Cranio-Fascial Dynamics - Ref 162JH

with Jon Howet

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TRANSCRIPT

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Steven Bruce
I'm talking to Jon Howet. Now Jon was introduced to us by one of our members, Sam Pinkerton, for which we're very grateful, Sam, I hope you're watching. Jon is a chiropractor trained at what I'm told is the first and oldest chiropractic college in the States, in Iowa, the Palmer College. But you're actually, I believe, Jon, you're a native of what is now Zimbabwe, are you not?

Jon Howet
That is correct. Yes.

Steven Bruce
Yeah. And you came over to this country mid-80s, I think?

Jon Howet
We left in 1984, yeah.

Steven Bruce
Yeah. You've been a chiropractor for a very long time and dare I say, you're quite a distinguished one. You've won Chiropractor of the Year twice in this country, you've won the Chiropractic Literary Award. And now you have your own protocols for what you call Sacro-Occipital Technique and what we call Craniosacral.

Jon Howet
Right, well, it's actually Cranio-Fascial Dynamics, I renamed that so as not to blur any image of SOT, because SOT in itself is a very fine technique. It has an amazing management course on pelvic instability. And Cranial-Fascial Dynamics came into its own with me in about 2004.

Steven Bruce
I suppose the point I was making is that I think that the way you have practiced is as a Sacro-Occipital practitioner, again, what we would call Craniosacral practitioner rather than structural practitioner. Before we get started on Cranio-Fascial Dynamics, John, you've trained in the States, you've worked in Zimbabwe, you're now working and teaching in the UK, for the benefit, possibly for quite a lot of the chiropractors as well: is there a big difference between chiropractic between those three countries?

Jon Howet
Well, I go back a long way when we still had mixers and straights. And mixers were people who erred below axis and straights were everybody who did atlas and axis. And the schools were demarcated like that in the United States. So, there were straight schools and mixing schools, and fortunately, over the years with legislation and growth in our industry growth in our profession, that has been sidelined and we now have chiropractic, I'm glad to say which crosses all sorts of boundaries. I joined my father, when I graduated in 1970, he was a graduate from Palmer College in 1938 and worked with B.J. in his research clinic. And that was strictly HIO, which was hole in one, as it was commonly known, which is purely and simply adjusting

the atlas, occasionally axis, but certainly nothing below and above. So, when I joined my father, I had been studying Gonstead, which was 24 bones, the sacrum and two ilia. And so strictly speaking, I was of the mixed variety. And now I've gone into membrane adjusting, which is, in fact, right out of the box and far beyond the pale of anything, I think, that was imagined in those early days.

Steven Bruce
But it's nice, isn't it, that many, many chiropractors, many osteopaths, have developed their own technique beyond the rigors of what was taught by the founders of the profession. I think we can sometimes get strapped into a box by that sort of philosophy.

Jon Howet
Yes, I think so. And I think when you're dealing with the central nervous system, as we have seen in alternative healthcare, the central nervous system comes as the main core probably. And the diversification comes thereafter in applications, whether it's vascular or dental or pelvic or whatever. But I think we're all moving in the same direction and hoping to expand on this amazing central nervous system that we have. I mean, I think it's interesting that we have delineated head injury and neck injury, when in fact the same sausage goes all the way from the neck in through to the head, the brain, the medulla oblongata, the pons, and the midbrain. So, the delineation I think, is not helpful to a lot of people. Because in chiropractic we've adjusted up to the atlas and occasionally the occiput and it has ramifications through into the brain stem, whereas in other methodologies, other disciplines, the head is sacrosanct and it is only looked after by people who really understand neurology. Which again is a false claim because I think chiropractic and allied professions, I would like to add, understand the central nervous system and its ramifications above, down, inside out, and the amazing effect that it has when it's traumatized.

Steven Bruce
Indeed, and I think that's where we were intending to sort of go in this evening's talk wasn't it, about the effect of trauma, which may not be directly to the head, on the cranium and related tissues and so on. I suppose to, I hadn't mentioned this but, on my computer, I've got a photograph of you as a young member of the Palmer Chiropractic rugby team. So, I imagine that you probably got a longstanding interest in head injuries.

Jon Howet
I have indeed. I played rugby at school and then was given a rugby scholarship at Palmer College, and had four wonderful years playing rugby there and traveling the United States. And we were a young team and because it was an international college, we had a lot of good players who'd played for representative rugby and provincial rugby and then they put on people like me, who'd played rugby before for first teams at school, but nothing more. So, we enjoyed a very good reputation of being the giant killers because every Ivy League school we took on we seemed to get the upper hand. That was in the 60s, though, I hasten to add.

Steven Bruce

Jon, should we start off? I've got some notes here in front of me about your Cranio-Fascial Dynamics hierarchical pyramid. Do you want to explain that to us?

Jon Howet

So, in 2004 I had a revelation. But I had been working as a craniopath since the mid-80s and it intrigued me that so many differential applications were applied to cranial work, and I wasn't enhanced or I wasn't enamored with a lot of them, because they seem to deal entirely with the structure of the bone. And it was after this revelation that I - and my dream was about a mouth and it was about a correction. And of course, I stayed awake all night, went to my office in the morning, and at noon, midday, I had an Australian from Perth, who had come all the way, had been sent to see me because he'd had a head injury for 25 years. And I said to him, that's ridiculous, I mean, there are 10,000 people between me and Perth. There would have been many people to go see to help you. And he said, no, I was told to come and see you. So, I put him on the high-low, which is a table that we use, and he opened his mouth, it was the same mouth of my dream. I followed the same procedures that I did in my dream. And he came off the table and he said, my pain has gone. It was very emphatic. It was very emotional. And so, I saw him about three days later. And he said, no, there's nothing, nothing going on. I'm fine. I went to lecture in Sydney, in Australia, about six months later, and he flew from Perth to Sydney to see me. And he had no pain at all. So, this started me on a pathway of investigating what had actually happened, why it had happened. And so, I came back to our embryological status. So, on day one, you have the formation at conception of the zygote, the egg and the sperm cell forming two cells, which become 4, 8, 16, 32, 64, and so on and so forth. And by day 16, there is a blastomere with a big dent down the middle, which is going to be our future brain and spinal cord, the primitive streak. And as we know that is the most important organ in our bodies. Now, two days later, we have the formation of mesenchyme. And we actually grow into that mesenchyme rather like this. We grow into mesenchyme, and it covers every component, every part of our body, every system, and it encapsulates and cocoons those areas and protect them from the top of the head to the tip of your tail, or the tip of your feet, for your life. So, for it to appear on the second, well, the 18th day, two days after the primitive streak, made me think this is seriously something to look at. Now, if we go another three days, four days, we get the formation of the pharyngeal arches. At the pharyngeal arches are the anterior part of the forebrain, the midbrain and hindbrain, the three primary vesicles. And the midbrain or at least the pharyngeal arches form the four mixed cranial nerves, the trigeminal, the facial, the glossopharyngeal, and the vagus. And those four cranial nerves I call our survival pack. Because as soon as a baby is born, it's looking to be fed. So, the trigeminal nerve and the ganglion, find the breast, find the nipple, the facial nerve latches on to the nipple, the glossopharyngeal pushes the nipple against the roof of the mouth, and the vagus nerve extracts the milk, swallows it, retains the nutrition, gets rid of the garbage, at the same time as the heart, the lungs, the liver, the kidney, the spleen, and so on are all working. That is our survival kit. And that becomes the pharyngeal arches, which in actual fact then becomes our stomatognathic system. Highly sensitive, highly provocative in terms of trauma, but it is the part of the body that becomes aligned to the central or the front part of the embryo.

