



Dr Ron Ehrlich [00:00:00] Hello and welcome to Unstress. My name is Doctor Ron Ehrlich. Now, before I start, I would like to acknowledge the traditional custodians of the land on which I am recording this podcast, the Gadigal people of the Eora Nation, and pay my respects to their elders, past, present, and emerging. As I have often said, and I don't mind repeating it, we have much to learn from our indigenous people, about connection and respect, about a way of approaching a problem, starting from a position of respect, then to connect with the parties involved, to reflect on what we have learnt and then finally to direct. We've got a lot to learn.

Dr Ron Ehrlich [00:00:49] Well, I always think it's wonderful when health practitioners collaborate for the well-being of their patients. I mean, what a wonderful idea, putting egos aside and just being willing to learn from each other and, get a great result for the person who you are treating. Well, my guest today is [Doctor Jalal Khan](#). Doctor Jalal is a quantum biologist and a dentist. An oral physician. He practices in North Sydney, in Sydney and in his clinic called the Quantum Kid. And his collaborator is a cranial osteopath and breathing retraining specialist, [Cole Clayton](#). And Cole is based in, Byron Bay in northern New South Wales, but together they spend about a week in Jalal's practice in Sydney, collaborating on patients and learning from each other. And the patient is the benefit. I think it's a wonderful conversation about a whole range of things. It's a conversation about quantum biology. It's a conversation about the complexity of our head, the cranium, which carries our brain. It's a conversation about the importance of when your lower jaw and upper jaw come together, the effect that has on structure. It's a conversation about breathing. It's a conversation about a whole range of things. I hope you enjoy this conversation I had with Doctor Jalal Khan and Cole Clayton. Welcome back, Jalal, and welcome to the show, Cole.

Cole Clayton [00:02:35] Thank you, doctor.

Dr Jalal Khan [00:02:37] Good to be back.

Dr Ron Ehrlich [00:02:38] Yes. Well, Jalal, [our last show](#) was so well received and, picked so many, so, so many people's interest. But for those that may have missed it, and I don't think you can hear this often enough. What is quantum biology and why is a dentist interested in that?

Dr Jalal Khan [00:03:00] So, Ron, quantum biology is an appreciation of the fact that the biology that occurs inside of our body is underpinned by biochemistry, and that biochemistry itself is underpinned by physics. And the physics that I'm talking about is not Newtonian physics, but it's actually quantum physics. So it's not classical physics. And quantum physics is a bit of a scary place. It's a bit of a we will type of name. And the word quantum itself is something that is hard to define, but it's really understanding what is happening at the smallest scales inside of our cells. And that I'm talking about electrons and protons that are how they are interacting with light. So that's what quantum biology is in a nutshell. Why is a dentist, interested in that? I guess I've come to learn through all of my research about how the body actually works, that we are a nonlinear open system. And so what I mean by that is that we are actually always exposing ourselves to the environment using our surfaces. And the three most common surfaces that come to mind, the eyes, the skin and the gut. But there is, of course, the full surface of which is also very important, and that is the respiratory system and the way that we breathe and the air that we breathe in. And so we are sensing environmental cues from the environment using these surfaces. And our body actually amplifies the environmental cues that we receive. So it's not like a linear system where one plus one equals two. So a nice example of that is one photon of light. Actually, once it hits our reach and it gets amplified a million fold. So it's this non-linear nature of the way that our body works. And so when I came to appreciate that about how our body works, I started to think about the mouth. And we're all told in dental school that about 38 to 40% of the brain receives sensory information from this area of the face, the mouth and the tongue and the teeth and the way the teeth come together and the muscles and the TMJ, etc.. So if 38% of the brain is receiving information from this part of the face, could this face not have a seriously nonlinear impact on the way our body works? And so, it took a lot of unlearning and then a bit more relearning to, to really get to the bottom of this cranial dental complex. And I definitely acknowledge that Cole was absolutely critical in rewiring the way that I thought about the mouth, and something that I'm forever grateful that I'm really looking forward to getting stuck into what it's all about to.

Dr Ron Ehrlich [00:05:49] Yeah. Well look, we're going to come back and talk more about a lot of what you've already raised there. But to you Cole, people may not be familiar with what a cranial osteopath is. And I'm wondering if you could share with us that as well.

Cole Clayton [00:06:07] A lot of people even don't know what an osteopath is.

Dr Ron Ehrlich [00:06:10] Well, let's start with an osteopath, because people are familiar with chiro, physio, osteopath and not sure what the differences are. But tell us firstly about osteopathy and then let's hone in on the cranial.

Cole Clayton [00:06:23] One of the big three isn't it. Physio chiro osteo and what's the difference? So osteopathy itself originated from a medical doctor, A.T Still, back in the late 1800s, he got a bit disillusioned with the system, after he lost a couple of kids, tragically. And he, he just wanted to develop something better. And he came up with the what he called the science of osteopathy. So what he was really looking at is, how does you know everyone? We've heard of this before, but like form following function. And how do those two interact is really the basis like at a deep, deep level. And, and then he, he was somewhat of a mystic. He sort of spoke in riddles and more not rhetorical, more metaphors. So he used to talk about the, I don't know, say the ears being a chimney, you know, so the earwax is like the, the chimney soot, you know, it, it's speak like that and you talk about the forests of, x, Y and Z. It's you have to really you can study his work very deeply. And so then he had a student and the student was called William Grant Sutherland. And he had the story goes, you know, we're all taught this, as cranial osteopaths those of it's kind of come from this line. So to step back, osteopathy today is essentially an allied health manual therapy. But there's an ongoing joke. What's the definition of osteopathy. And the answer is disagreement. So we're a bunch of like nerds basically that sit there and try and learn anatomy to the nth degree and, and then argue about it, and argue about what works and what doesn't work in that way. Right. And everyone else is wrong in that sort of stuff. So we disagree a lot of things, but we're a friendly bunch typically. But there's a bit of a split between the what we'd call the structural osteopaths and the cranial osteopaths. So structural osteopaths, the ones that will deal with, you know, facet joints and then, you know, myofascial release and muscle hyper tenacity and stuff like that. And there's cranial guys. We sort of just sit in small rooms and like, I don't even really have a sign here and people want to pass trying to find me. And, and, but I sit and do cranial osteopathy. So that arose from this guy Sutherland, who happened to be in a hallway, and he saw a skull, you know, an actual human skull that was this articulated, so broken apart. And. Sorry, guys, he had a voice he called it is Tom. For a moment, he had a voice that came into his head literally, and said, bevelled like the gills of a fish, built for articulate respiratory motion. And he was like, he's like, no, no, no, the skull doesn't move. That's nonsense. And he spent about 30 years trying to disprove that voice. And so. Osteopathy, probably out of all of them, has a bit more sort of mystery around it. Right. And, he spent a lot of time doing things with football helmets, you know, the old leather football helmets they had in the US and baseball gloves and bits of string, and he'd lock up different sutures and feel the effects on his body. So he then he'd go and practice on, on his patients and figure out, oh, that's that, oh, that. I wonder if I could reproduce that at home. And his wife Fanny passed out a couple of times upstairs. I'm not treating and stuff. And it's these experiments. And he figured out the structure and function of the cranium, basically.

