Transcript: Why You Are TIRED All the Time

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**[00:00:00]** today we're going to talk about

**[00:00:01]** the oh my goodness the deeper source of

**[00:00:05]** your fatigue now I will say this I am an

**[00:00:08]** expert in this area simply because I've

**[00:00:10]** been tired a good portion of my life and

**[00:00:14]** I overcame it so I have something very

**[00:00:16]** important I want to share I remember

**[00:00:18]** driving down the street with my wife in

**[00:00:19]** my late 20s being completely exhausted

**[00:00:22]** trying to find a healthy store to find

**[00:00:24]** some vitamin to give me energy it never

**[00:00:27]** worked I had tons and tons of vitamins

**[00:00:29]** and did know what was going on so if I

**[00:00:31]** can teleport this video back in time and

**[00:00:34]** show it to myself this video would have

**[00:00:36]** solved my problem if I really understood

**[00:00:39]** how the body makes energy and also this

**[00:00:41]** is going to be very motivating to you

**[00:00:42]** especially because you're going to

**[00:00:43]** finally understand what really is behind

**[00:00:46]** fatigue in general because you can take

**[00:00:49]** various vitamins and energy drinks and

**[00:00:52]** try to boost your energy and and more

**[00:00:54]** coffee but that doesn't fix the real

**[00:00:56]** problem and if you go to any of these

**[00:00:58]** 7-Elevens you'll see right at the front

**[00:01:00]** counter this huge section 5H Hour Energy

**[00:01:03]** Drinks everything starts with this

**[00:01:06]** mitochondria what is the mitochondria

**[00:01:08]** it's an energy Factory deep inside your

**[00:01:10]** cells that produces energy if you have

**[00:01:13]** any aspects of fatigue even if you

**[00:01:15]** exercise and you run out of gas really

**[00:01:17]** fast or even if you have many of the

**[00:01:19]** different problems the health problems

**[00:01:21]** that most people have this mitochondria

**[00:01:23]** is at the root of it in fact most

**[00:01:25]** diseases come directly from this

**[00:01:27]** mitochondria so what is the pondria it's

**[00:01:30]** a battery making machine because food

**[00:01:34]** directly can't give you energy it has to

**[00:01:37]** be converted into a chemical form of a

**[00:01:40]** battery so you can use it and so the

**[00:01:42]** energy battery itself is called

**[00:01:45]** ATP so the mitochondria is actually the

**[00:01:48]** battery maker and the ATP is the actual

**[00:01:51]** battery and whether you took

**[00:01:53]** biochemistry or not this might help you

**[00:01:56]** to understand the Simplicity of what's

**[00:01:59]** going on with the massive complexity of

**[00:02:01]** what's Happening inside that

**[00:02:03]** mitochondria maybe you have or you

**[00:02:05]** haven't heard about this Krebs cycle

**[00:02:07]** thing right that's actually the pre-

**[00:02:09]** battery maker okay so it comes right

**[00:02:11]** before the battery maker Because the

**[00:02:13]** actual battery maker is connected to it

**[00:02:16]** the kreb cycle gets everything prepared

**[00:02:18]** and ready and helps strip out some of

**[00:02:20]** these electrons but we have to somehow

**[00:02:23]** extract these electrons from the food

**[00:02:26]** that you eat and since we're on the

**[00:02:28]** topic of food certain foods have more

**[00:02:30]** energy than other foods and so if you're

**[00:02:33]** living on Ultra processed foods it's

**[00:02:35]** going to be almost impossible to extract

**[00:02:37]** energy from that simply because it's

**[00:02:39]** dead there's not a lot of energy in

**[00:02:40]** there and on top of that there's a lot

**[00:02:43]** of nutritional factors in food that we

**[00:02:46]** need that the battery maker assembly

**[00:02:49]** line requires in each step of the

**[00:02:52]** assembly line okay you need B1 B2 B3

**[00:02:56]** folic acid B12 magnesium manganese

**[00:03:00]** selenium vitamin C and something else

**[00:03:03]** called co-enzyme Q10 so these are the

**[00:03:06]** helper molecules that are essential for

**[00:03:08]** making this battery now there's a very

**[00:03:11]** very important enzyme that's involved in

**[00:03:14]** making ATP it's called ATP synthes not

**[00:03:17]** that you needed to know