Bret Weinstein and Mike Mew\_ The Roots of Evolutionary Denti...

Sat, 10/9 12:40PM • 1:50:56

**SUMMARY KEYWORDS**

teeth, orthodontics, orthodontist, problem, put, people, braces, face, move, medicine, muscles, sleep, big, bit, thought, theorists, affecting, change, tongue, child

**SPEAKERS**

Mike Mew, Bret

**Bret** 00:08

Hey folks, welcome to the Dark Horse podcast, I have the great pleasure of introducing you to Dr. Mike mew who is, I believe, the most famous orthodontist in the world, also the most hated person in his field. Am I correct about that? Mike?

**Mike Mew** 00:25

I would worryingly think that may be correct.

**Bret** 00:28

Yes. And I must say, I know why it is that you're hated. And as much as they hate you, I feel very much the opposite. I think that you are a courageous man doing important things. And it is an honor to be able to bring this to a larger audience. So thank you for joining us.

**Mike Mew** 00:48

Cool. Sometimes, I just think that I'm very stupid.

**Bret** 00:53

Well, having been the kind of stupid that you are, I know what you mean. It's definitely not a great strategy for life. But it is an important strategy. It's necessary that some people do what you're doing, and very few have the characteristics to allow it.

**Mike Mew** 01:08

Yeah, I think that I don't, I don't know one in their right mind would actually put themselves into the position I'm in right now.

**Bret** 01:19

So do you want to say a bit about what that position is?

**Mike Mew** 01:22

So I'm in an interesting situation where I why So initially, I realized the issue when I was at University studying orthodontics, so clearly, I you can do dentistry without an orthodontic qualification. But I thought for me to do what I wanted to do, it was vital for me to have a good pocket orthodontic qualification. So I went to Aarhus University in Denmark, one of the top ones. And what I observed when I was chatting to the staff, and my colleagues and peers who were studying, is that the big gap was the etiology. The why. And it's always been my question, I was a kid, the one that kids always used to ask why. And, you know, what is the cause of things? And then, often I'll ask the why to the responses I get, and another why and another way. And I worked out this was the weak link, if you don't know the cause of the problem, you know, should we really be getting involved in any sort of treatment because in medicine treatments supposed to be about affecting the causes of a problem. So I then had a letter writing campaign in the UK, where I started with an editorial called the Black Swan. So you can look up British dental journal and Black Swan and Mike knew that was the article that I started with. The editor very kindly gave me the editorial. And I wrote that now I then had about sort of best parts and five years of hard letter writing, saying, why our teeth crooked, what's going on, you know, we're treating all these people even really go anywhere. And then I started by almost by chance, so I became an internet success. I wasn't really expecting it. But I had several YouTube videos up, people started sending me emails, and I was just so he was quicker rather than responding to emails to put another video up another explanation and this sort of thing called mewing started. Now it was, it kind of surprised me that people would go to what is realistically an incredible effort, you know, to change your habits and cranial facial structure by changing habits. Man, it's hard work. However, why not? The benefits that you can achieve by doing this are incredible, you know, basically, it's like saying get fit. You know, it's a tough thing to do. It's a tough thing to maintain. But why not?

**Bret** 04:08

Well, let's let's orient people a little bit. I have been saying for years, Where the hell is evolutionary dentistry? I know where evolutionary medicine is. And it is almost nowhere. But at least there's a formal recognition that there's something wrong with teaching medicine outside of an evolutionary context, a small number of people get that message. When it comes to dentistry, I have to almost literally bite my tongue when I go to a dentist or an orthodontist, because what they say about what's taking place because simply doesn't add up. It would take about 10 minutes to explain why the stories that we apparently tell ourselves about teeth are not plausible from an evolutionary perspective. And so therefore, this raises a tremendous question for all of those of us who have been exposed to dentistry. In orthodontics, how much have we harmed ourselves by accepting these narratives and then following through to treatments that then have downstream consequences? It's just mind boggling.

**Mike Mew** 05:14

I, I will almost hold back on saying what I think is the full extent of the harm that we've caused ourselves, either by inaction, or by the actions that medicine has been taking those two things, and I think that it has affected an entire generation

**Bret** 05:34

or more, well, I can say, just so my, my viewers know why this is personal to me now. This year, I had three teeth removed, I had two more that are scheduled and was postponed by COVID-19. And the reason for this is something called root resorption. Now, I've never heard of root reserves until I had a to the shatter on me. And then I had x rays taken and it turned out that I have this condition. While it happens that this condition lines up with aggressive orthodontics, which I definitely had as a young person. So almost,

**Mike Mew** 06:15

you know, Brett, I'll take that back. When you put fixed braces, you know, with orthodontic appliances, it will cause root resorption on almost every single tooth. And that's just without aggressive mechanics.

**Bret** 06:30

Right? So apparently, I had no choice in the matter as a child, it was simply, my parents doing what they had been told was necessary for my well being. That cost a tremendous amount. And then downstream, I'm now suffering massive consequences, right? Just terrible stuff where I'm going to have implants put in, which is a an awful process. And you know that that's to say nothing of the financial costs, which are through the roof, certainly far exceeding what my parents invested in braces in the first place. And all of this is because orthodontics doesn't have a correct story about why the teeth are crooked in the first place, and therefore it doesn't take the right approach to treatment. I mean, it thinks that I have some sort of genetic predisposition to crooked teeth. No, no, no, no, that doesn't make sense. So when I saw one of your videos, explaining that you had also deduced that the story makes no sense. And going through all of the evidence, I was just, I was gobsmacked to use the British term. Yeah. So do you want to tell us a little bit about why the evolutionary explanation that some of us just have a genetic predisposition to crooked teeth is wrong?

**Mike Mew** 07:44

Well, you know, we our ancestors didn't have problems. I mean, I couldn't tell you her ancestors had, um, cardiovascular problems where they had diabetes or sleep apnea. We don't know. We think less. However, I know where their teeth were, or still all, you can go into museums. today. You can look at ancestral material, you know, only 1000 years ago, from all the Scandinavian remains recovered. Everyone that had wisdom teeth, have them working in in function, and that was most people. Now today, having your wisdom teeth in is a rarity. We almost think that it's an extra tooth. I mean, you get the idea. It's an extra tooth, or we've evolved out of this. I mean, where does this fit with Darwinian evolution? It doesn't, you know, it's survival of the fittest is death of the weakest. Unless you go around killing people whose wisdom teeth come in, it ain't gonna change, and you'd need to kill a lot of people.

**Bret** 08:49

You know, you have no idea how many times I've sat in a dentist's chair and tried to raise the point that the idea we have extra teeth that are in need of surgical removal is preposterous. And I just can't seem to make the point.

**Mike Mew** 09:02

All my fingers seem to fit on my hand just fine.

**Bret** 09:07

That's, that's so odd.

**Mike Mew** 09:10

I was just lucky, I guess. Yeah, so good. People like simple explanations. And of course, as I say, for my frequently minor my catchphrase is, who makes money a dietitian or a lipid surgeon? Because fixing things you can charge for preventing things particularly trying to change people is not as billable.

**Bret** 09:36

Yeah, I mean, there's a perverse incentive, that comes from economics. And then on top of that, if there were to be widespread acknowledgement of how much damage is done to people by things like braces, a there would have to be a massive course correction in what we do. I mean, we've got lots of people running around with braces right now. And I don't even know what the liability would be. So once you're down this road with a garbage explanation, like bad genes are what causes crooked teeth, then it's very hard to get back to the right road and to treat things proactively by essentially restoring the natural condition that causes teeth to developmentally arrive in the right place. Is that fair?

**Mike Mew** 10:23

Yeah, very value medicines very good at making cost, good directional changes. If the cost directional changes don't exceed a certain percentage, you know, a few degrees. Medicine is very bad at making a 180 degree turn. And it seems, you know, history is littered with these events where it was screaming that you needed to make a 180 degree turn, but people have got to admit they're wrong. And there's implications to that. And that's not likely to happen without difficulties.

**Bret** 11:04

So how much can you tell me about about root resorption?

**Mike Mew** 11:14

Well, I mean, I can tell you that seems to happen on almost every tooth that I've fixed a place that's bonded to a wire, what seems to be the problem is that the brace is dictating where a tooth goes, alternate artificially, and the mouth wants a tooth to go somewhere else through physiology

**Bret** 11:39

is different feedback,

**Mike Mew** 11:40

do some some types of mechanism that is trying to determine where the two should be. And of course, most races seem that this is my ballparking, it seems to be there's a bit of flexibility between the brace and allowing it to move between two positions. And of course, also, when you put braces on IE, the way your teeth bite together, seems to be disrupted. And you're now biting in strange, different ways. There's causing strange, different movements of the teeth. And you know, when I want to get a steak out of the ground, I rock it backwards and forwards, then it comes out. You know, and if you've got these strange motions on teeth, or bolted in places, you know, I think we're, we have the potential for running risks here.

**Bret** 12:31

So let me let me deploy the model I've got happens I have a skull here, it's, I don't think it's human.

**Mike Mew** 12:39

And no one I've treated I promise you.