Dr Ron Ehrlich [00:10:05] And because I think for our listener they may not be as aware of this, but in traditional medicine, it's believed that, above a certain age, quite a young age, the sutures.

Because no let's take a step even further back from that. The skull is made up of, I forget how many bones.

Cole Clayton [00:10:26] 22 bones.

Dr Ron Ehrlich [00:10:29] There we go. So the skull is made up of 22 separate bones. The lower jaw is made up of one. So there's quite a lot going on in the skull. Well, we could argue that that one. Okay, but but at least the skull is made up of all of these bones. And it's believed in traditional medicine that those sutures close up the things that join those bones together. And there's no movement in the skull. Yeah. Is that a fair. Would you would you want to add to that?

Cole Clayton [00:10:55] A well, that's a that's a pretty, pretty largely debated topic. But you know, without.

Dr Ron Ehrlich [00:11:03] But that's, that's traditionally, traditionally that is how.

Cole Clayton [00:11:07] If you look at some of the studies by NASA, for example, where they take astronauts into space, where the pressures are different, they've actually studied the movement of these sutures and the movement of the bones and found that there's pliability. If you watch UFC, which I like to do, and you watch a knockout in slow motion, you will see the face go boom like that. So whether they move, they don't move like a synovial joint, you know? Yeah. Whether they move, whether there's a warp, whether there's at a tensegrity there, whether it's ten microns or, or 100 microns or whatever it is of movement. That's, that's where the debate is. But even some of your staunch medical people I've had discussions with Will will admit that there's some kind of warping that goes on in there. So do they actually move that to me? They absorb force. So if I watched UFC bang, I'll you'll see the skull really disfigure. But then when they lie on the canvas unconscious, that hasn't stayed that way. So there's a strength and inherent tensegrity strength that's given to the system to accommodate what Gelatt was talking about, because, you know, you can break your jaw and still survive. You can still manage to, to get fluid in and liquid in, it's a very accommodative system. And so that you can argue. So they move I think there's something there. I can't tell you exactly, but I can feel it. I can feel it when it changes. And that's the whole mechanism of cranial sacral or cranial osteopathy or what's technically called. I'll step into that cranial field that Sutherland taught because after 30 years of sitting in a room experimenting, osteopaths said, hey, well, can you teach us this? And he said, oh, I don't know if I'm ready. And then he spent the last part of his life literally touring the States with Big charts and teaching osteopathy, cranial osteopathy.

Dr Ron Ehrlich [00:13:14] But that is another feature of this controversy, if you like. And it's not really controversial, but it's the semantics that surrounds the word move. Yeah. You know, like when I lift my

arm up, that's a clear movement. But when we're talking about movement of cranial bones, that's where the semantics comes in. And it may be tension, it may be stresses, it may be strains, but it's significant. And that's basically what you're picking up when your...

Cole Clayton [00:13:46] Yeah. I like to call it warping. So I think there's a warping I think that the joints allow and I think the brain moves like I'm pretty sure the brain moves. It's like all our other viscera. And so it has to accommodate that movement to some degree to allow cerebrospinal fluid to pump in and out. So there's a few principles of cranial or some of the assumptions that we make. And that's one of them that there's an inherent motility to the cerebral spinal fluid. It has its own movement. Yeah. That's one.

Dr Jalal Khan [00:14:23] The other thing I would add to it is that, I agree with the osteopaths. Obviously that's why I'm here, but there has to be some sort of motion or motility to or warping of the bones because, otherwise Mother Nature or the creator would have just made the skull as one bone. And, there's a reason that there's 22. There's a reason that there's 14 in the face and eight in the skull, because they're all doing different things at different times. And so I think it's important to appreciate that nature doesn't necessarily make mistakes as a reason things are formed the way that they are.

Dr Ron Ehrlich [00:15:00] Hmhm. So, I mean, the idea of the cranium and the jaw, which I think we can all agree as part of the human head, there's no controversy there. And they are connected by teeth. But I guess the question comes how did you guys meet and decide that you needed to be working together?

Dr Jalal Khan [00:15:22] Yeah. So, in short, we had a patient that was seeing both of us. I was making dental appliances for her, and Cole was, performing the cranial osteopathy for her. She was, a resident of Byron Bay. So she travelled down to Sydney to work with me, then go back up to Cole and have, have her cranial response assessed by Cole. And what I mean by cranial responses, how was her head and of those bones that we've just been talking about, how were they responding to a new oral appliance in her mouth? And so Cole was sensing that sometimes it was good, sometimes it was bad. So he got in touch. To be fair, I ignored him, for a little while.

Dr Ron Ehrlich [00:16:05] You know, your dental training kicking in. That's true.