that but what's

**[00:03:19]** interesting about this ATP enzyme is

**[00:03:22]** that it's very very tiny and it's a

**[00:03:25]** turbine it spins it helps to generate

**[00:03:28]** energy but it's it's very very tiny okay

**[00:03:31]** so it would take like a 100,000 of these

**[00:03:35]** little enzymes to be the same width as

**[00:03:39]** one hair okay so they're that tiny but

**[00:03:42]** they're spinning at an incredible speed

**[00:03:45]** and every time they rotate one rotation

**[00:03:49]** they produce three atps and so how fast

**[00:03:53]** do they rotate well they're rotating

**[00:03:55]** roughly about 7,000 to 9,000 rotations

**[00:03:59]** every every single minute so you can

**[00:04:01]** imagine how much ATP is generated I mean

**[00:04:04]** just one enzyme you're talking like

**[00:04:07]** 27,000 atps per minute now if we just

**[00:04:10]** look at one cell and determine how many

**[00:04:13]** mitochondria is in that one cell you're

**[00:04:16]** looking at on average between a, to

**[00:04:20]** 2500 mitochondria per cell and how many

**[00:04:25]** cells do you have in your body you have

**[00:04:26]** 10 trillion cells incredible now check

**[00:04:29]** this out a healthy person makes a

**[00:04:32]** massive amount of ATP the actual weight

**[00:04:35]** of that ATP would be equivalent to your

**[00:04:39]** own weight so if I weigh 180 pounds I

**[00:04:42]** make 180 pounds of ATP every single day

**[00:04:47]** that would be equivalent to 12200 Watts

**[00:04:50]** which comes out to about 282 AA

**[00:04:54]** batteries now that might not seem like a

**[00:04:56]** lot of wattage but your body is very

**[00:04:57]** efficient at using this energy but the

**[00:05:01]** fascinating thing about this ATP is it's

**[00:05:04]** not really stored it's generated on

**[00:05:07]** demand so if you're not really

**[00:05:09]** exercising or moving you're not going to

**[00:05:11]** generate nearly as much as if you were

**[00:05:14]** exercising the point is that this ATP

**[00:05:16]** doesn't really get stored now when it's

**[00:05:18]** used okay it turns into ADP which then

**[00:05:22]** can be recycled back to ATP and ADP does

**[00:05:27]** get stored but ADP gets recycled about a

**[00:05:31]** thousand times a day okay into ATP and

**[00:05:34]** so at any given time during the day you

**[00:05:37]** have really only a quarter of a kilogram

**[00:05:41]** of ATP that's not that much but as soon

**[00:05:44]** as you start exercising that ATP

**[00:05:46]** generation goes way way way up now the

**[00:05:49]** next question is if we don't uh store

**[00:05:52]** ATP what energy do we store well there's

**[00:05:55]** two fuel sources you have sugar stored

**[00:05:58]** as glycogen in your muscle in your liver

**[00:06:01]** which it's not really that much it's

**[00:06:03]** probably have 1,700 calories worth of

**[00:06:05]** stored glycogen and soon as you deplete

**[00:06:08]** it your body is going to require more

**[00:06:11]** sugar or glycogen if you're dependent on

**[00:06:13]** that sugar but you also store energy as

**[00:06:16]** fat and once your fat adapted you can

**[00:06:20]** tap into this fat a lot easier because

**[00:06:22]** you've grooved into this ketosis by

**[00:06:25]** lowering your carbohydrates and you

**[00:06:27]** become very efficient at burning fat

**[00:06:29]** then you can very easily use that fat as

**[00:06:31]** energy and have that go through this KB

**[00:06:34]** cycle but if you're not fat adapted um

**[00:06:36]** you're going to run out of energy pretty

**[00:06:37]** quick because you haven't adapted to the

**[00:06:39]** fat fuel you're just going to run out of

**[00:06:41]** energy and so this is why the ketogenic

**[00:06:43]** diet is so important for your energy

**[00:06:46]** first of all you get more ATP from

**[00:06:47]** ketones and fat then you do glycogen or

**[00:06:50]** sugar and secondly you have a lot of fat

**[00:06:53]** uh Reserve to tap into I mean the

**[00:06:55]** average person who's not overweight has

**[00:06:57]** about a 100,000 calories of of fat on

**[00:07:00]** their body compared to the glycogen

**[00:07:01]** storage which is only like 1,700 enough

**[00:07:04]** for one day so with my problem way back

**[00:07:08]** when I was in my late 20s I would

**[00:07:10]** consume