**Bret** 12:41

This is actually a seal skull, but it'll it'll do. So there. What I did not know what I think of is the real story of teeth is that our teeth are not directly bonded to the bone in our jaws. There's a ligament that attaches them

**Mike Mew** 12:55

so that perhaps we have what's called a gum, fathead joint gum, gum for two giants. The gm 40 joint is a very tight joint so it's not like the joints and my fingers that have a great range of motion a GM 14 joint is just where you have a fibrous connection in this case shopee fibers that that basically that is what we refer to as the periodontal membrane. So the Paragon membrane anchors the tooth into the bone with a little bit of flexibility,

**Bret** 13:29

a little bit of flexibility and people who are listening to this will almost certainly have had the following experience. They will hit a tooth, not hard enough to dislodge it, they will detect that it is loosen it wiggles and then it will tighten back up.

**Mike Mew** 13:44

Mm hmm. So basis of orthodontics.

**Bret** 13:48

Exactly. So the point is we have built in a mechanism that actually detects where the two should be based on you know, if a tooth is bumping up against another and there's pressure it can be moved slightly, but in general, it sits in the right place with feedback from chewing and other such things. And only when it has been dislodged does it re attach and so what orthodontics does is it takes advantage of this system and it puts pressure that's directional and what happens is the tooth actually moves through the bone breaking down bone ahead of it and building bone behind it. This is how your orthodontist gets your teeth to move in position and lineup

**Mike Mew** 14:29

which and it's very effective if you want perfectly straight teeth and you don't want to do anything. Also the orthodontics will achieve it for you.

**Bret** 14:40

Well but apparently not stabling apparently it comes at a cost.

**Mike Mew** 14:44

Well there is that.

**Bret** 14:49

So, alright, so something about taking a tooth and moving it through the jaw, I believe is very likely to turn out to expend This capacity basically I was told the question I asked my orthodontist or my dentist at the point that it became clear that some of my teeth needed to be removed and replaced with implants was, well, I have my wisdom teeth, can't we move my teeth forward now and fill in the gap. And I was told not too late. At the point somebody is your age, the capacity to move teeth, like you could do in youth is largely expanded. Is that fair?

**Mike Mew** 15:28

I mean, yeah, I mean, it's just decreasing as an exponential curve that goes down if you could do it. But if you need to move a tooth decent distances, you're going to lose a lot of the route. So if you're moving a tooth a distance, we talked earlier on about the jiggling sort of motion causing root resorption. There's another way to quote root cause root resorption. The point is that as the tooth moves through the bone, the bone dissolves in front of the teeth, and it reforms behind the teeth. But to a small and lesser degree, the root of the tooth will also dissolve the bone is much more dynamic, the bone has a far greater capacity to correct rebuild itself. And the tooth has a lesser capacity. So you have a net loss of substance on the root of the teeth.

**Bret** 16:23

So this is where your work and my work intersect. Because there is in these tissues are certain to be a counter at the ends of the chromosomes called a telomere that sets your lifetime capacity for cellular replacement. Yeah, and and if you expend that cellular replacement as you move teeth along the jaw, then it won't be there for maintenance later. And so I don't know exactly how that's gonna play into root resorption. But my guess is my orthodontist who was apparently too aggressive with my orthodontia, spent my lifetime capacity for tooth dynamics, and I am now faced with having inert substitute teeth swapped into the places that my teeth were artificially aged.

**Mike Mew** 17:12

That's an interesting concept. I've I've not really carbonated it from this angle before. But

**Bret** 17:18

yeah, well, let's take it, let's put it this way. That's a prediction, I bet you look at people with tooth resorption that you will find in the place where the teeth are resorbing that their telomeres are also short relative to people of the same age group who did not have orthodontia. Right? That's the prediction.

**Mike Mew** 17:39

That's a prediction, I will we will I will wait eagerly to see if that comes true. As is many things in science where you make a prediction, and it can take some time sometimes,

**Bret** 17:49

boy, I've noticed that pattern. Alright, so I think we haven't fully filled in this picture though. Your model, which I found quite compelling, when I saw you run through it at length involves a change in human behavior, especially around diet that has caused a developmental program that in our ancestral environment would have made us have very straight, wonderful teeth. And it has caused them to come in in ways that they do not align properly. That's called malocclusion. Is that right? You're correct. Okay. So can you describe what has happened to us what you think the causes are and what we would do to correct it?

**Mike Mew** 18:36

All right, well, there's two principal things that have changed when we're talking about the structure of the whole facial complex. The first thing is we've gone from being sort of having an incredibly rough, tough, hard, low calorie diet. You know, populations were controlled by calories, you know how much food they had, and people had to eat anything they got hold off. And often those things were really tough. We've moved across this incredibly soft, very rich, calorie rich diet, you know, you could have so I'm quickly having so today was my starvation day. So just before I had this, I have debt quickly, you have a little bit of drink with a little bit of sugar in it. Now, I don't know how many calories I'm consuming in a relatively large cup. But the effort that I do with my chewing system to gain those calories is next to nil. So we've gone from this tough diet to a very soft diet. We're not using our jaws use it or lose it. Now. I've got a strong job. How how'd you get a strong jaw from using it from chewing now, at the very same time, that we've had this grace for adults shutting in usage, use it or lose it will also have this change in our posture. So most children now in the first year of their life will have several episodes with blocked noses. Now that kind of is normal now. And often that's several days. Now either, you're going to lower the tongue of the roof of your mouth, separate your lips, and breathe through your mouth, or you're going to die. There's no other way. Now, if you do lower your tongue, open your mouth and all the rest, there's a good chance that you're not going to go back to perfect oral posture afterwards. What started as obligatory need has become a habit. So effectively, what's happened to most of modern humanity is we've gone from beautiful posture, lips together, teeth near near contact tongue on the roof of the mouth, but good body posture, and good strong chewing muscles, too weak chewing muscles and hanging our mouths open. Now, if you've ever seen someone who's had a stroke, what you notice is one side of their face will drop down. Now what I'm saying is modern humanity has had a mild to moderate, bilateral, so we're talking both sided stroke. So everyone's faces have dropped down. And as your faces got longer, it's got narrower and shallower. Simple reducing the cross sectional area. And that's where your teeth are on the cross section. So less space for teeth, but of course, less space for the airway as well. And that's the real crux, I mean, resorptions It's annoying, it's, it's treatable. You can have those implants. But if you've got major sleep apnea at a young age, it can it's damaging.

**Bret** 22:08

In what way is it damaging?

**Mike Mew** 22:10

Sleep apnea. So let's say if your face down swings, carrying your tongue that's attached here into your airway, you, it ages, everything. You know, it is linked to cardiovascular diseases linked to diabetes, it's linked to cognitive impairment. It's even linked to ADHD. And when you talk about all of these other ways that lots of modern diseases and so you know, me saying, Listen, we that my profession, the orthodontic speciality has does not acknowledge any calls, it just doesn't know what caused the problems in nearly all of the cases. So why can't we engage in debate about this? Why can we talk about it? Why can't we engage in the scientific process? You know, you know, I've got you know, this, I can call all around the world with one of these. It's amazing. How was that achieved? The scientific process? It works? Why can't we use this in medicine? When we need to do what the doors get closed? Because people don't want to hear?

**Bret** 23:22

Yes, I have been saying for, I don't know, a decade, maybe almost two decades, that medicine is taught. And I could say the same thing about psychology, these things are taught as if Darwin had never lived, and there's no reason for it. They're both fundamentally about an evolutionary system. And yet we teach it as if Darwin had never published the origin of species. And the same thing is clearly true in dentistry.

**Mike Mew** 23:50

Yeah. But what's difficult to understand is that I'm seen as such a charlatan within my profession. I mean, it's almost acknowledged, you know, I went to a lecture and a senior professor, who's deciding the curriculum of the largest dental school in the UK, gave a lecture. He said many controversial points. He gave a good lecture, actually, at the end of that, I was fascinated by some of the things you said. So I went up to him and I said, Look, have you got some evidence for the points you've just said. Now, what he wanted to say, was, well, actually, we don't have very much evidence in dentistry for anything really. However, he thought he'd make a little quip a little joke. So what he actually said is what we don't even have the evidence to prove that john Muse wrong. My father who came out, came out with as the start of these ideas. So in a way he's using my father and effect me as the gold standard of bad science.

**Bret** 24:56

Yes, he started with the conclusion which

**Mike Mew** 24:59

he stole With the conclusion, and this is a guy, he sets the syllabus at the largest dental school in the UK. And that's just how deeply ingrained it is. And I know you know, it's difficult to know where to go from that position.

**Bret** 25:17

Yeah. So, again, I've seen the same behavior in my little quadrant of the world with telomeres and the damage that has been done by allowing mouse evolution in breeding colonies to affect our models, so that our models are all distorted in the same way. And therefore, even the progress of science, even a well done experiment doesn't tell us the right thing, because it's using an animal that has evolved in response to very unusual characteristics in the laboratory breeding colony. So my guess would be there are hundreds of stories like yours and mine things we are doing wrong, because there is some school of thought that cannot consider admitting that it doesn't understand what's going on, that these things stand in the way of progress.

**Mike Mew** 26:13

It's a very difficult medicine and an evolving science are very difficult bedfellows.