Dr Jalal Khan [00:16:10] But eventually we got to talking, and very quickly, we realised that our approaches, our values were seriously aligned. And we were both open minded and open hearted to learn more about each other's fields and really do our best to work together to deliver the best for our patients. And so that meant, you know, me as a dentist, allowing someone else to look inside the

mouth. And, that's how if a dentist, as I'm sure you can appreciate, Ron, we're trained to be very territorial. So very quickly, Cole and I realised that we both had the same values. The same goes for our patients and things really, really aligned. And we knew we had to work together. And so we just trialled it in July this year and things just went really, really smoothly. So like we've been working together for years and we were like, okay, we know we can do this. So we sat down and really, nussed out more and more about how cranial osteopathy and dentistry could look going forward. And, and some of the appliances that we could use and how we could monitor the development of, of our patients, with those appliances in their mouth. And, it's been absolutely incredible. It's been a revelation for me as a dentist. Now that I know what I know, I just think, how is this not taught in dental school? How is it so foreign to think that the jaws are connected to the head? We have an epidemic of, dentists who, just completely focussed on teeth, and they're not thinking big picture and, they're doing their patients a disservice. And, I think that's something that Cole and I are passionate about. It's not just perfecting the the paradigm of care that we want to deliver, but then also trying to see if we can unite dentistry and osteopathy and, get dentists to realise that they are osteopaths. They're just working on different bones. And, I would go as far as to say that every tooth is a bone in itself. And when we move those teeth without respecting the rest of the body, there's far reaching nonlinear implications on the rest of the body.

Dr Ron Ehrlich [00:18:27] Yeah. Well, I mean, I think, histology was one of my favourite subjects at university. I'd say it sounds weird to say.

Dr Jalal Khan [00:18:34] But it definitely.

Dr Ron Ehrlich [00:18:37] The study of cells. And it's interesting to note that what keeps the bones together in the skull are what's called, I think, sharpes fibres. Yes. And what keeps teeth attached to the jawbone are sharpes fibres. That's right. So your comment that every tooth is practically like a bone is, is anatomically, histologically, on a microscopic level. Absolutely. Probably quite accurate. To defend the dentists though, I'd say, you know, I mean, I don't have to tell you this Jalal, but it's a very, very intense profession dealing with patients that are awake, trying to swallow and breathe. And you're trying to stay calm as a dentist and you've got a lot to focus on. So, you know, taking a step back and saying, hey, wait on this patient. This mouth is connected to a whole body is, you know, sometimes probably a good thing to do every single day is an affirmation, really. But but you mentioned Jalal a couple of times, the word appliance. And I mean, I certainly know what that means, but I wondered if you might just give our listener a sort of an appliance. What is an appliance? What is a dental appliance? An oral dental appliance is the same.

Dr Jalal Khan [00:19:57] That's a really great question. So a dental appliance is essentially a device which someone wears in their mouth most of the time. Appliances are made for Night-Time wear, well, people are sleeping, but there are the daytime appliances as well. And the goal of the appliance is, there's multiple goals. It really depends on the way the appliance is designed and what its purpose is. Sometimes it's to straighten teeth, sometimes it's to make the jaw bigger. Sometimes it's to help

reposition a lower jaw. Regardless, the goal is always a well-meaning goal. But what I've come to appreciate is that when patients are wearing any sort of dental appliance, whether it's a stock standard, prefabricated appliance, whether it's a custom made appliance. The impact that it has on the cranial rhythms, and the way that those bones move or walk is quite profound. And what we have, what I've discovered in working with colleagues, that whenever I place a dental appliance in someone's mouth, there is instant biofeedback that is provided to go by the cranial rhythm. And so I kind of almost have a blanket rule now in my, in my clinic, which is that I don't deliver any sort of dental implants unless that patient's, head is being felt and palpated by a cranial osteopath, such as Cole. So, or the Coles, the only one I work with at the moment. But yeah. And the reason is, is because I don't want to hurt the patient. And what we found is, some appliances which, are thought to have been working quite well, have been actually looking at the base of the cranium, for instance. And so some small adjustments or, in the appliance or some cranial work done by Cole is actually enough to release, release the cranium and get the appliance to work nicely with the cranium. So it's all about the synergy of the appliance, helping with any cranial strains, and relieving of cranial strains, helping the body work with the appliance. And so the reciprocal relationship is critical, in the way that we are using appliances.

Dr Ron Ehrlich [00:22:12] Well, you know, I got to say that having used such dental appliances for almost all of my professional career, which goes back over 40 years to have had a cranial osteopath sitting next to me to check my appliances, would just be a dream. I mean, I just think really it's like getting a second opinion, but a more holistic one. Oh, well, there is actually three opinions you get. One is the dentist delivering, the other is the patient receiving. And they don't really know. Not straight away any way they do. But the third that sometimes they do. It's true. But to have the cranial osteopath there to say actually what you've just put in the mouth has had this effect. You go, oh my God, 100%.

Dr Jalal Khan [00:23:02] And the best part is, is that it's not really me or Cole that's making the decision. It's actually the patient and their response. And so the body has this innate intelligence to, to use forces that, that a natural, that physiological, that are not mechanical. And so when you, when you honour that innate intelligence in the way that you work, it ensures that me as a dentist, I can't hurt anybody with any of the appliances. I can't over adjust an appliance because Cole's always there to sense that, that cranial rhythm and tell me when to stop. So yeah, it's super, super exciting and it's an absolute thrill and honour for me to have Cole working alongside me.

Dr Ron Ehrlich [00:23:45] And I think the other thing, too, is that, many practitioners will have their favourite appliance or two and, and that's it. That is for everybody will get 1 or 2 of those appliances. But this is so nuanced and individual.

Cole Clayton [00:24:00] The other thing it does for the patient, is it saves them a heap, a hassle. So imagine you got a kid and they come and see Jalal over at North Sydney. And let's say that, I was somewhere in Sydney as well. So Jalal gives him the appliance or let's say that patient from Byron

and Jalal gives them the appliance she comes up here, she says, he adjusted it and then I check her and I go, oh yeah, he did. But it's still not quite right. And you know, like the left part of your neck or whatever it is, like we spent a good 40 minutes with that patient brainstorming until we got it right, and now she's lost like she's so happy, but like to do that for the patient going between Jill's office and my office and me typing emails on him, not replying. And then, you know, it's just like we're for the patient's benefit, they come in and they go, wow, these guys are like, both of us who like Laser Point focussed on this, on this case. And how can we best serve that person that makes all the difference to the patient. So it saves. And imagine that if you've got a kid and you're running around like this, my office. No, that's not the right size. Back to Jalal. Adjust this place. Back to mine. I know, you know, that could take four weeks, you know. Whereas this way? It takes us, you know, four minutes. Yeah.

