients lists they are the

**[00:49:56]** ingredients so these are the foods that

**[00:49:58]** you tend to find around the perimeter of

**[00:49:59]** the supermarket right as you alluded to

**[00:50:01]** it's the of the stay away from the in

**[00:50:04]** the supermarket yeah I mean you could

**[00:50:05]** dip in you know now and then to pick up

**[00:50:07]** some nice extra virgin olive oil which

**[00:50:09]** has a ton of evidence you know in terms

**[00:50:10]** of its um you know it's brain health

**[00:50:14]** benefits it's you know we now have meta

**[00:50:16]** analyses that that show that extra

**[00:50:18]** virgin olive oil actually has a

**[00:50:19]** profoundly anti-inflammatory effect and

**[00:50:21]** it has some it it actually shares some

**[00:50:24]** of these mechanisms with ibuprofen which

**[00:50:26]** is a non-steroidal anti-inflammatory

**[00:50:28]** drug but chronic use of that drug

**[00:50:30]** coincides with heightened risk for

**[00:50:32]** cardiovascular events for example but

**[00:50:34]** extra virgin olive oil is essentially

**[00:50:37]** you know as an anti-inflammatory as a

**[00:50:39]** low dose of of that drug but without any

**[00:50:42]** of the negative side effects only good

**[00:50:43]** okay so you could go to the aisles in

**[00:50:45]** the supermarket for extra virgin olive

**[00:50:48]** oil but that's vinegar spices spices are

**[00:50:51]** actually few people realize this but

**[00:50:53]** spices aside from being a you know no to

**[00:50:56]** low cal way of jazzing up your food um

**[00:50:59]** are actually some of the most

**[00:51:00]** concentrated sources of some of these

**[00:51:02]** hormetic compounds you know polyphenols

**[00:51:04]** and the like which we believe play a

**[00:51:06]** role in in health in in um you know in

**[00:51:09]** supporting a healthy gut microbiome and

**[00:51:11]** the like but yeah generally you want to

**[00:51:13]** focus your shopping around the perimeter

**[00:51:15]** of the supermarket and so I'm a huge

**[00:51:16]** advocate of the consumption of whole

**[00:51:18]** animal Source foods and whole plants

**[00:51:21]** which is a very controversial statement

**[00:51:23]** to say today I don't know why but um but

**[00:51:26]** I'm you think it's

**[00:51:27]** controversial well because we've got

**[00:51:29]** billions of dollars of you know right so

**[00:51:32]** it's not controversial it's just a

**[00:51:34]** anti-propaganda exactly right with with

**[00:51:36]** the advertisements being a form of

**[00:51:38]** propaganda yes although they're the

**[00:51:40]** capitalist version of propaganda yeah I

**[00:51:42]** mean 73% of the items in your average

**[00:51:43]** Supermarket are ultr processed so and so

**[00:51:45]** what's the difference between processed

**[00:51:47]** and ultr processed it's a fantastic

**[00:51:49]** important question so processing is a

**[00:51:51]** Continuum you take an apple you slice

**[00:51:53]** that Apple you're processing it to some

**[00:51:55]** degree you know you blend that those

**[00:51:56]** apple slices in a smoothie you're

**[00:51:58]** processing it even further right the

**[00:52:01]** ultra processing the the the whole idea

**[00:52:03]** of an ultr processed food that was

**[00:52:04]** actually something the term was was

**[00:52:07]** first devised with this nutrient

**[00:52:09]** profiling system in Latin America called

**[00:52:11]** Nova and an ultr processed food is

**[00:52:14]** essentially a food that you couldn't

**[00:52:15]** possibly make in your own kitchen if you

**[00:52:16]** tried so these are cool whip yeah these

**[00:52:19]** are food like products food like

**[00:52:22]** products that's right that's a good one

**[00:52:24]** that involves they're sort of like food

**[00:52:25]** except they're not edible exactly yeah I

**[00:52:28]** mean I think like we've gotten to this

**[00:52:30]** place in society where we've ceased to

**[00:52:32]** been able seemingly ceased to be able to

**[00:52:34]** put empirical definitions around

**[00:52:36]** anything yeah yeah right yeah that's

**[00:52:38]** what happens when you live in the Tower

**[00:52:40]** of Babel really words lose their meaning

**[00:52:43]** and everyone speaks a different language

**[00:52:44]** it's incredibly anti-human right that's

**[00:52:47]** for

**[00:52:48]** sure and so you okay so Ultra process oh

**[00:52:51]** you okay so you couldn't make that in

**[00:52:53]** your own kitchen that's a good rule of

**[00:52:54]** thumb so if you couldn't make it in your

**[00:52:55]** own kitchen then perhaps beware of it or

**[00:52:58]** be wary of it right if it comes in a box

**[00:53:00]** or a bag and it has you know a shelf

**[00:53:03]** life that is years you know away um if

**[00:53:07]** it doesn't expire so nothing will eat it

**[00:53:10]** except you then maybe don't eat it

**[00:53:13]** precisely yeah okay yeah and you know I

**[00:53:16]** think like a little bit here and there

**[00:53:17]** like I like to be a pragmatist and you

**[00:53:19]** know I um I've had the incredible

**[00:53:22]** privilege of getting to go on major

**[00:53:24]** national media where I get to reach

**[00:53:25]** people that still do today live in food

**[00:53:27]** deserts you know and so I yeah I try to

**[00:53:31]** temper my message with uh empathy for

**[00:53:35]** you know what some people today still in

**[00:53:37]** this country have to go through when it

**[00:53:39]** comes to finding and accessing and being

**[00:53:40]** able to afford even fresh whole food

**[00:53:43]** right right starting a business can be

**[00:53:46]** tough but thanks to Shopify running your

**[00:53:48]** online storefront is easier than ever

**[00:53:50]** Shopify is the global Commerce platform

**[00:53:53]** that helps you sell at every stage of

**[00:53:54]** your business from the launch your

**[00:53:56]** online shop stage all the way to the did

**[00:53:58]** we just hit a million orders stage

**[00:54:00]** Shopify is there to help you grow our

**[00:54:02]** marketing team uses Shopify every day to

**[00:54:04]** sell our merchandise and we love how

**[00:54:06]** easy it is to add more items ship

**[00:54:07]** products and track conversions Shopify

**[00:54:10]** helps you turn browsers into buyers with

**[00:54:12]** the internet's best converting checkout

**[00:54:13]** up to 36% better compared to other

**[00:54:16]** leading e-commerce platforms no matter

**[00:54:18]** how big you want to grow Shopify gives

**[00:54:20]** you everything you need to take control

**[00:54:22]** and take your business to the next level

**[00:54:23]** sign up for a $1 per month trial period

**[00:54:26]** at shopify.com sjbp go to shopify.com

**[00:54:29]** jbp now to grow your business no matter

**[00:54:32]** what stage you're in that's shopify.com

**[00:54:37]** jbp two things tell people what a food

**[00:54:40]** desert is so everybody knows and second

**[00:54:44]** do you actually think it's possible to

**[00:54:45]** just eat a little bit of ultra processed

**[00:54:47]** foods because I'm very curious about

**[00:54:49]** that it isn't obvious to me that like my

**[00:54:53]** experience with that has been that it's

**[00:54:55]** easy to eat

**[00:54:56]** none rather than some because the

**[00:54:59]** problem with some is that well how about

**[00:55:03]** some more yeah right and that's really a

**[00:55:06]** vicious conundrum when it comes to high

**[00:55:09]** fat high sugar foods yeah because

**[00:55:12]** they're they're hyper delicious well

**[00:55:15]** this is yeah this is where I think the

**[00:55:17]** education around the you know this topic

**[00:55:20]** is crucially important because people

**[00:55:21]** are usually not armed with the with the

**[00:55:23]** knowledge that these foods have a

**[00:55:25]** profound impact on your behavior so it's

**[00:55:29]** it's it's seldom informed consent today

**[00:55:32]** right because we're told that all foods

**[00:55:34]** fit food is food there are no such thing

**[00:55:35]** as good or bad foods yeah all calories

**[00:55:38]** are equivalent yeah and so people think

**[00:55:40]** that it's a moral failure when they go

**[00:55:42]** to the freezer they take out the pint of

**[00:55:45]** ice cream intending only on having a

**[00:55:46]** spoonful and before they know it they're

**[00:55:47]** looking at the B the bottom of the pine

**[00:55:49]** yeah it's not due to moral failure

**[00:55:51]** that's what you're programmed to do and

**[00:55:53]** in fact that's what food scientists are

**[00:55:55]** paid lot and lots of money to make sure

**[00:55:57]** you do to make sure that you do yeah um

**[00:56:01]** now is it possible if you're able to you

**[00:56:04]** know understand the impact that these

**[00:56:05]** foods have on your behavior and

**[00:56:07]** cultivate a you know quote unquote

**[00:56:08]** healthy relationship with them yeah I

**[00:56:10]** think it's possible but it's just very

**[00:56:13]** difficult you know well our our rule in

**[00:56:16]** dietary modification has always been

**[00:56:19]** don't have it in the house yeah right

**[00:56:21]** cuz you'll eat it it's especially if

**[00:56:22]** you're hungry precisely it's like that

**[00:56:24]** '90s horror movie the G I don't know if

**[00:56:26]** you if you're familiar or you saw that

**[00:56:28]** movie but it's like once you open up

**[00:56:29]** those floodgates it becomes really

**[00:56:32]** difficult if not impossible to pump the

**[00:56:33]** brakes so with regards to not being able

**[00:56:36]** to pump the brakes let's say do you know

**[00:56:39]** if let's let's take sugar as an example

**[00:56:42]** one of the things I've been curious

**[00:56:43]** about because I know that microorganisms

**[00:56:46]** they're very sneaky little things and

**[00:56:49]** they can affect complex organisms in

**[00:56:51]** ways that are in some ways horrifying

**[00:56:54]** and unimaginable and so I wonder do you

**[00:56:56]** know if there's any evidence that a

**[00:56:59]** sugar centered gut

**[00:57:01]** biome contains microorganisms that

**[00:57:04]** produce sugar

**[00:57:06]** craving well I don't know of any hard

**[00:57:09]** evidence but I would say that it's un

**[00:57:12]** it's it's likely I mean we know that we

**[00:57:14]** know that the you know the anic nervous

**[00:57:16]** system the gut communicates with the

**[00:57:17]** brain yeah well also those organisms

**[00:57:20]** would have a distinct Advantage if they

**[00:57:22]** could make their host crave what they

**[00:57:24]** need to survive then they're going to

**[00:57:26]** live and there's lots of evidence that

**[00:57:30]** such things are possible in the natural

**[00:57:32]** world not only possible but actually

**[00:57:34]** quite likely so yeah and also your body

**[00:57:36]** gets used to what it is that you feed it

**[00:57:39]** regularly and it starts to Crave the

**[00:57:41]** things that you feed it regularly you

**[00:57:42]** know yeah sure you're your appetite well

**[00:57:45]** look you can see that with foods like

**[00:57:47]** olives and coffee and alcohol I suppose

**[00:57:49]** even no child likes their first Olive

**[00:57:53]** right you have to cultivate The Taste

**[00:57:55]** and it's partly because so the taste and

**[00:57:58]** reward systems are quite interesting in

**[00:58:00]** their relationship because each the

**[00:58:03]** satiety system and the reward system are

**[00:58:06]** separate from The Taste systems which

**[00:58:08]** you can tell because you can eat

**[00:58:10]** something to satiety and it still tastes

**[00:58:13]** the same but you don't want it anymore

**[00:58:16]** now you could imagine a system where the

**[00:58:18]** more ice cream you eat the less you can

**[00:58:21]** taste it until you can't taste it at all

**[00:58:22]** so you quit but that's not how it's set

**[00:58:24]** up and the satiety and reward systems

**[00:58:28]** are somewhat separate for each taste

**[00:58:30]** category so when people say well I still

**[00:58:32]** have room for dessert what they mean is

**[00:58:34]** well I've satiated the like Umami system

**[00:58:37]** for protein but not the system for

**[00:58:40]** carbohydrates or sugar and then that

**[00:58:43]** system is also modifiable by learning so

**[00:58:46]** that you can learn it's weird because

**[00:58:48]** when you learn to appreciate olives

**[00:58:50]** bitter Foods really fall into this

**[00:58:52]** category because they're very difficult

**[00:58:55]** to like on first exposure CU we don't

**[00:58:57]** like bitter things but once you learn to

**[00:59:00]** like them you really like them and so

**[00:59:02]** that shows you that that's a tesate to

**[00:59:04]** that modifiability of well the taste and

**[00:59:07]** the satiety system by experience and so

**[00:59:09]** of course your your body's going to

**[00:59:11]** adapt to what you eat because well for

**[00:59:14]** obvious it's obvious it's obvious why

**[00:59:16]** that would be the case so yeah and I

**[00:59:18]** think that there's like a degree of you

**[00:59:21]** know I mean you this is more your

**[00:59:23]** wheelhouse certainly than mine but you

**[00:59:25]** know somebody who is

**[00:59:26]** has you know higher a higher degree of

**[00:59:29]** openness um you know can Embrace these

**[00:59:32]** more complex flavors yeah um whereas you

**[00:59:36]** know I I still encounter a lot of people

**[00:59:37]** today

**[00:59:38]** who you know adopt who have adopted and

**[00:59:41]** stick to what I call the 12-year-old boy

**[00:59:43]** diet where they're you know they really

**[00:59:46]** only seemingly can appreciate really

**[00:59:49]** simple flavors and mouth feels so what

**[00:59:52]** would the 12-year-old boy diet be french

**[00:59:55]** fries and hot dog it's kind of like yeah

**[00:59:57]** french fries hot dogs ketchup on

**[00:59:58]** everything like standard American diet

**[01:00:00]** you know ketchup on everything just

**[01:00:02]** things that are like incredibly

**[01:00:03]** palatable no

**[01:00:05]** complexity um I think it's a yeah anden

**[01:00:10]** fingers fall into that category yeah but

**[01:00:13]** um I mean chicken fingers are great I'm

**[01:00:15]** not you know I'm not hitting on chicken

**[01:00:16]** fingers but uh although I haven't had a

**[01:00:18]** good chicken finger in a long time but

**[01:00:19]** because they're usually deep fried in

**[01:00:21]** all kinds of you know who knows what

**[01:00:24]** these days but um but yeah I think

**[01:00:26]** cultivating a a a broader pallet I think

**[01:00:29]** is is incredibly important but

**[01:00:31]** essentially yeah your body will start to

**[01:00:32]** Crave what it is that you most routinely

**[01:00:35]** feed it and it'll become better at

**[01:00:37]** processing those whatever it is those

**[01:00:39]** food components happen to be you know so

**[01:00:42]** for somebody who's chronically eating

**[01:00:44]** you know High a high carbohydrate diet

**[01:00:45]** their bodies get better at at Burning

**[01:00:48]** you know glucose for example um somebody

**[01:00:50]** who's on a you know highly fat adapted

**[01:00:52]** ketogenic diet for example they become

**[01:00:54]** better at burning fat and that's why

**[01:00:56]** there's this phenomena known as

**[01:00:57]** physiologic insulin resistance for

**[01:00:59]** somebody who's on a very low

**[01:01:00]** carbohydrate diet for sustained duration

**[01:01:03]** you know they do there is a degree of um

**[01:01:07]** physiologic uh insulin resistance that

**[01:01:09]** occurs where you know they'll start to

**[01:01:11]** consume you know something as innocuous

**[01:01:13]** as a bowl of blueberries and they'll see

**[01:01:14]** their blood sugar go through the roof

**[01:01:16]** it's not because the blueberries were

**[01:01:17]** unhealthy ever it's just that they you

**[01:01:20]** know their bodies have become so well

**[01:01:21]** adapted to um burning fat as a fuel

**[01:01:24]** source you know at the expense of

**[01:01:26]** carbohydrates right right right right

**[01:01:29]** okay so in your book your Genius book on

**[01:01:31]** food does that outline what does it

**[01:01:34]** outlined precisely obviously it talks I

**[01:01:37]** would it talks about the difference

**[01:01:40]** between Whole Foods and say Ultra

**[01:01:43]** processed foods so those are

**[01:01:44]** manufactured Foods correct so if it's

**[01:01:47]** made by a giant Corporation and it's in

**[01:01:49]** a box if it has an ad- on

**[01:01:51]** TV okay if it has an ad on TV oh that's

**[01:01:54]** an interesting marker yeah it's a good

**[01:01:56]** juristic right yeah sure sure so if it

**[01:01:58]** has an addon TV avoid it yeah to the

**[01:02:02]** best of your ability and so what I tried

**[01:02:04]** to do in the ingenious Foods was was

**[01:02:06]** highlight the food C specific foods that

**[01:02:08]** I thought there were that that would

**[01:02:11]** stand out to me over and over again in

**[01:02:12]** the literature as being particularly

**[01:02:15]** supportive of brain health whether it's

**[01:02:17]** by way of their nutrient density or by

**[01:02:19]** way of the you know we'll say prevalence

**[01:02:23]** of certain phytochemicals which um have

**[01:02:25]** shown to be particularly supportive of

**[01:02:27]** brain health for example and this is

**[01:02:29]** something that I think I really broke

**[01:02:31]** the news on with genius Foods was the

**[01:02:33]** role of dietary carotenoids so these are

**[01:02:36]** plant pigments that actually also

**[01:02:38]** accumulate in animal tissue um for

**[01:02:40]** example in the beef of a grass-fed grass

**[01:02:43]** finished cow you see an abundance of

**[01:02:45]** carotenoids which gives you know the Hue

**[01:02:48]** of the fat tissue of um you know that

**[01:02:51]** that marbling in a in a piece of in a

**[01:02:53]** grass-fed steak for example it's a

**[01:02:54]** different Hue it's slightly you know

**[01:02:56]** more orange in color similar to a

**[01:02:59]** pasture to egg yolk you see a higher

**[01:03:01]** prevalence of of these catenoid

**[01:03:03]** compounds which we know well we've known

**[01:03:05]** for decades at this point play a role in

**[01:03:07]** supporting Eye Health so certain

**[01:03:08]** carotenoids like ltin and

**[01:03:10]** zanthin can help prevent are those in

**[01:03:12]** Golden

**[01:03:13]** rice um I'm I think golden rice but they

**[01:03:18]** are golden as well right so they I think

**[01:03:20]** that's and they do PR prevent blindness

**[01:03:22]** corre R correct yes so vitamin A

**[01:03:24]** deficiency is the leading cause of

**[01:03:26]** preventable blindness worldwide and so

**[01:03:28]** yeah they've modified golden rice to

**[01:03:30]** have a higher uh to have beta carotene

**[01:03:33]** which is provitamin a yeah um

**[01:03:36]** interestingly many people are not as

**[01:03:39]** good at converting provitamin a to

**[01:03:41]** retinol in the body um I still think

**[01:03:43]** it's a great source of vitamin A but um

**[01:03:45]** a provitamin a um and ultimately retinol

**[01:03:48]** but yeah vitamin A is naturally found in

**[01:03:50]** animal Source foods like egg yolks okay

**[01:03:51]** so a diverse range of colorful Whole

**[01:03:54]** Foods plants and animal yeah okay I'm

**[01:03:57]** also a huge I mean and this is I guess

**[01:03:59]** somewhat more controversial but I I

**[01:04:00]** think red meat is a health food um I

**[01:04:04]** know you agree with that say that again

**[01:04:06]** yeah I think that red meat is a health

**[01:04:07]** food and I'm not like you know and this

**[01:04:09]** is this is an opinion that I've uh

**[01:04:11]** established Based on data well before I

**[01:04:14]** had any kind of you know Financial

**[01:04:16]** relationship with the kinds of companies

**[01:04:17]** who produce the meat that I personally

**[01:04:19]** you know eat and feed to my family y um

**[01:04:22]** but I think it's an incred it's it is an

**[01:04:24]** incredibly nutrient dense food yeah um

**[01:04:27]** and um well cows go to a lot of work to

**[01:04:29]** make it yeah mhm I mean all those

**[01:04:32]** stomachs right they have right

**[01:04:34]** absolutely so that's the right kind of

**[01:04:35]** ultra processing there you go right it's

**[01:04:38]** like Nature's form of ultra processing

**[01:04:41]** and yeah and so I think it's a that I

**[01:04:43]** think that's an incredibly important

**[01:04:44]** food but right so it's remarkable that

**[01:04:46]** that's been demonized like it's and it's

**[01:04:48]** and the thing is the demonization

**[01:04:50]** doesn't quit because for a long time I

**[01:04:52]** suppose it was driven by

**[01:04:56]** idiot quasi scientists and people who

**[01:04:59]** are maneuvering in the same domain as

**[01:05:02]** the food pyramid Liars but now the

**[01:05:05]** climate people have got a hold of it as

**[01:05:07]** well yeah but for whatever reason animal