**Bret** 26:23

I found out that things got harder when I got near medicine because there was money. Right? You can do evolutionary science much more fluidly. If you're not near the money. But as soon as you approach anything where money is being made, suddenly it's it's a upside down world.

**Mike Mew** 26:41

No, no, where you're affecting people's careers, their status and their you know, their income. And don't get between a man and his wallet.

**Bret** 26:55

Yes. Although, the thing that I naively thought before I had been put through the wringer myself, was that although I could imagine most of the people in a field deciding to ignore some glaring, damaging error, I always thought there would be renegades who would respond to the fact that they could make a career by revealing what we were doing wrong and making people better. They could be heroes. And those people don't show up. I mean, they end up you they end up dismissed as a charlatan? Yeah.

**Mike Mew** 27:29

Yeah. And I mean, it is thanks to YouTube, Facebook, all of these crazy things that have appeared out of nowhere. That is the only reason that I'm still working. That is the only reason you even know about me. And it you know, the walls previously this chokehold that medicine was able to put by being the by controlling what got published, by controlling what information most individuals will gain and I give great credit to social media for, at least in the short term, it has broken the stranglehold?

**Bret** 28:10

Well, the the name of this podcast is the Dark Horse podcast for a reason, which is that now we can bring to light all sorts of things that would have been true and would have been known by a tiny number of people before, but now we can actually bring attention to them. And those people like you like me, we are dark horses. We are Yeah, I guess. I mean, it's, it's the reason I chose that name. So well. Oh, go ahead.

**Mike Mew** 28:40

I was just gonna say that it you know it for me. I you know, I think one of the turning points for me to really focus. I mean, I was I had just completed a marriage. So I was at the end of a fascinating phase of my life. And it was seeing my father and the rejection he had got, and I just decided, you know, I had one foot in orthopaedics, what I was doing, and I had more time doing conventional orthodontics mainly on adults so that I wasn't hypocritical within my soul. And then it was watching my father and the difficulties he was had made me said, Well, you know, even if I never make any money, even if all I do is make a few people a little bit better. I have got to focus on doing this. Something I don't know I always call it calling and I think is probably the same as what people turning to the cloth, centuries ago would call a calling. When, you know, and you both for that. And at the time, I didn't know YouTube was going to come along. I didn't know I still I'm only just turning this charity into a business and it takes You know, I did what 11 and a half hour day yesterday straight through lunch, that is not uncommon. And today, I will be the same straight through lunch again today.

**Bret** 30:11

So going from what I've heard you say elsewhere, if you walk into a public area, a park or something, and you look around at the people, what do you see?

**Mike Mew** 30:25

disasters? What does that Mighty Car Crash after a car crash after a car crash. And that's another thing that really, really gets me going, you know, if you so take it, go and look, you know, go and look at some sort of David Attenborough in BBC documentary way is with some relatively indigenous types, people, and remember, they're only 50%, what they would have been in the, in the glory days of hunter gatherers. And nearly every single person, every single tribes, man or woman has a really nice facial form, you know, almost exclusively all space for all their teeth, space behind their teeth. I walk into a park, anywhere Europe, estates, you know, any, almost any developed country. And I see these sort of distorted cranial facial forms. I see people who have all kinds of forms and shapes, and I know how badly that is affecting their general health. And that, that just it actually scares me. Because I know that every year, this is getting worse. Again, in my opinion, I have to say this all the time, because I see anything wrong, people are out hunting.

**Bret** 31:49

So you're talking about an incalculable level of harm. There'd be really no calculator if you think about it, no calculator. degradative, there's

**Mike Mew** 31:59

no cat inquiry. I yeah, I wonder what percentage of the health care costs are from a downswing in facial form, and the subsequent, so quality about the effects of that on the general health over particularly over a period of time?

**Bret** 32:16

So that is a I have to say, there, there is something tragic about the idea that you walk around and can see this in each person that you pass. And, you know, I think your analogies are very apt you say you see car wreck after car wreck, like bad reconstructive surgery, you see people who have the downstream effect that would be caused by a stroke, right? These are

**Mike Mew** 32:46

not so much not so much yet. You can also imagine. So what I'm saying is that, as your face drops down on back, it's going to force you into a forward head posture. Yep, I think that is, yes, we are spending a lot of time on these devices. Alright, we're spending a lot of time on screens. Yeah, and I'm sure that's not good for body posture. But a lot of this is the fact that if your face has dropped down on back, and almost every single person listening to this podcast has been affected, and probably to quite a significant extent. And so as your face drops down and back, you have to hold your head forward, you are reducing the cross sectional area, you're increasing your chance of sleep apnea, jaw joint problems, most of the EMT problems are worsened, because, you know, a structure that does not have the right architecture does not work correctly. crooked teeth are just one of the signs of this underlying distortion. But there's lots of health problems. And you know, it's the sleep apnea is always going to be the biggest one. But I, I have suspicions about several other things, that I'm not making public. I'm not shouting about it, because it just sounds too incredible. It sounds too ridiculous.

**Bret** 34:19

Is there any chance that you want to quietly and privately share it with me and a couple 100,000 people who are going to see this in a

**Mike Mew** 34:26

little bit? It's, it's what I'm more concerned about. I call this the name I came up the other day is carotid constrictions. So it's related to the carotid sheath. So I'm just saying that, you know, my concern is that as the face drops down and back, so it's a little bit like a wax work model. You've got too close to the fire, and you've just and as it occurs, yes, your tongue moves closer to your airway, and yes, you're leading to more sleep apnea. But of course also your this bulk is squeezing the carotid sheath. Now, I was fascinated by a an Italian chap, I won't even try to say his surname, who was treating ms by putting stents in the jugular vein. And what he was saying is that blood is pooling in the lower brain hindbrain. And it's unable to get out of the hindbrain as well as it should be able to do. And by helping this blood to drain, he was putting on multiple sclerosis into remission. Wow, amazing. And I that and that's that interested me and I was looking at the work of someone called Brendon stack. And of course, what medicine loves to do is ignore outliers. It takes them as Oh, well, that's a random event. And well, if you stop to look at some of the random events, sometimes, you know, there's a whiff of something interesting in many of them, and you don't ignore them try and make sense of them. But what I'm Brendan's stack was doing was taking people who would arrive in wheelchairs, he would build them up with appliances in the mouth, open their mouths up, and they would get out the wheelchairs and walk. And I thought, wow, I hear from other people that this effect wasn't permanent. However, in the short term, it was fantastic. Now, I was sitting there trying to make sense of this when I heard of his Italian doctor. And these made sense, because the types of the delay that Brendan was saying was just about right for blood effect and a blood neurological effect. And so my idea is that what we're happening is particularly in the people who are attempting to use certain muscles in this area, to swallow and maintain an open airway, who lacks space, because the faces dropped down there constricting the internal juggler. And that is leading to this is with the suggestion where this is, I think the link between outsiders and sleep apnea. They're both related to the same facial distortion. It's also the suggestion with some of these texts, you know, these texts people have, you know, when you're swearing in the supermarket, because you've got a deck, you know, those are any suggestions, um, and also one of the things that really fascinated me was, you know, I remember going to Thailand years ago, when I first qualified and everyone had beautiful skin and straight teeth, then I went back a few years later, and I noticed a few people had braces. And it was just amongst the few people with braces, that they also had some facial acne, and the facial acne was limited precisely to the drainage of the lymphatics from the face. Now that lymphatics is also going down that same carotid sheath. So my suggestion is we've got this constriction on the carotid sheath that's leading to other problems. But again, I you know, I want to hold back because, you know, I don't want to sound like I've got the cure to everything.

**Bret** 38:26

No, no, no, no, you don't worry, you're among friends here. This story makes a great deal of sense to me, which doesn't mean that you've got it right or wrong. But I know, this style of thought, is the one that solves big problems. Lots of stuff is going to be downstream if the same single error, and trying to make sense of the outliers will tell you how it works.

**Mike Mew** 38:49

Yeah. And also, the other thing going down this carotid sheath, of course, is the Vegas nerve. And of course, if you squeeze the Vegas nerve, you're going to ramp up your sympathetic system. And what do we notice and so many people today, that ramped up their sympathetic system, the person with that calming effect, from the Vegas nerve, all right, they call it the Vegas, because it's the vagabond, it's the travel, it just goes off all the way around your body, particularly to the internal organs, calming them down. And I think the problem with this whole thing is that if you put someone in, you lie them flat, to put them in a scanner, you ain't gonna see it. Because it's only affecting when you're standing or you're supine, and you're engaging these muscles to maintain an airway.

**Bret** 39:43

That story also makes sense to me that there's a bias in the way we study things and it is predictable that anything that runs afoul of that bias will be mysterious for much longer, right. Anything you can see lying will not be discovered by this method.

**Mike Mew** 40:02

No, no. Well, I mean, that's that's what we sometimes don't stop to, there seems to be a lack of rationality. When you look at astrophysics, astrophysics is divided into two sort of groups, you have your experimenters and your theorists, and is a wonderful science where people are pushing forwards ideas. Ideas change is amazing what we're from this tiny little speck in the back waters of one galaxy, we have managed to work out an incredible amount about our galaxy. But we've done that with this mixture of experimenters and theorists, when it comes to medicine. Where are the theorists?