Dr Ron Ehrlich [00:25:23] Now you guys are working together, and I know you've called, the clinic the [Quantum Kid clinic](#). Or it was in one interaction, and I know she I felt kind of left out there because I feel I've always thought of myself as a little kid. Who, who. Who. Well, who is the target here? What? Who can benefit from this kind of approach?

Dr Jalal Khan [00:25:47] We've got two age brackets that we're looking to target. As the name suggests, the quantum kid where we are. There is a focus on children that about three and a half to four years old and upwards to 16, 17 years old. And there's different appliances that we use based on age, based on the, how they are presenting. What are their clinical needs? What are their functional and form needs? But then we also do treat quite a few adults with, a different paradigm where we start to live in a bit of kinesiology, a bit of, a bit of, muscle testing and understanding a bit more about body types and tailoring treatment to each person's body type. So there's, a wide range of ages that we can treat. So we'd probably say for four years plus up till you know, one year ago for you Ron So maybe. Was that.

Dr Ron Ehrlich [00:26:42] No you got to go beyond that. But, but I mean, we're talking, well, when you start to include me Jalal you are, including adults. So that's good, at least notionally, we are including adults no, it's it's important I know that. Listen, I know breathing is central to to life, but it's also central to both your approaches. What are the common messages? You know, we should be aware of when it comes to breathing. I mean, people, a lot of people just think I'm alive. I'm breathing. What more is there to breathing than that?

Cole Clayton [00:27:18] Well, there's a paradigm of or a scale of that. You know, I remember talking to a GP about this once, and I was running a breathing workshop and he happened to be there and he said, well, this is great because they're looking at a child that's sick or a child that's not sick. All right. So when you're sick, you're sick, you've got asthma, let's say, or you think you suspected as more of a wheezing or whatever that is. And okay, that child's now in that category of sickness, we have to make an intervention. But what is it that predispose that child to that diagnosis? That's what he's sort of had a paradigm shift in and gone, well, like we can probably actually pick those kids up before they end up sick. Yeah. So so in cranial osteopathy we have two systems. The primary

respiratory mechanism, which you could argue which osteopaths do that that's not a good name. Fair enough. So this name we have for it which is the the ebb and flow of the cerebrospinal fluid up and down the spine between the brain and spinal cord itself. And then we have what we call how's this Ron, we call it secondary respiration is breathing. Yeah. So, so, so.

Dr Ron Ehrlich [00:28:40] I can see why osteopaths are arguing.

Cole Clayton [00:28:41] Exactly we're a strange crew, I tell you. But secondary respiration is a window, right. So I can have a look at a child or an adult, but let's say in this case, a child, and quickly pick up 3 or 4 key things, which Jalal now does as well, because he's seen me do it enough times. So he he writes the notes for me and I write the notes for him. So I'm learning to count teeth and he's learning about sterner costal angles and stuff. So there's a few key things I can look at in a child, and a few key clues we can look at to see whether or not they are actually having breathing function ideal. And of course, to allow him tell you all about the, the, the quantum nature of, you know, cellular respiration and, and oxygen uptake and all that sort of stuff. But at the end of the day, you can't run your mitochondria, your energy factories in your cell without correct oxygen uptake and correct oxygen uptake requires correct breathing, so it requires the correct structure around breathing, it requires correct biochemical, processes, let's say respiratory physiology. And it also is linked to our limbic system, our emotional system. So good health is like pivoted off good breathing. So being able to pick that up in a kid and have a quick scan find the problem, as it still sort of was coined to say, which actually means something different. So find it, fix it, leave it alone. So if we can find those things, fix them pretty easily and pretty quickly, which is what we do in our approach, then actually, it's kind of like the we turn the keys to let the breathing system function well, rather than us trying to fix breathing within a child. The self-healing mechanism is just inherent. So if you can find the right keys, just switch. Just. Change a couple of things. The body just goes off here and it reverts to, you know, proper breathing function. And all of a sudden they're getting oxygen uptake, better sleep, and they've got more energy. They're not fussing. They're not they're concentrating better teachers are saying, what the heck have you done with Ron? Because he's concentrating in class now. You know, he's really into his histology. Wasn't before. Yeah. So yeah, that's good reminder.

Dr Ron Ehrlich [00:31:14] Remind our listener because I know any regular listener to my program will be able to list off what ideal breathing is that. Probably be able to give a course in it. But, just remind our listener what what the differences. You know, what is ideal breathing.

Cole Clayton [00:31:32] Yeah. Well ideal breathing is, is a relationship with the atmosphere. Okay, so, you know, fish in water. They don't know they're in water, but they're in water. So we're like that in a in atmosphere. So there's quite a lot of pressure on our bodies from the atmosphere from air. And what happens is when you when you're first born, you take a big breath. And then the second sort of part of breathing is a big scream. Right. And so what happens on that big breath is we inflate the lungs. What happens on the big screen is we deflate the lungs. And then that sets up a pressure differentials to first exposure to this atmosphere for the baby. Right. In utero the lungs are just little

buds are not sprung open. and oxygen is coming from elsewhere. But bang that opens up and then bang it closes down. Right. And when it's closed down, you've then got a negative pressure inside the line. And so the next thing is to feel that because that happens naturally. Because that is now a vacuum here. And so there's more pressure in the atmosphere, less pressure here. And so the air has to go that way. It's physics. It has to go that way. And then it fills up that lung. And then there's more pressure in the lung. So it has to go back that way. Right. So optimal breathing is just facilitation of that pressure differential. That's all that is.

Dr Ron Ehrlich [00:32:57] Well what's dysfunctional breathing, because the air is still getting in and out isn't it.