Steven Bruce
Jon, I'm a bit thick, just explain what stomatognathic means, please.

Jon Howet
Stomatognathic is a term that is applied to anything within the vestibule. So, when you open your mouth, you've got teeth, you've got gums, you've got tongue, you've got a frenulum and the frenulum is part of the vertical vectors that we see in the vermis, the falx cerebri, the falx cerebelli and then the attachment from the nuchal line, right down through the cervical spine, invested in the paravertebral muscles right onto the sacrum. So, the stomatognathic system also includes the muscles of mastication, your trigeminal, at least your buccinator, your masseter and your temporalis, as well as the two muscles from the pterygoid plates, which control the mandible. At the posterior part of the throat, you've got your tonsils, you got your esophagus, you've got your larynx, your pharynx, all of those components are part of the stomatognathic system. So, when the stomatognathic system comes into bear, it actually has an effect on the entire cranium. So, it's a very important part and that is why we have a dental component that comes in because if you have an occlusion that becomes a malocclusion, either through loss of teeth or loss of vertical, the inappropriate interdigitation of the cusp of the teeth, you create an irritation or an infringement there, which then affects the muscles of mastication, the pterygoid muscles, it then affects the internal mechanism of the brain. So, the stomatognathics are very important in so much is that *audio drops* and that's why we have so many disciplines around the world who look at the stomatognathic system, some to change it orthopedically, some to change it aesthetically, some to change it in the functional dimension. But very often, the stomatognathic system is interfered with because of trauma. So, unless you remove that trauma, you're not going to change the stomatognathics. And you cannot go in orthopedically or orthodontically and change the occlusion without looking at the cranial vault.

Steven Bruce
Do orthodontists accept that do you think?

Jon Howet
I think some do. But I'm surprised there's so many of them who just carry on. But they also have a problem with relapse because they make the orthodontic and orthopedic changes and they allow the patient to walk out. Well, within a certain period of time like that next night, the dynamics within the cranium are going to fight the new position. So, it's biting your tongue, it's biting your lips. And as a result, you get the tongue thrust, which starts to augment the prior arrangement that the buccal cavity has with the cranium. And so, all of that beautiful work that's cost a mint starts to regress and we get a failure. And regression and relapse in dental issues is huge, as anybody who works with the cranium knows. So there has to be a specific understanding of breaking down what is actually problematic in the cranium with the membranes, change those and we then start to get a resolution. Because there's no point in changing the dynamics of the cranium if you're going back to a bad old malocclusion. So, this is where dental, orthopedics and dental appliances help within chiropractic and help within osteopathy and several other disciplines, because we work together or we should. And that's the bottom line. So, if I can carry on just to the next slide, Steven, where we see the vesicles of the brain at five weeks. So, we've gone from a three-vesicle organ, now into a