**Bret** 40:47

Well, you've probably worked this out yourself, are all tiny. In my field, there are no theorists. And the reason that there are no theorists is pure economics, right theorists are the key to moving evolutionary biology forward. But what we've got is a system in which the incentives inside the university prioritize expensive experiments which require big grants, because the overhead goes to the university. And it builds the buildings and all of that a theorist who basically needs pencils, and access to the library doesn't bring in big grants. And so the university doesn't want to fill a spot with them. So what we've done is we've had a kind of a coup, where the empiricists have taken over and there's nothing wrong with empiricists. We need them, but you need them paired with theorists. And so instead of doing that, we say, well, theory is something you do in your spare time, once you've done your empirical work, which of course, turns the philosophy of science on its head. And there's nothing that says a good empiricist is going to be a good theorist.

**Mike Mew** 41:55

So you're going to be at home be someone else on your part time,

**Bret** 41:58

right? It's not a hobby theorist is a hard job, it just doesn't look the same as running experiments. So it sounds like but go ahead.

**Mike Mew** 42:08

What we're doing, we've got so many facts, you know, I i'm not saying that research is coming up with the wrong answers. I'm saying we're just not reflecting on the facts we've got, and trying to make sense of them. There's a lack of discussion as a lack of logic. And the problem as you said it, you know, this, this empirical basis of evidence as being above is just not was not being reflected on it's not being considered you. And that's what we need badly.

**Bret** 42:43

Yes, we need. So the way I think of it is synthesis, right? synthesis is the act of taking data generated in experiments and combining it with theory and figuring out what the new model is and when you so these phrases like Well, what do the data say, right? Or data is king. These things sound so right, because they sound like an embrace of the idea of empirical science, but they're actually part of an overthrow of theory by empiricism, which is not science that's just observation. So anyway, it's a chronic problem and its root is so mundane that nobody even notices it, which is the way we've fund universities is about experiments that cost money and so the administrators have gotten so efficient that we can't think clearly anymore it's it's a disaster. Yes, I

**Mike Mew** 43:42

mean, we do have slightly different structures here in the UK, probably not so much in the university, but when it comes to providing health care, but you know, I think we've got a lot of we're not we're just we're not questioning things enough. People aren't questioning everything, you know, you cats, I think there are four RM that's all you can say. You know, interestingly, one of the famous um, scientific philosophers was called popper. And he lived literally if I point my finger he lived about two miles if not less, over there. Actually, he claimed to be in the town next door, but it was I think, this town and he, you know, he set the point that you know, you can't prove anything, you can only disprove things and trying to make certain that this never escaped medicine, medicine never went back. To prove it. He put the null hypothesis or his group made the null hypothesis and they put the NIH opposite so whenever you make a scientific paper, you try to disprove the null hypothesis. Yeah, you've tried to falsify the null hypothesis. However, of course, we now just have the null hypothesis. And we have completely forgotten why we have the null hypothesis, it seems almost irrelevant. You know, I asked sometimes, you know, Obama has done some research. If I'm at a conference, and I'm walking around amongst the posters, and I will do my sort of annoying spot conversation with someone on what was in our hypothesis for Why did you do that? What's the history of that? What How did that come into science?

**Bret** 45:31

Right? They've skipped the philosophy of science, and then they've told themselves lies about why it's no longer necessary. And we've got more sophisticated methods. It's very dangerous.

**Mike Mew** 45:44

Yeah, I mean, I think that, you know, I, you know, we all look at the world for my own position. Now, I think that the medicines, lack of had we say this, so the craniofacial dystrophy and its effects and the fact that from inaction, and from the wrong action, has possibly caused a issue of historic significance. You know, I see this, it's just, it's utterly incredible, in my viewpoint, the sequence of health effects that have been caused, that I think are completely preventable, completely comfortable. However, in my viewpoint, this is going to rattle along getting bigger and bigger and bigger. And from this, it's going to give the the ability or the situation where we could gain some real change. And I guess that's what Karl Popper was thinking when he put the null hypothesis in there. However, I really look forward to the abilities of trying to gain some good, proper, sensible change in medicine.

**Bret** 47:09

So let me ask you about a couple things. One, I have a hypothesis, almost certain to be wrong, but you're probably the only person on earth worth running it by. I was wondering, one of the things I don't think we have great information on is how our ancestors slept. We have some information about how people sleep, even hunter gatherers in modern times, but a lot of the information I believe has been lost. I'm wondering about the effect of sleeping on pillows with your face down potentially or your head cocked to the side? Is that having an effect on malocclusion?

**Mike Mew** 47:56

Yeah, I really, I would suggest that if you have a symmetric position where you routinely sleep, yes, it could have an effect. However, is one of those things where I don't have enough information. And I'm sitting on the fence processing the moment you know, I'm seeing some of those Egyptian things. I mean, it was you know, you these Egyptians have these ceremonial things that were a bit sort of like this, a little bit shorter, about like that height, I think they were cut on one side that they would put buying their heads when they slept that was emulated in quite a few different cultures. And the idea of a pillow and resting your head on something seems to be really deep in literature, you know, really quite deep in ancient literature and, and fables as well which is interesting. My sister is a physio when she says to me that one of the good things of sleeping on a hard surface is how you have to move around. So you're not you're not in one position you're physically having to move. Then I'm looking at the you know, you go into ancient churches in in or even fairly modern churches in India and you're have these reliefs of people. So these models have statues of people lying down often with their sword right down in front of them, suggesting you're lying and you're back. I remember going to I had the chance to go traveling before the internet, and before everyone else on their dog decided to go traveling. And it was a fascinating period. And I remember going to this particular event, I was in South America, and I was amazed at how people would just lie on sleep sometimes across there. goods. So if you had a bag of stuff you wanted to take to the market, you didn't want someone nicking your stuff while you're asleep. So you would sleep on it in sort of bent fashion or a twisted fashion. And I couldn't get over how these sometimes relatively mature people weren't seemed so flexible, but they slept. And it just didn't seem to fit with the sort of pattern we're seeing where many of you don't have a beautiful mattress, you're gonna throw your back out. Well, these guys were sitting bent over backwards with their legs twisted now on one side and their head like that. And same thought fast asleep perfectly fast asleep, and I didn't see anyone wearing neck braces.

**Bret** 50:42

Yes, their muscles are protecting their skeletons, whereas ours have atrophied because our sleeping surfaces are too soft.

**Mike Mew** 50:50

Yeah, well, I mean, there was a distinct lack of mattresses.

**Bret** 50:54

Yeah, mattresses. Yeah, frankly.

**Mike Mew** 50:59

You're trying to make life soft, because you've got a problem that from being soft.

**Bret** 51:04

I had a similar intuition. And at one point considered whether I would just simply be considered crazy if we got rid of our beds and move to hammocks, because once you figure out a hammock, it's actually quite a good way to sleep. I mean, from a lot of perspectives, from a thermal perspective was

**Mike Mew** 51:25

interesting. But remember, when the sailors used to use hammocks, they would have a cushion? That would be semi circular to sort of flatten it out a little bit. And I'm not a great deal. I don't know. But so they were trying in that era to sleep on a slightly flatter surface. Yeah, well, my wife my thoughts will be sleeping on the floor.

**Bret** 51:48

Well, the thing about a hammock is an A may not be as easy on a ship, I'd have to think about the geometry. But the way to use a hammock is actually diagonally, right so you are flat or you know that U shape doesn't quite right. But if you sleep kind of across it, it works out very well take some getting used to but there's a lot to recommend it.

**Mike Mew** 52:11

Yeah, but but I've worked I've tried with patients, getting them and I always say you know I have to caveat all these suggestions before everyone listening goes out and does it that with some supervision. So passerby some professional help, you just start sleeping on the floor, you know you start by going down and we call them carry mats for sort of things you would go camping on you know get three of those maybe four stop with that, then gently take them away. You know, a lot of the time it's because your skull your, your vertebra have become so distorted, it's going to take time to unwind that and level everything out. You know, if you see someone who's hunched over all the time, their vertebra will be wedge shaped. And that person can't suddenly sleep on the floor. It's going to take a little bit of slow manipulation to get your vertebra fairly square again. And that, you know, but floor is an excellent way to start exhibiting change. So if you can sleep on the floor, then you've got in eight hours of training every day, every 24 hour period, you've got a third of it based on training to be straight. And Brett one other thing you know this when we're talking about prevention, and you know the exercise I try and get people to do a mealtime exercise and I say that we want a positional exercise because a situational exercise sorry because it's great you know you can go to my functional therapists are or Ramallah just and they'll teach you how to do a perfect swallow. But most kids learn the perfect swallow but they never really do it because it's it's almost compartmentalised is exercises. So what I'm suggesting is people have a mealtime exercise because that's situational. They're going to be sitting on a meal and the exercise I recommend and this works, it's elbows off the table, set up straight, it with your mouth closed. chew your food properly. Don't speak when you're eating and take your food. Food comes to you, not you to your food. The only other thing I add is you've got to do a chin tuck because most people have got forward head postures. So I make them chin tuck when they swallow. Now, not much of that is new. And when you stop and reflect almost every second Go culture on the planet, recommend and has recommended exactly this for generations. And there is a reason for everything. And because it works, and I think when we had this period between the end of hunter gathering, when we became subsistence farmers, before we started to really civilized I mean, really the Industrial Revolution, when things weren't so bad, you could go wrong. But if you followed some simple rules, some dictums, then you could gain him, you could make certain that your child would grow to be straight. And before we had modern medicine, you you didn't have anything to fall back on. So you had to do it yourself for your child, because your child was going to be your pension. So you know, you made your child sit up straight, and of course, you still have that possibility that things would go wrong. Now we talk about the, the village area, right? Who was the village? Yeah, well, we've got this idea of energy and sort of with the arrow sticking out. That's the classic adenoidal face. Here, the tongue attached behind the mandible is emphasis, you know, this bed has swung down towards the airway? Well, we know that one of the most statistically significant measurements for sleep apnea is the distance between here and the back of the throat.