**[01:05:10]** related food while there's also the

**[01:05:12]** ethical issue which isn't trivial I

**[01:05:13]** would say um you know that's not

**[01:05:15]** something that can be easily ignored or

**[01:05:17]** should be but but red meat is definitely

**[01:05:20]** the it's the target of propagandists

**[01:05:22]** continually and so and that's really not

**[01:05:25]** good if it turns out that it's actually

**[01:05:26]** useful like seriously useful for us and

**[01:05:29]** and we have what what's the FDA

**[01:05:32]** recommended daily announce RDA for

**[01:05:34]** carbohydrates there's no RDA for

**[01:05:36]** carbohydrates yeah there's no such thing

**[01:05:37]** as an essential carbohydrates right what

**[01:05:39]** which is really that should that's

**[01:05:41]** something to be said repeatedly yeah

**[01:05:43]** that because that's really kind of

**[01:05:45]** shocking it is we have you know a daily

**[01:05:48]** requirement for certain essential fats

**[01:05:50]** certain you know fatty acids like omega3

**[01:05:52]** and Omega 6 fatty acids proteins protein

**[01:05:55]** is m L important there's no such thing

**[01:05:57]** as an essential carbohydrate which is to

**[01:05:59]** say that you shouldn't eat them but it's

**[01:06:01]** very strange that that that that's not

**[01:06:03]** essential it correct and also I mean you

**[01:06:06]** look at the data and beef consumption in

**[01:06:08]** the United States has declined over the

**[01:06:10]** past few decades um it's it's it's on a

**[01:06:13]** downward slope and um and yet we

**[01:06:17]** continue to blow up we get sicker we get

**[01:06:19]** more obese and um and it's a whole food

**[01:06:23]** at the very least it's a pristine source

**[01:06:24]** of dietary protein

**[01:06:26]** it concurrent with you know all kind of

**[01:06:29]** nutrients that we know play a ro in good

**[01:06:32]** health I mean it's it's actually I mean

**[01:06:34]** it is a source of phytonutrients most

**[01:06:36]** people don't realize this but you know

**[01:06:37]** the phytonutrients that a cow ingests

**[01:06:40]** makes its way into the tissue of that of

**[01:06:43]** that animal just as it does US creatine

**[01:06:46]** torine carnitine carnosine I mean these

**[01:06:48]** are all I think really important

**[01:06:50]** nutrients and um and you know and it and

**[01:06:54]** it continues to be demon some people

**[01:06:56]** will say oh well it's a source of

**[01:06:57]** saturated

**[01:06:59]** fat it's fascinating that 3% of the

**[01:07:04]** saturated fat that your average American

**[01:07:05]** consumes comes from steak the vast

**[01:07:08]** majority comes from what are called

**[01:07:10]** mixed dishes Ultra processed foods Dairy

**[01:07:13]** which is actually even full fat Dairy is

**[01:07:15]** neutral if not beneficial from a cardio

**[01:07:17]** you know cardiovascular health

**[01:07:19]** standpoint and so yeah the the I think

**[01:07:22]** the demonization of red meat is a real

**[01:07:24]** shame and it's it's a big problem and

**[01:07:26]** the and the evidence that's used to

**[01:07:27]** demonize it is incredibly weak right

**[01:07:29]** right right as is most nutritional

**[01:07:31]** science stunningly weak stunn yeah yeah

**[01:07:34]** correlational studies in the field of

**[01:07:35]** nutrition are not helpful no and the

**[01:07:37]** other studies that where you could infer

**[01:07:40]** causality they're unbelievably difficult

**[01:07:42]** to do it's hard to get people to modify

**[01:07:44]** their diet and to stick to it and yeah

**[01:07:46]** it's very difficult research to do so I

**[01:07:48]** can understand why they default the

**[01:07:50]** correlation studies but they're not

**[01:07:52]** helpful too many variables those are the

**[01:07:54]** kinds of studies that make up our

**[01:07:56]** dietary guidelines I mean those are the

**[01:07:57]** kinds of studies that again and again

**[01:07:59]** you know implore us to consume grains at

**[01:08:01]** every meal and um and I think you know

**[01:08:05]** it's it's just yeah so so talk about

**[01:08:08]** grains because do grains qualify as a

**[01:08:11]** whole food well certainly the vast the

**[01:08:14]** the the form in which they are most

**[01:08:15]** frequently consumed today absolutely not

**[01:08:18]** there most people today you know the

**[01:08:19]** form of grains which most people consume

**[01:08:21]** are refined grains muffins yeah exactly

**[01:08:24]** right health and even if you were to go

**[01:08:26]** to go to Google images and look at the

**[01:08:28]** image of the food pyramid which

**[01:08:30]** thankfully has been retired you know

**[01:08:31]** it's what it's been replaced by is you

**[01:08:33]** know I would say not that much better um

**[01:08:35]** although it is an improvement but I mean

**[01:08:37]** it was literally the The Illustrated USD

**[01:08:40]** USDA food permit it was like pasta it

**[01:08:42]** was like loaves of bread yeah like

**[01:08:43]** you're telling me that That's essential

**[01:08:44]** for good health that I need to be eating

**[01:08:46]** seven to 11 servings of this on a daily

**[01:08:49]** basis um and so if you actually look at

**[01:08:52]** what a grain is I mean you know most

**[01:08:53]** grains today actually in the supermarket

**[01:08:55]** Market are fortified because they're so

**[01:08:56]** nutrient impoverished that they have to

**[01:08:59]** have added nutrients nutrients added to

**[01:09:02]** them to make their basic form serve any

**[01:09:04]** sort of dietary value at all but they're

**[01:09:07]** essentially pure it's essentially Pure

**[01:09:09]** Energy it's cattle feed now I'm not

**[01:09:10]** saying that grains can't play a

**[01:09:12]** supportive role to health I mean

**[01:09:13]** certainly you look at you know for

**[01:09:14]** example bodybuilders who are in

**[01:09:16]** fantastic physical shape you know it's

**[01:09:17]** not they do uh you know many of them on

**[01:09:20]** social media the more prominent ones do

**[01:09:22]** use performance-enhancing drugs but I

**[01:09:23]** mean grains grains can be used to

**[01:09:25]** facilitate exercise performance and the

**[01:09:27]** like and I think well and you can say

**[01:09:29]** too like socially speaking you know the

**[01:09:32]** first order problem that our society had

**[01:09:36]** to contend with was getting everyone

**[01:09:37]** enough calories yeah right and you could

**[01:09:41]** see some utility in generating cheap

**[01:09:44]** calories I always I often think about

**[01:09:46]** corn syrup in that regard corn syrup is

**[01:09:48]** a very cheap source of calories but when

**[01:09:52]** the problem is obesity and not

**[01:09:53]** starvation corn syrup seems like a very

**[01:09:55]** bad solution correct and so you know I'm

**[01:09:58]** willing to give the Department of

**[01:10:00]** Agriculture let's say its credit for

**[01:10:03]** assuming that or for ensuring that

**[01:10:06]** calories per se are in plentiful Supply

**[01:10:08]** which is the case but man we're playing

**[01:10:11]** a vicious price for it on the other side

**[01:10:13]** of it yeah well I mean this is a we we

**[01:10:15]** live amidst the first time in human

**[01:10:17]** history where there are more overweight

**[01:10:19]** people walking the Earth than

**[01:10:20]** underweight right and so we've solved

**[01:10:22]** the food scarcity problem I mean there's

**[01:10:24]** you'd be hardress to find to anybody in

**[01:10:26]** a state of energy deficit today in the

**[01:10:28]** western world yeah especially and

**[01:10:30]** increasingly in the developed world

**[01:10:32]** except when that's used for political

**[01:10:34]** like most of the starvation in

**[01:10:37]** particular in the developed world is

**[01:10:39]** purposeful not not the consequence of of

**[01:10:43]** economic inade inadequacy right it's

**[01:10:46]** targeted and so yeah and that's a good

**[01:10:49]** thing that we solved that problem but

**[01:10:51]** but these problems are not trivial

**[01:10:53]** either yeah and they're getting worse

**[01:10:55]** correct and I'm not saying that grains

**[01:10:58]** cause you know Alzheimer's disease

**[01:11:00]** that's never been my stance but you know

**[01:11:02]** we do have to look at this as a food

**[01:11:04]** quality problem and Grains I don't

**[01:11:06]** believe are you know particularly when

**[01:11:08]** you have all these other options in the

**[01:11:10]** supermarket like grass-fed grassfish

**[01:11:11]** beef wild fatty fish salmon for example

**[01:11:14]** um sardines eggs you know eggs are one

**[01:11:17]** of Nature's cognitive multivitamins a

**[01:11:19]** study was just published that found that

**[01:11:20]** you know just consuming they were

**[01:11:21]** demonized too they were demonized too

**[01:11:23]** yeah and interestingly and this is again

**[01:11:26]** and to preface I'll never just to to

**[01:11:28]** reiterate I'll never know what caused my

**[01:11:30]** mom's dementia I don't know if it had

**[01:11:31]** anything to do with nutrition it could

**[01:11:32]** have had everything to do with I I don't

**[01:11:34]** know I'll never know but you know my mom

**[01:11:37]** was somebody who for the entirety of her

**[01:11:39]** life was concerned about heart disease

**[01:11:41]** and so whatever the messaging was around

**[01:11:43]** heart disease is something that my mom

**[01:11:44]** adopted and ingrained essentially in not

**[01:11:47]** just her diet but my diet growing up and

**[01:11:50]** so you know my kitchen was always filled

**[01:11:52]** with you know lowfat fat-free

**[01:11:54]** cholesterol free food likee products

**[01:11:57]** yeah that adorned by the red heart

**[01:11:59]** healthy logo on them which you still see

**[01:12:02]** ubiquitously in the supermarket right

**[01:12:04]** and eggs were one of those foods that we

**[01:12:06]** threw out essentially in lie of these

**[01:12:08]** more you know processed high margin

**[01:12:12]** replacement products and an egg is

**[01:12:15]** literally a cognitive multivitamin I

**[01:12:17]** mean it contains a little bit of

**[01:12:18]** everything required to grow a brain

**[01:12:20]** right so it's it's it's postmarked by

**[01:12:22]** Nature you know this is here this is

**[01:12:25]** what you need to grow a brain in an egg

**[01:12:27]** yolk right even if it's a chicken brain

**[01:12:29]** even if it's a chicken brain yeah but

**[01:12:31]** studies are now starting to show that

**[01:12:34]** they're an incredible cognitive

**[01:12:36]** multivitamin a study was just published

**[01:12:37]** that found that you know all it takes is

**[01:12:40]** one to two eggs a week in this one study

**[01:12:42]** and there was a something like a 50%

**[01:12:45]** risk close to a 50% risk reduction for

**[01:12:47]** the development of Alzheimer's disease

**[01:12:50]** wow we know that choline is one of the

**[01:12:51]** most important nutrients in fact about

**[01:12:53]** 40% of the um um the effect that they

**[01:12:56]** saw in this observational trial um they

**[01:12:59]** thought was attributed to the fact that

**[01:13:01]** egg yolks are the top source of Coline

**[01:13:04]** in the standard American diet um and yet

**[01:13:06]** 90% of adults today don't consume the

**[01:13:09]** adequate intake for Coline on a daily

**[01:13:11]** basis and so that's the consequence of

**[01:13:13]** demonizing eggs there you go you

**[01:13:15]** demonize eggs great 90% of adults don't

**[01:13:18]** consume adequate Coline which is

**[01:13:19]** crucially important it's the backbone to

**[01:13:21]** AAL choline which is the

**[01:13:23]** neurotransmitter involved in learning in

**[01:13:24]** memory right it forms the you know

**[01:13:27]** skeleton molecule of our neuronal

**[01:13:30]** membranes which are crucially important

**[01:13:32]** for our you know brain cell

**[01:13:34]** communication our ability to perceive

**[01:13:35]** the world um so it's a fantastic food

**[01:13:39]** and you know I remember when I'm when my

**[01:13:41]** mom first served me you know that that

**[01:13:44]** egg my first egg she was like you know

**[01:13:47]** she she warned me not to consume them

**[01:13:49]** with any you know significant frequency

**[01:13:51]** because they might clog my arteries

**[01:13:53]** right and we know that dietary

**[01:13:55]** cholesterol mhm well dat was there a

**[01:13:58]** long time ago showing that this I knew

**[01:14:01]** this in like 19

**[01:14:04]** 1980s the decreased risk of heart

**[01:14:09]** disease reported as a consequence of

**[01:14:11]** cholesterol lowering was swamped by the

**[01:14:14]** increase in suicide that was caused by

**[01:14:16]** the fact that Colores cholesterol is a

**[01:14:19]** precursor to serotonin so even if fewer

**[01:14:23]** people died of heart attacks which is

**[01:14:25]** not true anyways more people committed

**[01:14:27]** suicide so that's part of the problem

**[01:14:30]** with the complexity of dietary studies

**[01:14:32]** right is you you need to control for a

**[01:14:34]** lot of variables and you need to measure

**[01:14:36]** a lot of outcomes yeah but with these

**[01:14:38]** observational studies I mean there's

**[01:14:39]** always residual confounding like yes

**[01:14:42]** always there's no way of controlling it

**[01:14:44]** way no no you can't do correlational

**[01:14:45]** dietary studies yeah you just can't no

**[01:14:48]** no that they should never be published

**[01:14:50]** yeah I mean I'm I'm Pro plants you know

**[01:14:53]** that's that's a flag that like like you

**[01:14:55]** know that I've that I've planted no pun

**[01:14:57]** intended yeah but um but it's not hard

**[01:15:00]** to imagine a world where you know all of

**[01:15:02]** the you know the the mountains of

**[01:15:03]** evidence that we have observationally

**[01:15:05]** looking at you know how fruits and

**[01:15:07]** vegetables impact human health the

**[01:15:09]** positive effects that we see that we see

**[01:15:11]** at the epidemiologic you know scale that

**[01:15:14]** that could potentially be a false

**[01:15:16]** positive because everybody in their

**[01:15:18]** mother knows that fruits and vegetables

**[01:15:19]** are good for you right and eating fresh

**[01:15:21]** fruits and vegetables today is an

**[01:15:23]** incredible privilege in a Time when you

**[01:15:25]** know 60% of the calories come from these

**[01:15:27]** Ultra processed foods it can be really

**[01:15:28]** difficult to find access to fresh fruits

**[01:15:31]** and vegetables right I mean we do have

**[01:15:32]** RCT data showing us that that there are

**[01:15:35]** beneficial compounds I've talked about

**[01:15:36]** some of the phytochemicals in it but

**[01:15:38]** conversely red meat it's also very easy

**[01:15:41]** okay so let's talk about that a bit

**[01:15:42]** because I was obviously at some point

**[01:15:44]** we're going to get into the issue of the

**[01:15:46]** carnivore diet yeah and so I guess the

**[01:15:49]** first thing I'd say is and you're making

**[01:15:51]** some illusion to it now obviously what

**[01:15:53]** are your thoughts about the carnivore

**[01:15:55]** diet what and its potential advantages

**[01:15:58]** and dangers I think I mean I think it's

**[01:16:02]** potentially a a great therapeutic diet

**[01:16:05]** for people that have you know a

**[01:16:07]** predisposition to autoimmunity yeah um

**[01:16:10]** and it's not something that I would ever

**[01:16:11]** behold anybody here's the other thing is

**[01:16:14]** that diet zealots particularly today on

**[01:16:16]** social media they're very they seem to

**[01:16:18]** be very emotionally invested in what

**[01:16:20]** other people eat I don't care ultimately

**[01:16:23]** what other people eat I just want the

**[01:16:25]** same way about that you know at a at say

**[01:16:27]** a moral level right but like or emo you

**[01:16:30]** want people to be able to make informed

**[01:16:33]** decisions not decisions clouded by what

**[01:16:35]** I call covert activism right and yeah or

**[01:16:38]** or overt activism for for for for that

**[01:16:41]** matter yeah or you know misinformation

**[01:16:44]** or disinformation about what it means to

**[01:16:46]** eat healthily today ultimately I don't

**[01:16:48]** care you know if somebody wants

**[01:16:49]** otherwise known as lies yes precisely um

**[01:16:54]** so yeah I mean I would for people that

**[01:16:56]** are that have seen a reprieve of

**[01:16:59]** symptoms from some of these awful

**[01:17:00]** conditions that people suffer from yeah

**[01:17:02]** like keep doing it yeah I think that for

**[01:17:05]** somebody with a robust gut microbiome

**[01:17:07]** who you know I think people should be

**[01:17:10]** able to tolerate and not just tolerate

**[01:17:12]** but to derive you know a health benefit

**[01:17:15]** from you know many of these so-called

**[01:17:16]** plant defense compounds you know even

**[01:17:19]** cruciferous vegetables which have become

**[01:17:20]** demonized in certain carnivore circles

**[01:17:22]** you know due to you know certain uh

**[01:17:26]** glucosinolate compounds or compound like

**[01:17:28]** sulphoraphane which you know there are

**[01:17:30]** actual randomized human trials that show

**[01:17:33]** that these compounds can actually help

**[01:17:35]** us detoxify from some of these

**[01:17:36]** environmental pollutants that we know

**[01:17:39]** you know play a role in disease

**[01:17:43]** um obviously you can get a certain uh

**[01:17:46]** dose if you will of phytochemicals from

**[01:17:49]** eating animal Source foods but you know

**[01:17:51]** carotenoids like lutin and zanthin which

**[01:17:53]** we know are very beneficial to brain

**[01:17:55]** health you know you're not going to see

**[01:17:56]** a better you're not going to find a

**[01:17:57]** better source of them in the supermarket

**[01:17:59]** than kale for example which people love

**[01:18:01]** to hate on but foods like kale spinach

**[01:18:05]** dark leafy greens cruciferous vegetables

**[01:18:06]** I think that the I do think that for

**[01:18:09]** most people the benefits outweigh the

**[01:18:11]** risk you know um if an Elimination Diet

**[01:18:15]** where you remove all fruits and

**[01:18:17]** vegetables um for a Time helps I think

**[01:18:20]** that's amazing well that that's a good

**[01:18:22]** useful thing to discuss procedurally

**[01:18:24]** mean when we were trying to

**[01:18:26]** address my daughter's um immunological

**[01:18:31]** problems which my wife was on at a very

**[01:18:33]** early stage because she intuited that

**[01:18:36]** there was a dietary relationship but it

**[01:18:38]** turned out to be so complex I mean we

**[01:18:40]** couldn't have possibly imagined that

**[01:18:42]** eating nothing but meat was the solution

**[01:18:44]** like who in the hell is going to ever

**[01:18:45]** think that I knew that fasting was a

**[01:18:48]** reliable treatment for for arthritis and

**[01:18:51]** that's well documented in literature

**[01:18:53]** virtually everyone who's arthritic if

**[01:18:55]** they fast they go into remission but

**[01:18:57]** then when they start eating the symptoms

**[01:18:58]** come back and so well and maybe that's

**[01:19:01]** not true if all they start eating again

**[01:19:03]** his red meat but those studies hadn't

**[01:19:06]** been done and still haven't been as far

**[01:19:07]** as I know um we had tried Michaela

**[01:19:12]** on some different elimination diets but

**[01:19:15]** they made no sense like the food classes

**[01:19:18]** that were eliminated and kept seemed

**[01:19:21]** random to me and well and to Tammy and

**[01:19:24]** and to Michaela and she started to

**[01:19:26]** experiment they started to experiment

**[01:19:28]** with more radical elimination diets and

**[01:19:30]** by trial and error and also because of

**[01:19:32]** Shawn Baker came to experiment with only

**[01:19:37]** beef which worked and so you know and

**[01:19:41]** we've talked to hundreds or maybe

**[01:19:42]** thousands of people now who have tried

**[01:19:45]** variant of the carnivore diet and had

**[01:19:47]** radical especially weight loss

**[01:19:50]** Transformations like I talk to people at

**[01:19:52]** my lectures all the time who they shell

**[01:19:54]** shock day because they've lost like 150

**[01:19:56]** PBS in 18 months and so they're not even

**[01:20:00]** the same people physically and well

**[01:20:02]** they're happy about it obviously but

**[01:20:04]** also

**[01:20:05]** completely they're shocked by the fact

**[01:20:07]** that that worked now I would say and you

**[01:20:11]** tell me what you think about this is

**[01:20:12]** that if you are suffering from chronic

**[01:20:15]** health conditions especially if you're

**[01:20:17]** also overweight an lemon diet is worth

**[01:20:21]** trying on the off chance that something

**[01:20:23]** you're eating is causing your symptoms

**[01:20:25]** because