Cole Clayton [00:33:02] But what happens is that process becomes disturbed for various reasons. So what happens then is a compensation to try and maintain a relationship with that, that pressure differential. Yeah. And so rather than saying, I'll say like this round rather than saying or mouth breathing dysfunction breathing. For some children, in some circumstances, it's completely functional. It's a functional compensation. It's not ideal. It's not going to maximise oxygen uptake. But in some cases that body's doing that for a reason. So you can come and tape the mouth shut and force it, but that's actually working against what that person's body's wanting to do. So what we want to do is kind of go, okay, what can I find in it along the chain. What's the, nature of the position of the rib cage? Is it super narrow or is it become wide? And that gives us an idea of where the diaphragm is. And if the diaphragm stuck up here or it's stuck down there, we could change the relationship with that pressure differential. So I can change the rib cage tension. Can I change the diaphragm tension. And what will that do. And oftentimes that's often enough. Or what is it that's blocking the nose. Is it a lymphatic issue. Is it a drainage issue. Is it intra a volume issue. Is it a tongue issue. Is it a shaping an orthopaedic issue from tongue or tummy? You know, I mean, you've seen this a million times in practice. So, you know, to me, but, those are the things that create these structural, biochemical or neuro physical compensations that then the body has to adjust for to keep that air flow happening. Obviously that's really important, but to me, they're windows into opportunities to heal the body rather than looking for the dysfunction and trying to fix it. Yeah.

Dr Ron Ehrlich [00:35:09] Okay. Jalal, did you want to add anything?

Dr Jalal Khan [00:35:11] I think one of the key points that was raised there is that word functional compensation, because mouth breathing, for instance, is like a buzz word. Everybody's worried about mouth breathing and we're focusing on mouth taping, etc.. I in the past as well, have been advocates of mouth taping until I thought about it a bit more, and worked more with Cole. And we tend to think that once something there's a compensation. We've just got to fix it with a bandaid approach and mouth tape is literally a Band-Aid over the mouth, to close the mouth. But the body's needing to do that for a reason, and the body's intelligence is opening the mouth in order to allow the person to continue to breathe. So it's very similar mouth taping, I would say, to orthodontics. And this is where I start to get a bit controversial, because the body, when we have when we have misaligned teeth, the

body has actually decided where those teeth need to go. This tooth needs to be a bit forward. This tooth needs to be a bit rotated. The lower jaw needs to be a bit protruded. The upper jaw needs to be a little bit narrow, like the body is actually in some ways the side of that. That's the mouth occlusion. That's the orthodontic arrangement that works best for that person. It's a compensation, but it's functional. And so what we do as a profession is we take that functional misalignment of teeth and we move it into a dysfunctional alignment. Now it's straight. And the patients love the smile. The dentist loves the smile. The photos look great. Chuckle a bit of whitening afterwards and it's all hunky dory. But the body's like as we're doing the braces or the Invisalign, the body's like.

Cole Clayton [00:36:57] No, no, no, no, no, don't move those teeth there because I needed them there.

Dr Jalal Khan [00:37:02] And that's the problem that we are creating for patients, because now what happens is I know and this is from my clinical experience, the teeth, the closure of the electrical circuit inside of our bodies when our teeth come together, that closes the circuit. That's why little teeth are on a meridian and all teeth are connected to some sort of, adrenal gland or, endocrine gland or tissue or organ, etc.. So if the teeth are closing, if the teeth are closing, the electrical circuit, we have, we have a situation where once we straighten them, we are actually locking that person into all of their functional compensations in other parts of the body. One shoulder down, maybe the temple bones externally rotated, maybe there's a bit of a hip problem, etc. and so we lock them into those strange which they then go to manual therapists for in order to have them straightened out, and a physiotherapist or chiro. May release a muscle will release some, release some structure in the body and the patient will feel better. But then with the straightened teeth in a misaligned body, they're going to go and have their meal, their next meal, and they're going to snap or click back into all of the strains that they were just adjusted out of. So the, the rewiring of our of the paradigm. It's an understanding that all of these compensations, whilst they may not look great, while they may be misaligned, misaligned teeth, open mouth, breathing, it doesn't look great, but it's functional. And what we're trying to do is correct the compensations as a whole unit. So we are not just straightening teeth, but we're straightening the head. We're straightening the body at the same time. That's what we do in the Quantum Kid clinic. It's a toes to nose approach. We start at the feet, we work our way up so that once we get to the top, all of the things that are underneath have already been straightened out. And so then we are actually building a system inside of that person where everything is working cohesively as one. And there is what I like to call quantum coherence. This is where we take it back to quantum biology now, because all of the fascia inside of the body, which is the quantum communication highway, where one organ talks to another about what's going on on the left-hand side of the body, to the right-hand side of the body. That's what fascia does. It's a tensegrity system, but it is also a communication system. If you have this coherent factual system inside of your body, because there's been a total nose approach in the way that that person has been treated, then you have optimal health, optimal breathing, optimal function, optimal sleep, and optimal drainage of the lymph from the brain. And, you know, brain fog starts to dissipate. And I guess we can probably start to talk about some of the symptoms as well. But really that's the that's the approach that, that we bring to the table. And we know from what we've done so far that this works. We know that it is a big leap forward. Could take a few years for, for it to take hold with other clinicians. But the

mothers, the fathers, the children, they're sensing the changes. They're feeling the changes and they're absolutely loving it. And it's so rewarding for Cole and I.

Dr Ron Ehrlich [00:40:23] What about where, you know, you've said form follows function. Form follows function. And if well we have breathing I don't want to use I shouldn't really use the word dysfunctional breathing. But let's use it just for the sake of it. You know that it's less than optimal breathing. The reason for that could be many and varied. For example, mould in the room in the house, dust mites, food, not allergies. Although that could. That's pretty obvious. You know, someone eats something and they immediately have an allergic response immediately, break out into hives or go into anaphylactic shock. But there's food sensitivities that affect airway. So look, coming at it from a non-structural perspective. And I'm guessing this is perhaps where quantumly you know, you're improving a person's adaption here. But wait how do environmental and nutritional triggers to bring dysfunctional breathing in inverted commas? How do we deal with that?