five-secondary vesicle, brain vesicle system. And that comes from the telencephalon, the diencephalon, the mesencephalon, the metencephalon and the myelencephalon. And that forms basically our ventricular system, which is the two lateral ventricles, the interventricular foramen of Monro, the third ventricle, aqueduct of Sylvius, and then the fourth ventricle. That is our ventricular system, where we form cerebrospinal fluid. And at the bottom of that fourth ventricle is the central canal, which joins up with the spinal canal of the spinal cord, thereby allowing cerebrospinal fluid to go right down into the sacral bulb, which is found in the sacrum and as the reciprocal function of the sacral bulb with the occiput changes and sends that cerebrospinal fluid back up into the systems of the brain, up into the subarachnoid space, into the pacchionian bodies where it's reabsorbed and into the superior sagittal sinus for recirculation. So, that is the gist of the four parts. Now with your ventricular system, you have organs around that that support protect and encapsulate it. So, on top of the lateral ventricles you have a roof and you have the roof in the form of the corpus callosum, then the supracallosal gyrus and then the cingulate gyrus. Now the cingulate gyrus and the corpus callosum have this interface. And this interface is the supracallosal, which is an interface between neurological transformation of longitudinal lateral muscle and rather nerve fibers which articulate into the roof of the of the corpus callosum. Underneath the ventricles, the lateral ventricles, you have the two caudate nuclei. These are the nuclei, which then trail back into the amygdala and the hippocampus, which is another layer. And in the middle of that you have the fornix. So, there's your ventricular system, the two laterals, the third and the fourth ventricles. And the fornix sits underneath and supports the lateral ventricles. And we have the corpus callosum, the supracallosal and the cingulate gyrus on top. They are all crescent shaped organs that wrap around the front, go around the back and go down in towards and around the ventricular system to support the brain. Now, that is your core level of your brain. So, around your lateral ventricles, you have the cerebral hemispheres, around the third ventricle you have the thalamus and the hypothalamus, and around the fourth ventricle and the aqueduct of Sylvius you have the cerebellum. Now, on the inside, that's on the posterior border, on the anterior border of your brain core is your brainstem. So, you start with your medulla oblongata. Then we have the pons. And then we have the midbrain. Before we get up into the thalamus, and that area there supplements all the main neurological pathways in the system. So, if we go to the four pharyngeal arches and the four mixed cranial nerves, you'll see what forms the stomatognathic system there and then the brain core behind it. And if we go to the next slide, you will see that the brain core, actually establishes neurological pathways for your superior and inferior colliculi, which take your auditory and visual information into the cerebellum, and it does that through the midbrain. So, the cerebral peduncles go from the cortex to the midbrain, and then into the cerebellum. Underneath that you have the cerebellar peduncles, a superior, middle and inferior, and they take information from- the superior takes information from the cerebellum to the midbrain, the middle cerebellar peduncle from the cerebellum into the pons. And then we have the medulla oblongata, which takes information from the medulla oblongata, into the cerebellum through the inferior cerebellar peduncles. Now, these peduncles are huge, important pathways that come from the cortex through the thalamus down to the spine and vice versa. So I talk about the hair in the mouth syndrome. So, when you have a hair in your mouth it irritates you, you get very irritated like something in your eye. But in your mouth, you get really irritated because all the sensory receptors are picking up this mass of hair, which when you take it out and measured is absolutely nothing. So, my analogy to that is that when we start changing things like the cerebellar peduncles, the cerebral peduncles, the colliculi, the information going down into from the brain into the cerebellum, and vice versa, we don't need a lot of change in that to represent failure of transmission. So, the core of your brain is hugely important. So, we have the core of the brain right in here. And there we have the thalamus, the midbrain, the pons, and the medulla oblongata. That is the basic embryological function from conception, through your blastomere, your primitive streak, your mesenchyme, the three primary brain vesicles and the five primary brain vesicles, making up your ventricular system, encapsulated by the five levels of the brain, cingulate gyrus, supracallosal, corpus callosum, the fornix, the caudate nucleus, and then the hippocampus and the amygdala. So those areas, this part here, this brain core, the internal central brain components integrate into the warehouses, frontal lobe, parietal lobe, occipital lobe, temporal lobe, those lobes are storage areas. And that information is kept in those various lobes. And then when it's needed, it is procured, it's processed, and then it's disseminated, wherever in the body it's needed. Now, unfortunately, we cannot put a finger on the exact replication or the exact imbalance of those neurological pathways because we just haven't developed digitally or within our own science, within the world science, to be able to do that. So, when we have changes in those areas, we are investing and we are losing some of the material that we want to retrieve, process and disseminate. So, if we go to the other fascial component, which is the next slide, which is on the reciprocal tension membranes. And the reciprocal tension membranes are basically the falx cerebri, falx cerebelli and the tentorium cerebelli. They are the vertical and horizontal fascial membranes, the dural membrane system that separates the left and right cerebral hemispheres, the left and right cerebellar hemispheres and the cerebral hemispheres from the cerebellum. They are vertical and they are horizontal. They are what holds our brain intact and in place. So, if we go one step further and we look at the connections of those reciprocal tension membranes, we see at the front the crista galli of the ethmoid bone, it is the anchor point for the falx cerebri, the vertical crescent shaped component that goes down to the straight sinus, which is attached to the internal occipital protuberance. Underneath the straight sinus we have another vertical, the falx cerebelli. The tentorium cerebelli is your horizontal membrane, which attaches to the sphenoid bone. And the sphenoid bone and the ethmoid burn have a non-opposed interrelationship where you can move inferior and superior, rotate and torque. So, you have your anterior and your posterior, your posterior membrane system includes the body of the sphenoid bone, sella turcica. And the sella turcica provides the anterior and posterior clinoid processes, which is where the tentorium cerebelli anchors and then separates and goes laterally onto the petrous portion of the temporal bones and then goes posteriorly on to the transverse sulci of the occiput. That is the horizontal component. Now, what joins the ethmoid bone and the sphenoid bone is the vomer. The vomer is not really a bone, it's rather like a tarpaulin and in a tarpaulin to get any movement you have to pull, if you push a tarpaulin, it just wrinkles, so the attachment for the vomer superiorly is with the ethmoid and the sphenoid, inferiorly it's with the maxilla and the palatine bones. So, mastication, talking, smiling, any movement within the stomatognathic system activates the palate, which activates the vomer, which activates the anterior and posterior parts of the anchor, which then take the falx cerebri and the tentorium cerebellum. At the posterior of the skull, they have a common or garden junction point, the straight sinus. So, the straight sinus is the common investment point for the falx cerebelli and the tentorium. And on the outside of the skull, you have the nuchal line, which provides the nuchal ligament which goes down the first seven cervical vertebra, and then invests into the paravertebral muscles, all the way down to the sacrum, which makes up our sacro-occipital pump, the pump that has to move to get cerebrospinal fluid up and down, back up into circulate through the superior sagittal sinus, back down through the inferior jugular vein and back to the heart. And that system is moving all the time. So, the vertical components, including the frenulum of your tongue, which to a large degree has become quite novel to cut the frenulum. But I think people do so at their peril, because they cut frenulums mostly in young people before maturity and before time is done to see how it reacts with the vomer. Each action has an equal and opposite reaction. We know that, that's an old tenet.

Steven Bruce
I'm just gonna say, and we actually had a little bit of a discussion about this on a previous broadcast, the frenulum's only cut surely in children where it is causing a problem or in most cases and surely that means that it's not doing its job properly.

Jon Howet
Well, it may not be doing its job properly, because you may have a cranium that is a default. If you have a vertical falx cerebri and a horizontal tentorium cerebelli, and they have become distorted, that is going to distort your vomer, that's going to distort your palate and that's going to distort where the tongue lives. In other words, the frenulum. The leash on the tongue is the frenulum. So, I would suggest before people start cutting frenulums and making excuses to do so, and I understand there are cases for it, but I'm talking by and large is a great willingness to cut frenulums without looking at the vomer, the falx cerebri, the tentorium, and may I add the cervical spine.

Steven Bruce
Yes, that was the argument of our previous speaker as well, that it is done too readily, that conventional medicine doesn't have the same approach as you're describing.

Jon Howet
So let me return to the next slide, which is basically the venous sinus system. And we'll notice that your falx cerebri, your tentorium cerebelli, your falx cerebelli is in fact the avenues by which we drain our brain. So, the superior sagittal sinus drains the brain from the anterior to the posterior. The inferior sagittal sinus just below it takes the anterior inferior drainage through the inferior part of the sagittal sinus into the great vein of Galen and then to the straight sinus and then into the conference of the sinuses. Now, that whole venous sinus system, when it works correctly and you have your vertical planes, then you're going to drain the brain. But when you have trauma applied to the brain, to the cranium, that changes and those membranes collapse. So, when you look at your cavernous sinus, which is right in the middle brain, which is draining the venous blood from the cavernous sinus, the intercavernous sinus on both sides of the body of the sphenoid, they drain into the basilar plexus. Some of that blood, venous blood, is going through the superior petrosal sinus into the sigmoid sinus into the internal jugular vein and out. And on the other side or at least if it's not draining through the superior petrosal sinuses, it is now draining into the vertebral venous plexuses which is of complex at the bottom of the foramen magnum or around the foramen magnum where a lot of superficial excess venous blood leaves the brain. That is the drainage. So, when we look at the venous sinus system and realize that each component of the venous sinus system is encapsulated in dura, it is held together by the formation of the vertical and horizontal dural membranes and it drains according to that.