**Mike Mew** 56:46

Shorter that distance, the higher the chance you are getting sleep apnea, we know that if you've got an abnormal face that distance reduced, we know that people with significant sleep apnea when their children are affected, their brains don't grow as well. And that's well shown. So here we have the village idiot, someone that didn't do the right thing. And it won today, you don't notice village idiot, because almost everyone looks similar. But a couple of 100 years ago, they stood out like a sore thumb. And they're the parents could go, I don't want you to end up like that. The wind will change and your face will set like that. Mm hmm.

**Bret** 57:40

Right, these are. So I have a category that I call literally false, metaphorically true. And these are beliefs that are not accurate. But if you behave as if they're accurate, you do better than you would if you behave according to the fact that they're false. And so the idea that your face will freeze in this position isn't mechanistically. Right. But it means that if you keep doing that, it becomes habitual, and the equivalent.

**Mike Mew** 58:08

Yeah, yeah. Yeah. I mean, it's, you know, there is, there is wisdom in certain cultural things, I am saying little more than stand up straight and track your math. And, of course,

**Bret** 58:24

you're saying a couple things, you're saying the way to avoid this problem in the first place, is to behave in a way that your great great grandmother would have understood to be the right way to behave in the first place. But you're also successful at treating people who have quite distorted faces. I've seen the before and after picture, pictures that I have shown, you have not

**Mike Mew** 58:45

seen anything yet. I'm holding back evidence for the right moment. I mean, I'm getting much better, I'm constantly getting better and better. And I got some adult results. Where do I put them out? I'd be just I there'd be a riot? Well, I'm Bobby, we're, you know, because we are achieving things that people just didn't think was possible. It's almost as if the world doesn't want to believe that their facial form is as malleable. You know, that image that looks back to you from any mirror in the world? I mean, why are you back, you know, if someone asks to meet you, who are you, you'd have to produce evidence of who you are, which will be a document with your image on it, the image of your face, that is in many ways a definition of who you are. And people just don't really want to believe this thing that they think their identity, it's an insult your identity for this thing to be so malleable, so changeable, and in a way it's not that it's not changeable, it's that you and your parameters and posture and function, that's not changeable. Your habits are less changeable than your form.

**Bret** 1:00:12

I've heard you say that people are resistant to the idea. Because if they are just simply stuck looking the way they are, then it's not their fault. But yeah, if they could change it and don't, then it is their fault. And I have to say that that resonates.

**Mike Mew** 1:00:31

Yeah, but it's a double whammy, isn't it that your face didn't grow? Well, and it's your fault.

**Bret** 1:00:37

Yeah, you know, shouldn't this change where we come to our children? The fact is, maybe you can't do anything about your face at some advanced age. But this, the really difficult thing to think about is your children at the point that they're born, aren't damaged yet. All you have to do is not screw it up.

**Mike Mew** 1:01:00

Okay. I put a little caveat in that I'm surprised how many newborns I'm seeing that have that are correct. To what I read that? Well, I'm fascinated about that. I think that a couple of things. First of all, well, the average woman giving birth is now considerably older, you know? Yeah, I don't, I wouldn't be fascinated to talk to a proper, someone who probably knew, but I would imagine that in prehistoric, so in Paleolithic periods, you would have a partner and within a distance, maybe six months a year of your first period, I would have no idea but I would imagine that this was a marker within the cultural society. But basically, if a lot of people were dead, by the time they were 30, you will have to get cracking at a much younger age. Although clearly it is it's an it's an emotive comment to suggest young girls would be having babies, but certainly, women are having babies older now.

**Bret** 1:02:04

That's certainly true and you're on the right track. women would have matured later that date has moved to an earlier point in life because of the plentiful resources that we have. But you are on the right track, most women would have had very few periods in life because they would have been in a state of American amenorrhea for much of their lives are there because they were pregnant because they were lactating because they didn't have enough resources to produce a baby. And so yes, there would not have been long periods of fertility in which women were not engaged in some part of reproduction. Yeah, okay. Yeah, you know, so family planning is a wonderful thing yeah sense that it liberate liberates women from this but it it does have consequences like being able to put off childbearing till so late in life, that your body may not be up to it in the same way.

**Mike Mew** 1:03:03

But also in these people wouldn't be as fit. Well, they aren't, you know, modern mothers are not going to be as fat as their hunter gatherer ancestors. Because the hunter gatherer areas, ancestors were younger and more active. Absolutely. So you've got your your, I would imagine that the in the fetus, the child is resting far further down in the pelvis because of that, so that's my one, then mothers aren't moving as much. That's number two, then they're sitting, which was, you know, I'm sure people did set but they also squatted, and they were on the move. Whereas, you know, a lot of working people now are sat in one position for long periods of the day. So that would be number three. And then we'll we're going to get on to some of the some of the modern diet effects and things like this that I'm not as familiar with, but I've been trying to throw ideas to suggest Why would we be having babies born, that home having really great form and great a situation or fight a good situation, so that

**Bret** 1:04:15

we can amend my point from before it may be true, it may not be true that you can protect your children completely by just after they are born, having them behave in a way that will not cause these problems, but you could protect your grandchildren. Right if your children behave

**Mike Mew** 1:04:34

overstay which children have a second bracket, I think, than the 90% of the population were spot on here. And what interested me is I often see people who are born with like fetal molding so you know, you're you're molded as a fetus in the womb, particularly if you've got twins, it's very common, and spontaneously correct, to a huge degree in the first three years. So at the moment, I'm not making comments Below three years old, I'm just leaving it blank in I'm saying I don't know, as a little bit like sleeping position, I'm saying, you know, I'm gathering information. I'm fascinated, I'd like to learn more. I'm not going to open my big mouth till I've got a few more facts, and I'm a bit more certain.

**Bret** 1:05:16

So now you're born distorted, you're still likely to correct if you have the right influences.

**Mike Mew** 1:05:23

There is good evidence. And I've seen anecdotally some really nice improvements, particularly with asymmetry from fatal molding. So but but you know, there's a lot of things you can do. Well, I mean, I do. Are you familiar with the baby led weaning movement? I don't think so. Okay, so the baby led weaning movement is that purees came around, during after the Industrial Revolution, when women started going to work and girls, it was important, we have equality, and we engaged the full labor force. However, all of a sudden, women not being at home, not mothering or, or, or nursing their mothers with breastfeeding as we would think, what 24 or 36 months, you know, this is a sort of numbers have thrown around. If you're going to stop that early, the sort of natural conclusion was you've got to give baby something soft that they can eat. And I think that's kind of where baby food came from. But I think that I just I kind of think it's this assumption, we all have the assumption that these poor little darlings are so delicate, they couldn't survive, you know, they can't miss a meal, they've got to have clock work bedtime. You know what those humans they're pretty hardy animals. They've done rather well actually, they're not that delicate. And, and so the idea with baby led weaning is you go directly from breastfeeding to solid food. So you, you have this transition phase, when you rely on breast milk for nutritional value, while you start ramping up hard food. And you start giving. So if anyone's listening to this, you know, a good way to start it is you cut the vege that you're going to eat up into chunks, one and a half times a baby's fist length, so that a bit of a baby picks it up a bit will stick out one side or the other side. And they can nibble on it. So you're not you're not and this is important to understand you're not expecting the baby to get their full nutritional value, you're just expecting baby to enjoy the food. And it shouldn't be the same types of food that you've got on your plate, because that's what the baby wants to do. And baby's going to have fun with food. You're going to use the breast meat from nutrition and you're going to watch in the nappy that you might call diapers, but the correct name is nappy. And you're going to look in the nappy to see what output is going on. So that you can gauge how much of nutrition is now from milk and how much is from solid foods. And then you make a progress straight through to solid foods and you never give slops

**Bret** 1:08:21

makes sense?

**Mike Mew** 1:08:22

Yeah, so when we're a baby, so when I looked up my nephew, who was a classic example, he had two big cheeks, he would cry, he would poo, he would eat and sleep. And that was it. And when I watched him feeding these muscles, the cheek muscles, what basically is the most important and powerful muscles in his body that's did everything getting food on board was his goal in life at the time. And I was amazed with his vaccinators and they these big cheek muscles. Now, babies and cherubs should have big cheeks. anyone over the age of four should have hollow cheeks. And again, I think that we except this chubby cheeks and they're not it's not fat, it's muscle. Because if you don't have to do something is unlikely You will? Yeah, we're lazy. Well, so

**Bret** 1:09:29

let's do that part, right? Our ancestors were deprived of food almost all the time. They didn't have enough. Yeah. And because of that, there is a strong desire to limit the use of calories that can be preserved, right, because the calorie saved is the equivalent of a calorie found. So we are wired to do all kinds of foolish things on the basis that we are preserving calories that we actually don't need and we'd be better off to burn. That's over from evidence.