who knows and the simplest

**[01:20:27]** Elimination Diet is obviously just beef

**[01:20:31]** yeah right so why not go down to one

**[01:20:33]** variable and if it doesn't work like

**[01:20:35]** we've talked to many people and I know

**[01:20:37]** people say well anecdotes aren't data

**[01:20:40]** it's like no but they're hypotheses yeah

**[01:20:43]** and many of the same anecdotes start to

**[01:20:45]** look a lot like data so anyways we've

**[01:20:48]** talked to many people who've reported

**[01:20:51]** remission of their diabetic or arthritic

**[01:20:55]** symptoms within 2 weeks of an only beef

**[01:20:59]** diet and so we are thinking that it's

**[01:21:02]** more like 3 months is a good trial and

**[01:21:04]** if it doesn't work well okay the loss is

**[01:21:09]** some restriction for 3 months and that's

**[01:21:11]** about it and it's it's not like it's

**[01:21:12]** easy I'm not saying that and you may

**[01:21:14]** suffer some complications in the

**[01:21:17]** transition to the new and more

**[01:21:19]** restrictive diet but you can live on

**[01:21:21]** just beef so like what the hell if

**[01:21:24]** you're half dead and radically

**[01:21:27]** overweight three months isn't much of a

**[01:21:29]** risk and so I'm wondering what like what

**[01:21:31]** do you think about that line of logic

**[01:21:33]** yeah well I think you know I think well

**[01:21:36]** I think you're right and in the sense

**[01:21:38]** that beef is it's an incredibly

**[01:21:40]** nutrient-dense food it's highly

**[01:21:43]** satiating yes it's loaded with protein

**[01:21:46]** obviously um you're you're restricting

**[01:21:51]** the consumption of large swaths of the

**[01:21:54]** most problematic Foods accessible to a

**[01:21:57]** modern human today and so it doesn't

**[01:21:59]** surprise me that at least in the short

**[01:22:01]** term you're going to see an improvement

**[01:22:03]** yeah yeah um and so I guess my qu my

**[01:22:07]** question is and I think sha Baker is

**[01:22:09]** very smart yeah but I I had him on my

**[01:22:12]** podcast recently and I posed this

**[01:22:13]** question to him like you're performing

**[01:22:15]** already at such a high level on beef and

**[01:22:17]** I don't doubt that you're healthy you

**[01:22:19]** seem healthy and monster yeah and I'm

**[01:22:21]** not going to Gaslight somebody who's on

**[01:22:23]** you know a carnivore diet and and and

**[01:22:26]** and asserting that they're thriving on

**[01:22:27]** it like who am I to G you know to say

**[01:22:29]** that you're not right yeah right um but

**[01:22:33]** you know my question to him was like

**[01:22:34]** okay so you've established this that

**[01:22:37]** this diet is working well for you why

**[01:22:39]** not add in some of these foods that we

**[01:22:41]** know have compounds that you know might

**[01:22:44]** be lacking in beef yeah or like might

**[01:22:46]** give you an additional benefit you know

**[01:22:48]** for example like an all meat diet might

**[01:22:50]** not have very particularly high levels

**[01:22:53]** of magnesium which we know you know

**[01:22:55]** plays hundreds of roles in the body

**[01:22:57]** right everything from you know repairing

**[01:22:58]** DNA damage to energy synthesis like it's

**[01:23:01]** a co-actor that you know is required in

**[01:23:03]** the synthesis of ATP for example some of

**[01:23:06]** these carotenoid compounds that I

**[01:23:07]** mentioned earlier like yeah you're

**[01:23:09]** getting those are definitely open

**[01:23:10]** questions yeah maybe they you're getting

**[01:23:12]** a small amount of them in your meaton

**[01:23:14]** diet right but maybe a little bit more

**[01:23:16]** might you know give you an additional

**[01:23:18]** cognitive and and I'm we're just playing

**[01:23:19]** like nutritionism here with these like

**[01:23:21]** individual nutrients that have been

**[01:23:22]** studied that I can reference that I

**[01:23:24]** about but there are swaths of nutrients

**[01:23:27]** in the plant kingdom that you know have

**[01:23:29]** been identified as playing as having a

**[01:23:31]** potential benefit to human health even

**[01:23:33]** something as innocuous as white rice

**[01:23:36]** right where it's had all the an

**[01:23:37]** antinutrients sloughed off right like

**[01:23:39]** for somebody who's you know such a

**[01:23:42]** physical specimen as he is like maybe

**[01:23:44]** adding some carbohydrates into that

**[01:23:46]** system you know so they you get a little

**[01:23:48]** bit of additional glycogen in the tank

**[01:23:50]** before you know cuz he's still trying to

**[01:23:52]** like break records a Madman right the

**[01:23:55]** best possible way yeah um maybe that

**[01:23:57]** might you know an Adaptive so I can

**[01:24:00]** understand that I guess the the my

**[01:24:04]** criticism of that to the degree that a

**[01:24:06]** criticism is warranted

**[01:24:09]** is it's extremely complex

**[01:24:13]** to and this contradicts to some degree

**[01:24:15]** something I said earlier you know that

**[01:24:17]** you could reduce to a carnivore doid and

**[01:24:19]** then add back it's very complicated to

**[01:24:22]** add back right you really have to think

**[01:24:24]** like a scientist and you have to be very

**[01:24:26]** disciplined you know to experiment with

**[01:24:28]** one thing at a time in addition and then

**[01:24:31]** also to figure out well how do you know

**[01:24:34]** if it's helping like what's your measure

**[01:24:35]** and over what time frame you know so

**[01:24:38]** like I've tried to add things back to my

**[01:24:40]** I added salmon back to my diet and it

**[01:24:44]** turned out that it made me anxious and I

**[01:24:46]** have no idea why and it's a pretty

**[01:24:48]** robust effect and it took a fair while

**[01:24:50]** to manifest itself and so you have these

**[01:24:52]** terrible complex problems with adding

**[01:24:55]** things back which is well maybe if you

**[01:24:58]** added phytonutrients for example of the

**[01:25:00]** sort that you were describing it would

**[01:25:02]** take a month to see a difference and it

**[01:25:06]** would be hard to measure except in

**[01:25:07]** certain circumstances so like how do you

**[01:25:11]** know and that's the problem with any

**[01:25:13]** scientific investigation and the

**[01:25:15]** advantage to just eating beef is that

**[01:25:18]** it's really it's it's simple right it's

**[01:25:22]** like no just do this and I'm I it

**[01:25:26]** wouldn't surprise me at all if there

**[01:25:27]** would be ways of it might surprise me

**[01:25:31]** but I could imagine that there would be

**[01:25:32]** ways of improving your diet beyond what

**[01:25:36]** you would get with merely meat but man

**[01:25:39]** it it really it's a conundrum to figure

**[01:25:42]** out how to go about doing that yeah well

**[01:25:46]** everybody's the other thing that I think

**[01:25:48]** is important is that there's really no

**[01:25:49]** there's no such nutrition isn't a hat

**[01:25:51]** there's no such thing as a one- siiz all

**[01:25:53]** pattern that's going to work for

**[01:25:55]** everybody um and you know in your family

**[01:25:58]** you obviously have you know you have

**[01:26:00]** these health concerns which I think are

**[01:26:02]** important to acknowledge and to you know

**[01:26:05]** and to recognize that you're a scientist

**[01:26:07]** and you've you know you've you've done

**[01:26:08]** the work and you've found this one diet

**[01:26:10]** this this this diet that works for you

**[01:26:12]** kicking and screaming all the way and I

**[01:26:14]** think that's that's

**[01:26:15]** amazing um but you know for somebody who

**[01:26:19]** who is not immunologically compromised

**[01:26:22]** right and who you know was born

**[01:26:25]** vaginally and who didn't take a ton of

**[01:26:27]** antibiotics growing up and was breastfed

**[01:26:30]** and who hasn't you know traveled all

**[01:26:31]** around the world and had infections and

**[01:26:33]** surgeries and things like that that you

**[01:26:35]** know you know these are all like it's

**[01:26:37]** Death By A Thousand Cuts today um and so

**[01:26:40]** you throw into that milu chronic chronic

**[01:26:43]** sedentary Lifestyles which you know has

**[01:26:44]** a negative impact on the gut microbiome

**[01:26:46]** we know that you know obviously an ultra

**[01:26:48]** processed food diet has a negative

**[01:26:49]** impact on the gut microbiome you know

**[01:26:51]** all of these industrial chemical

**[01:26:53]** additives also so are playing a a role

**[01:26:55]** we've lost resilience in the gut I think

**[01:26:58]** and that's why so many of us do seem to

**[01:27:00]** do better seemingly on these you know

**[01:27:03]** incredibly restrictive elimination diets

**[01:27:06]** right well we've changed our cooking

**[01:27:08]** habits dramatically too I mean

**[01:27:12]** um slow rising yeast doesn't produce the

**[01:27:15]** same bread as fast rising yeast right CU

**[01:27:18]** it has a longer time to break down the

**[01:27:21]** gluten for example and so a lot of the

**[01:27:24]** traditional ways of cooking things that

**[01:27:27]** made them edible have been replaced by

**[01:27:30]** rapid cheap which is advantageous

**[01:27:33]** Factory mechanisms but you know we have

**[01:27:37]** no idea what we left behind in

**[01:27:39]** consequence and so it may also have been

**[01:27:43]** that 40 years ago or 50 years ago when

**[01:27:45]** people were cooking more traditionally

**[01:27:47]** things were a lot more edible than they

**[01:27:49]** are now now I would also say I don't

**[01:27:51]** know what you think about this like cuz

**[01:27:54]** I don't know the science in

**[01:27:56]** this you know as the world is urbanized

**[01:27:59]** and as the cultures have mixed a much

**[01:28:02]** more diverse range of food products have

**[01:28:04]** become available now you might say that

**[01:28:07]** was advantageous but I also wonder about

**[01:28:09]** that because you know I noticed for

**[01:28:11]** example when I moved from Montreal to

**[01:28:14]** Boston I developed allergies well I

**[01:28:17]** developed allergies to Oakleaf mold

**[01:28:18]** there was no Oak leafes and no Oakleaf

**[01:28:21]** mold in Canada not any place I had been

**[01:28:23]** and so I mov moved somewhere that was a

**[01:28:25]** completely different environment and I

**[01:28:27]** was not immunologically prepared for it

**[01:28:29]** I just I guess I wonder

**[01:28:31]** too is it possibly a consequence of the

**[01:28:34]** fact that we can eat so many diverse

**[01:28:37]** things that weren't available before you

**[01:28:40]** know people would have had their

**[01:28:41]** traditional diet and really not strayed

**[01:28:44]** beyond that like I can

**[01:28:46]** remember certainly I can remember the

**[01:28:49]** first time I had Mexican food you know I

**[01:28:52]** was probably 16 or 17 and that was

**[01:28:54]** a real foreign Cuisine which is a

**[01:28:57]** strange thing to contemplate now I kind

**[01:29:00]** of grew up on German English and

**[01:29:02]** Ukrainian food right and certainly uh

**[01:29:06]** Chinese food was

**[01:29:09]** also foreign and and not common we had a

**[01:29:12]** Chinese restaurant in this little town I

**[01:29:14]** grew up in but that certainly wasn't a

**[01:29:16]** staple

**[01:29:17]** so I know that in principle hunter

**[01:29:20]** gatherers had a quite a diverse range of

**[01:29:23]** food products at their disposal but they

**[01:29:26]** would have been eating those habitually

**[01:29:27]** from day one they wouldn't have been

**[01:29:29]** introducing new foods along the way so

**[01:29:31]** do you have any thoughts on that do you

**[01:29:32]** know anything about that well what what

**[01:29:34]** grows together goes together typically

**[01:29:36]** yeah right and um and yeah but I I don't

**[01:29:41]** think as a species we would have made it

**[01:29:43]** this far had we had not been as

**[01:29:45]** incredibly resilient and adaptable as we

**[01:29:48]** are capable of being right you know I

**[01:29:50]** think we've never had to live in

**[01:29:52]** factories though yeah that's for sure

**[01:29:55]** that's for sure yeah that's an

**[01:29:56]** environmental novelty yeah so I think I

**[01:29:59]** do think that that that there is we're

**[01:30:03]** we're meant to be resilient you know the

**[01:30:05]** idea that you know so many of us

**[01:30:07]** statistically you know you feed you take

**[01:30:11]** a 100 people and you feed them each a

**[01:30:14]** peanut one or two of them is going to

**[01:30:15]** die yeah right from a peanut I don't I

**[01:30:18]** think that that's a Mal adaptation um

**[01:30:21]** and I think it's probably due to the

**[01:30:22]** fact that you know we're well we're

**[01:30:24]** doing many things wrong um and so so so

**[01:30:29]** okay so tell me tell me what happened

**[01:30:31]** with your mother and then tell me how

**[01:30:33]** you eat

**[01:30:35]** yeah

**[01:30:36]** well you

**[01:30:38]** know she it was really sad she um for

**[01:30:44]** eight years struggled with Louis body

**[01:30:46]** dementia and um for most of that time I

**[01:30:50]** was there with her just a concerned son

**[01:30:53]** trying to do what I could to help

**[01:30:54]** improve things but um one of the

**[01:30:58]** earliest insights that that I was able

**[01:31:02]** to glean from the literature which is I

**[01:31:04]** think counterintuitive and most people

**[01:31:05]** are completely unaware of this is that

**[01:31:07]** you know these as we alluded to earlier

**[01:31:09]** these conditions don't begin overnight

**[01:31:10]** they take decades to manifest so you

**[01:31:13]** know essentially dementia and many of

**[01:31:16]** these kinds of conditions that are now

**[01:31:17]** saddling modern society these are

**[01:31:20]** diseases of midlife with symptoms that

**[01:31:23]** appear in late life but by the time

**[01:31:25]** you're diagnosed with dementia I mean

**[01:31:27]** you're essentially in the late stage of

**[01:31:30]** that disease right right yeah and that's

**[01:31:31]** why Alzheimer's drug trials have a 99.6%

**[01:31:35]** fail rate because you're trying to treat

**[01:31:37]** the condition you know well past the

**[01:31:40]** point at which you know a simple far you

**[01:31:43]** know yeah pharmacological solution is

**[01:31:46]** going to have any sort of practical

**[01:31:48]** impact right so even if the thing is is

**[01:31:51]** that at that point even if the drug stop

**[01:31:54]** the disease cold a tremendous amount of

**[01:31:56]** damage is already been done already done

**[01:31:59]** so it not only have to stop it it would

**[01:32:00]** have to heal it yeah I mean and that's

**[01:32:03]** hard with neural tissue yeah yeah I mean

**[01:32:06]** you know how are you going to get back

**[01:32:08]** the 50% of dopamine proding neurons you

**[01:32:10]** know in the substantia Nigro right right

**[01:32:13]** like you're just not um and with

**[01:32:16]** Alzheimer's Disease by the time you know

**[01:32:18]** a person is diagnosed you know one of

**[01:32:21]** the Salient features of Alzheimer's

**[01:32:22]** disease is what's called glucose

**[01:32:24]** hypometabolism so this plays into the

**[01:32:26]** type 3

**[01:32:27]** diabetes um you know as it's been termed

**[01:32:31]** that by the time you're diagnosed with

**[01:32:33]** the condition your brain's ability to

**[01:32:35]** derive energy to create energy from

**[01:32:37]** glucose which is its primary fuel

**[01:32:39]** substrate is diminished by about 50% and

**[01:32:42]** the brain is a a ravenous consumer of

**[01:32:45]** glucose it makes up 25% of your basil

**[01:32:48]** metabolic rate despite only accounting

**[01:32:50]** for 2 to 3% of your body's Mass so it's

**[01:32:53]** a r is consumer of energy and so any

**[01:32:56]** power outage in that organ is going to

**[01:32:59]** lead to failure and so by the time

**[01:33:01]** you're diagnosed you know that's already

**[01:33:03]** you know starkly diminished

**[01:33:06]** um and so yeah it wasn't it wasn't

**[01:33:09]** really positive I mean in every doctor's

**[01:33:11]** office what I experienced with my mom

**[01:33:13]** I've come to call diagnose and adios and

**[01:33:16]** you know a physician would would

**[01:33:17]** essentially prescribe a new drug or

**[01:33:19]** titrate up the dose of something that

**[01:33:20]** she was already on but minimally

**[01:33:22]** effective if effective at all

**[01:33:24]** and by the time my mom passed in 2018

**[01:33:27]** she was on 14 different

**[01:33:29]** Pharmaceuticals and there there's no

**[01:33:31]** physician on Earth who can predict the

**[01:33:34]** way these 14 different drugs no not even

**[01:33:38]** two probably not even two yeah certainly

**[01:33:40]** not 14 not even God knows like and so

**[01:33:43]** the the level of toxicity right yeah

**[01:33:47]** which isn't to say if there was that

**[01:33:49]** Blockbuster drug that came along that I

**[01:33:50]** wouldn't you know be first in line at

**[01:33:52]** that time to to to fill that

**[01:33:54]** prescription for my mom but it's just

**[01:33:56]** very unlikely to be the case in fact

**[01:33:57]** there's you know there's all kinds

**[01:33:59]** of fraud you know within the field of

**[01:34:02]** Alzheimer's drug research that you know

**[01:34:04]** no came out a couple of years ago yeah

**[01:34:06]** which is something that was incredibly

**[01:34:08]** disheartening um there was a paper you

**[01:34:11]** know published in 2006 for example that

**[01:34:12]** was like completely fraudulent finally

**[01:34:15]** actually over the past week in fact they

**[01:34:19]** finally um are pulling that paper

**[01:34:21]** they're retracting the paper but it was

**[01:34:22]** a paper that renewed interest or R

**[01:34:25]** renewed um you know the the funding

**[01:34:28]** pipeline for this this this drug Target

**[01:34:33]** um the amalo hypothesis of Alzheimer's

**[01:34:35]** disease where you know they in 2006 a

**[01:34:39]** researcher at the University of

**[01:34:40]** Minnesota basically what he did was he

**[01:34:43]** identified he claimed to have identified

**[01:34:45]** this subtype of amalo that was

**[01:34:47]** responsible for the cognitive decline

**[01:34:49]** which was a a big sort of the missing

**[01:34:51]** link essentially connecting

**[01:34:54]** um this really druggable Target right

**[01:34:56]** the amalo beta plaque that accumulates

**[01:34:58]** in the brains of people with Alzheimer's

**[01:34:59]** disease and drug research he claimed to

**[01:35:02]** have found it in this 2006 paper you

**[01:35:04]** know which had subsequently been

**[01:35:06]** referenced thousands of times in the

**[01:35:08]** medical literature you know continue to

**[01:35:10]** you know F this like glut of of of of

**[01:35:14]** research money you know going down this

**[01:35:16]** amalo hypothesis pipeline for

**[01:35:18]** Alzheimer's drug research which was

**[01:35:20]** completely fraudulent that paper is now

**[01:35:22]** finally being retracted God but that's

**[01:35:24]** it's just like that's the situation you

**[01:35:27]** know um and

**[01:35:30]** so it was you know incredibly

**[01:35:32]** disheartening I tried to I did get my

**[01:35:35]** mom on an exercise um regimen which I

**[01:35:37]** thought was helpful at the very least in

**[01:35:40]** terms of lifting her spirits but I think

**[01:35:42]** probably played a role in slowing the

**[01:35:44]** progression of the the disease somewhat

**[01:35:47]** um with parkinsonian with a Parkinson's

**[01:35:50]** condition you know exercise is partic

**[01:35:52]** it's important for everybody essentially

**[01:35:53]** it's important for people with

**[01:35:54]** Alzheimer's disease mild cognitive

**[01:35:56]** impairment any form of dementia really

**[01:35:57]** but with Parkinson's disease there seems

**[01:35:59]** to be really good data there um but

**[01:36:02]** ultimately nothing nothing really helped

**[01:36:04]** you know and uh and so it was really sad

**[01:36:07]** and then Labor Day of 2018 my mom was

**[01:36:10]** actually diagnosed with pancreatic

**[01:36:12]** cancer and passed away three month three

**[01:36:13]** months later so this is where I

**[01:36:18]** think what part of What Separates Me

**[01:36:20]** from I think other people in the space

**[01:36:22]** is that you know the degree of sickness

**[01:36:25]** that I've seen

**[01:36:27]** firsthand

**[01:36:29]** profound and it you know it occurred to

**[01:36:32]** the person who meant the most to me of

**[01:36:34]** anybody in the world and I saw up close

**[01:36:38]** and personal the dir of treatment

**[01:36:40]** options you know the the diagnose and

**[01:36:42]** adios of it all and I was very

**[01:36:45]** privileged in the sense that I grew up

**[01:36:46]** in New York City I got to go to the