Now, if you go to earlier anatomy books like Grey's Anatomy in the 60s and maybe in the 50s you will open at the page with the confluence of the sinuses and you will see that the superior sagittal sinus comes around and gets to the confluence of the sinuses and then it goes right and as it goes right it drains into the right transverse, right sigmoid, right internal juggler. The blood coming out of the inferior sagittal sinus comes to the straight sinus goes to the confluence of sinuses and it drains left, left transverse, left sigmoid, left internal jugular. So, the early anatomists, and I believe because they cut and drew and cut and drew, were far more accurate than the 1000s of anatomy books out there today, who've taken pictures of CT and MRIs and said well, the confluence of the sinuses is actually just a bus station, buses come and buses go. But if you look at Grey's Anatomy, with your demarcated movement of venous blood through the superior sagittal sinus, through the right transverse, right sigmoid down into the right internal juggler, one thing is apparent: Grey's Anatomy suggests that the superior sagittal sinus and the right transverse are larger vessels than the inferior sagittal and the left transverse. Other research done has shown that there is a greater volume of blood leaving the right side of the brain than there is on the left. So, if you have two dead spouts, one with a greater volume and one with a lesser volume and you turn them on, you will find the one on the right will be predominant and will have a propensity to turn that part of the brain around. So, if we look at it very carefully, and if you look on MRIs and CTS, you will see that the superior sagittal sinus is not a straight line as we see in the textbook, as I've shown you here, but it is distorted. So, our drainage pattern every time the heart beats we're sending more blood down the right internal jugular to the left side of the body to the left heart, which then sends it to the right liver to be filtered, then back to the heart on the left, through the pulmonary areas and then back into the brain. And that helical motion, brought about by this change in a counterclockwise motion of the brain. And I'm not talking huge, this is very rythmatic and that counterclockwise motion of the brain puts that brain into a counterclockwise motion, from about the age of 32 to 34 weeks in utero. That drainage is established early on. So, by the time we have birth 10 weeks or so later, that is an established format. And it drives the blood, the venous blood out of the body in a helical motion to clear the pathways of the vessels to get to the heart, which then sends it in the other direction and then brings it back again.

Steven Bruce

When we do this, Jon, if you've got this constant torque on the brain and other structures, it's not what I was led to understand as a young, actually I wasn't a young osteopathic trainee, I was quite a mature one, but we talk about homeostasis, but you're not in homeostasis if there's constant tension on the system.

Jon Howet

No, but I think there is an urgency to get venous blood out of the body, out of the brain, to get it to the heart to re-oxygenate it. And I wouldn't say that the torque that you're alluding to is part of that, because I think it pulsates and returns, pulsates and returns, pulsates and returns. But the larger volume and the larger vessels on the right indicate to me that there's going to be a greater propensity of that brain moving in the counterclockwise direction than you find in another. Alright, so if you go to the next slide. Our brain is actually an irrigation system. So, we have equal volumes in and equal volumes. If we have that, we have a normal functioning irrigation system. Like a swimming pool, you have water in, water out, goes to the filter, goes to the pump, back in. Now, when you have homeostasis, you have a nice sparkling pool, which is a delight to get into. If you have too much water in, it goes over the top, if you have too little water, it doesn't get to the overflow so you have stasis, what is stasis, its tadpoles, its frogs, it's green, it's gushy, and there's no chance you're gonna stick your toe in that lot. So, our brain is exactly the same, I believe. So, if we look at blood in and blood out, if those volumes are equal, we have homeostasis. If we have trauma, I'm on the next slide now. So, we're looking at the reciprocal tension membranes. And the one on the right will show you a distortion of the reciprocal tension membranes. Meaning that the trauma that has been applied to that cranium is disallowing drainage potential. So, we end up going to the next slide of an irrigation system that is flawed because there is more blood coming in than going out. So, if you get a knock on the head, for instance, you have three components in your brain, you have blood, CSF, and brain tissue. Now, blood does not change volume, CSF does not change volume, but brain tissue does. Because when that brain tissue is irritated and smacked, it swells. As it swells, it's like blotting paper that's got too much ink in it. So, what happens? There's not enough blood getting into blood tissue, and there's not enough blood leaving or there's too much blood leaving the brain, the bleed. So, this is where autoregulation comes in, which is down to the medulla oblongata. The medulla oblongata has its nuclei, the nuclei for the vagus nerve is in the medulla oblongata. It controls heart rate, respiration. So, autoregulation in a damaged brain means that we have to stimulate autoregulation, so the body increases the heart rate, makes the heart grow stronger to get more blood into that blotting paper. And at the same time because the brain stem has been traumatized, autoregulation is not as acute and as accurate as it is under normal circumstances. This is in a stasis direction. So, if there is too much perfusion, cerebral perfusion, which is the name attached to blood going into the brain to take oxygen in, if that is not controlled properly and there's too much blood in there, we have a stroke. If there's insufficient blood being pumped into the brain by cerebral perfusion, we have a stasis situation where we get infarction and we get brain death, no oxygen. So, when we have a head injury, we have a core twist of the brain dynamics, including the medulla oblongata, the pons, and the brainstem or the midbrain. That in turn evokes problems within the cerebellum and the cortex, as well as the site where this damage has taken place. So, the brain has to make some very definitive steps. And this is why we have shunts taking place and we have different medications to try and regulate the heartbeat and so on and so forth. But the fact of the matter is that when this trauma happens, you change the dynamics of your drainage potential.

Steven Bruce
Can I just take you back a sec? Sorry, I do apologize for interrupting. I'm told everyone's loving all this anatomy and so on. But I didn't want to lose behind any of the questions that are coming in. We had one from Robin, who just wants to confirm, are you saying that the venous blood which is draining from the brain is also pulsatile, and he wants to confirm that smaller diameter vessels will have a greater pressure when moving the same volume of blood anyway.

Jon Howet
It's not the same volume, it's more volume. There's more volume moving through the right side than there is on the left that has been shown in papers far back.

Steven Bruce
Right, okay. But about the business of venous blood being pulsatile?

Jon Howet
Well, I think it's run by the heart, it's run by the cardiac pulse, boom, boom, boom, boom. That's what drains your blood. That's what puts blood into your brain. You have two internal carotids and you have two vertebral arteries, putting arterial blood into the brain that gets in through pulsation. The process may vary according to the stress on the heart, or the stress on the brain, as I've just said.

Steven Bruce
Yeah, I think Robin's just clarifying whether it's arterial pulsations or venous pulsations. I imagine it's the arteries which providing that pulsatile movement.

Jon Howet
Yeah, I imagine it is. Yeah.

Steven Bruce
Salame Olivia sent this in a little while ago, and maybe it's slightly off topic, she's asked whether you could comment about CSF leak? Where is more common, skull or spinal?

Jon Howet
Well, we'll try and get to that in a little while. We're kind of jumping the gun there.

Steven Bruce
Right. Well, I will take you back then to the tongue again, because Carrie Sherrod has asked whether, if a tongue tie is causing a problem with feeding and limiting tongue motion, if you don't advise they're cut, what do you advise doing?