**Mike Mew** 1:10:05

Yeah, yeah, yeah, yeah, yes. Yeah, absolutely true. I mean, you know, we're we're programmed to be lazy in certain way. So, but infants have a very different they infant cycle. And that's a very different packing from an adult swallow. And if you don't have to make that transition, you probably won't. I remember suckling. In the days when I was still eating wheat. I remember suckling a Big Mac. It wasn't very pretty. It was a bit messy, but I managed it and I suckled The Big Mac, I just, you know, use the suckling time action till I've got the whole big mac in, it took a bit of fluid, but you could do it. And I think that most people still suck or you're swallowing so use this musculature when they swallow. And we've never made the full transition. So that's baby led weaning,

**Bret** 1:11:02

let me let me understand what you're saying. You're saying that because we skip this phase, where babies should be learning how to deal with solid food, yeah, that we learn to eat solid food with the mechanical approach that we would take to a liquid food. In other words, when somebody purees the carrots, they turn it into what we would eat as, as we would breast milk, the suckling reflex continues, and it gets developed into a kind of what to say, a kind of chewing that is effective enough to get the food ground up and digestible. But it does the wrong thing is to our faces. Yeah.

**Mike Mew** 1:11:50

So, you know, we're supposed to move from the infantile circle to an adult swallow. And I think we get about 40 50% of the way there, we modify you when you need to bring the teeth into action, you, but we're using our facial musculature. So we're using the facial nerve, not the trigeminal nerve, but we want to get complex due in our swallowing process. And I think that's causing deeper problems than we would otherwise imagine. But particularly, it's upsetting the balance. So when I do and I'm not the best, sometimes I do a bad swallow, I do a little bit of, yeah, but if you do a proper swallow, there should be nothing. Whereas you see so many people doing this sort of thing. Now, if you're sucking like that, multiple times a day, every day, eventually you're going to pull everything back. And most people, if you take a ruler, and you line it from the tip of the nose to the tip of the chin, a huge number of people have sucked that whole segment back. You're sucking the teeth back. What you wonder why you don't have enough space for the teeth, or your wisdom teeth, then you suck your your the tongue space, so the tongue now has to rest closer and closer to your airway. And that's just endemic when I walked down the high street again, victim, victim victim, and then don't even aware of this. parents think it's like pureed food. It's the go to, you know when you're going to get pureed food. You know, when we had our first child, several people gave us some more bottles of organic puree food. I binned

**Bret** 1:13:35

good man. All right. So let me ask you a couple more questions there, man, unless you had something you wanted to?

**Mike Mew** 1:13:44

Well, I was just gonna say that. A couple of other things that I've noticed is that we've now got sugar and everything. Now, if I want it, you either put on weight, you lose weight, or you stay the same. Now, if you're going to stay the same, or the same trajectory on your percentiles, as a growing child, and you start you start having someone gives you a sugary snack. So they give you your sugary snack, you eat the sugary snack, now you're going to eat less of other things. So in the net effort you're going to go to is now decreased because you've had some easy calories. And I think that's endemic now in society, that we don't have to make as much effort to gain the calories that we're consuming to survive. And, and then the other one was, well, when I was at school, and I would be walking along the street with my hands in my pockets, you know, like this, a teacher would come on, smack me around the head hauled, say, hands it behind your back, stand up straight, get going. They would now get sacked. Doing the same thing. When I was young, you went into classes, you all sat up straight. Now you go in, and these kids look like they're having a Sunday afternoon movies session. And no one's saying anything. No one's saying stand up straight. You know, and yeah, only 100 years ago, people weren't growing with bar, straighter teeth, and better facial for going look at the move, go and look at you know, go and Google beach. And 1960. People were slimmer. They had better facial form. I mean, we're watching everything just in front of our eyes.

**Bret** 1:15:44

It's one of a dozen pieces of evidence that this can't be a genetic problem. Yeah, it can't have it since 1916. No way. So, okay, where are we? I want to ask you a couple things. One, I am now in an uncomfortable place with my children's orthodontia. My children have been told they need braces, my younger son actually is about to have his braces removed. And we have had the idea sprung on us that he needs a permanent retainer in order to hold the teeth in place. Talk to me, Dr. Mike.

**Mike Mew** 1:16:26

Ah, this is one of the ones I don't like talking about very much. Okay. So I get so many people from around the world saying, who's doing what you're doing? And the answer really is no one's doing what I'm doing. My father noticed these buttons. So my grandfather bought Western prices book on call, you know, nutrition and whatever it was, I can't remember. But Weston Price had an interesting but he made some great observations. My father can remember the place in the road where they were when my grandfather told him about the book. And this was before my father had even finished school. So my father knew about it. And my grandfather did some little bits of orthodontics kind of based on this concept, which my father was interested in. And my father then he came up with this idea of author tropix he came up with the idea of it being a not a genetic it was an environmental condition, and how you could affect it. But remember, back then, people stood straighter. People were educated to stand and sit better. Food was a bit tougher, there was less refined carbohydrates. So I inherited the system that was starting to struggle. And to be honest, you needed an incredible patient and you needed to be an incredible orthodontist. And when I committed to coming down here I thought right How can I make this simpler because it's not swinging you know, you can't do this You can't expect everyone to become superhuman. And of course you don't make money if you need to see people that many times now that's so I now have I'm getting now I'm really have I've made big big moves and you know, my as I said, my results are getting better, a lot better. But then how can I apply this for other people around the world? Because people are constantly asking me might I live in Bloody Bloody Bloody, is there someone around me who can help I've looked on the orthotropic map, there's this person, I will say, no one yet is doing what I'm doing. And I have literally risked everything I've sold the house taking inheritance, burnt the lot, risking my life and skin. But again, I don't know why you do these things. But you get a you, you get a passion, you head off on this passion, and I've more or less got there. However, I'm worried about everything. I really worried I'm really worried about all the people around the world. Now coming back again. Sorry for that preamble. Now let's come back to your child. Okay, okay. Now the problem is that if you have the structure that was informed by your posture and function, maybe manipulated by orthodontics slightly, it's very hard to change your posture and function in the structure that was informed by your posture and function, because it's reminding you to have the same posture and function self reinforcing, self reinforcing. So you what you got to do is get people to change their habits. Now, one of the simplest things to do is chew gum. I know it's not what it is not, it's not fancy, it's not attractive. It's not you know, it's not as wonderful treatment I can offer people but chewing gum builds up the muscle time in time it works. Also, of course, trying to get your tongue up on the roof of the mouth. And this is so I gave this lecture and people started the mewing movement based on that lecture and the information I gave out, it works, but it takes up a huge amount of personal commitment. However, your son now is being told they need permanent retention. Now let's think about let's dissect those retainers for a second. So the teeth, the bone, and the gum rests in a balance between the lip and the tongue. Great, well, we know that that's the system that we that most of the other 5400 species of mammals are using to get straight teeth, as we're ancestors used to do the same thing. Now, if you need a retainer, that retainer is going to hold the tooth out of the balance. And you can do it if that's what a retainer does. However, you can't hold the bone and the gum out of the balance zone.

**Mike Mew** 1:21:10

So in time, what's going to happen? The teeth are going to be left without the bone and gum.

**Mike Mew** 1:21:20

Now, that's not going to be good. And so I've been waiting. Over the years, I was waiting for periodontist, a gum expert, and an endodontist, someone who works with the roots of the teeth to contact me. Now about four years, three years ago, a periodontist contacted me saying, I can't believe that, you know, I'm looking, I'm doing surgery on people, and they've got damaged gums and bone all over the place. I met a girl so I went for drinks after work. And a friend came along and he bought his dental nurse with him. And we're having a chat, and she said that she was doing weekend work with a forensic dentist. And the forensic dentist is getting to look in places where most people don't. So this is someone who identifies dead bodies. And we frequently identify dead bodies, if you don't know, by looking at their teeth, because clearly a teeth is a really with someone's very badly decayed teeth is a really good way to identify someone. And he is looking at these dead bodies. And of course, it is going to be a selection of people, you know of different ages, you know, you're going to get lots of young teenagers as it happens. And he'll be looking and he said, it's almost like these skulls are completely different species than the skulls I did my medical training on. And he said what we refer to as a dead essence and fenestrations, that's where the root is bulging out of the bone all over the place. And that's from holding the teeth out of the balancer. And of course, lots of parents will go to their orthodontist, they'll say, I don't want you to take teeth out. So you're done, that's fine, we've got lots of methods, so we don't take teeth out and go wide on the dental arches. And they'll take them out of the balance home. And then you have a retainer that holds them out the balance. So now I don't want to criticize people not taking teeth out because I believe in not taking teeth out. But if you're going to expand and move someone's teeth out the balance zone, you better get that person to change. Mm hmm. So better change that balancer.