**[01:36:48]** cathedrals to Western medicine the

**[01:36:51]** Cleveland Clinic John's Hopkins in

**[01:36:52]** Baltimore yeah NYU colia I mean i' I've

**[01:36:55]** been to I've been to them all with my

**[01:36:57]** mom and it became so important once I

**[01:37:00]** learned that these conditions take

**[01:37:01]** decades to foment yeah it became so

**[01:37:04]** important to me the most important thing

**[01:37:05]** in my life to evangelize you know this

**[01:37:09]** science because I think it's so so what

**[01:37:11]** should people do to learn what you know

**[01:37:13]** and what they should do relatively

**[01:37:16]** rapidly well your books yeah I think

**[01:37:19]** which which is there one in particular

**[01:37:21]** genius Foods is a nutritional care

**[01:37:23]** manual to the brain it's an encyclopedia

**[01:37:25]** of you know and there's and it was WR it

**[01:37:27]** came out six years ago there's not much

**[01:37:30]** that I would change in the book maybe a

**[01:37:31]** few tweaks here and there but in general

**[01:37:33]** the science has really stood the test of

**[01:37:35]** time okay um which was my intent in

**[01:37:37]** writing the book and um and so yeah it

**[01:37:40]** really is everything that that a person

**[01:37:41]** needs to know but okay from a high level

**[01:37:44]** little empty boxes my documentary this

**[01:37:45]** is the first documentary ever to talk to

**[01:37:48]** tackle dementia through the lens of

**[01:37:50]** prevention and so anybody who's ever

**[01:37:52]** experienced dementia going to find

**[01:37:54]** incredible solace in the film and seeing

**[01:37:55]** what it was at my family and where can

**[01:37:57]** they get access to little empty boxes so

**[01:37:59]** it's available for pre-order now at

**[01:38:01]** little empb boxes.com okay little empb

**[01:38:04]** boxes.com do you want to just run over

**[01:38:06]** the the the description of the film for

**[01:38:08]** us yeah and tell us what of course how

**[01:38:11]** you made it why well we know why but

**[01:38:13]** what's what's the film about and what

**[01:38:14]** will it offer people so this is

**[01:38:19]** the okay here's Kathy L hi good morning

**[01:38:23]** morning everybody I just clipped some

**[01:38:26]** coupons that I'm going to never use I'm

**[01:38:28]** going to kiss my son Max right now who's

**[01:38:30]** holding the

**[01:38:32]** camera how's

**[01:38:34]** Mom it's like her brain has low

**[01:38:40]** R do you remember what the date is

**[01:38:45]** today um well how about the

**[01:38:50]** MU no

**[01:38:53]** we know that Alzheimer's disease starts

**[01:38:55]** in the brain at least 20 to 30 years

**[01:38:57]** before the first symptom of memory

**[01:38:59]** loss the million-dollar question

**[01:39:01]** actually probably the trillion dollar

**[01:39:02]** question is why do people get

**[01:39:05]** Alzheimer's disease the rates of

**[01:39:07]** Alzheimer's have skyrocketed what did we

**[01:39:10]** change the federal government in 1980

**[01:39:13]** starts its guidelines you take away

**[01:39:16]** butter meat Dairy eggs cheese all those

**[01:39:18]** things you ate what what do you eat on

**[01:39:20]** your plate what's left the brain only

**[01:39:23]** takes Tak as much sugar as it needs the

**[01:39:26]** overall problem is inflammation

**[01:39:28]** inflammation Burns what happens in

**[01:39:30]** Alzheimer is you have low inflammation

**[01:39:33]** but but chronic low inflammation this is

**[01:39:35]** the aisle of food likee products diet

**[01:39:40]** stress sleep toxins all these things

**[01:39:43]** have a huge impact the question is how

**[01:39:46]** far gone are you before it's

**[01:39:49]** irreversible I hope I'm a good mother

**[01:39:51]** you're an okay mother

**[01:39:54]** I need to go back and and be closer with

**[01:39:56]** my mom I don't want really to take so

**[01:39:59]** many

**[01:40:00]** X-rays and we out of

**[01:40:03]** here the best way to explain the

**[01:40:06]** unexplicable is to compare the human

**[01:40:08]** genome as a piano with 23,000 notes you

**[01:40:12]** need to struck 300 of the 23,000 notes

**[01:40:15]** to play the song Alzheimer it's not

**[01:40:18]** destiny that you develop

**[01:40:22]** this this diseases like

**[01:40:24]** Alzheimer's start long before the

**[01:40:27]** symptoms are seen question is what are

**[01:40:30]** you going to do about it you've done all

**[01:40:33]** the

**[01:40:34]** tests but it's not enough you've got to

**[01:40:37]** be there to help me my said you still

**[01:40:39]** got it you still got it you you still

**[01:40:44]** do they are in the park for the first

**[01:40:47]** time so now it's really up to us so

**[01:40:50]** we'll do our best

**[01:40:52]** [Music]

**[01:41:03]** so this is the this project is the first

**[01:41:05]** thing that I ever did in this space and

**[01:41:08]** this is before I had the knowledge that

**[01:41:09]** led to subsequently my books my podcast

**[01:41:12]** I have a podcast called the Genius life

**[01:41:16]** um the documentary is a time capsule of

**[01:41:19]** me just being a terrified

**[01:41:22]** son doing whatever it is humanly

**[01:41:26]** possible in the realm of diet lifestyle

**[01:41:29]** going you know initiating this

**[01:41:32]** investigation that ultimately would

**[01:41:33]** become my life's work but to try to help

**[01:41:35]** my mom and it's an incredible I think

**[01:41:39]** you know human interest story it's

**[01:41:41]** something that I think anybody you know

**[01:41:42]** who's ever had a sick loved one you know

**[01:41:45]** will relate to um and it's mostly a peak

**[01:41:49]** a very intimate Peak into what it's like

**[01:41:51]** to not just have dementia but to be a

**[01:41:55]** caregiver um and it also with very broad

**[01:41:59]** Strokes paints what a road map towards

**[01:42:03]** prevention might look like I see I see

**[01:42:05]** so it's not a it doesn't provide easy

**[01:42:08]** answers a one- siiz fits-all solution

**[01:42:11]** it's not one of these diet documentaries

**[01:42:12]** that's like promoting an agenda it's

**[01:42:14]** just like let's get back to reason and

**[01:42:17]** common sense when it comes to diet and

**[01:42:20]** undo a lot of these mistruths that we've

**[01:42:21]** been force-fed no pun intended you know

**[01:42:24]** over the past few decades that has

**[01:42:26]** really in many ways affected us all you

**[01:42:28]** know it's affected us all I mean it's in

**[01:42:31]** oh definitely here's another Pun It's in

**[01:42:33]** God only knows how it's affected us

**[01:42:35]** because we don't know how erratic a

**[01:42:38]** population that's radically unhealthy

**[01:42:39]** will become yeah right and we may well

**[01:42:43]** find out yeah and we're all getting

**[01:42:45]** older I mean the oldest Millennial now

**[01:42:46]** is in their 40s right so this is a this

**[01:42:49]** is now is the time and so it's a film

**[01:42:52]** that

**[01:42:53]** I think

**[01:42:55]** really I think reveals what is I think

**[01:42:58]** the most important question of our time

**[01:43:00]** and um and yeah I think it's the most

**[01:43:03]** important project I've ever done all

**[01:43:04]** right and when and and it's available

**[01:43:06]** for pre-order when does it launch June

**[01:43:09]** 27th June 27th well good luck with that

**[01:43:12]** thank you so much yes yes thank you very

**[01:43:15]** much for talking to me today you're the

**[01:43:16]** man yeah much appreciated much

**[01:43:18]** appreciated and so the genius

**[01:43:21]** Trilogy podcast is genius life and the

**[01:43:24]** new documentary is little empty boxes

**[01:43:26]** that'll be out closer the third week of

**[01:43:28]** June yep June yeah well good luck with

**[01:43:30]** that seriously and for everybody

**[01:43:32]** watching and listening we'll uh continue

**[01:43:34]** this discussion on The Daily wire side

**[01:43:37]** of the platform of the podcast and uh

**[01:43:41]** well I'm going to talk to Max a bit more

**[01:43:43]** about the development of his interest

**[01:43:45]** over

**[01:43:46]** time I think that's what we'll focus on

**[01:43:49]** and uh so if you're in CL

**[01:43:53]** join us there thank you very much for

**[01:43:55]** your time and attention thank you to the

**[01:43:56]** film crew here in Washington DC that's

**[01:43:58]** where we are we are today um on the

**[01:44:01]** stage at the Museum of the Bible as it

**[01:44:03]** turns out which is a very cool Museum um

**[01:44:07]** a testament to the book that spread

**[01:44:09]** literacy around the world right and that

**[01:44:12]** was really the prototype for books as

**[01:44:14]** such so if you're in DC give the Museum

**[01:44:17]** of the Bible uh visit it's it's well

**[01:44:20]** worth the time it's a beautiful building

**[01:44:22]** as well award winning building

**[01:44:23]** beautifully designed so and Max thanks

**[01:44:26]** again for coming today and for coming

**[01:44:28]** here in person that's much appreciated

**[01:44:30]** and to all of you watching and listening

**[01:44:32]** thank you very much for your time and

**[01:44:34]** attention

**[01:44:36]** [Music]

# Full Text (without timestamps)

and with Alzheimer's Disease by the time you know a person is diagnosed your brain's ability to derive energy to create energy from glucose which is its primary fuel substrate is diminished by about 50% any power outage in that organ is going to lead to failure [Music] hello everybody today I'm talking with Max luga who flew in from LA to Washington DC to have this conversation with me he's a journalist who's become quite a well-known scientific researcher and popularizer but also a creative investigator in his own right he wrote a Trilogy of books The Genius Trilogy one on Foods one on life and one a recipe book on the kitchen and is also the producer of a documentary that'll be released at the end of June 2024 called little empty boxes all of that was motivated by his mother's experience with a form of dementia known as um that involves the degeneration of these neurological tissues known as Louis bodies uh it's not Alzheimer's or frontal temporal dementia it's another form of dementia and he was very shocked by his mother's illness which she developed when she was in her late 50s and also by the dir of effective treatment that was available to her and ended up obsessively concentrating on Research into the dementias in general concluding as have many people in the last decade that the dementia spectrum of illnesses and that includes Parkinson's by the way might well be preventable with interven ions that are early enough in life and that many of those interventions might be dietary in nature and we discuss why that is and talk about the carnivore diet as well as a potential uh diagnostic investigative tool for the analysis of complex disease in general and well I suppose in some ways celebrate the possibility that dietary modulation might prove to be the treatment of choice on the prevention side for these terrible degenerative neurological diseases so join us for that so I'm interested in diet I suppose despite myself I would say because it's not my natural domain of interest um I'm more interested in psychological matters let's say than physical or physiological matters I know they overlap but my attention doesn't naturally gravitate that way but I have definitely learned that many of the things that I would have been tempted to assume were psychological aren't I mean I've known for a long time for example that endogenous depression the schizophrenic disorders and manic depression I never thought of those as psychological disorders I thought no those people are sick we just don't know what's wrong with them so I spoke with Chris Palmer in some detail on my podcast and I just met him again in Boston he's got a couple of research projects finishing up he's got 15 on the goal looking at treatment of those disorders with diet and the first three have been spectacularly successful so diet right so let's start with your Genius work and and line for people what you're what those are and what you're doing um with them and why let's start with that sure so I've written a uh a Trilogy of books The Genius Trilogy as it were and um my first book was called genius foods and it came out in 2018 and it's a Tome to uh and an homage really to the science of both dementia prevention as well as the burgeoning field that's being referred to as nutritional Psychiatry so how right diet plays a role in you know mediating mental health um in so far as it does play a role there's this this really you know exciting area of research looking at how our diets are you know are able to influence our moods which I think is incredibly exciting um I followed that up with a book called the Genius life which was a more was a more lifestyle Centric guide um and then my third book came out in 2020 I'm sorry 2022 and it was a cookbook kind of bringing everything together but um my work really I would say primarily explores the intersection between diet and lifestyle and brain health and the reason why I wrote these books um is because I was personally affected by uh Dementia by a form of dementia called Louis body dementia which prior to even receiving that diagnosis um in my family it's a condition that my mom suffered from um I became obsessed with trying to understand all that I could how old was she when that happened she was 58 years old right when she first started to show these amorphous symptoms that what did what symptoms did she show so she had um symptoms that both uh occurred concurrently um some of them were movement related so rigidity balance issues stiffness I guess rigidity and stiffness are similar um but uh yeah yeah a real lack of coordination um you know reduced swinging in the arms you know I'm not a medical doctor so I didn't have any framework with which to understand what I was seeing my mom exhibit I thought you know movement symptoms that's a musculoskeletal condition right has to be um but then in tandem with those symptoms she also displayed Stark cognitive dysfunction and um it's not necessarily that she you know started to forget simple things like you know who she was who who her who her family members were but it seemed as though her I've likened it to when you have too many tabs open in your browser window it's just like the frame rate starts to stutter and that's sort of what I what I saw in my mom who was very much still in the prime of her life had all the pigment in her hair you know raised three boys ran a business and I had been a journalist prior to that I had been a generalist journalist um since College since graduating college I uh worked for a I had worked for a TV network that was co-founded by Al Gore um it wasn't a political Network and uh I certainly you know was never really that into politics um but I was uh sort of like this young kid who was given the Reigns of this TV network that reached 100 million homes in the US and so when my mom became sick I how old were you when she BEC when she was diagnosed she was uh I was in my late 20s okay yeah um and I had just come off of that position and I was in between jobs and um more so than than being a journalist at the time I was just a scared son you know I was a scared son seeing you know these awful symptoms these mysterious there's not much worse than a degenerative neurological disease yeah they're brutal those things they take you apart like Adam by Adam exactly and and I had there was no precedent in my family so I you know as soon as that that the immediate trauma of of realizing that my mom had something serious going on with her brain health MH it was a it was the most profound call to action that I've ever felt in my entire life to do what I could to understand to the best of my ability why this would have happened to a woman at the age at which it did why were you so compelled to do you think why were you so compelled to transfigure your life to come to the service of your mom love I mean you know my mom was the most important person in my life and I'm the first born in an incredibly small family um and uh I've always had an incredibly close relationship with my mother and um right so this wasn't okay it wasn't okay whenever I had so much as a cough growing up I mean moments later I found myself in the pediatrician's office and when my mom became sick you know the those around her were not all that set up to really understand what was going on I mean we're not you know we as a society today we Outsource so many different forms of literacy right we Outsource culinary literacy to GrubHub to our apps you know we Outsource financial literacy to our financial handlers um health literacy is like it's a huge you know area it's a it's a huge unknown like we all collectively have you know these really scary knowledge gaps which only become apparent to you when you know you're then you just get more scared because you start to understand how big the knowledge gaps are I've never recovered from finding out that the food pyramid was a scam yeah that's just that was just the degree to which that's a scam is I don't know is there a worse medical crime in history than that no I mean telling Americans to load up on 7 to 11 servings of grains every single day yeah yeah and to to find out that that was a market Ploy by the Department of Agriculture and that they went against the advice even of their own Consultants warn them that they would produce an epidemic of obesity and diabetes which is well and not to to say nothing of depression and dementia which is exactly what we have now exactly it's like I don't know what what you even do when you find out that that's true yeah and the and the unwarranted demonization of natural fat containing foods nutrient-dense foods like animal Source foods which continue to be demonized even by the American diabetic assoc is it Association Society I don't remember still pushing thetion that you know diabetics can eat carbohydrates like actually I don't think so I don't think that's a very good idea since they're converted to sugar for example and then they're essentially glucose intolerant right like it's a it's it's Madness and um and you know with that with that demonization of these like natural Whole Foods I mean we live in a time where 60% of the calories that your average American consumes comes from what are called Ultra processed foods so the an the center of the supermarket exactly antithesis to Whole Foods right so the idea that we're still demonizing Whole Foods to me is insane yeah yeah and causes Insanity too so it's not just insane it's a cause of insanity yeah yeah I mean that is not what do you think of RFK just out of curiosity because there I'm sorry that's a nonsecular in a sense but not exactly like I've never seen another politician make an issue of Health yeah right of of General Health at the level that we're discussing it viously covid became an issue and public health is an issue but Kennedy is the only candidate I've ever seen who's calling out the reprehensible mostly corporate actors who are poisoning well everyone fundamentally yeah and yeah I think he's an incredibly important voice in that regard and I hope that no matter what happens um in November I hope that he finds a way to continue his advocacy I mean I'm I'm uh obviously you know completely aligned with you know with the notion that we we do need to begin start doing things differently well what's the Obesity what what's the percentage of Americans now who are obese by 2030 1 and two and this is not just overweight this is like Frank obesity right right right and so the morbidly obese will be one in five yeah yeah unbelievable it's it's unbelievable and obesity is a risk factor for everything pretty much everything yeah MH yeah and and the Cure isn't fat positivity no no definitely not no I mean you can be more or less healthy at a at any given size but it's less healthy to be obese than it is to be normal weight you know I can understand the fat positive people in one way you know I would say before I learned what I did learn about diet I was I was never particularly judgmental about people who are obese you know I did I suppose to some degree accept the idea that fewer calories a little more exercise you lose weight and perhaps that would I say that some more willpower would be of use I don't know if I ever really believed that because I dealt with people who had all sorts of different problems and reducing it to something like inadequate willpower yeah you got to be very careful about doing such things but now when I see obese people I think it's really too bad that you're ill yeah y it is a disease and it's a it's a there I I feel a strong sense of empathy for them because you know them they're being gaslit essentially that's for sure because what you hear over and over again is this idea that all foods fit there are no such thing as good foods or bad foods and that might be true at a population Health level you know I mean like and and there's no single food that's going to cause obesity in an individual right it's a it's a it's a dietary pattern of the over you know you typically involving the over consumption of these Ultra processed foods well you're you're more likely to overc