Jon Howet
I would suggest getting the cranial membranes in a balance, because I think most of these children- So one thing I should mention here, what do I consider trauma? I consider any artificial interference in a normal process as being traumatic. Which is induction, ventouse, forceps, caesarian, pharmaceutical. Anytime you change the normal birth process, and I am the first to admit, sometimes you need to have intervention, but what I'm saying is that the intervention into those arenas causes damage to the brain core. So, if you're taking forceps, ventouse, how are you extracting that head out of the birth canal? Are you going in a counterclockwise direction or are you going in a clockwise direction? If you're going in a counterclockwise direction, that's what we call a diathesis type force, because it follows the counterclockwise production. If you're going in the opposite direction, that is necrotic, that is strangulation. And that happens at the core. It happens at the foramen magnum, it happens at the atlanto-occipital membrane, and it happens at around the atlas. So, if you've got that potential and that damage, you very well may have a child with the stomatognathic system that is not going to function. But it's not just a question of cutting it. Not in my

book anyway. One thing I want to come back to, which may wrap up a couple of questions, or answers to questions, with this pulsation, counterclockwise pulsation, that's in utero, as I said from the early 30 weeks, all the way through to birth and beyond. So, you have cranial plates and the cranial plates are little islands of osseous structure, and they're cocooned in periosteum. So, if you've got a brain that is doing a counterclockwise function because of the propensity of blood, more blood in bigger vessels leaving on the right than on the left, you're going to get that counterclockwise influence onto the cranial bones. So, a suture is formed when you get the approximation of two bones coming together with fascia as they grow and develop, and that fascia then interlinks and becomes interdigitized, and eventually you form two plates, two frontal bones, two parietal bones, two temporal squama and an occipital squama. But in between, you have a suture. And those bones grow according to what is underneath. So, around your brain, you have meningeal dura, you have a space, and then you have endosteal dura. So, they're very different in their functions. In the early stages, the endosteal will follow the meningeal. As we get older, they become more sort of one. But what I'm saying is, that's what develops. So, we look at this infant skull here, you look at the sutures provided by the osseous islands moving towards one another, they form sutures. Those sutures, particularly in the front here, the superior sagittal suture, underneath that lies the superior sagittal sinus, one of our big drain components. But we also notice that when we have a continual counterclockwise motion, we get a bigger orbit on the right and a smaller orbit on the left, the frontal bone becomes more external and the frontal burn on the other side becomes more internalized. So, the cranium instead of being symmetric, as we see in the textbook, becomes distorted. So maybe if I, because I'm getting a little ahead of myself here to try and answer some of the relevant questions. But I think the point is that your cranium is not a textbook, look of two orbits that are exactly the same, two frontal bones that are the same, when you open your jaw, it swings straight up and down. When you open most jaws, in most people, they will deviate to the left to the right. And that deviation is dependent on what's happened with the sphenoid bone. Because if your right sphenoid has gone anterior and superior, your left sphenoid has gone posterior and inferior. That in turn, follows the mandibular fossa. The mandibular fossa on the left, or the glenoid fossa if you like, has gone further posterior than the one on the right, which has gone further anterior relatively. Underneath that, of course, you've got the pterygoid plates, which live underneath the sphenoid and those two pterygoid plates, which are- here's your sphingoid, these are the pterygoid plates, to which attach the pterygoid muscles, the lateral and the medial pterygoid muscles, which attached to the condyle and to the ramus of the mandible. And that's what allows this jaw to move around, as well as the muscles of mastication. So, when you have a sphenoid which twists and distorts, you're going to get a change in the position of the mandibular fossa. So, when you translate that mandible, it is going to follow first to the left and come to the center. Or it may go to the right and come to the center. And if it's not opening and closing symmetrically, eventually you get TMJD, temporomandibular joint dysfunction, because that condyle is hitting into the glenoid fossa repeatedly, probably about 1500 times a day, affecting the retro discal tissue, affecting the capsule itself and affecting the articular disc. It's biomechanically unsound, it's flawed. That changes the dynamics of the external auditory meatus, the stapes, the incus and the malleus and of course the internal auditory canal.

Steven Bruce
John, if this clockwise torsion is present in every body as a result of just the drainage process, would you not expect every skull to be asymmetrical?

Jon Howet
Yes.

Steven Bruce
Would you expect every jaw to deviate?

Jon Howet
Everyone, unless you're cocooned and you have a natural birth, and you are kept in a swaddling chamber for many years, and you never were exposed to a father who threw you up in the air and caught you slightly off cue when you were two months old, or you fell off a Shetland pony or a bouncy castle or a jungle gym, or a BMX bicycle. And then God forbid you go and play rugby football or ice hockey. These are the traumas apart from the other stuff, the electromagnetic effect, the poison in our foods, the chemicals, the air we breathe, all of that are toxic. And that all becomes part and parcel of our environment.

Steven Bruce
It calls into question what we were all taught when I was in college, which is if you're examining a TMJ, you're looking for a jaw which moves evenly, it moves straight up and down. You're saying, well, it shouldn't if you've got a normal development of the skull.

Jon Howet
Well, how can it? If your temporomandibular joints are coming from a different part relative to one another, when you open those muscles what's happening to the temporalis muscle? It's holding the temporal, or at least the greater wing of the spenoid, the parietal squama, the temporal squama, and it's holding the ramus of the mandible. So, if you've got a skull that is skewed, you're going to open it in a skewed basis. That's why you get your malocclusion.

Steven Bruce
Yeah. Jon, Mags has asked what sort of magnitude of trauma are you talking about which is likely to influence the balance of the reciprocal tension membranes.

Jon Howet
Right. Now, I've just said what I think are traumas because what I see in my clinic are trauma superimposed on trauma superimposed on trauma. So, the kid who runs around a swimming pool, slips on his bottom, whacks his head at the confluence of the sinuses, lies there a bit dazed, gets up, and is then taken home, stops the crying, little bit bruised and in my days, they used to put a piece of steak on any bump on your head that you'd had the ill fate to accomplish. But once the crying and the bruising and so on is settled, do we ever replace the brain core to where it used to be? Now I don't know the answer to that question. I don't

know the severity. If you land on a coffee table when you're two months old, well, not two months, when you're 14 months old and you land on your jaw, and you take your neck into a hyper lordotic situation and you jam the atlas, you jam the spinal cord, the medulla oblongata and nothing is ever taken, nothing's ever done. And that is that's the status quo for the rest of your life. I think that is where we get the additional issues with neurological syndromes all the way through life, because the core neurological processing and trauma has disturbed the whole issue. So, if I don't have neurological function going through that body, and you get an imbalance, I don't know where it happens. I mean, Parkinson's is supposedly a cerebellar issue, Alzheimer's is apparently a cingulate gyrus issue, corpus callosum is probably a dementia issue, because you cannot retrieve, process and disseminate in something that's gone wrong.