Dr Jalal Khan [00:41:30] It's a it's a great question because it's definitely real. And there's so many parents who are struggling with children that have food sensitivities intolerances. We see it every day. The way that we approach it is chemical and both have quite a strong and firm understanding of nutrition, particularly from a quantum angle where we are understanding concepts like deuterium. We're understanding, the food sensitivities, the, and the fact that we should be eating seasonal and local for a reason because it's marrying up nicely with the light cues that the child should be receiving if they're in nature. All of these small, basic things can play a role. Plus, this is where as work goes, skills with kinesiology come into play. Because sometimes we can really use kinesiology to know that what is the exact food, which or class of food which is causing the sensitivity for how could it be eggs? We've had that for in some instances, even though we know that pastured eggs are healthy, there are some children that just don't go well with eggs at the moment. And so it's using all of these modalities, which Cole and I together have, to create kind of this quantum paradigm, which is why we call it the quantum kid, because there's just so many ways that we can, work together with the parents to, to help the children.

Dr Ron Ehrlich [00:42:52] I mean, this coming back to one of the first questions about what is quantum biology? Because, this production, production of energy. Actually, let me just take a step further back, because you've mentioned, Cole, that there were two forms of respiration, primary respiration, which is the movement of, cerebrospinal fluid through the body. And just to remind our listener, the brain and the spinal cord sit in a fluid called cerebrospinal fluid, and there's a rhythm that goes with that. That's primary restoration respiration. According to, you know, osteopaths. And secondary respiration is the inhalation of air. And, and the whole breathing would be the third respiration. In fact, one would argue maybe it's the primary respiration is what's going on in each and every cell in our body producing energy to give our immune system more resilience. What are your thoughts on that? You all, I'm pretty sure you'd be agreeing with that. I don't know what. What do you think?

Dr Jalal Khan [00:44:00] We call that respiration inside of the mitochondria. Oxidative phosphorylation. And, it's super, super important. There is a little bit more to breathing as well. I mean, if we start to loop in things like melanin, for instance, because when melanin is exposed to UV light, it produces oxygen and that oxygen is used by the cell. So used by the cell for breathing. So there's potentially four different types of breathing. And I guess it really comes back to just the beautiful nature of this mind body, spirit complex that we, where there's multiple kinds of layers built on top of each other. And at every layer there's a type of breathing. And all of those forms of breathing have to be functional in order for there to be optimal optimal health. And, that's kind of what I see as the definition of quantum coherent is all cells and every layer inside of the body, whether it's a cell of the tissue or the organ, etc., all acting autonomously, but for the benefit of the individual. And in the quantum biology sphere, there is so many clinicians that are focussed right on the nitty gritty of quantum, cellular function, etc. but that I think the big picture, the structure, how the body is actually formed and how that's absolutely critical to the facial system and the communication of all that energy and information throughout the body. So I think that's another step forward just in for the quantum biologist, if there are any that are listening, that you have to have this kind of sacral mechanism operating optimally, because it forms that optimal pumping of the cerebrospinal fluid down the spine, back up into the brain. And I would argue the most important quantum fluid inside of the body is the cerebrospinal fluid.

Dr Ron Ehrlich [00:45:58] Interesting.

Cole Clayton [00:45:58] What about all the all the different respirations around? Because even in osteopathy we talk about that every single joint has its own, ebb and flow of rest. So, like, we can make it simple and profound at the same time. It is still said this life is motion. It's one of the sides we have to write in osteo school is write a 2000 words on life is motion. What does that mean? You do it in first year. But for maybe in first. You don't realise how profound that is. Because. Because. Yeah. What about emotional rhythms? What about tired rhythms? Water rhythms? What about hormonal rhythms? Like hormonal respiration? You know, like we could go into the anatomy of all those things. They're all present. So this whole thing of life is motion, is actually quite a profound statement. So it's really for me, that's like the summation of you could break it down into all the different respirations, but the sum of the parts, is the whole is much greater than the sum of the parts, really is what's encapsulated with that and that and that the more vitality you have. So, you know, you could say it was it. It's that's like it in your psychology. Right. Skin your sun exposure rights. Get your water right. Get your food right. Depends which book you read. If you chronobiology, if you read rest of night price. If you you know don't say a spiritual healer. It's like your chakras are. I bet all those things are important. You guys say you're the breathing coach and you wave half or whatever it is. Like all those things are important. And that coherence around that motion, the coherence of the motion and all those rhythms and fluctuations of frequencies is the key. And you can feel that and you can sense that. You can palpate that in someone who has vitality. You know, like we joked about your age before and I'm not trying to be like a sack, but like, you have extraordinary vitality, right? Like 40 years of dental practice should wear most people out by and running big clinics and all that sort of stuff. And here while I'm pumping out health coaching, you know what I mean? It's just awesome. And that's how it should be. That's how we should be. Right? And so what we're really wanting to do is take kids

that, that aren't thriving, particularly like kids and close to my heart in this, because I went through this, I didn't thrive as a kid properly, so I didn't have that vitality that I wanted. So as an adult, I was kind of behind the eight ball, but not anymore. But, that's what that's what I'm really passionate about getting. Getting life and motion coherent, you know, so that you just that you just grow like the teeth just become beautiful, the skin becomes beautiful, the the deaths naturally. Just go. I don't want to eat. I must undershirt is like, oh, yeah, I wouldn't want to.

Dr Ron Ehrlich [00:48:53] How Old is he?

Cole Clayton [00:48:55] Thirteen, if you gave him a can of coke, he'd be like, no thanks.

Dr Ron Ehrlich [00:49:00] Oh okay. Okay. Cool cool, cool. That's good. Look, I mean, I think part of the problem is that we are so far removed from what nature had intended.

Cole Clayton [00:49:12] Exactly.

Dr Ron Ehrlich [00:49:13] And I think there is no greater. Well, that's arguable. I shouldn't make a statement like that. But our relationship with the sun and the earth, where it really hits home. And, I mean, I go down the beach a lot, and, and I'm often down there with my grandchildren, which are running around, you know, with a very brief swimming costume on and in the sun. And yet right next to them will be kids that have got hats on, you know, ankle to neck, you know, what do they call them? Swim costume rash. Yeah. Rushed to, you know, because we have to have to, according to the public health authorities, protect our kids and ourselves from this terrible thing called the sun, which gives us which is given life to earth. But people don't seem to be find that ironic in any way. And yet, this thing here. And I'm holding up a phone, no problem at all. You know, pumping out, pumping out stuff. This is part of the. It's not. I mean, it's a shocking.