pure carbohydrates okay and my

**[00:07:14]** energy would come up when I would eat

**[00:07:15]** and then it would come crashing down

**[00:07:17]** because I ran out of energy and I

**[00:07:19]** required more sugar or more carbs to get

**[00:07:22]** my energy I was completely dependent on

**[00:07:24]** carbs I didn't know about ketosis back

**[00:07:26]** then but I was always tired especially

**[00:07:30]** in my head even when I would wake up in

**[00:07:33]** the morning I would be so tired and I

**[00:07:36]** couldn't wake up like mentally until

**[00:07:39]** later in the morning or even the midday

**[00:07:42]** so what's significant about that is that

**[00:07:45]** 70% of all your ATP is used by your

**[00:07:49]** brain your brain Hogs a lot of this ATP

**[00:07:52]** so if there's not enough of this ATP to

**[00:07:54]** go around for various reasons your

**[00:07:57]** brain's going to suffer and this is is

**[00:07:59]** why we have so many problems with

**[00:08:02]** dementia add brain degenerative

**[00:08:05]** disorders mood disorders I mean try to

**[00:08:08]** be depressed when you have a lot of

**[00:08:10]** energy available with your mitochondria

**[00:08:12]** it's it's virtually impossible if you

**[00:08:15]** reflect back on the times that you were

**[00:08:17]** depressed chances are you were also

**[00:08:19]** tired at the same time so the first clue

**[00:08:22]** about getting energy is to get on the

**[00:08:23]** ketogenic diet so then you can supply

**[00:08:25]** your body with a quick source of fuel

**[00:08:27]** which is more efficient to you can not

**[00:08:29]** only make more ATP but then so you can

**[00:08:32]** tap into this energy reserve a lot

**[00:08:34]** quicker and not be stuck uh with this

**[00:08:37]** machine that's only dependent on glucose

**[00:08:40]** as your fuel it's dependent on co-actors

**[00:08:43]** yeah research now has shown that the

**[00:08:44]** primary source of oxidative stress in

**[00:08:47]** cells is leakage of oxygen and these

**[00:08:51]** electrons from the mitochondria and this

**[00:08:54]** leakage increases when the key nutrients

**[00:08:57]** or protective molecules are missing in

**[00:08:59]** like co-enzyme Q10 especially if the

**[00:09:02]** person's taking a Statin drug or other

**[00:09:04]** drugs that deplete that nutrient that's

**[00:09:06]** a really important nutrient to help

**[00:09:09]** transport electrons now just so happens

**[00:09:12]** that that biochemical pathway that

**[00:09:14]** involves the co-enzyme Q10 which is

**[00:09:17]** needed to generate energy um is the same

**[00:09:20]** pathway that we make cholesterol and so

**[00:09:24]** the drug Statin which basically inhibits

**[00:09:26]** that enzyme also inhibits Coen have Q10

**[00:09:30]** and this is why one of the biggest side

**[00:09:32]** effects from people taking statins

**[00:09:35]** involves muscle uh problems weak muscles

**[00:09:39]** inflamed muscles muscle disorders lack

**[00:09:42]** of energy because think about just in

**[00:09:44]** general uh your muscles need energy to

**[00:09:47]** function I mean this is how we move you

**[00:09:49]** can't move without muscles so you can

**[00:09:51]** imagine how much mitochondri is in your

**[00:09:54]** muscles and how much Coenzyme Q10 that

**[00:09:56]** we need in our muscles in fact if you

**[00:09:58]** wanted to consume something with high

**[00:10:01]** amounts of co-enzyme Q10 you want to eat

**[00:10:03]** muscle okay like red meat fish things

**[00:10:07]** like that and the food that has the

**[00:10:09]** highest amount would be organ Meats

**[00:10:11]** liver and especially heart okay extract

**[00:10:15]** you can probably get in supplements but

**[00:10:17]** you know people don't typically eat

**[00:10:18]** heart but um it's something that has a

**[00:10:21]** lot of coin Q10 but you have to also

**[00:10:23]** realize that your body makes co-enzyme

**[00:10:25]** Q10 so it's not just necessarily

**[00:10:27]** dependent on the diet you can make it as

**[00:10:29]** well if you have all the co-actors that

**[00:10:32]** allow it to be generated and so all

**[00:10:33]** those co-actors especially B vitamins

**[00:10:36]** are needed to allow coenzyme Q10 to work

**[00:10:39]** so just as a side note uh if you're on a

**[00:10:42]** Statin if