Steven Bruce
Take those incidents you've described, the 14-month-old falls on the coffee table and the rugby player gets in an accident, do you think there's a period after which any damage that has been done is now irreparable and that cannot be fixed by manual therapists?

Jon Howet
No. Listen, we come back to the situation. If you reinstate that torqued brain, and you take some of the torque out, it's like all healing. You and I don't heal. We are the mechanics. We put the body into a position where innate intelligence will come in, and will sort it out and heal it. We're not that arrogant to believe that we do all this amazing work. Healing of the body process. When you have a cut. It's not the Elastoplasts and the Mercurochrome that sorts it out, it's the cells forming across that cut, that become more and more defined and they heal that suture. They heal that cut. There's a bruise, there's going to be some scarring at the end of the day, but it's healed. We do not do that. But I cannot look with my hand on my heart today and look at what's happening within our generational changes, the way the blood brain barrier has been impregnated where the tight epithelial tissue has lost its tightness and is now becoming more porous, where we have detergents and mercury and other chemicals introduced into that system to bypass the security of your blood brain barrier. So, we end up with cytotoxic waste, cytotoxic edema and I have read in places that that is the precondition towards myelin degeneration. Now, if we look at so many different stories and different types, I mean, we're going through this big vaccination issue at the moment. And the different strains that we're having and the different new inoculations that are coming in. That may or may not be right. It hasn't been tested. We don't know what lies down the line. But as far as I'm concerned, most of that is intervention that has not been tested. And it has been like that since I was a kid when we had polio vaccines. Except in my day, you had a couple of jabs and that was you. Nowadays, there are 26 or 28. I don't know how many different jabs are converted. That is cytotoxic waste. It's the same with medication. And it's the same with all the tissue that is damaged through electromagnetics.

Steven Bruce
Well, I'm guessing you're not saying that the polio vaccine is a bad thing, just that it has other effects on the body, I presume?

Jon Howet
Yeah, sure. How do you evaluate that? When you evaluate that you have, for instance, when the MMR was going through its heyday, there were only eight children per 100,000 that may have got autism. And 8 in 100,000 was acceptable. Except if you happen to be one of those eight, if you happen to be the parent of one of those autistic children. I'm not playing judge and jury here at all, Steven, all I'm saying is when you put stuff into a body, into a system where you change things, you change it irrevocably if it's chemical, because we don't know. I have no idea what happens when a child runs around and gets kicked by a horse or falls off a pony when they're three years old and they then develop other idiosyncratic changes within the system. We know that at the early stages in the first four months, we have spindle cells, which form in the prefrontal cortex, and they go there to establish our identity, our characteristics, our personality, what we're like. Some papers you will read on development, neurological developmental delay, if those spindle cells do not get there to that target, you have a flawed personality. Give it whatever title you want to. But it comes back to the same process. That process is obstructed because of torsion, because of trauma, and that biological, physiological pathway is disturbed. I mean, I think we have a long way to go into understanding what's happening.

Steven Bruce
Yeah, John, I dragged you off your planned talk for quite a long time there and I know you want to get on to talk about hamburgers in a minute.

Jon Howet
You're getting hungry? So where are we?

Steven Bruce
We're going to talk about the level of six levels of the brain, I thought, it says on 13.

Jon Howet
Well, we can do that too. So, let's do that: six levels of the brain, which we have discussed the cingulate gyrus, the supracallosal, the corpus callosum, the fornix, the caudate nucleus, and the amygdala and hippocampus. So, these are all levels that are crescent shaped, and envelop one another, and they end up underneath the tentorium cerebelli. The tentorium cerebelli splits into two, the tentorial incisura, so it splits from the anterior part of the straight sinus and comes round like a pair of scissors and it anchors in at the anterior and posterior clinoids of the sphenoid bone. So, you have basically a gap like that. And inside that is your brainstem. This guy. Now when you get a shunt or you get a head injury or you get a whiplash, and you involve the core of the brain, the tentorial incisura actually starts to twist. And as it twists, it will pull, if it's a diathesis type force, in other words, it's a clockwise force, it will take the central line, the central core, towards the left side of the brain. If it happens to be on the other side, it'll take it to the right-hand side. Now the point I'm making is that underneath the tentorial incisura are the amygdala and the hippocampus, these are emotional areas. Your amygdala is two little coconuttype organs. The right one is an angry negative type of organ, whereas the left one has negative and positive attributes. People who have damaged amygdalas cannot form trust or they put their trust in the wrong person. They are very sentimental and they

have been rejected, marginalized. And that plays a great part in the amygdala. Because the hippocampus comes next to it, which is storage and processing of a lot of emotional issues. So, I think that when you get trauma to that level of the brain, and you're affected by people around you, that almost becomes the sort of mental healthcare or the mental health issues that we face today, the depression, the schizophrenia, the issues where people don't cope. So, each one of these brain systems, some of them are part of the basal ganglia, others are part of the limbic system. The caudate nucleus is all about function with functionality of motor function. You get up to the fornix, the fornix supports the two lateral ventricles, it's like a big armchair. So, the two lateral ventricles sit on top of the fornix fimbria. And as we come down, the crescent shape of the fornix becomes part of the hippocampus formation, which is part of the amygdala and the hippocampus. And in turn, that radiates up into the cingulate gyrus, which is separated by the supracallossal which is the interface between the cingulate gyrus and the corpus callosum. One attaching information, or attracting information from the in-depth part of the temporal bone, others extracting information from the memory and concentration and emotion from the frontal brain and going back into the occipital lobe. So, these are areas where we kind of, as said just now, we retrieve, we process and we disseminate. So, if we move down further now, there is one picture of the brain that I've included, which happens to be the limbic system. And you can see by what I've done, there is how these crescent shaped organs integrate and fold around one another. They are a mass of neurological pathways conduits for the distribution of neurological function,

Steven Bruce
Justin, can you just put up the limbic system please.