consume the foods that are what would you say pathologically delicious yeah right be made pathologically delicious the high sugar foods in particular it's very difficult to resist them and no wonder yeah there was a a seminal NIH funded study led by Kevin Hall who's a highly regarded obesity researcher who found that you know when you give people an Ultra cess diet to consume and you tell them to eat two Sati it's called ad lium feed in the literature they end up consuming a calorie surplus of 500 additional calories so you do that every single day for a week that's a pound of fat gain every single week right right and conversely when they gave them these minimally processed foods they saw them eat to the same degree of satiety fullness yeah but coming in effortlessly at a calorie deficit of about 300 calories so that's that's an 800 calorie S I wonder if that has anything to do with seasonality of grain you know well because I'm curious is our our initial agricultural ancestors especially in colder climates it's like maybe you wanted to pack on an extra 20 PBS before winter hit you know and so maybe that's an evolutionary adaptation to ensure that from September to December let's say that you took full advantage of the Harvest so that if lean times come it makes sense hey because Islanders who've been on Islands for many many generations are much likely much more likely to become overweight on a North American diet and you're much more likely to go through starvation periods on an island as a population and so people who are very what either efficient in their metabolisms or perhaps liable to overeat in times of Plenty would have been people who survived so you know because it's interesting right if there if there's a stable degree to which you'll overeat high calorie foods that indicates that there's like there's a reason for that that's not just random yeah so it's an Adaptive survival mechanism those of us who are the most adapt at putting on and storing fat would make it through the Famine of winter yeah the winter well and you can see why that wouldn't happen in the case of animal products because your cows your Lambs your goats Etc they can survive the winter no problem you don't have a storage problem there yeah and so and and you don't have a seasonality problem so there's no reason to pig out so to speak right okay okay okay so let's go back to your to your mother so one of the a also awful things about neurological diseases is that you're very damaged by the time symptoms show up I've read with Parkinson's for example the relevant neurological tissue is 95% gone by the time any symptoms appear right so that's brutal yeah so with Parkinson's disease about half by the time you are diagnosed with the condition about half of the the dopaminergic neurons in the substantia are already already dead and those are the neurons that produce dopamine that that control movement and the like um and this is a this is a condition like many other chronic non-communicable conditions today they don't begin overnight they begin they you know simmer they're simmering over a span of decades prior to the onset of symptoms well you can predict probability of developing dementia with verbal fluency measures taken in people's 20s right right there's long-term study of nuns they had fluency measures taken when they were very young and so that's an early indicator of we don't know exactly what is it is it that the dementia process is already occurring that young or is that an indication that the neurological substrate is less robust it's not obvious well so yeah in inflammation certainly plays a role in reducing cognitive function being overweight when people typically lose weight um they see an improvement in their in their cognitive function yeah well you know the best I looked for a long time into the literature pertaining to maintenance of cognitive function across time because there's a linear decrease in your fluid intelligence so that's G essentially the central measure of cognitive ability it starts to decline in your early 20s it's pretty linear and so that's you know that's a drag and then you might say well what can you do to Forstall that and there are many companies none of which seem to exist anymore on the internet that were claiming that you know daily cognitive exercises could increase your IQ or forall cognitive degeneration but the literature always indicated that uh your best bet in that regard was both aerobic and non- aobc exercise because the brain is such a rapacious metabolic it has such rapacious metabolic demand if you're physiologically compromised then your brain's going to suffer first so the best so funny he the best thing for your brain is to be a gym jock so that's really hilarious in a terrible way the less your business spends on operations on multiple systems and on delivering your product or service the more money you keep but with higher expenses on materials employees distribution and borrowing everything costs more to reduce costs and headaches smart businesses are graduating to netsuite by Oracle netsuite is the number one Cloud Financial system bringing accounting financi Cal management inventory and HR into one platform and one source of Truth with netw Suite you can reduce it costs cut the cost of maintaining multiple systems and improve efficiency by bringing all your major business processes into one platform and slashing manual tasks and errors over 37,000 companies have already made the move why haven't you by popular demand netsuite has extended its one-of-a-kind flexible financing program for a few more weeks head to netsuite.com JB P that's nets.com jbp nets.com jbp okay so you saw this terrible illness take hold of your mother and that motivated you motivated you to what well I'd always been interested in Fitness and Nutrition um privately and in fact when I started college my intent was to go into medicine which I ended up pivoting away from when I realized that you know I really was a competent Storyteller and creative um person and uh and I ended up switching to a double major in film and psychology in college which uh you know in on the one hand kept one foot in the world of science you know as a as an undergraduate um but then also I I really kind of fell in love with documentary filmm the idea of being able to tell important stories um and that was really my passion and that's what led to to this role getting to produce content for this TV network backed by Al Gore so this is what what this is what led ultimately to my foray into the world of smart entertainment so essentially creating content telling stories investigating you know ideas that um I felt were under discust and uh and when my mom became sick you know I had this passion this lifelong passion for nutrition for health I knew where to find quality primary literature peer-reviewed research how do you know that well in part due to my um my passion for it you know so i' I'd been familiar with PubMed um and you know and all those sources uh and then as an investigator you know as a journalist you're I mean the the term journalism today you know it's taken on a bit of a different meaning but um you're of course not trained as rigorously as a PhD but you are trained to you know like identify sources that are credible um and be able to parse them from sources that are less so you're trained to ask questions to Dawn a skeptic's hat yeah and those are the skills that I had when my mom became sick and I'm not saying that you know diving into the medical literature as it pertains to dementia prevention this burgeoning field of research was easy for me at first it's not easy for anyone it's not easy for anybody and also most Physicians never do it like the public has an idea that there's not a lot of distinction between a physician and a scientist or they believe that Physicians are scientists and most Physicians believe that but they're not correct and most Physicians aren't trained to read research or assess it critically and certainly not to participate in this generation and so well the reason I'm bringing that up is because there's no reason to assume that if you're a journalist and you have the cognitive ability and persistence to plow through the literature that you couldn't learn how to assess it you can it's hard because the scientific presuppose a pretty high level of pre-existing knowledge and so often if you dive into a new field you have to go back down into the simpler sources to just understand even the Lexicon but it's not like it's impossible yeah but I that's something that I actually quite enjoy you know I would I would read papers and I would read the you know I started just reading the introductions and the discussions and the conclusions and I would cross reference and I would you know if there was something that I didn't understand this is prior to AI I would just cross reference it in the hopes that some other scientist who is maybe more verbally fluent would have described the thing that I was interested in in learning more about in a different way that would lead to it clicking in my brain that aesthetic aha you know but um but yeah so that was just like a Relentless Um passion that had become an OB Obsession because it was I was seeing the consequences of how much time do you think at that time when it was a Relentless Obsession how much time do you think you were spending every every day doing that research every waking moment and I was for how long for how many like months or um it was probably a span of I mean it was a span of about six years prior to even you know the the the potent the the the idea of of you know having a book like being able to write a book was even like so that's about the equivalent of an extremely rigorous Master's and PhD program six years well that's about the same I would say for people who really hit it hard it's 6 years of obsessive work now it's do you have any idea how many papers you read thousands thousands yeah yeah um and I also I you know at the time I had become friendly with somebody who gave me their academic credentials to log in through their University librar so I can download papers for free yeah something that should be available to everyone since the taxpayer funds the bloody research yeah and um but then also along the along somewhere early on in my journey I realized that I had an aptitude for what I was doing and for you know my ability to not just digest and synthesize into a cohesive narrative what it was that I was reading but that I was able to communicate in a way that you know I started to Garner the respect of the physicians in the doctor's offices that I would attend to with my mother and ultimately I became fairly close um friends and collaborators with researchers in the field so at a certain point this was when what years was this around 2011 okay um I I started attending scientific conferences and um I started sharing what it was that I was learning and yeah it was just a it was a you know it was a journey that was arduous at first but I just I I I kept reading and reading and synthesizing and reaching out to people how did you support yourself while you were doing this it was very hard I mean I wasn't making any money I I actually because of what my what it was that my mom was going through I was living in La at the time I ended up basically um sacrificing my La life and moving back to New York to to be closer to my mom to tend to her and to you know in in essence become a caregiver of sorts not the primary caregiver but to help out with her and um and this is what I was going to say so I also at a certain point realized that I had something that very few people civilians very few civilians have and that is Media credentials and so really early on I realized that I could exploit my media credentials I wasn't famous but I had been on TV I was verified on Twitter and I started reaching out to researchers and scientists whose work I had been reading to ask questions and to essentially get in the room with them so to speak to be able to you know if there were any Ling lingering questions or I needed you know something clarified or what have you and I ended up forging relationships with these researchers because they saw the passion that I had for understanding this topic the relative dir of awareness that there was around you know dementia as a potentially preventable condition and um and yeah that was a journey that began at this point over 10 years ago but um but yeah it's been incredibly fruitful in the sense that not only have I been able to write these three books but I actually got to collaborate with one of my mentors in science Richard Isaacson who's a you know he's been he's a neurologist at Wild Cornell New York Presbyterian who from day one has been you know really pushing this idea of his name Richard Isaacson Richard would he be a good guest oh he's he's phenomenal yeah he's um he's a neurologist he's a neurologist who essentially helped to create the field that is now referred to as dementia prevention back when nobody was talking about back back before the the notion of being able to prevent this condition was even thought of as a possibility um it was something that he was uh really advocating for um and and studying and and you know and and raising funding for these clinical trials that he himself had run and so I got to collaborate on a paper with him um oh yeah that's a good deal yeah published by Springer in 2019 it was a um a chapter in a textbook on the basically a an overview review um looking at the the clinical practice of dementia prevention and making that accessible to other clinicians because as you referenced you know most Physicians are in fact technicians you know and many but not all Physicians are essentially have become paper pushers for the pharmac phal well they're well and you can understand that in some sense I mean before the pharmaceutical companies were utterly corrupt they did serve an educational function for General Practitioners let's say who were overwhelmed by their practice and who didn't have the time to keep up on the relevant literature on each disease and that's not surprising because that's really hard but it does mean they can be captured and that certainly happened I mean I worked with pharmacists for quite a long time in the I say 200000 to 2010 something like that watching how they were marginalized but also with Physicians watching how the pharmaceutical companies educated and then captured them and that's not well it's not a particularly pretty site although I do understand how it happened and I can also understand the pharmaceutical company's economic motives it's not inexpensive to produce new drugs it's also very difficult and they do have to be marketed so um that's all very complicated all right so you wrote this chapter that's a that's a hell of an accomplishment for someone who's not a formal scientist and so why don't you let we'll go back to the genius Trilogy I think in a moment or two but I would like to hear now that we're into this a little bit more about what you learned about Theology of Dementia in general and and about its prevention because that's going to be both of those are going to be news to virtually everybody who's watching and listening so well um depending on where you look the estimates are that at least 40% of dementia cases are attributable to what are called modifiable risk factors so you know you have your non-modifiable risk factors which are your age you know age is still the number one risk factor for dementia Unfortunately today gender women are at twice the risk as compared to men um and your genes you can't change your genes although you can change your expression right you kind influence the expression of your genes right but those three things age gender genes you know those are your non-modifiable risk factors but then you have about 12 if not more modifiable risk factors so these are the risk factors that essentially fall under your control you have a degree of agency and that is I think what is so exciting and empowering um and so just to you know discuss a few of them and happy to double click on any that you find compelling most compelling you know obesity for example that's one of them we know that we have agency when it comes to whether or not we are obese right there's a lot at least it's potentially controllable yeah is it okay so is it obesity per se or is it is it do you know if it's directly related to pattern of fat distribution like is visceral fat a worse marker for potential dementia than body mass index do we know yeah well there is an association so so as waste circumference grows there seems to be an inverse relationship between total brain volume so there seems to be an impact of you know perhaps the inflammatory cyto kindes produced by that visceral osity we know that you know fat is an endocrine organ essentially um and that the the atopos that you accumulate around your viscera I mean that seems to be the most pro-inflammatory yeah yeah right okay okay so that is the link it's it's inflammatory cyto kindes with visceral abdominal fat right but also even subcutaneous obesity is associated with impaired insulin signaling right so type 2 diabetes is another modifiable risk factor we know that many people today are struggling from glucose intolerance type 2 diabetes free diabetes Well we should be able to get that up to everyone suffering from it if we keep on the track that we're on yeah I mean I know that this is a horrible fact so the blood sugar curves that are used to diagnose you as diabetic when you're 20 are age adjusted as you age so if you take the typical 60-year-old and use the 20-year-old curves many of the average 60y olds would be diabetic by 20-year- old standards or pre-diabetic which means they're pre-diabetic like there's no reason for those curves to be age adjusted as far as I can tell and so that's a that means that diabetes as a factor among people 60 and older is radically underdiagnosed and if diabetes is a risk factor for uh for dementia which we know because I've heard OB I've heard dementia referred to it's got to be for at least 20 years by people in the know as type 3 diabetes yeah right right yeah actually the neuropathologist who coined that term type 3 diabetes is um she's in my documentary little empty boxes which um I she's not to my knowledge been in any other public facing you know content um but I thought that that was an incredible um way to frame what's her name Suzanne Damon she's a Suz Suzanne Suzanne yeah Suzanne she's deamonte yeah she's a Brown University and and so it's funny that more attention hasn't been paid to her cuz that's a big deal if it's right like it's a big deal big deal yeah so you talked about non-modifiable and modifiable risk factors and we went through obesity and diabetes which are also linked what else what else is modifiable hypertension so so high blood pressure about 50% of adults today have hypertension we're starting to see prehypertension in in adolescence as well oh good um but one of the seminal studies in the field of De dementia prevention is referred to it's known as the Sprint mind trial which found that when people were with hypertension were aggressively treated via pharmacological means for their hypertension they saw a dramatic risk reduction for the development of cognitive cognitive impairment U mild cognitive impairment in fact which is considered like a pre a pro PR Drome of dementia a form of pre-dementia if you will um but we know that you know lifestyle modification dietary exercise for example all are you know as effective as drugs and um when you're when you have hypertension essentially the blood vessels that are supplying blood nutrients oxygen um to the brain are essentially damaged and so yeah hypertension is incredibly damaging to the brain are you tired of feeling sluggish down or just not your best self take control of your health and vitality with balance of nature balance of nature fruit and veggies are a great way to make sure you're getting your essential nutritional ingredients every single day they use an advanced cold vacuum process that encapsulates fruits and vegetables into Whole Food supplements without sacrificing their natural antioxidants the capsules are completely void of additives fillers extracts synthetics pesticides or added sugar the only thing in balance of nature fruit and veggie capsules are well fruits and veggies right now you can order with promo code Jordan to get 35% off your first order plus a free fibrant spice supplement there's never been an easier way to make sure you're getting your daily dose of fruits and vegetables experience balance of nature for yourself today go to balanceof nature.com and use promo code Jordan for 35% off your first order as a preferred customer plus get a free bottle of fiber and spice that's balance ofn nature.com promo code Jordan for 35% off your first preferred order plus a free bottle of fiber and spice you said there were 12 I think we should can we go through all of them we can go through yeah I mean so those are the those are the ones that I think that are Mo that are most relevant to diet but I think it's important at at this you know juncture to state that diet is not the only nutrition is not the only variable here so I'll never know what caused my mom's dementia um unfortunately although it's a it's a you know an investigation that's going to continue on through the rest of my life but you know nutrition is one slice of the pie and so among the the modifiable risk factors you have you know non-nutrition