you're on a beta blocker if

**[00:10:45]** you're on some medication for diabetes

**[00:10:48]** chances are your coenzyme Q10 is very

**[00:10:51]** very low so you should start taking that

**[00:10:54]** there's an interesting study um that I

**[00:10:56]** will put down below um about EXC

**[00:10:59]** exercise they tested like athletes

**[00:11:01]** versus people who don't exercise okay

**[00:11:03]** and they gave them Coen mq10 so in both

**[00:11:06]** groups they found significant

**[00:11:08]** Improvement in endurance so you can go

**[00:11:11]** longer without being tired and now you

**[00:11:13]** know why because that Coen and Q10 is

**[00:11:17]** necessary in the generation of ATP as

**[00:11:21]** well as acting as an an oxident to

**[00:11:23]** protect you against all this free

**[00:11:24]** radical damage that's created from the

**[00:11:26]** exercise so one big side effect from

**[00:11:29]** statins too is you just run out of gas

**[00:11:31]** really quick especially if you exert

**[00:11:32]** yourself or you exercise now as far as

**[00:11:34]** the food that you should be eating you

**[00:11:37]** want food that contains a lot of

**[00:11:38]** electrons and a lot of life and a lot of

**[00:11:41]** energy so you can extract the energy

**[00:11:43]** from that if you're consuming like with

**[00:11:44]** the average American consumes processed

**[00:11:46]** foods I think it's 83% of all the

**[00:11:49]** calories in the grocery store are Ultra

**[00:11:51]** processed foods they don't even resemble

**[00:11:53]** the actual food it's going to be

**[00:11:55]** literally impossible to get energy if

**[00:11:57]** you're eating those Foods so so we want

**[00:11:59]** nutrient-dense foods with red meat at

**[00:12:01]** the top of the list I will tell you when

**[00:12:03]** I have red meat I have more energy it's

**[00:12:05]** not just the iron that that helps build

**[00:12:07]** up my hemoglobin there's a lot of other

**[00:12:09]** factors in that meat that give me energy

**[00:12:12]** not just Coen mq10 but just a lot of

**[00:12:14]** energy generating factors there's

**[00:12:17]** another interesting study about this I

**[00:12:18]** just found this I think it's fascinating

**[00:12:20]** I will put the link down below but what

**[00:12:23]** they did is they wanted to test the

**[00:12:25]** nutrition factors in red meat okay

**[00:12:29]** versus the plant-based meats that

**[00:12:32]** they're coming up with now like the

**[00:12:34]** artificial meats and so if you look at

**[00:12:36]** the nutrition labels on both of them

**[00:12:37]** they look very similar right look

**[00:12:39]** healthy but what they found is out of

**[00:12:41]** 190 biomarkers they found

**[00:12:44]** 171 out of one for 90 were significantly

**[00:12:48]** higher than the plant-based fake meat

**[00:12:51]** type uh food if you want to call it that

**[00:12:54]** the point is that when you eat

**[00:12:55]** nutrient-dense foods like truly

**[00:12:56]** nutrient-dense Foods uh there's 's a lot

**[00:12:59]** of things in there that can actually

**[00:13:00]** help you get healthy and instead of

**[00:13:02]** trying to make food just taste good I

**[00:13:04]** would focus on trying to help grow your

**[00:13:07]** food that's more nutrient dense and eat

**[00:13:09]** more food that is nutrient dense because

**[00:13:12]** what they're trying to do with the fake

**[00:13:13]** meat now is just to try to mimic the

**[00:13:15]** taste of it the texture of it but what

**[00:13:17]** about the nutrition the other really

**[00:13:19]** really really important thing about um

**[00:13:21]** your mitochondria and actually producing

**[00:13:24]** more mitochondria is exercise hands down

**[00:13:27]** that is the number one way to reduce

**[00:13:29]** more mitochondria this is another reason

**[00:13:32]** why you should consistently exercise on

**[00:13:34]** a regular basis and that's going to

**[00:13:36]** override a lot of other bad things that

**[00:13:39]** you might have done in your past and

**[00:13:42]** also if you have any type of diseases or

**[00:13:45]** uh problems currently this can help um

**[00:13:48]** counter that why because a lot of

**[00:13:51]** disease comes from damage to the

**[00:13:52]** mitochondria and if you're exercising

**[00:13:54]** and you're making