Jon Howet
It's a complex slide and I haven't put it in there to baffle people's brains. I put it in there just to show the complexity of how our brain works. And all these areas. I am not an anatomist, I cannot tell you where the red nucleus fires and it goes and does something to another nucleus, or what the substantia nigra does. I'm not that type of anatomist. I'm not a forecaster of anatomy or anatomical crises. What I understand is that because I don't think we've got to that depth yet, I don't know, I think that the Parkinsonian, Alzheimer's, dementia is all about the geography. Where in the body do these malfunctions, the malexecution of neurological impulses, where do they happen most? And if the geography happens to be in the cerebellum, your balance is gone, your motor function is gone, then that must be Parkinson's. If it happens up in the intellectual area, it must be in your cingulate gyrus or dementia or whatever, your inability to recall and process. So, I think we've got a long way to go, there are attributes to certain parts of these organ systems that I have talked about tonight, which are detrimental in neurological function, they stand out. But to put your hand on your heart and say "this is going to be your prognosis, because I've done this" is ridiculous. When I put somebody's brain back, and reposition it and take the torque out, I have no idea what is going to happen. I know that some miracles will happen. And I know when you do that, you're going to change that system, you're going to change the function and personality of that person. You take the pain away, you take the headaches away, you take the seizures away, you take out all sorts of neurological complications, but I cannot put my hand on my heart and say, that is going to happen, because I don't know. You're combining blood drainage. When you drain the brain of blood and you take away that cytotoxic waste, which is not

going to biodegrade while it sits there, you are on a hiding to nothing because eventually that whole system is going to run down. You have to have homeostasis in your irrigation system, blood in and blood out. When you lose that and you live with that and nothing ever changes except medication and how much medication you're going to have, then I'm afraid you're on to what we see: old age. I think that's the trouble. So, let's go to the ventricular system. Again, we're gunna go one more, we'll go to the hamburger. Alright, Steven?

Steven Bruce
Excellent. I've been looking forward to this part.

Jon Howet
So, I look at the brain like a hamburger. You've got six levels of the brain. And in the middle, I put-

Steven Bruce
You have very big hamburgers, Jon. Six levels.

Jon Howet
Well, I've got a mandible that does, it works well. Yeah, this is quite a generous one. This must be a big, big mac or something like that. But it struck me that in simplistic terms, because I'm a very simple person, I like to have analogies, I like to pictures, as you can tell by what we've been talking about this evening. So, to me, the brain is a hamburger, different levels, all interrelated. I mean, when you bite a hamburger, you're gonna get a bit of bun, you're gonna get a bit of meat, you're going to get a bit of gherkin, if you're lucky, you'll get some mayo, and if you're even luckier, you'll get some of that red tomato ketchup. So, it's an aroma and it's a taste that is acquired by having one bite, you get a sensation all the way through. And I think the brain is like that, because there's no part of the brain that is individual and doesn't have replications and complexities with other parts of the brain. Now, just to complicate the issue, I've put the central core components, your ventricular system, your medulla oblongata, pons, midbrain, thalamus, hypothalamus, caudate nucleus, and the roof, corpus callosum, and the cingulate gyrus interposed with the supracallosal. I call that your lift shaft. Because if you're a company, this is company headquarters, let's call it Amazon if you like, you want something so you get into the lift, you go down to the third floor, and the left door opens, you go down that passage, third room on the right, seventh shelf on the left, you pick up the parcel, you retrieve it, you bring it back, you process it, you go up to the corpus callosum, the cingulate gyrus, and then it is disseminated. It is sent where it needs to go. It's distributed. Your lift shaft contains everything. It contains your water, your effluent, your gas, your electrics, everything that is needed in the building goes down that electric shaft, okay? Right, trauma, earthquake. What happens? The central core component is now distorted. You want to go and collect that piece of parcel. You get in the lift, you got down to the third floor, lift doors open, no passage, no room, no shelf. No acquisition, no procurement. You get on the lift, you go back up to the top and you tell the boss man, sorry, pal, I couldn't find the stuff you sent me down for. You cannot distribute. If you're an Amazon you go broke. If you're a human body, you go into status. Same thing, no difference. You cannot procure, you cannot process and you cannot disseminate when you've got a core part of your brain distorted. Your warehouses may contain all the stuff you need, frontal

lobe, your emotion, your concentration, your intelligence, your temporal lobes, your hearing, your balance, your parietal lobes, your motor and sensory cortexes, your occipital lobe with all your vision, that may be hurt on the outside, it may be hurt in certain areas but if you have that core, this core part of your brain, if that is distorted and twisted, you have a problem. And if you don't correct it, you and that patient have a problem for the rest of your life. I have seen it every day of my life. The first one that I alluded to, when we started this evening, was exactly that. I went in, I detorqued his brain, he got off the table and he was out of pain. Could I put my hand on my heart and say, buddy, lie down here, I'm just gonna put my finger in your mouth and you'll be great? Not at all. But I know, being a chiropractor for over 50 years, when you remove subluxations and you get innate intelligence to change the dynamics. You have that innate intelligence to cause the healing of that process. That is why we have survived in spite of medicine and in spite of other disciplines which use other whatever. We have survived because sick people get better. How often do you pick up a newspaper and you see that your famous football player has got a wrecked knee, and if you go back two weeks ago, he got smacked in the face. We have a boxer in this country, an international boxer who was hit with a necrotic type blow into the medial genicular part of his brain. Three days later, three weeks later, he was in a plaster cast because he couldn't walk. So, what happens he goes and he gets looked at, his knee is looked at having had this bump and I might add when he had the bump, he was on the ropes and he was just sitting there waiting for time. You cannot absorb that sort of trauma and that's a huge trauma. But I'm talking about the little things in life. But they are accumulative, year after year after year. And if you think back in your life and in your children's life, you will find the same exact thing I'm talking about. If you don't change the dynamics of that they are like that for the rest of their lives.

Steven Bruce

What did you mean by a necrotic trauma?

Jon Howet

What do I mean by a necrotic trauma? So, if you're hit, if you have a counterclockwise trauma going on in your brain, that's called a diathesis because it goes in the same direction of the counterclockwise activity. If you've got a counterclockwise motion of your brain and you get a trauma going in the other direction that is necrotic. So that's where you get the strangulation. In the diathesis you will get extension, you get stretching of ligaments, you get stretching of nerve fibers, you may get occlusion, you may even get them tearing. But necrotic is very much like that. And that's why they're more devastating. So, if you look at a young, if you look at a person's face, and they have a large left eye, and a small right eye, that was a very early injury. That injury occurred before the cranial plates started manifesting and joining up to form the cranial plates.

Steven Bruce

Right, Jon, can I ask a couple of questions from the audience before you go on? Victoria has asked your opinion on Invisalign adult braces, which apparently are a bit of a craze at the moment. Again, it's a form of orthodontic history, isn't it?