Cole Clayton [00:50:21] Fearing the sun. And I don't think it is too bad of a step to say, yeah, the sun and the earth gives us life. Like. Hello. How do you think your food got here? Whether it's animal, vegetable, mineral that came from the sun. Yeah. So it's like it's where, lost in that like I. Yeah. Like people walk around like literally banging into each other and say appearing at this damn fine.

Dr Ron Ehrlich [00:50:46] Yeah. Yes. But. Well, Jalal, I mean, we did talk about this [last time you were on](#), but again, I just don't think people could hear it often enough from a quantum perspective to at least lay down some foundations to, you know, improve your health rather than fight things. What would be your recommendations as a quantum biologist? For people to engage with?

Dr Jalal Khan [00:51:12] It's a really, really great question. Some of these basic things that one can do and call and I frequently have this conversation with the children in the quantum Clinic. And we talk to them about, I guess the number one thing would be trying to increase morning sun exposure, something as simple as that, to help program those rhythms inside of the body. The circadian rhythms, the hormonal rhythms, all these types of things. Because once we get sunlight into the eyes, without any glasses, without any context, without any sunglasses. So naked eyes, we expose our eyes to the sun in the morning, sometime between sunrise to about, you know, 830 9:00 in the morning. It's going to be great for the kids and as well as the parents to, optimise those rhythms. The second thing is, blocking blue light exposure. And so, that means, devices either need to have the orange green setting, on, on their computers or their phones, which is like what I've got at the moment. I'm sure both of you have as well. And we also have that conversation with them about things like amps. So, you know, it's better to watch TV than to hold an iPad in your hand. It's better to have the Wi-Fi off while you're sleeping, as opposed to sleeping with the Wi-Fi on. So morning sun exposure, blocking blue light, just getting out, getting outside in the backyard and just having your feet on the ground and just, grounding, earthing. And that serves two purposes. It's kind of like you're uploading electrons from the Earth, but you're also dissipating any of the man-made electromagnetic frequencies that your body's accumulated throughout the day, you're dissipating that into the Earth. So it's like a good way to offload or, or excrete, things that, that have been built up. And so, I mean, those are some of the like, I guess lifestyle discussions that Cole and I have with children and parents, and we are pretty passionate about having the parents understand the, the quantum approach. And so we always have what we could call parent agreement call, isn't it, where we had the patients and the children and their parents understand that there's a commitment here. That's a commitment from us as clinicians. But there's also a commitment from the children. To be compliant is a commitment from the parents to create an environment where it's easy for the child to be compliant. And so the process works three ways. And, once all three are working cohesively, we get really great results. But I mean, we've had fantastic, fantastic results in children being able to sleep better, fall asleep faster with some of these light changes. But at the same time, there's a lot of children that will struggle to fall asleep, or play up a little bit before they go to sleep. And a lot of the time it's because it's hard for them to breathe while they're sleeping. So it's literally a stressful experience for them. And so once we can make the active breathing simpler for them, once we can improve their relationship with the atmosphere, all of a sudden sleep is something that they actually look forward to, and it's no longer a stressful experience. And that means a reduction in sympathetic tone. That means an increase in parasympathetic. So that means potentially they're no longer bedwetting plus some cranial osteopathy to help with that. And, it's just so gratifying to see these changes. And it happens really quickly. I mean, the children's ability to heal like it's we see drastic changes in 3 to 4 months, even even, inside of one month, sometimes Cole, Isn't that.

Cole Clayton [00:54:53] Yeah.

Dr Jalal Khan [00:54:55] We were just talking earlier this week about one patient who reviewed, literally three and a half weeks later after his first appointment, and, like, it was just like massive

wholesale changes from when we started with him.

Cole Clayton [00:55:07] Yeah. It's amazing.

Dr Ron Ehrlich [00:55:08] What was. Well, let's focus in on a case like that. And without mentioning names, of course. But, what was some of the the symptoms and the things the presenting and what were the change you observed?

Cole Clayton [00:55:20] Well, better behaviour. Oh, this is just going off the mum. Better behaviour in the afternoons I sleep deprived people will get crabby in the afternoon. He didn't fall asleep in the car like he normally did. He could hold his breath underwater. He was keeping up with his older brother more not getting exhausted. His behaviour was more focused, more clear not as angry, not as reactive. That was in three weeks. That's just like she kept listing the things she's like, yeah, nothing really changed. And then she just said, oh, but this happened. I'm about this. Oh, and he's better at this. Any I hold his breath longer. Would that be something to do with it? Yeah. Only 100%. Yeah.

Dr Jalal Khan [00:55:58] And there are other symptoms as well. Like we do a lot with children that are struggling with nocturnal injuries. So bedwetting and a lot of the time that's just a vacant story. And the vagus nerve is a cranial nerve that exits the skull, through the jugular foramen just here. And so, once called, was able to release the bones that are constricting. That no longer is the garden hose kinked.

Cole Clayton [00:56:25] Yeah. Plus using the appliance to maintain that, that's the key, right? That's what we didn't say before, is that the dentist becomes the osteopath. Jalal did say that. But that's because when you get it right in the mouth, it does my job for me. I'm redundant. Then that's that. That's the coolest part. So, we can use the dental appliances. We used to hold the change, and that's just like. Yes. Like they're getting kind of lost over the over. Not. It's it's just a we, you know, when you get that relationship right and we tend to use these, softer appliances, but they've got just enough spring to create this change in the skull. And that's what you get the incredible results from.

Dr Jalal Khan [00:57:08] Can I get a little bit into the nitty gritty of how that works? So in each foot we have an arch. And that arch is serving multiple purposes. When your foot presses against the floor, you can't beat the floor. Your foot doesn't like falling through the earth. And so the purpose of the object is to absorb the force of the earth up against the foot. So force absorption is one purpose. Then the source of distributing that force throughout your entire body, your entire musculoskeletal system. So force distribution is the second purpose. And then the third thing is of course just load bearing because the arches, the foot, the arches of our feet are carrying our entire body. But the fourth thing, which is a big revelation for me, is this concept of the spring. So when we are running

and our arch hits the floor, it allows us to spring forward off that foot in order to then land our left foot on the floor. And then that same process happens. So the arch kind of compresses against the floor and then springs forward. So, Ron, as a dentist, can you think of another place in the body where there might be an arch?