more and combine that

**[00:13:58]** with in a minute fasting that fasting

**[00:14:00]** triggers another thing called autophagy

**[00:14:04]** autophagy is recycling old damaged

**[00:14:06]** proteins but also the recycling of the

**[00:14:09]** mitochondria how cool is that and then

**[00:14:11]** you're creating new mitochondria this is

**[00:14:13]** how you're going to get more energy this

**[00:14:15]** is the stuff that I wish I knew back in

**[00:14:17]** my early 20s actually before that I wish

**[00:14:20]** I knew this in kindergarten I would have

**[00:14:23]** saved uh myself a lot of years of

**[00:14:25]** fatigue now a couple other things that

**[00:14:26]** could increase your mitochondria

**[00:14:29]** Cal therapy I do that on a regular basis

**[00:14:31]** and man do I feel better after doing it

**[00:14:34]** if you're a little hesitant at doing

**[00:14:36]** that you can do kind of like a partial

**[00:14:39]** cold immersion with a cold shower the

**[00:14:42]** most difficult part about this is when

**[00:14:43]** you submerge um around your heart

**[00:14:46]** because your heart is pumping and it's

**[00:14:47]** trying to keep you warm and it's kind of

**[00:14:49]** like the the most vulnerable area but

**[00:14:51]** you can always do half of your body cold

**[00:14:54]** and you'll get some benefits from that

**[00:14:55]** there's also phytonutrients that can

**[00:14:58]** increase increase the reproduction of

**[00:15:00]** mitochondria and actually help repair

**[00:15:02]** some of the mitochondria as well like

**[00:15:04]** sulfurane and the cruciferous vegetables

**[00:15:07]** and the broccoli mic grains as well as

**[00:15:09]** the radish micro grains it's a lot of

**[00:15:11]** different foods there actually are quite

**[00:15:12]** a few phytonutrients that when you

**[00:15:14]** consume those they help your

**[00:15:15]** mitochondria and then on the flip side

**[00:15:17]** it's avoiding certain things too like

**[00:15:19]** avoiding the refined Foods avoiding the

**[00:15:21]** sugar going on keto avoiding chronic

**[00:15:24]** stress heavy metals smoking alcohol

**[00:15:28]** these are all the things I wish I would

**[00:15:30]** have known back in my 20s and also this

**[00:15:33]** is the understanding of what the

**[00:15:34]** mitochondria really is now because of

**[00:15:36]** the censoring and the suppressing of the

**[00:15:38]** algorithms on YouTube it's becoming more

**[00:15:41]** difficult to find my content and there's

**[00:15:43]** a lot of content that I cannot put on

**[00:15:45]** YouTube unfortunately so to make sure

**[00:15:47]** you have full access of all my

**[00:15:49]** information go to drberg.com And

**[00:15:51]** subscribe to my newsletter by clicking

**[00:15:53]** the link Down Below in the description I

**[00:15:56]** will see you on the other side now I

**[00:15:58]** touched on this co-enzyme Q10 thing if

**[00:16:02]** you haven't seen this video check it out

**[00:16:04]** it's pretty

**[00:16:10]** interesting

# Full Text (without timestamps)

today we're going to talk about the oh my goodness the deeper source of your fatigue now I will say this I am an expert in this area simply because I've been tired a good portion of my life and I overcame it so I have something very important I want to share I remember driving down the street with my wife in my late 20s being completely exhausted trying to find a healthy store to find some vitamin to give me energy it never worked I had tons and tons of vitamins and did know what was going on so if I can teleport this video back in time and show it to myself this video would have solved my problem if I really understood how the body makes energy and also this is going to be very motivating to you especially because you're going to finally understand what really is behind fatigue in general because you can take various vitamins and energy drinks and try to boost your energy and and more coffee but that doesn't fix the real problem and if you go to any of these 7-Elevens you'll see right at the front counter this huge section 5H Hour Energy Drinks everything starts with this mitochondria what is the mitochondria it's an energy Factory deep inside your cells that produces energy if you have any aspects of fatigue even if you exercise and you run out of gas really fast or even if you have many