related um risk factors such as exposure to excessive air pollution on a chronic basis which as of the 2020 Lancet Commission on dementia was finally acknowledged as being a risk factor for the for the development of dementia um we've seen studies run in for example uh Mexico City um where they've seen pathological changes that are associated with Alzheimer's disease in the cavers of adolescence and children you know people who have who have died in Mexico City who have been exposed um over the course of their lives to you know excessive levels of air pollution like fine particulate matter pm2.5 for example that they see an undue aggregate of you know amalo beta for example which is the the the protein that forms the plaques that you know is one of the defining infammatory consequence too or does anybody know yes it is yeah there's an inflammatory consequence there's a cardiovascular consequence to being exposed to air pollution um with regard to your cardiovascular system we know that what's good for the heart is good for the brain um and conversely what's bad for the heart is bad for the brain and so air pollution you know plays a major a major role um an area that uh I think is incredibly exciting um also very scary but but ultimately empowering is you know looking at certain environmental pollutants um like certain industrial solvents for example um there's a compound that there's another fantastic neurologist who uh has become a friend and colleague and I think his work is incredibly important his name is Ray dorsy Dr Ray dorsy he's a University of Rochester neurologist who has done a lot of work um exposing the link between exposure to certain chemical solvents that are still in widely being used in the United States like Tri chloroethylene and perchloroethylene and the Ed ology of Parkinson's disease and related conditions like Louis body dementia which is the condition that my mom suffered from um and so we know that you know what we breathe what we eat these are all having an impact on our health but now the evidence is really starting to emerge that you know that the brain is not you know does not sit in this privileged Ivory Tower where it's immune somehow to you know what it is that we're eating and the compounds that we're you know inhaling the brain sits directly downwind of you know a lot of the insults that are being waged by Modern Life modern living you know the the the the trappings of modern society come at a cost and we're starting to see that they now have are likely having an impingement in our Collective brain health so you know one of these compounds TR chloroethylene which I I I just referenced is still being used to spot clean in dry cleaning applications and it's an incredibly volatile compound it readily evaporates it easily you know infiltrates groundwater um and uh obviously occupational exposure to these compounds is really bad um but there have been a a a small handful of epidemiologic studies that show that exposure to to a compound like tce for example is associated with a 500% increased risk of the development of Parkinson's disease M um this is a compound that was used medically up until the 70s it was used with you know to decaffeinate Coffee it was used as a anesthetic for pregnant women um it's still being used as a metal Degreaser and again it's used to spot clean in dry cleaning applications now I'm skeptical of all my suits yeah well you definitely want to not dry clean or at least make sure that the dry cleaner that you're using is a a quote unquote Dre green dry cleaner because you know I think they'll be less likely to be using these kinds of compounds um but it's really scary stuff my mom was somebody who worked in the Garment industry um in New York City and so you know she likely was exposed to these kinds of of compounds on a regular basis um certain herbicides and pesticides we know are you know occupationally linked to these kinds of conditions like Parkinson's disease we breathe them in through our nose right they have they don't undergo the same degree of detoxification as an ingested compound they can very easily bypass the bloodb brain barrier you know they act the old factory bulb actually um a decline in sense of smell is one of the earliest features of a preclinical feature of cognitive decline dementia and even parkinsonism and so you know as far as these conditions are these these compounds are in our environment I think that that's you know on the one hand it's very scary but it's also empowering the more awareness that we can have about reducing our exposure to these compounds I think it's it's crucially important so that's you know that's another of the the modifiable r yeah that's on the toxic exposure side yeah which I think is incredibly important my second book The Genius life was really you know looked at that or you know how much of the how much of a overlap do you think there is between the dietary risk and the toxic exposure risk because obviously well and we'll get into this after we're done this section of the conversation but obviously there's the carbohydrate diabetes obesity link but then there's food talk toxicity link too cuz lots of things that we think are edible would rather not be eaten and they have well I mean I've known for years that the typical plant people are worried about the pesticides that are on plants and fair enough but they're not nearly as worried about the pesticides that are in plants and there are plenty of them because well plants don't like being eaten by bugs and most of them aren't that happy about being eaten by us either and so they have got very potent chemical defenses and they're not trivial and I've wondered because of my experiences with diet I mean I lost a lot of weight because of the diet that I'm on and I kept it off and that's quite the bloody Miracle that's for sure it's really something to like I weigh what I weighed when I was in my 20s you know that's really something when you're 62 it's like what the hell who knew that was possible and I have about the same bodily composition that I did when I was in my 20s and some of that's obviously from not eating carb hydrates but there are other improvements that I've experienced that have made me wonder like I I had sasis it's gone and some of the psoriasis patches had lasted well literally decades and they're gone and I think oh well I was obviously eating something that was causing that is that carbohydrate linked who the hell knows but is it food toxicity linked or or immunologic iCal allergic I don't know well I think that most people and this is where the whole the you know the the debate about the carnivore diet and and all that I think becomes really interesting um you know a robust organism such as yourself should be able to consume some of these plant quote unquote defense compounds and Garner a degree of you know additional strength in so doing right there's this notion of hormesis where you know load doses of a of a certain stressor you know or toxicant if you will might actually cause a a response in the system that actually leads to an upleveling of robustness of vigor of strength pharmacon means something like a little bit of the poison that kills you cures you yeah and so that's where I think if you have a robust for example gut microbiome you know um I think that most people should be able to derive value from these kinds of of of that's that's the theory I mean when you look at the average Health state of the typical person it makes you wonder right and I've wondered how far down the rabbit hole you have to go to get to the bottom given how obese people are and well what I've seen as the consequences of a relatively radical dietary shift so well that's obviously one of the reasons I wanted to talk to you today let's let's turn then we went through quite a few of the modifiable risk factors let's turn from that if that's okay unless there's any others that you'd like to specifically highlight we could turn to that to what you have been what you found in relationship to diet and what you've been recommending so are there other modifiable risk factors that you think are worth concentrating on we went through diet and exposure to pollutants and toxicity any anything else that's directly relevant yeah well there's a a newly identified risk factor and that is hearing loss um and that's you know again newly identified so all the the the verdict the all the research the the research that we need to make know clear recommendations other than if you have hearing loss a hearing aid actually is a potentially you know can be a potential Boon to health oh oh so it's actually the loss of the auditory input yeah and not a correlation between the degeneration of the ear and the degeneration of the brain or both corre no I mean I think in so far as we know that social isolation which is which is another yeah you become more and more isolated you know in your in your own world and I think that that's probably harmful we have a depression sure um sure depression is another one uhhuh and and you know these are these estimates are are typically conservative so I I said at the onset about 40% which was the number that was given you know most recently in this 2020 lanit Commission on on dementia prevention but I think that I think I think it's very likely that um the majority of of cases at least with regard to Alzheimer's disease um and likely also even these parkinsonian conditions which you know it's becoming increasingly clear that there's an environmental toxicant aspect to them I think that the majority um and this is just my opinion based on my you know assessment of the literature are likely preventable we don't have all the data yet um but I think given what we do currently know we don't have to sit idly on our hands you know for example there's a class of drugs that are widely being used today on a frequent basis called um anti-cholinergic drugs and there are too many to list um but certain you know allergy medications sleep aids over-the-counter sleep aids you know have we've seen or associated with a starkly increased chronic use are is associated with a starkly increased risk for the development of dementia which is not something that was considered in this paper um so you know I think I do think that that most cases are potentially preventable and another reason why I believe this to be the case is that Alzheimer's disease is not genetic you know it's we have genetic risk factors the most welldefined mind of which being the apo4 alal which about one in four people carry and depending on whether you carry one or two copies of this snip your risk increases anywhere between two and 14 fold but these are not this is not a deterministic gene so with Alzheimer's disease 23% of cases are you know the early onset variant or familial um which is deterministic but the vast majority early onset so there's a certain uh genetic mutation that in certain lineages will essentially guarantee that a person develops Alzheimer's disease but this is a very rare form of it and it's a completely different monster than late onset sporadic Alzheimer's disease and similarly with Parkinson's disease the heritability of Parkinson's disease is incredibly low 1 to 2% of cases so these are all conditions that are I think mediated in large part by you know your environment you might have a certain genetic you know predisposition but you know for the vast majority of people that develop these conditions it's not due to their genes it's due to the interplay between their genes and the environment in which they live right right so it it's making them more susceptible to environmental assault essentially you can take for example um you know somebody with the apoe4 alil who again in the United States is at seemingly at dramatically increased risk but you might move them to a less industrialized part of the world like iidon Nigeria for example where they've done you know this research or southern Italy and you see that risk all but abolished and so it really is about the the genes and where we've you know where where we've tasked these genes you know the environment that we've tasked these genes with having to contend with right right right okay so let's turn to diet now you have these three books and then I we want to we don't want to forget your film either yeah yeah so these three books in The Genius Trilogy Foods life and kitchen let's go if if you think that's reasonable let's go through them one by one Foods life and kitchen so Foods so what were you outlining in that book yeah so you know I think my Approach has never been to demonize Foods certainly not Whole Foods um but with genius Foods I you should tell people what a whole food is just so they know yeah so Whole Foods don't have extensive ingredients lists they are the ingredients so these are the foods that you tend to find around the perimeter of the supermarket right as you alluded to it's the of the stay away from the in the supermarket yeah I mean you could dip in you know now and then to pick up some nice extra virgin olive oil which has a ton of evidence you know in terms of its um you know it's brain health benefits it's you know we now have meta analyses that that show that extra virgin olive oil actually has a profoundly anti-inflammatory effect and it has some it it actually shares some of these mechanisms with ibuprofen which is a non-steroidal anti-inflammatory drug but chronic use of that drug coincides with heightened risk for cardiovascular events for example but extra virgin olive oil is essentially you know as an anti-inflammatory as a low dose of of that drug but without any of the negative side effects only good okay so you could go to the aisles in the supermarket for extra virgin olive oil but that's vinegar spices spices are actually few people realize this but spices aside from being a you know no to low cal way of jazzing up your food um are actually some of the most concentrated sources of some of these hormetic compounds you know polyphenols and the like which we believe play a role in in health in in um you know in supporting a healthy gut microbiome and the like but yeah generally you want to focus your shopping around the perimeter of the supermarket and so I'm a huge advocate of the consumption of whole animal Source foods and whole plants which is a very controversial statement to say today I don't know why but um but I'm you think it's controversial well because we've got billions of dollars of you know right so it's not controversial it's just a anti-propaganda exactly right with with the advertisements being a form of propaganda yes although they're the capitalist version of propaganda yeah I mean 73% of the items in your average Supermarket are ultr processed so and so what's the difference between processed and ultr processed it's a fantastic important question so processing is a Continuum you take an apple you slice that Apple you're processing it to some degree you know you blend that those apple slices in a smoothie you're processing it even further right the ultra processing the the the whole idea of an ultr processed food that was actually something the term was was first devised with this nutrient profiling system in Latin America called Nova and an ultr processed food is essentially a food that you couldn't possibly make in your own kitchen if you tried so these are cool whip yeah these are food like products food like products that's right that's a good one that involves they're sort of like food except they're not edible exactly yeah I mean I think like we've gotten to this place in society where we've ceased to been able seemingly ceased to be able to put empirical definitions around anything yeah yeah right yeah that's what happens when you live in the Tower of Babel really words lose their meaning and everyone speaks a different language it's incredibly anti-human right that's for sure and so you okay so Ultra process oh you okay so you couldn't make that in your own kitchen that's a good rule of thumb so if you couldn't make it in your own kitchen then perhaps beware of it or be wary of it right if it comes in a box or a bag and it has you know a shelf life that is years you know away um if it doesn't expire so nothing will eat it except you then maybe don't eat it precisely yeah okay yeah and you know I think like a little bit here and there like I like to be a pragmatist and you know I um I've had the incredible privilege of getting to go on major national media where I get to reach people that still do today live in food deserts you know and so I yeah I try to temper my message with uh empathy for you know what some people today still in this country have to go through when it comes to finding and accessing and being able to afford even fresh whole food right right starting a business can be tough but thanks to Shopify running your online storefront is easier than ever Shopify is the global Commerce platform that helps you sell at every stage of your business from the launch your online shop stage all the way to the did we just hit a million orders stage Shopify is there to help you grow our marketing team uses Shopify every day to sell our merchandise and we love how easy it is to add more items ship products and track conversions Shopify helps you turn browsers into buyers with the internet's best converting checkout up to 36% better compared to other leading e-commerce platforms no matter how big you want to grow Shopify gives you everything you need to take control and take your business to the next level sign up for a $1 per month trial period at shopify.com sjbp go to shopify.com jbp now to grow your business no matter what stage you're in that's shopify.com jbp two things tell people what a food desert is so everybody knows and second do you actually think it's possible to just eat a little bit of ultra processed foods because I'm very curious about that it isn't obvious to me that like my experience with that has been that it's easy to eat none rather than some because the problem with some is that well how about some more yeah right and that's really a vicious conundrum when it comes to high fat high sugar foods yeah because they're they're hyper delicious well this is yeah this is where I think the education around the you know this topic is crucially important because people are usually not armed with the with the knowledge that these foods have a profound impact on your behavior so it's it's it's seldom informed consent today right because we're told that all foods fit food is food there are no such thing as good or bad foods yeah all calories are equivalent yeah and so people think that it's a moral failure when they go to the freezer they take out the pint of ice cream intending only on having a spoonful and before they know it they're looking at the B the bottom of the pine yeah it's not due to moral failure that's what you're programmed to do and in fact that's what food scientists are paid lot and lots of money to make sure you do to make sure that you do yeah um now is it possible if you're able to you know understand the impact that these foods have on your behavior and cultivate a you know quote unquote healthy relationship with them yeah I think it's possible but it's just very difficult you know well our our rule in dietary modification has always been don't have it in the house yeah right cuz you'll eat it it's especially if you're hungry precisely it's like that '90s horror movie the G I don't know if you if you're familiar or you saw that movie but it's like once you open up those floodgates it becomes really difficult if not impossible to pump the brakes so with regards to not being able to pump the brakes let's say do you know if let's let's take sugar as an example one of the things I've been curious about because I know that microorganisms they're very sneaky little things and they can affect complex organisms in ways that are in some ways horrifying and unimaginable and so I wonder do you know if there's any evidence that a sugar centered gut biome contains microorganisms that produce sugar craving well I don't know of any hard evidence but I would say that it's un it's it's likely I mean we know that we know that the you know the anic nervous system the gut communicates with the brain yeah well also those organisms would have a distinct Advantage if they could make their host crave what they need to survive then they're going to live and there's lots of evidence that such things are possible in the natural world not only possible but actually quite likely so yeah and also your body gets used to what it is that you feed it regularly and it starts to Crave the things that you feed it regularly you know yeah sure you're your appetite well look you can see that with foods like olives and coffee and alcohol I suppose even no child likes their first Olive right you have to cultivate The Taste and it's partly because so the taste and reward systems are quite interesting in their relationship because each the satiety system and the reward system are separate from The Taste systems which you can tell because you can eat something to satiety and it still tastes the same but you don't want it anymore now you could imagine a system where the more ice cream you eat the less you can taste it until you can't taste it at all so you quit but that's not how it's set up and the satiety and reward systems are somewhat separate for each taste category so when people say well I still have room for dessert what they mean is well I've satiated the like Umami system for protein but not the system for carbohydrates