Dr Ron Ehrlich [00:58:23] I can actually. Funnily enough, there's two arches. There's two arches. Two arches in the mouth.

Dr Jalal Khan [00:58:30] Two arches in the mouth. And did you know that both of those arches are covered in a specific material called enamel, which is super, super hard? So once those arches come together, it's kind of like a closed loop system again. They can bite through each other. There's a stopping point. And so that leads to force absorption force distribution throughout the entire cranium, as well as that same spring mechanism that happens with the fate of the Earth. And the spring mechanism is an amplification of the movement of the cranial bones. When the child or the adult is biting into the appliances that we're using. And so that is the big revelation, is that, in Cole's own words, he might work on a patient and see them once a week or once a fortnight for six months, and gradually and slowly be able to create changes in their cranium. Or he could see the patient. I could deliver a dental appliance which is appropriate for the patient. And then he might see them 2 or 3 more times. And he's achieved the same results as he would with 24 appointments over six months.

Dr Ron Ehrlich [00:59:49] Yeah. But yeah, but you know, I've, I've often thought that I mean, this is what I love about the fact that you're collaborating. Because, you know, chiro, osteo is, well, less so physios will do a manipulation to improve alignment of the spine. And then the patient leaves their office and bites together with these hard structures called teeth, which will perpetuate any imbalance. And boom, things go out of balance. And they're back again a week or two later, which is a great business model. I don't deny that it's a great business model and as you say, 24 adjustments. Do the maths on that. But this is what I like about why dentists should be collaborating with, body workers. Because and body workers should be collaborating with dentists who know what they are doing. That's a big if, you know, who understand what they're doing because a lot of dentists will just fit a piece of plastic in a person's mouth and think that's all there is to it. And it's it's not.

Dr Jalal Khan [01:00:59] 100% like there's dental splints and then there's dental splints, aren't there? Like there's upper splints and there's lower splints. I'm personally not a fan of upper splints. And that's because if you look at the way the, the skull is arranged, the upper jaw actually got a suture right down the middle. So it's, it's actually into halves. And so if we have a splint which is locking up both halves of that upper jaw, it's actually going to impact the way that that cranium is breathing, that primary respiratory motion. So dentists need to know what they're doing. They need to know the theory. They need to unlearn and relearn. They need to be using the right appliances for the right instances, for the right clinical presentations. And they need to be working with body workers who are willing to learn more about parts of the body that they know nothing about, which is, namely the mouth. And, we're just going to get way, way better results, I think, much like there's a lot of traditional

medicine which is stuck in there, a lot of specialists are stuck in their own silos. I think even in allied health, it's the same as well. And, we definitely need to do better.

Dr Ron Ehrlich [01:02:08] Well, Jalal, on that note, we will finish and have links, of course, to the [Quantum Kid Clinic](#) in North Sydney and the wonderful work that you're both doing. And, again, thank you for joining us. And I will thank Cole in an email, after this episode. Thank you so much.

Dr Jalal Khan [01:02:28] That's a pleasure. Thank you so much for having us. Ron.

Dr Ron Ehrlich [01:02:31] I find this conversation so interesting and inspiring and, a couple of things that are worth repeating. And that is the head is made up, the skull is made up of 22 bones. And those bones, when we talk about movement of those bones, it may be semantics, but it's about flexion and strains which occur and cause imbalances in our neurology, both our peripheral neurology. That is the nerves that we if I lift my hand up, that's the peripheral nervous system, sending a message from my brain down my spine to my muscles and that moves my arm. That's called the peripheral nervous system and also the autonomic nervous system, that part of our nervous system that, performs all kinds of automatic functions. And, the functioning of the nervous system is very important part, obviously, of keeping us healthy and. Well, so the cranial bones have, nerves which emerge from them. They're called cranial nerves. And they pass through little holes or foramen in the bone, in the skull. And, if there are strains on, on the bones, then that can impinge on optimal nerve function. So that's one thing. The other thing is that the, every vertebrae in the spine has three facets, the disc and the, and the facets called transverse facets. And that's what gives that tripod ization or stability to our vertebrae apart from one vertebrae. And that is the first cervical vertebrae or called C one. And that only has two facets. And the third facet is the lower jaw which gives it stability. So if your stability, if your lower jaw is out of balance, then, imbalances can occur. Throughout the body and throughout the cranium. There's a whole story there about optimal breathing, and I thought that was interesting. I think it's also worth mentioning that the lower half of the face that is, your upper and lower jaws, your cheeks, your tongue, your lips occupy about 30 to 40% of the sensory nerves in your body. So this is an incredibly sensitive part of the body. And you know that instinctively. If you've ever been to the barber or the hairdresser and you've been talking in and a hair drops into your mouth, you immediately know where that hair is because there are so many nerves in your mouth to tell you. Now, if I put that here on any part of your body, or if I put it under your feet, you would not be able to tell me which or where that hair was, because there just simply aren't enough nerves to tell you that. So this is an incredibly sensitive part of the body, which also help stabilise the first cervical vertebrae and is subject to a whole range of issues around breathing and, and, and nutrition and environmental issues. So wonderful story there about, collaboration and learning from two wonderful practitioners. We will, of course, have links to their websites, both, both their websites and, you know, I think it is a wonderful collaboration that we should see a whole lot more of in the professions. And the interesting one also is about quantum biology. You know, I find this so interesting. Quantum physics, quantum mechanics is very, very complicated. And so it's very easy for medical practitioners or health practitioners who many of which I would venture to say, have very healthy egos. If they don't understand something, then it's not worth

understanding. And that simply isn't the case. Quantum biology is what is going on in each and every cell in your body, and ensuring that energy is delivered to the various systems to ensure they function optimally. And if that energy is not delivered and instead is interrupted with the blue lights, for example, from our phones, from our devices, from our TVs, from our LED lights that are in almost every house now, and we are at the same time being warned about the terrible dangers of sunlight. Then I just think that is another one of those public health messages, which is part of a wonderful economic model, just not a very good health model. There are many, many public health messages that we should be questioning. And, and, and that's what I another thing that I find most inspiring about the work of Doctor Jalal com. I hope this finds you. Well, until next time.

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