of the different problems the health problems that most people have this mitochondria is at the root of it in fact most diseases come directly from this mitochondria so what is the pondria it's a battery making machine because food directly can't give you energy it has to be converted into a chemical form of a battery so you can use it and so the energy battery itself is called ATP so the mitochondria is actually the battery maker and the ATP is the actual battery and whether you took biochemistry or not this might help you to understand the Simplicity of what's going on with the massive complexity of what's Happening inside that mitochondria maybe you have or you haven't heard about this Krebs cycle thing right that's actually the pre- battery maker okay so it comes right before the battery maker Because the actual battery maker is connected to it the kreb cycle gets everything prepared and ready and helps strip out some of these electrons but we have to somehow extract these electrons from the food that you eat and since we're on the topic of food certain foods have more energy than other foods and so if you're living on Ultra processed foods it's going to be almost impossible to extract energy from that simply because it's dead there's not a lot of energy in there and on top of that there's a lot of nutritional factors in food that we need that the battery maker assembly line requires in each step of the assembly line okay you need B1 B2 B3 folic acid B12 magnesium manganese selenium vitamin C and something else called co-enzyme Q10 so these are the helper molecules that are essential for making this battery now there's a very very important enzyme that's involved in making ATP it's called ATP synthes not that you needed to know that but what's interesting about this ATP enzyme is that it's very very tiny and it's a turbine it spins it helps to generate energy but it's it's very very tiny okay so it would take like a 100,000 of these little enzymes to be the same width as one hair okay so they're that tiny but they're spinning at an incredible speed and every time they rotate one rotation they produce three atps and so how fast do they rotate well they're rotating roughly about 7,000 to 9,000 rotations every every single minute so you can imagine how much ATP is generated I mean just one enzyme you're talking like 27,000 atps per minute now if we just look at one cell and determine how many mitochondria is in that one cell you're looking at on average between a, to 2500 mitochondria per cell and how many cells do you have in your body you have 10 trillion cells incredible now check this out a healthy person makes a massive amount of ATP the actual weight of that ATP would be equivalent to your own weight so if I weigh 180 pounds I make 180 pounds of ATP every single day that would be equivalent to 12200 Watts which comes out to about 282 AA batteries now that might not seem like a lot of wattage but your body is very efficient at using this energy but the fascinating thing about this ATP is it's not really stored it's generated on demand so if you're not really exercising or moving you're not going to generate nearly as much as if you were exercising the point is that this ATP doesn't really get stored now when it's used okay it turns into ADP which then can be recycled back to ATP and ADP does get stored but ADP gets recycled about a thousand times a day okay into ATP and so at any given time during the day you have really only a quarter of a kilogram of ATP that's not that much but as soon as you start exercising that ATP generation goes way way way up now the next question is if we don't uh store ATP what energy do we store well there's two fuel sources you have sugar stored as glycogen in your muscle in your liver which it's not really that much it's probably have 1,700 calories worth of stored glycogen and soon as you deplete it your body is going to require more sugar or glycogen if you're dependent on that sugar but you also store energy as fat and once your fat adapted you can tap into this fat a lot easier because you've grooved into this ketosis by lowering your carbohydrates and you become very efficient at burning fat then you can very easily use that fat as energy and have that go through this KB cycle but if you're not fat adapted um you're going to run out of energy pretty quick because you haven't adapted to the fat fuel you're just going to run out of energy and