or sugar and then that system is also modifiable by learning so that you can learn it's weird because when you learn to appreciate olives bitter Foods really fall into this category because they're very difficult to like on first exposure CU we don't like bitter things but once you learn to like them you really like them and so that shows you that that's a tesate to that modifiability of well the taste and the satiety system by experience and so of course your your body's going to adapt to what you eat because well for obvious it's obvious it's obvious why that would be the case so yeah and I think that there's like a degree of you know I mean you this is more your wheelhouse certainly than mine but you know somebody who is has you know higher a higher degree of openness um you know can Embrace these more complex flavors yeah um whereas you know I I still encounter a lot of people today who you know adopt who have adopted and stick to what I call the 12-year-old boy diet where they're you know they really only seemingly can appreciate really simple flavors and mouth feels so what would the 12-year-old boy diet be french fries and hot dog it's kind of like yeah french fries hot dogs ketchup on everything like standard American diet you know ketchup on everything just things that are like incredibly palatable no complexity um I think it's a yeah anden fingers fall into that category yeah but um I mean chicken fingers are great I'm not you know I'm not hitting on chicken fingers but uh although I haven't had a good chicken finger in a long time but because they're usually deep fried in all kinds of you know who knows what these days but um but yeah I think cultivating a a a broader pallet I think is is incredibly important but essentially yeah your body will start to Crave what it is that you most routinely feed it and it'll become better at processing those whatever it is those food components happen to be you know so for somebody who's chronically eating you know High a high carbohydrate diet their bodies get better at at Burning you know glucose for example um somebody who's on a you know highly fat adapted ketogenic diet for example they become better at burning fat and that's why there's this phenomena known as physiologic insulin resistance for somebody who's on a very low carbohydrate diet for sustained duration you know they do there is a degree of um physiologic uh insulin resistance that occurs where you know they'll start to consume you know something as innocuous as a bowl of blueberries and they'll see their blood sugar go through the roof it's not because the blueberries were unhealthy ever it's just that they you know their bodies have become so well adapted to um burning fat as a fuel source you know at the expense of carbohydrates right right right right okay so in your book your Genius book on food does that outline what does it outlined precisely obviously it talks I would it talks about the difference between Whole Foods and say Ultra processed foods so those are manufactured Foods correct so if it's made by a giant Corporation and it's in a box if it has an ad- on TV okay if it has an ad on TV oh that's an interesting marker yeah it's a good juristic right yeah sure sure so if it has an addon TV avoid it yeah to the best of your ability and so what I tried to do in the ingenious Foods was was highlight the food C specific foods that I thought there were that that would stand out to me over and over again in the literature as being particularly supportive of brain health whether it's by way of their nutrient density or by way of the you know we'll say prevalence of certain phytochemicals which um have shown to be particularly supportive of brain health for example and this is something that I think I really broke the news on with genius Foods was the role of dietary carotenoids so these are plant pigments that actually also accumulate in animal tissue um for example in the beef of a grass-fed grass finished cow you see an abundance of carotenoids which gives you know the Hue of the fat tissue of um you know that that marbling in a in a piece of in a grass-fed steak for example it's a different Hue it's slightly you know more orange in color similar to a pasture to egg yolk you see a higher prevalence of of these catenoid compounds which we know well we've known for decades at this point play a role in supporting Eye Health so certain carotenoids like ltin and zanthin can help prevent are those in Golden rice um I'm I think golden rice but they are golden as well right so they I think that's and they do PR prevent blindness corre R correct yes so vitamin A deficiency is the leading cause of preventable blindness worldwide and so yeah they've modified golden rice to have a higher uh to have beta carotene which is provitamin a yeah um interestingly many people are not as good at converting provitamin a to retinol in the body um I still think it's a great source of vitamin A but um a provitamin a um and ultimately retinol but yeah vitamin A is naturally found in animal Source foods like egg yolks okay so a diverse range of colorful Whole Foods plants and animal yeah okay I'm also a huge I mean and this is I guess somewhat more controversial but I I think red meat is a health food um I know you agree with that say that again yeah I think that red meat is a health food and I'm not like you know and this is this is an opinion that I've uh established Based on data well before I had any kind of you know Financial relationship with the kinds of companies who produce the meat that I personally you know eat and feed to my family y um but I think it's an incred it's it is an incredibly nutrient dense food yeah um and um well cows go to a lot of work to make it yeah mhm I mean all those stomachs right they have right absolutely so that's the right kind of ultra processing there you go right it's like Nature's form of ultra processing and yeah and so I think it's a that I think that's an incredibly important food but right so it's remarkable that that's been demonized like it's and it's and the thing is the demonization doesn't quit because for a long time I suppose it was driven by idiot quasi scientists and people who are maneuvering in the same domain as the food pyramid Liars but now the climate people have got a hold of it as well yeah but for whatever reason animal related food while there's also the ethical issue which isn't trivial I would say um you know that's not something that can be easily ignored or should be but but red meat is definitely the it's the target of propagandists continually and so and that's really not good if it turns out that it's actually useful like seriously useful for us and and we have what what's the FDA recommended daily announce RDA for carbohydrates there's no RDA for carbohydrates yeah there's no such thing as an essential carbohydrates right what which is really that should that's something to be said repeatedly yeah that because that's really kind of shocking it is we have you know a daily requirement for certain essential fats certain you know fatty acids like omega3 and Omega 6 fatty acids proteins protein is m L important there's no such thing as an essential carbohydrate which is to say that you shouldn't eat them but it's very strange that that that that's not essential it correct and also I mean you look at the data and beef consumption in the United States has declined over the past few decades um it's it's it's on a downward slope and um and yet we continue to blow up we get sicker we get more obese and um and it's a whole food at the very least it's a pristine source of dietary protein it concurrent with you know all kind of nutrients that we know play a ro in good health I mean it's it's actually I mean it is a source of phytonutrients most people don't realize this but you know the phytonutrients that a cow ingests makes its way into the tissue of that of that animal just as it does US creatine torine carnitine carnosine I mean these are all I think really important nutrients and um and you know and it and it continues to be demon some people will say oh well it's a source of saturated fat it's fascinating that 3% of the saturated fat that your average American consumes comes from steak the vast majority comes from what are called mixed dishes Ultra processed foods Dairy which is actually even full fat Dairy is neutral if not beneficial from a cardio you know cardiovascular health standpoint and so yeah the the I think the demonization of red meat is a real shame and it's it's a big problem and the and the evidence that's used to demonize it is incredibly weak right right right as is most nutritional science stunningly weak stunn yeah yeah correlational studies in the field of nutrition are not helpful no and the other studies that where you could infer causality they're unbelievably difficult to do it's hard to get people to modify their diet and to stick to it and yeah it's very difficult research to do so I can understand why they default the correlation studies but they're not helpful too many variables those are the kinds of studies that make up our dietary guidelines I mean those are the kinds of studies that again and again you know implore us to consume grains at every meal and um and I think you know it's it's just yeah so so talk about grains because do grains qualify as a whole food well certainly the vast the the the form in which they are most frequently consumed today absolutely not there most people today you know the form of grains which most people consume are refined grains muffins yeah exactly right health and even if you were to go to go to Google images and look at the image of the food pyramid which thankfully has been retired you know it's what it's been replaced by is you know I would say not that much better um although it is an improvement but I mean it was literally the The Illustrated USD USDA food permit it was like pasta it was like loaves of bread yeah like you're telling me that That's essential for good health that I need to be eating seven to 11 servings of this on a daily basis um and so if you actually look at what a grain is I mean you know most grains today actually in the supermarket Market are fortified because they're so nutrient impoverished that they have to have added nutrients nutrients added to them to make their basic form serve any sort of dietary value at all but they're essentially pure it's essentially Pure Energy it's cattle feed now I'm not saying that grains can't play a supportive role to health I mean certainly you look at you know for example bodybuilders who are in fantastic physical shape you know it's not they do uh you know many of them on social media the more prominent ones do use performance-enhancing drugs but I mean grains grains can be used to facilitate exercise performance and the like and I think well and you can say too like socially speaking you know the first order problem that our society had to contend with was getting everyone enough calories yeah right and you could see some utility in generating cheap calories I always I often think about corn syrup in that regard corn syrup is a very cheap source of calories but when the problem is obesity and not starvation corn syrup seems like a very bad solution correct and so you know I'm willing to give the Department of Agriculture let's say its credit for assuming that or for ensuring that calories per se are in plentiful Supply which is the case but man we're playing a vicious price for it on the other side of it yeah well I mean this is a we we live amidst the first time in human history where there are more overweight people walking the Earth than underweight right and so we've solved the food scarcity problem I mean there's you'd be hardress to find to anybody in a state of energy deficit today in the western world yeah especially and increasingly in the developed world except when that's used for political like most of the starvation in particular in the developed world is purposeful not not the consequence of of economic inade inadequacy right it's targeted and so yeah and that's a good thing that we solved that problem but but these problems are not trivial either yeah and they're getting worse correct and I'm not saying that grains cause you know Alzheimer's disease that's never been my stance but you know we do have to look at this as a food quality problem and Grains I don't believe are you know particularly when you have all these other options in the supermarket like grass-fed grassfish beef wild fatty fish salmon for example um sardines eggs you know eggs are one of Nature's cognitive multivitamins a study was just published that found that you know just consuming they were demonized too they were demonized too yeah and interestingly and this is again and to preface I'll never just to to reiterate I'll never know what caused my mom's dementia I don't know if it had anything to do with nutrition it could have had everything to do with I I don't know I'll never know but you know my mom was somebody who for the entirety of her life was concerned about heart disease and so whatever the messaging was around heart disease is something that my mom adopted and ingrained essentially in not just her diet but my diet growing up and so you know my kitchen was always filled with you know lowfat fat-free cholesterol free food likee products yeah that adorned by the red heart healthy logo on them which you still see ubiquitously in the supermarket right and eggs were one of those foods that we threw out essentially in lie of these more you know processed high margin replacement products and an egg is literally a cognitive multivitamin I mean it contains a little bit of everything required to grow a brain right so it's it's it's postmarked by Nature you know this is here this is what you need to grow a brain in an egg yolk right even if it's a chicken brain even if it's a chicken brain yeah but studies are now starting to show that they're an incredible cognitive multivitamin a study was just published that found that you know all it takes is one to two eggs a week in this one study and there was a something like a 50% risk close to a 50% risk reduction for the development of Alzheimer's disease wow we know that choline is one of the most important nutrients in fact about 40% of the um um the effect that they saw in this observational trial um they thought was attributed to the fact that egg yolks are the top source of Coline in the standard American diet um and yet 90% of adults today don't consume the adequate intake for Coline on a daily basis and so that's the consequence of demonizing eggs there you go you demonize eggs great 90% of adults don't consume adequate Coline which is crucially important it's the backbone to AAL choline which is the neurotransmitter involved in learning in memory right it forms the you know skeleton molecule of our neuronal membranes which are crucially important for our you know brain cell communication our ability to perceive the world um so it's a fantastic food and you know I remember when I'm when my mom first served me you know that that egg my first egg she was like you know she she warned me not to consume them with any you know significant frequency because they might clog my arteries right and we know that dietary cholesterol mhm well dat was there a long time ago showing that this I knew this in like 19 1980s the decreased risk of heart disease reported as a consequence of cholesterol lowering was swamped by the increase in suicide that was caused by the fact that Colores cholesterol is a precursor to serotonin so even if fewer people died of heart attacks which is not true anyways more people committed suicide so that's part of the problem with the complexity of dietary studies right is you you need to control for a lot of variables and you need to measure a lot of outcomes yeah but with these observational studies I mean there's always residual confounding like yes always there's no way of controlling it way no no you can't do correlational dietary studies yeah you just can't no no that they should never be published yeah I mean I'm I'm Pro plants you know that's that's a flag that like like you know that I've that I've planted no pun intended yeah but um but it's not hard to imagine a world where you know all of the you know the the mountains of evidence that we have observationally looking at you know how fruits and vegetables impact human health the positive effects that we see that we see at the epidemiologic you know scale that that could potentially be a false positive because everybody in their mother knows that fruits and vegetables are good for you right and eating fresh fruits and vegetables today is an incredible privilege in a Time when you know 60% of the calories come from these Ultra processed foods it can be really difficult to find access to fresh fruits and vegetables right I mean we do have RCT data showing us that that there are beneficial compounds I've talked about some of the phytochemicals in it but conversely red meat it's also very easy okay so let's talk about that a bit because I was obviously at some point we're going to get into the issue of the carnivore diet yeah and so I guess the first thing I'd say is and you're making some illusion to it now obviously what are your thoughts about the carnivore diet what and its potential advantages and dangers I think I mean I think it's potentially a a great therapeutic diet for people that have you know a predisposition to autoimmunity yeah um and it's not something that I would ever behold anybody here's the other thing is that diet zealots particularly today on social media they're very they seem to be very emotionally invested in what other people eat I don't care ultimately what other people eat I just want the same way about that you know at a at say a moral level right but like or emo you want people to be able to make informed decisions not decisions clouded by what I call covert activism right and yeah or or overt activism for for for for that matter yeah or you know misinformation or disinformation about what it means to eat healthily today ultimately I don't care you know if somebody wants otherwise known as lies yes precisely um so yeah I mean I would for people that are that have seen a reprieve of symptoms from some of these awful conditions that people suffer from yeah like keep doing it yeah I think that for somebody with a robust gut microbiome who you know I think people should be able to tolerate and not just tolerate but to derive you know a health benefit from you know many of these so-called plant defense compounds you know even cruciferous vegetables which have become demonized in certain carnivore circles you know due to you know certain uh glucosinolate compounds or compound like sulphoraphane which you know there are actual randomized human trials that show that these compounds can actually help us detoxify from some of these environmental pollutants that we know you know play a role in disease um obviously you can get a certain uh dose if you will of phytochemicals from eating animal Source foods but you know carotenoids like lutin and zanthin which we know are very beneficial to brain health you know you're not going to see a better you're not going to find a better source of them in the supermarket than kale for example which people love to hate on but foods like kale spinach dark leafy greens cruciferous vegetables I think that the I do think that for most people the benefits outweigh the risk you know um if an Elimination Diet where you remove all fruits and vegetables um for a Time helps I think that's amazing well that that's a good useful thing to discuss procedurally mean when we were trying to address my daughter's um immunological problems which my wife was on at a very early stage because she intuited that there was a dietary relationship but it turned out to be so complex I mean we couldn't have possibly imagined that eating nothing but meat was the solution like who in the hell is going to ever think that I knew that fasting was a reliable treatment for for arthritis and that's well documented in literature virtually everyone who's arthritic if they fast they go into remission but then when they start eating the symptoms come back and so well and maybe that's not true if all they start eating again his red meat but those studies hadn't been done and still haven't been as far as I know um we had tried Michaela on some different elimination diets but they made no sense like the food classes that were eliminated and kept seemed random to me and well and to Tammy and and to Michaela and she started to experiment they started to experiment with more radical elimination diets and by trial and error and also because of Shawn Baker came to experiment with only beef which worked and so you know and we've talked to hundreds or maybe thousands of people now who have tried variant of the carnivore diet and had radical especially weight loss Transformations like I talk to people at my lectures all the time who they shell shock day because they've lost like 150 PBS in 18 months and so they're not even the same people physically and well they're happy about it obviously but also completely they're shocked by the fact that that worked now I would say and you tell me what you think about this is that if you are suffering from chronic health conditions especially if you're also overweight an lemon diet is worth trying on the off chance that something you're eating is causing your symptoms because who knows and the simplest Elimination Diet is obviously just