**Bret** 1:23:46

Here's the thing. The child in question, I become very attached to him. It's not like I can just go get another so what can I do for him? What what what should I say to this orthodontist? And then what should I say to this kid, and if I need to make him change his behavior in order to rescue his denturri I'm, I'm gonna do it.

**Mike Mew** 1:24:11

Um, it's just, I mean, okay, start in change, the easiest thing to change is your function. Okay? I could if I go to the gym, I can pick up my gym bag, I don't have one, I can go to gym. I'm not a member. However, in theory, I could do that. And I would program myself to go and do some function M. So example, I will ride my bike home because I'm forced to take the bike home, I forced myself to do a function, right? functions you can force yourself to do posture is you it is very hard to change your posture. Now you've got to change posture and function. So what I do here in the clinic, is I widen people's jaws. So I gained some structural change to help them to change. And then I put in feedback mechanisms, simple Pavlovian feedback mechanism. If you drop your mouth open, it hurts. Now, pretty soon you start to change. So a little bit like I lent you a big belt buckle with a spike that came to hear, you're going to stand up straight. Sure you are. But hopefully you can learn a lesson to be different. And a lesson learned can last a lifetime. Because if you do someone's homework for them, you always need to do it, if you straighten someone's teeth, you need to hold them straight forever, you do it artificially, you've got an artificial retainer. Now, for your son simply working on, stand up straight, shut your mouth, chew hard food. However, it's just I find it very difficult to really embody this message upon people, you know, the phrase, give me a child to lay off seven, and I will give you a man, under seven, you can change people are very malleable. Do you know you can change habits, you can change patterns, you can change behaviors 789 10 it's getting more difficult. Try and change my habits and patterns of behaviors. Now, that's hard work. So may I ask how old your son is? He's 14. Yeah, you see, it becomes the whole, the what you got to change now is not here. It's here, you've got to change his desire to change. If he gains a desire to change, then he'll do it. You know, look at these mirrors. You know, it's all there, I have provided enough information for anyone to gain significant health benefits for free. So I mean, you know,

**Bret** 1:26:58

if I Are you telling me that the right course here is to tell the orthodontist to get stuffed, not go with the retainers, and get my kid to do this mewing movement stuff that that's the right? The

**Mike Mew** 1:27:14

right if he does it. Okay, but

**Bret** 1:27:17

that's what I want to know. Because that influence if you

**Mike Mew** 1:27:21

could if you could engage him. So I frequently say to people, if I could plug into you, like they did Keanu Reeves in the matrix, and I can plug you into my computer, and I could update your parameters. That is all I would do. No more, no less. Remember, I could I could upload French and Latin and Russian and you know, the history of antiquity is that of life was that easy. And in a way us growing up is about us learning those things.

**Bret** 1:27:56

Agreed. So here's the thing. Fortunately, my son is like a pro super genius. All I have to do is show him this podcast, and he will understand what he's being told. And he's dreading this retainer. So if there's a method, my suggestion

**Mike Mew** 1:28:13

is Yeah, that what sort of retainer one fixed behind the front teeth, one that comes

**Bret** 1:28:19

to the lower one they want to do fixed and the upper one they want to do removable, which I'm afraid he won't even use?

**Mike Mew** 1:28:26

Well, okay, get the lower fixed because that will keep your static gain long enough for him to engage properly with the mewing.

**Bret** 1:28:39

Okay, and what do I do with the upper

**Mike Mew** 1:28:43

eye. So, my eye, if you wanted a perfect result, you would go one or two weeks with no retainer. Just let things settle a little bit, because one of the most important things is that your bike is comfortable. If your bike is not comfortable, you won't engage your full muscles. And you're not engaging those four muscles. Well, those muscles are the single most significant important fact in facial change.

**Bret** 1:29:15

So if I understood you correctly, you leave it for two weeks because actually, you don't want to hold it in the position that the orthodontist moved it to you want it to find the most natural position nearby.

**Mike Mew** 1:29:26

Close exactly, then you can take the mold, then you make the retainer. And then what you do is you slowly wean yourself off that retainer while mewing while mewing and as a top thing, don't get a retainer that covers the teeth because that layer of plastic between the teeth is jacking them open, preventing all night that comfortable bite is comfort might but the what the big word I've got to now is comfort. People will do things that are comfortable, redirect comfort and you're in The chance

**Bret** 1:30:01

Okay, now I have another son, he's about to get braces, I should just call that off and go full force on the mewing, am I right?

**Mike Mew** 1:30:10

Yes. What is that? Again, it's getting people to actually enact change. You know, the number of people who come to me say all they do, I got online consultation and they go, yeah, I my lips are together all the time, my tongues on the roof of the mouth, I've got beautiful body posture, I'm chewing all the time, I stopped talking to them. And I go, lips from pop carrier lips report, lips report. And what they realized, as I'm saying this is that they haven't really changed. You, right? They've changed when they're thinking about it when they're observant about it. But you We just need a deeper level change in that,

**Bret** 1:30:44

right. But in the case of my older son, I'm in an even better position, because I can tell him he needs to do this. And if he doesn't do it, I'm getting embraces. You see what I'm saying? That's the incentive.

**Mike Mew** 1:31:00

Yeah, I mean, um, you can't I mean, there are other systems that are simple. Um, you know, there's many different systems that will simply widen the dental arches give a little bit more tongue space, that can help you to change one of the big so we make certain compensations. So once we've reduced tongue space, we make a range of different places where we place our tongue at and that gives us a types of crooked teeth. So when we talk about a class one, class two, class three, or deep bites these various different things that orthodontist talk about. I believe that that's not genetic, it's more likely to be a comfortable arrange of comfortable places, where you can place your tongue off after you have a reduction of tongue space. Now, there may be some genetic tendencies in how you respond to this problem. Which of course, if you do your numbers, you'll start seeing genetic shadows. The other thing is you've got a forward head posture. So now if you bring your teeth together, force the tongue on the roof of the mouth, you're making a compensation or you're unwinding a compensation. If you put your chin back, you know you're unwinding or compensation. Well, of course, it's going to be uncomfortable to maintain this, because now your tongue is bulging back into your airway. That's why you made those compensations in the first place. Well, you are not going to sit in discomfort, particularly discomfort that affects your airway. You will do that.

**Bret** 1:32:47

So widening the tooth art is reconstructing an ancestral state.

**Mike Mew** 1:32:56

In one dimension in a simple singular dimension, it's just helping to create more tongue space so that you can unwind those compensations comfortably without this huge desire to return

**Bret** 1:33:14

so you're not arguing against all appliances your are no no for some and against others on the basis of ultimately trying to restore this ancestral condition.

**Mike Mew** 1:33:25

You just need to think and work out what you're doing and why before you blindly just sort of wrap braces around everyone

**Bret** 1:33:32

you know as a zealot you're disappointing me That sounds very moderate

**Mike Mew** 1:33:39

Well, what I don't like what I really think is a problem is when you have braces on the top jaw braces and the bottom jaw whatever types of braces that are preventing the teeth meeting together comfortably because then you're dissuaded so you've got a negative feedback to biting hard i mean i don't i my uncle used to go shooting peasants you know with a with a shotgun, would you go with buckshot, it call it and I remember going around for dinner once and chewing away on a bit of pheasant around love a bit of pheasant, and all of a sudden, I just froze solid, because I've got a little pellet of buck, a buck shot between my teeth. And it's amazing that you're exerting big pressures with your teeth and all of a sudden they stop. Yeah, because you've got an inhibitory feedback. Well, if your teeth don't meet together, well, you've got inhibitory feedbacks. What I was saying earlier on, if you've got a stroke, your face is going to change because you change your muscle usage. Well, slamming some inhibitory feedback mechanisms on all of your masticating muscles. Well, it's sounds very similar game to me.

**Bret** 1:34:50

So where we're at, let me understand what you just said. We have a circuit that protects us if you bite down on something hard, you'll crack your teeth that has big implications for an ancestor who broke it

**Mike Mew** 1:35:03

go back go back to that periodontal membrane that gone photic socket we talked about earlier on gum potting joint, in that joint. If you excessively stretch the, the tissues, you know the fibers, they will send a feedback mechanism, a pain feedback mechanism straight through to the pain center. And that will inhibit what you're doing.

**Bret** 1:35:28

And they work very quickly in order to protect your teeth from breaking.

**Mike Mew** 1:35:31

Exactly. I mean, how many times you know, I burnt my fingers on hot things. You know what, I avoid doing it now?

**Bret** 1:35:39

I've learned that's a trainer. Yeah, it's a

**Mike Mew** 1:35:41

trainer. So what you do is you very quickly bring your hand back because you've burned.

**Bret** 1:35:46

Great. So the second part of what you're saying, you've got this thing that protects your teeth. If you bite down on something hard, which our ancestors would frequently have done a little rock here, they're, yeah,

**Mike Mew** 1:35:55

yeah, they they really did too hard and hold things. And look at the surface of their teeth. Yeah, and they have chewed hold things.

**Bret** 1:36:03

So if your teeth are such that they don't occlude properly, yet, then hopefully you're sending that signal, you've just bit down on something hard, which arrests proper bite, and prevents the whole thing from giving proper feedback.