so this is why the ketogenic diet is so important for your energy first of all you get more ATP from ketones and fat then you do glycogen or sugar and secondly you have a lot of fat uh Reserve to tap into I mean the average person who's not overweight has about a 100,000 calories of of fat on their body compared to the glycogen storage which is only like 1,700 enough for one day so with my problem way back when I was in my late 20s I would consume pure carbohydrates okay and my energy would come up when I would eat and then it would come crashing down because I ran out of energy and I required more sugar or more carbs to get my energy I was completely dependent on carbs I didn't know about ketosis back then but I was always tired especially in my head even when I would wake up in the morning I would be so tired and I couldn't wake up like mentally until later in the morning or even the midday so what's significant about that is that 70% of all your ATP is used by your brain your brain Hogs a lot of this ATP so if there's not enough of this ATP to go around for various reasons your brain's going to suffer and this is is why we have so many problems with dementia add brain degenerative disorders mood disorders I mean try to be depressed when you have a lot of energy available with your mitochondria it's it's virtually impossible if you reflect back on the times that you were depressed chances are you were also tired at the same time so the first clue about getting energy is to get on the ketogenic diet so then you can supply your body with a quick source of fuel which is more efficient to you can not only make more ATP but then so you can tap into this energy reserve a lot quicker and not be stuck uh with this machine that's only dependent on glucose as your fuel it's dependent on co-actors yeah research now has shown that the primary source of oxidative stress in cells is leakage of oxygen and these electrons from the mitochondria and this leakage increases when the key nutrients or protective molecules are missing in like co-enzyme Q10 especially if the person's taking a Statin drug or other drugs that deplete that nutrient that's a really important nutrient to help transport electrons now just so happens that that biochemical pathway that involves the co-enzyme Q10 which is needed to generate energy um is the same pathway that we make cholesterol and so the drug Statin which basically inhibits that enzyme also inhibits Coen have Q10 and this is why one of the biggest side effects from people taking statins involves muscle uh problems weak muscles inflamed muscles muscle disorders lack of energy because think about just in general uh your muscles need energy to function I mean this is how we move you can't move without muscles so you can imagine how much mitochondri is in your muscles and how much Coenzyme Q10 that we need in our muscles in fact if you wanted to consume something with high amounts of co-enzyme Q10 you want to eat muscle okay like red meat fish things like that and the food that has the highest amount would be organ Meats liver and especially heart okay extract you can probably get in supplements but you know people don't typically eat heart but um it's something that has a lot of coin Q10 but you have to also realize that your body makes co-enzyme Q10 so it's not just necessarily dependent on the diet you can make it as well if you have all the co-actors that allow it to be generated and so all those co-actors especially B vitamins are needed to allow coenzyme Q10 to work so just as a side note uh if you're on a Statin if you're on a beta blocker if you're on some medication for diabetes chances are your coenzyme Q10 is very very low so you should start taking that there's an interesting study um that I will put down below um about EXC exercise they tested like athletes versus people who don't exercise okay and they gave them Coen mq10 so in both groups they found significant Improvement in endurance so you can go longer without being tired and now you know why because that Coen and Q10 is necessary in the generation of ATP as well as acting as an an oxident to protect you against all this free radical damage that's created from the exercise so one big side effect from statins too is you just run out of gas really quick especially if you exert yourself or you exercise now as far as the food that you should be eating you want food that contains a lot of electrons and a