beef yeah right so why not go down to one variable and if it doesn't work like we've talked to many people and I know people say well anecdotes aren't data it's like no but they're hypotheses yeah and many of the same anecdotes start to look a lot like data so anyways we've talked to many people who've reported remission of their diabetic or arthritic symptoms within 2 weeks of an only beef diet and so we are thinking that it's more like 3 months is a good trial and if it doesn't work well okay the loss is some restriction for 3 months and that's about it and it's it's not like it's easy I'm not saying that and you may suffer some complications in the transition to the new and more restrictive diet but you can live on just beef so like what the hell if you're half dead and radically overweight three months isn't much of a risk and so I'm wondering what like what do you think about that line of logic yeah well I think you know I think well I think you're right and in the sense that beef is it's an incredibly nutrient-dense food it's highly satiating yes it's loaded with protein obviously um you're you're restricting the consumption of large swaths of the most problematic Foods accessible to a modern human today and so it doesn't surprise me that at least in the short term you're going to see an improvement yeah yeah um and so I guess my qu my question is and I think sha Baker is very smart yeah but I I had him on my podcast recently and I posed this question to him like you're performing already at such a high level on beef and I don't doubt that you're healthy you seem healthy and monster yeah and I'm not going to Gaslight somebody who's on you know a carnivore diet and and and and asserting that they're thriving on it like who am I to G you know to say that you're not right yeah right um but you know my question to him was like okay so you've established this that this diet is working well for you why not add in some of these foods that we know have compounds that you know might be lacking in beef yeah or like might give you an additional benefit you know for example like an all meat diet might not have very particularly high levels of magnesium which we know you know plays hundreds of roles in the body right everything from you know repairing DNA damage to energy synthesis like it's a co-actor that you know is required in the synthesis of ATP for example some of these carotenoid compounds that I mentioned earlier like yeah you're getting those are definitely open questions yeah maybe they you're getting a small amount of them in your meaton diet right but maybe a little bit more might you know give you an additional cognitive and and I'm we're just playing like nutritionism here with these like individual nutrients that have been studied that I can reference that I about but there are swaths of nutrients in the plant kingdom that you know have been identified as playing as having a potential benefit to human health even something as innocuous as white rice right where it's had all the an antinutrients sloughed off right like for somebody who's you know such a physical specimen as he is like maybe adding some carbohydrates into that system you know so they you get a little bit of additional glycogen in the tank before you know cuz he's still trying to like break records a Madman right the best possible way yeah um maybe that might you know an Adaptive so I can understand that I guess the the my criticism of that to the degree that a criticism is warranted is it's extremely complex to and this contradicts to some degree something I said earlier you know that you could reduce to a carnivore doid and then add back it's very complicated to add back right you really have to think like a scientist and you have to be very disciplined you know to experiment with one thing at a time in addition and then also to figure out well how do you know if it's helping like what's your measure and over what time frame you know so like I've tried to add things back to my I added salmon back to my diet and it turned out that it made me anxious and I have no idea why and it's a pretty robust effect and it took a fair while to manifest itself and so you have these terrible complex problems with adding things back which is well maybe if you added phytonutrients for example of the sort that you were describing it would take a month to see a difference and it would be hard to measure except in certain circumstances so like how do you know and that's the problem with any scientific investigation and the advantage to just eating beef is that it's really it's it's simple right it's like no just do this and I'm I it wouldn't surprise me at all if there would be ways of it might surprise me but I could imagine that there would be ways of improving your diet beyond what you would get with merely meat but man it it really it's a conundrum to figure out how to go about doing that yeah well everybody's the other thing that I think is important is that there's really no there's no such nutrition isn't a hat there's no such thing as a one- siiz all pattern that's going to work for everybody um and you know in your family you obviously have you know you have these health concerns which I think are important to acknowledge and to you know and to recognize that you're a scientist and you've you know you've you've done the work and you've found this one diet this this this diet that works for you kicking and screaming all the way and I think that's that's amazing um but you know for somebody who who is not immunologically compromised right and who you know was born vaginally and who didn't take a ton of antibiotics growing up and was breastfed and who hasn't you know traveled all around the world and had infections and surgeries and things like that that you know you know these are all like it's Death By A Thousand Cuts today um and so you throw into that milu chronic chronic sedentary Lifestyles which you know has a negative impact on the gut microbiome we know that you know obviously an ultra processed food diet has a negative impact on the gut microbiome you know all of these industrial chemical additives also so are playing a a role we've lost resilience in the gut I think and that's why so many of us do seem to do better seemingly on these you know incredibly restrictive elimination diets right well we've changed our cooking habits dramatically too I mean um slow rising yeast doesn't produce the same bread as fast rising yeast right CU it has a longer time to break down the gluten for example and so a lot of the traditional ways of cooking things that made them edible have been replaced by rapid cheap which is advantageous Factory mechanisms but you know we have no idea what we left behind in consequence and so it may also have been that 40 years ago or 50 years ago when people were cooking more traditionally things were a lot more edible than they are now now I would also say I don't know what you think about this like cuz I don't know the science in this you know as the world is urbanized and as the cultures have mixed a much more diverse range of food products have become available now you might say that was advantageous but I also wonder about that because you know I noticed for example when I moved from Montreal to Boston I developed allergies well I developed allergies to Oakleaf mold there was no Oak leafes and no Oakleaf mold in Canada not any place I had been and so I mov moved somewhere that was a completely different environment and I was not immunologically prepared for it I just I guess I wonder too is it possibly a consequence of the fact that we can eat so many diverse things that weren't available before you know people would have had their traditional diet and really not strayed beyond that like I can remember certainly I can remember the first time I had Mexican food you know I was probably 16 or 17 and that was a real foreign Cuisine which is a strange thing to contemplate now I kind of grew up on German English and Ukrainian food right and certainly uh Chinese food was also foreign and and not common we had a Chinese restaurant in this little town I grew up in but that certainly wasn't a staple so I know that in principle hunter gatherers had a quite a diverse range of food products at their disposal but they would have been eating those habitually from day one they wouldn't have been introducing new foods along the way so do you have any thoughts on that do you know anything about that well what what grows together goes together typically yeah right and um and yeah but I I don't think as a species we would have made it this far had we had not been as incredibly resilient and adaptable as we are capable of being right you know I think we've never had to live in factories though yeah that's for sure that's for sure yeah that's an environmental novelty yeah so I think I do think that that that there is we're we're meant to be resilient you know the idea that you know so many of us statistically you know you feed you take a 100 people and you feed them each a peanut one or two of them is going to die yeah right from a peanut I don't I think that that's a Mal adaptation um and I think it's probably due to the fact that you know we're well we're doing many things wrong um and so so so okay so tell me tell me what happened with your mother and then tell me how you eat yeah well you know she it was really sad she um for eight years struggled with Louis body dementia and um for most of that time I was there with her just a concerned son trying to do what I could to help improve things but um one of the earliest insights that that I was able to glean from the literature which is I think counterintuitive and most people are completely unaware of this is that you know these as we alluded to earlier these conditions don't begin overnight they take decades to manifest so you know essentially dementia and many of these kinds of conditions that are now saddling modern society these are diseases of midlife with symptoms that appear in late life but by the time you're diagnosed with dementia I mean you're essentially in the late stage of that disease right right yeah and that's why Alzheimer's drug trials have a 99.6% fail rate because you're trying to treat the condition you know well past the point at which you know a simple far you know yeah pharmacological solution is going to have any sort of practical impact right so even if the thing is is that at that point even if the drug stop the disease cold a tremendous amount of damage is already been done already done so it not only have to stop it it would have to heal it yeah I mean and that's hard with neural tissue yeah yeah I mean you know how are you going to get back the 50% of dopamine proding neurons you know in the substantia Nigro right right like you're just not um and with Alzheimer's Disease by the time you know a person is diagnosed you know one of the Salient features of Alzheimer's disease is what's called glucose hypometabolism so this plays into the type 3 diabetes um you know as it's been termed that by the time you're diagnosed with the condition your brain's ability to derive energy to create energy from glucose which is its primary fuel substrate is diminished by about 50% and the brain is a a ravenous consumer of glucose it makes up 25% of your basil metabolic rate despite only accounting for 2 to 3% of your body's Mass so it's a r is consumer of energy and so any power outage in that organ is going to lead to failure and so by the time you're diagnosed you know that's already you know starkly diminished um and so yeah it wasn't it wasn't really positive I mean in every doctor's office what I experienced with my mom I've come to call diagnose and adios and you know a physician would would essentially prescribe a new drug or titrate up the dose of something that she was already on but minimally effective if effective at all and by the time my mom passed in 2018 she was on 14 different Pharmaceuticals and there there's no physician on Earth who can predict the way these 14 different drugs no not even two probably not even two yeah certainly not 14 not even God knows like and so the the level of toxicity right yeah which isn't to say if there was that Blockbuster drug that came along that I wouldn't you know be first in line at that time to to to fill that prescription for my mom but it's just very unlikely to be the case in fact there's you know there's all kinds of fraud you know within the field of Alzheimer's drug research that you know no came out a couple of years ago yeah which is something that was incredibly disheartening um there was a paper you know published in 2006 for example that was like completely fraudulent finally actually over the past week in fact they finally um are pulling that paper they're retracting the paper but it was a paper that renewed interest or R renewed um you know the the funding pipeline for this this this drug Target um the amalo hypothesis of Alzheimer's disease where you know they in 2006 a researcher at the University of Minnesota basically what he did was he identified he claimed to have identified this subtype of amalo that was responsible for the cognitive decline which was a a big sort of the missing link essentially connecting um this really druggable Target right the amalo beta plaque that accumulates in the brains of people with Alzheimer's disease and drug research he claimed to have found it in this 2006 paper you know which had subsequently been referenced thousands of times in the medical literature you know continue to you know F this like glut of of of of research money you know going down this amalo hypothesis pipeline for Alzheimer's drug research which was completely fraudulent that paper is now finally being retracted God but that's it's just like that's the situation you know um and so it was you know incredibly disheartening I tried to I did get my mom on an exercise um regimen which I thought was helpful at the very least in terms of lifting her spirits but I think probably played a role in slowing the progression of the the disease somewhat um with parkinsonian with a Parkinson's condition you know exercise is partic it's important for everybody essentially it's important for people with Alzheimer's disease mild cognitive impairment any form of dementia really but with Parkinson's disease there seems to be really good data there um but ultimately nothing nothing really helped you know and uh and so it was really sad and then Labor Day of 2018 my mom was actually diagnosed with pancreatic cancer and passed away three month three months later so this is where I think what part of What Separates Me from I think other people in the space is that you know the degree of sickness that I've seen firsthand profound and it you know it occurred to the person who meant the most to me of anybody in the world and I saw up close and personal the dir of treatment options you know the the diagnose and adios of it all and I was very privileged in the sense that I grew up in New York City I got to go to the cathedrals to Western medicine the Cleveland Clinic John's Hopkins in Baltimore yeah NYU colia I mean i' I've been to I've been to them all with my mom and it became so important once I learned that these conditions take decades to foment yeah it became so important to me the most important thing in my life to evangelize you know this science because I think it's so so what should people do to learn what you know and what they should do relatively rapidly well your books yeah I think which which is there one in particular genius Foods is a nutritional care manual to the brain it's an encyclopedia of you know and there's and it was WR it came out six years ago there's not much that I would change in the book maybe a few tweaks here and there but in general the science has really stood the test of time okay um which was my intent in writing the book and um and so yeah it really is everything that that a person needs to know but okay from a high level little empty boxes my documentary this is the first documentary ever to talk to tackle dementia through the lens of prevention and so anybody who's ever experienced dementia going to find incredible solace in the film and seeing what it was at my family and where can they get access to little empty boxes so it's available for pre-order now at little empb boxes.com okay little empb boxes.com do you want to just run over the the the description of the film for us yeah and tell us what of course how you made it why well we know why but what's what's the film about and what will it offer people so this is the okay here's Kathy L hi good morning morning everybody I just clipped some coupons that I'm going to never use I'm going to kiss my son Max right now who's holding the camera how's Mom it's like her brain has low R do you remember what the date is today um well how about the MU no we know that Alzheimer's disease starts in the brain at least 20 to 30 years before the first symptom of memory loss the million-dollar question actually probably the trillion dollar question is why do people get Alzheimer's disease the rates of Alzheimer's have skyrocketed what did we change the federal government in 1980 starts its guidelines you take away butter meat Dairy eggs cheese all those things you ate what what do you eat on your plate what's left the brain only takes Tak as much sugar as it needs the overall problem is inflammation inflammation Burns what happens in Alzheimer is you have low inflammation but but chronic low inflammation this is the aisle of food likee products diet stress sleep toxins all these things have a huge impact the question is how far gone are you before it's irreversible I hope I'm a good mother you're an okay mother I need to go back and and be closer with my mom I don't want really to take so many X-rays and we out of here the best way to explain the unexplicable is to compare the human genome as a piano with 23,000 notes you need to struck 300 of the 23,000 notes to play the song Alzheimer it's not destiny that you develop this this diseases like Alzheimer's start long before the symptoms are seen question is what are you going to do about it you've done all the tests but it's not enough you've got to be there to help me my said you still got it you still got it you you still do they are in the park for the first time so now it's really up to us so we'll do our best [Music] so this is the this project is the first thing that I ever did in this space and this is before I had the knowledge that led to subsequently my books my podcast I have a podcast called the Genius life um the documentary is a time capsule of me just being a terrified son doing whatever it is humanly possible in the realm of diet lifestyle going you know initiating this investigation that ultimately would become my life's work but to try to help my mom and it's an incredible I think you know human interest story it's something that I think anybody you know who's ever had a sick loved one you know will relate to um and it's mostly a peak a very intimate Peak into what it's like to not just have dementia but to be a caregiver um and it also with very broad Strokes paints what a road map towards prevention might look like I see I see so it's not a it doesn't provide easy answers a one- siiz fits-all solution it's not one of these diet documentaries that's like promoting an agenda it's just like let's get back to reason and common sense when it comes to diet and undo a lot of these mistruths that we've been force-fed no pun intended you know over the past few decades that has really in many ways affected us all you know it's affected us all I mean it's in oh definitely here's another Pun It's in God only knows how it's affected us because we don't know how erratic a population that's radically unhealthy will become yeah right and we may well find out yeah and we're all getting older I mean the oldest Millennial now is in their 40s right so this is a this is now is the time and so it's a film that I think really I think reveals what is I think the most important question of our time and um and yeah I think it's the most important project I've ever done all right and when and and it's available for pre-order when does it launch June 27th June 27th well good luck with that thank you so much yes yes thank you very much for talking to me today you're the man yeah much appreciated much appreciated and so the genius Trilogy podcast is genius life and the new documentary is little empty boxes that'll be out closer the third week of June yep June yeah well good luck with that seriously and for everybody watching and listening we'll uh continue this discussion on The Daily wire side of the platform of the podcast and uh well I'm going to talk to Max a bit more about the development of his interest over time I think that's what we'll focus on and uh so if you're in CL join us there thank you very much for your time and attention thank you to the film crew here in Washington DC that's where we are we are today um on the stage at the Museum of the Bible as it turns out which is a very cool Museum um a testament to the book that spread literacy around the world right and that was really the prototype for books as such so if you're in DC give the Museum of the Bible uh visit it's it's well worth the time it's a beautiful building as well award winning building beautifully designed so and Max thanks again for coming today and for coming here in person that's much appreciated and to all of you watching and listening thank you very much for your time and attention [Music]