**Mike Mew** 1:36:21

Yeah, yeah, you're just not using the muscles. Yep. And of course, half of the cause of the problem in the first place, is you weren't using the muscles. And so many times when we're focused on trying to arrange the was we say we're trying to rearrange the deck chairs on the Titanic. You know, everyone gets a nice view of the band, but it's the deck moving. So you rearrange the teeth and you're focused on this and you you're not feeling you know, ever patient comes to me. Halfway through orthodontic treatment, one of the things I will always do is feel the biting muscles, you know, and I'll tell you if you've got a child in orthodontics, now, try it, put your fingers on the biting muscles, like there's four fingers horizontally on the occlusal plane. Bite hard together and see how much of that muscle is activated. And I frequently find that half the muscle won't activate. There, you can feel a muscle mass, but it won't fire off because it's being inhibited, because the teeth don't meet together comfortably.

**Bret** 1:37:38

Alright, well, I'm getting the picture. So I have a last question for you. I understood you to say in one of your talks that your license is jeopardized. Tell me about this.

**Mike Mew** 1:37:59

Okay, so it was I was putting up informational videos on YouTube. You know, people were asking me and I was putting the videos up. And I was giving my opinions and it was becoming very, very popular. And it is now very as I said, I I don't know how many orthodontists get stopped on the streets, but I get stopped on the streets a fair bit. So this was upsetting the status quo. So the British orthodontic society have referred me that their club, they're a club, you know, that the orthodontic club there, they're not important. They have now thrown me out. And they've also referred me to my, my official body, the general dental Council. I'm on a number of these videos. And of course, of course, is the problem here. Because I'm going to be when you go to court, when you go to the general dental Council, it's like a court. And so I have a expert who's in prosecution and I have an expert who's in defense who's so you have a prosecution, the defense expert? Well, the prosecution expert is an orthodontist who's very, very certain I'm very, very guilty and a very bad man. And the defense expert Well, clearly he is an orthodontist, because you don't have any ortho best experts, and he thinks I'm pretty bad. And I probably am doing all the wrong things as well. So you know, and it's, it's a strange and interesting situation. Um, I also have two clinical cases. One is a mother thinks it was things. What I've done is incredibly good for her child. She's absolutely singing my praises, and they're taking me to court over it. I mean, it's a bit strange and another one is a child I didn't actually treat, I set her up for someone else to treat. So they're having a go at me about the the objectives of what I wanted to do. So it's not about whether I did the treatment, right or wrong, it's about the philosophy. So what they're trying to do here is they're trying to get me on the I'm doing the wrong thing. And it's, it's interesting, you know, it's rattling on three years now for when the first thing started going. And I, you know, it's, it's, it's silly, how much of my time energy this takes. It just, it's, it's it's silliness. It's craziness. I mean, you know, we're talking, we have no idea what the cause of this is. And yet, both experts are throwing in comments that, I mean, really strong wording, you know, like, I know, this is wrong, it's been proven it's set. And I yeah, I will, I will have to see how this goes. But it's, um, I hope I'll get a fair shake out. I hope I get a chance to say, but I think what happens

**Bret** 1:41:11

if they rule against you?

**Mike Mew** 1:41:15

Bye, bye. Really. I can't practice anymore. And so of course, what the annoying thing is having just, you know, invested everything that I have into a treatment method and making it better, I would lose all of that.

**Bret** 1:41:31

So here's the thing, Mike, that can't happen. And what's more, I have listened very carefully to what you've put online. And I was expecting to hear kind of cruddy evolutionary analysis I expected based on what you were saying that you would be right. But a lot of what you were going to say was going to need cleaning up. That's not what I heard. I heard somebody who nailed the evolutionary analysis.

**Mike Mew** 1:41:58

Thank you very much.

**Bret** 1:41:59

So in some sense, I think you need a witness on your behalf, who's capable of saying that credibly? Because, like it or not, they are engaged in malpractice. If they're coming after you, not only are they wasting your time, but they are threatening to harm your patients if you can't work on them.

**Mike Mew** 1:42:19

Yeah, that has been. That is a suggested argument by one of my patients who saying you are going to take away my right. And my choice to have what you're providing Mike, if they stop you from working.

**Bret** 1:42:36

Have you? Have you contacted you said you had some contact with evolutionary medicine? Do you know Randy nesi?

**Mike Mew** 1:42:44

I've heard of him, but he's slightly I'm slightly down the food chain. Should we put it from Randolph Desi?

**Bret** 1:42:50

Well, I don't know about that. I know, Randy, he was a mentor of mine when I was in grad school, I think he would find this fascinating. And I'm almost sure he'll end up seeing it. So, Randy, I'd be very curious what you hear in this discussion. And I think it's about time that evolutionary dentistry was born. And you seem like the right guy to Herald in that era.

**Mike Mew** 1:43:18

Thank you very much. I do think as I as I have mentioned before, I think that evolutionary medicine is woefully, I mean, woefully under recognized. Yep. I said, so I've got slight, slight detour for a second. I think that if I was run over by a bus tomorrow, I would want modern acute medicine on my side, there is no shadow of a doubt that it's incredible. Yeah. However, if I have a chronic illness, I think we could almost say, by definition, that modern medicines failed, at least not for the aging ones, you know, for a good chunk of the middle ground chronic diseases. Modern medicine should really say, Hello, has anyone got any better ideas. And most of those chronic conditions are related from the mismatch between how we evolved to live and how we do live. We all know that, if you if you're unfit, you get fit, and you work to get fat. If you've got type two diabetes, there's a good chance is related to what you do your diet. And this goes on all the way through chronic meds and cording medicines about you know, you can't change people you can't make them change themselves, or pills aren't going to work. And we need to really learn the lessons that evolutionary medicine can tell us on a broader perspective.

**Bret** 1:44:56

Oh, across everything. We haven't covered everything of evolutionary novelty. And it's killing Yes. Yeah. literally killing literally killing us. And your distinction which I love between acute medicine and chronic condition medicine is right on, but it extends across a wider range. Civilization makes us very, very safe from acute hazards and any sort of subtle hazard that can disappear into complexity. It just throws up its hands. It's a it's a chronic problem across the way we analyze.

**Mike Mew** 1:45:32

Yeah. Yeah. Yeah. I mean, it goes beyond the disease's, we're talking about I mean, you look at stress levels, we look at patterns of work, we're looking at relationships between families and groups. You know, it's a huge chunk of modern society would benefit from the lessons of evolutionary medicine

**Bret** 1:45:56

100% precautionary principle.

**Mike Mew** 1:45:59

More, I believe that a great poster child for evolutionary medicine is this particular issue. I agree, because in a way, it affects more people than most diseases. Because almost every household in the modern society will have at least one child that needs orthodontics. That probably has sleep apnea, tonsils, adenoids, other Oriente problems. So it's the how it affects everyone. And the gross mismanagement, in my opinion, brings it to the fore brings it to the light. But what we have to do to overcome this issue is consider the fact that our faces haven't grown to their full potential.

**Bret** 1:46:52

Well, I think that's an excellent place to put a book and on this podcast, I think it's been eye opening, even though I had seen a great many things you've put out, I learned a lot from this, I would like you to come back and keep us apprised of developments in the story. And can you tell me, for my viewers, if they want to dive in right away into your material, what's the best video for them to look at?

**Mike Mew** 1:47:22

I think the one that gives the best overview would either be modern melting faces at the ancestral health symposium, or growing your face on the 21 convention, remembering that the 21 convention, I did that video for young people. So that's aimed at a specific target. So my youtube channel is called author tropix. If you want to engage with us, our male my father, or many of the other people within this field, and you're a professional, so your medical professional venue description, you can go to the Facebook page called Facebook group called orthodontics. If you're a patient or not a medical professional, and you want to engage with us, you can go to the Facebook group called the cranio facial Action Group. And if you simply blank, my name, I mean the concept. So I did not come out with a term of mirroring that has grown. It's organically grown. And I want to keep it as something that is a movement of its own. I don't I'm not interested in controlling it. I do want to try and push it in a scientific direction. Because I think that well, I need people to get good records. I need people to really analyze I use the user scientific process got it works, and trying to get the most will because we can help people. But a lot of people

**Bret** 1:49:01

so far the viewing community, the advice they give looks pretty good to you.

**Mike Mew** 1:49:07

I've been I haven't been keeping abreast of it recently. But generally so be careful look at the warnings. I've got a video out there called warnings on mewing warnings. And yes, I mean, people are doing good things. I'm seeing some incredible results from people. I mean, shocking changes in facial form. And if you're under 25, it's amazing what you could do. Or you're over 25 you might not get the changes in facial form. But remember that there was a Stanford meta analysis, looking at swallowing and chewing exercises showing a 50% reduction in sleep apnea in adults and over 60% in children and that I think that those exercises well less effective than most of viewing. So you can really make some health gains, real big health gains. And again, what I'm saying boils down to little more than stand up straight and shut your mouth.

**Bret** 1:50:13

Well, this is terrific, Mike, I feel that you are a gentleman, a scholar and a patriot to humanity. And anyway, I appreciate what you've been doing and that you've been sticking your neck out on our behalf. So thanks so much for visiting the Dark Horse podcast. Well, thank you very much for taking time to help raise awareness of these problems. Wonderful. Be well, Mike. Okay,

**Mike Mew** 1:50:35

thank you very much. Ciao.