lot of life and a lot of energy so you can extract the energy from that if you're consuming like with the average American consumes processed foods I think it's 83% of all the calories in the grocery store are Ultra processed foods they don't even resemble the actual food it's going to be literally impossible to get energy if you're eating those Foods so so we want nutrient-dense foods with red meat at the top of the list I will tell you when I have red meat I have more energy it's not just the iron that that helps build up my hemoglobin there's a lot of other factors in that meat that give me energy not just Coen mq10 but just a lot of energy generating factors there's another interesting study about this I just found this I think it's fascinating I will put the link down below but what they did is they wanted to test the nutrition factors in red meat okay versus the plant-based meats that they're coming up with now like the artificial meats and so if you look at the nutrition labels on both of them they look very similar right look healthy but what they found is out of 190 biomarkers they found 171 out of one for 90 were significantly higher than the plant-based fake meat type uh food if you want to call it that the point is that when you eat nutrient-dense foods like truly nutrient-dense Foods uh there's 's a lot of things in there that can actually help you get healthy and instead of trying to make food just taste good I would focus on trying to help grow your food that's more nutrient dense and eat more food that is nutrient dense because what they're trying to do with the fake meat now is just to try to mimic the taste of it the texture of it but what about the nutrition the other really really really important thing about um your mitochondria and actually producing more mitochondria is exercise hands down that is the number one way to reduce more mitochondria this is another reason why you should consistently exercise on a regular basis and that's going to override a lot of other bad things that you might have done in your past and also if you have any type of diseases or uh problems currently this can help um counter that why because a lot of disease comes from damage to the mitochondria and if you're exercising and you're making more and combine that with in a minute fasting that fasting triggers another thing called autophagy autophagy is recycling old damaged proteins but also the recycling of the mitochondria how cool is that and then you're creating new mitochondria this is how you're going to get more energy this is the stuff that I wish I knew back in my early 20s actually before that I wish I knew this in kindergarten I would have saved uh myself a lot of years of fatigue now a couple other things that could increase your mitochondria Cal therapy I do that on a regular basis and man do I feel better after doing it if you're a little hesitant at doing that you can do kind of like a partial cold immersion with a cold shower the most difficult part about this is when you submerge um around your heart because your heart is pumping and it's trying to keep you warm and it's kind of like the the most vulnerable area but you can always do half of your body cold and you'll get some benefits from that there's also phytonutrients that can increase increase the reproduction of mitochondria and actually help repair some of the mitochondria as well like sulfurane and the cruciferous vegetables and the broccoli mic grains as well as the radish micro grains it's a lot of different foods there actually are quite a few phytonutrients that when you consume those they help your mitochondria and then on the flip side it's avoiding certain things too like avoiding the refined Foods avoiding the sugar going on keto avoiding chronic stress heavy metals smoking alcohol these are all the things I wish I would have known back in my 20s and also this is the understanding of what the mitochondria really is now because of the censoring and the suppressing of the algorithms on YouTube it's becoming more difficult to find my content and there's a lot of content that I cannot put on YouTube unfortunately so to make sure you have full access of all my information go to drberg.com And subscribe to my newsletter by clicking the link Down Below in the description I will see you on the other side now I touched on this co-enzyme Q10 thing if you haven't seen this video check it out it's pretty interesting