Jon Howet

It is and they're very good, provided you have a cranium that's susceptible and can be balanced. All of these orthodontic appliances and there are 1000s of them out there, unless you play by the rules and you establish normality or normalcy in the cranium, you will get a relapse with your stomatognathic introductions of appliances. That's like day follows night. How do you think they arrived there in the first place? This is trauma on trauma on trauma. The class two malocclusion div one, div two whatever, that class two malocclusion becomes a cross bite. That cross bite becomes a dental issue because the tooth gets worn and wobbled. You have a malocclusion. That malocclusion if it's not taken care of goes through the trigeminal ganglion into the mesencaphalic ganglion into the pontine nuclei into the spinal nucleus. That spinal nucleus control C1, C2, C3, the attachments of your dura. People who get continuous atlas and axis issues, subluxations as we call them, let's start looking at their teeth. They cannot just subluxate, subluxate, subluxate, the spinal nucleus is being irritated. And unless you take that irritation away, you clear up the malocclusion, fix the occlusion, fix the membranes around the brain, your atlas is not going for a walk, it's gonna sit where supposed to walk, with the atlanto-occipital membrane and the two vertebral arteries coming up into the foramen magnum to form the basal artery, which goes and affects the posterior part of your circle of Willis. Because here's your circle of Willis and we all think of the circle of Willis like that. But have you ever thought of a circle of Willis which does this? Because you get cranial trauma? Do you know that 85% of the aneurysms that occur in the brain occur between the middle and anterior cerebral arteries. Why? Because the common carotid artery splits into the external and the internal, and the internal goes up. And it goes through the cavernous sinus, and then it goes north, straight up, and it forms the anterior wing, or the anterior aspect of the circle of Willis. It forms the anterior and middle cerebral arteries. And when the sphenoid bone does this, and takes the circle of Willis with it, how long do you think that lasts? I don't know, but it's not gonna last very long. You give those 30 years and you've got an aneurysm, and you give it 35 years and you got a stroke. And on that day, you are handicapped. That's what I'm talking about. To me, we are responsible in our positions, to find and to take away the spinal cranial torque that exists through trauma. You cannot just say, I mean, I've been reading a newspaper in this land for the last seven or eight weeks and they have a concussion issue on every single page. They've done their homework, they've gone back. And these are football players, who've headed the ball and hit the ball and then they headed their mates. These are traumas, you're doing this all the time to the medulla oblongata, to the pons, what are you doing to the cerebral peduncles? What are you doing to the core part of the vagus nerve, the vagus nuclei in the medulla oblongata? You're changing brainstem, you're changing cardiac function, you're changing respiration. And if it gets too high, it's fine, you just put a beta blocker in place. It's common in this country now, after the age of 50 for most men to be on on statins or beta blockers or ACE inhibitors or whatever. Compromisers to the medulla oblongata. Because the medulla blogadda, then is shut down. It cannot produce a heartbeat when it needs to as autoregulation. 50 years of age, 60 years of age and 80 years of age, that has an effect on your autoimmune system and it has an effect on your on your core part of your brain.

Steven Bruce

Jon, one our long-time viewers...

Jon Howet
It's another way of looking at it. And a way I feel, I mean, I have adjusted people on planes and boats and trains, because I've seen horrendous situations and reactions that I know when you get in and you change the core of that brain, heart attacks, maybe. Sure.

Steven Bruce
Jon, we are very close to the end of our broadcast and I want to get through a few more questions. One of our long-standing viewers who likes to be known as the potato viewer has asked what you think the effect of sticking swabs up people's noses is likely to have as is happening quite regularly at the moment.

Jon Howet
Terrible, I had it done this afternoon. Not very pro at all. I think one has to ask the question what's on the end of that swap? From what I understand it's just not very nice. So, I agree with that. I mean, I disagree with that. But I agree with the question.

Steven Bruce
Well, Amanda sent in an observation earlier on or a question earlier on. Amanda, I'm going to paraphrase slightly, so excuse me, she was in equal parts startled and enlightened by what you were saying about the delivery process of babies and asks whether what you were saying is taught in midwifery and maternity departments. And my spin on that is well, how receptive are midwives and obstetricians to what you were saying?

Jon Howet
I don't think they're receptive at all. I mean, I hope I didn't allude to say that it's being done now. But I mean, you get a baby on any way you can if you're a midwife, if you're in trouble, but if there's a ventouse or a forceps, then you want to move in a counterclockwise direction when you extract that child's head from the mother, because taking it the other way is causing an immediate issue. Pons, medulla oblongata, heart, lungs. How many babies are born with respiratory issues? Nevermind being inoculated but just to start off with. It is cause and effect through the neurological systems. Steven, if I can go to the last slide, I mean, there are a couple more but the last one is the important cranial floor apertures, which I've shown with the counterclockwise torque. So, apertures open and apertures close, the cranium moves. And this is what brings the membrane system into a distortive area. But when we have that, and I do call a torqueor or a respiratory function or a cardiac function as being a benign because I recognize that every one of us the day we're born, we have that, Tu Tu, Tu Tu, Tu Tu, Tu Tu. If we're traumatized, it becomes accelerated or retarded. It has an effect, great or small on the central nervous system. But it does have an effect. But when you add to that additional trauma, you get what we call traumatic CFD. And that needs to be changed and taken and removed. And I'm gonna go to the last slide here just to show you the immediate. This is me. This is on the thermal imaging,

Steven Bruce
The first of the two?

Jon Howet
The first of the two. So, the top left-hand corner is me, who's had a lot of head injuries. I was a paratrooper for some point of my life, so I've had a few bumps, I've played a lot of rugby, and so on. So that was my picture on the left top. I then had a Cranio-Fascial Dynamics adjustment to take out the twist of the neck, or the twist of the brain core. So, number two is five minutes after that, number three is 10 minutes after that, and number four is 15 minutes after that. That is brain drainage. That is the potential. And if you see thermal imaging, I think thermal imaging is amazing because I think it gives you a very visual. But I'm somebody who likes to look at measurements, I use a pupilometer, I check eyes before and after I've adjusted people and the change is amazing. And there are other digital measuring tools out there but the thermal imaging is amazing. And if you go to the next one, you will see the top left is me beforehand and then five minutes, 10 minutes, 15 minutes. And you see how that blood mass and heat has changed in the space of 15 minutes. That is Cranio-Fascial Dynamics. And that is included in the hard protocols of Cranio-Fascial Dynamics. We have eight steps, four to drain the brain and four once you've drained the brain, to then detorque the brain. You put it back in a position. The body has indicators. We all know that. Use the indicators. Take that twist out of the brain, detorque the brain, put it back where it needs to be repositioned and leave the body to heal itself.

Steven Bruce
Jon, you very neatly answered there a couple of questions that came in about well, what do you do about venous drainage and how do you detorque the brain? Basically, you have to know the Howet protocols.

Jon Howet
You have to do the course, yeah. And the reason, Steven, now I'm gonna mention this, because I will show anybody anything but I have noticed to the detriment of myself and to people that I have worked with and I've shown them part of the protocols of CFD and they've taken some components, not the totality, and they haven't done them well. And their patients have not received the acclamation that they were looking at and so they have decided not to use it. And to me, that is a great shame because the patients that they can help and get better are those patients who need to have the protocols of CFD applied to them. The whole protocol takes about probably three and a half minutes. It's knowing what to do and how to do it.

Steven Bruce
How long is the course?

Jon Howet
The course is a seven-module course, which includes CFD, the torque, and then the dental component, pelvic component, vascular component, the brain component, trauma to the brain, and a full functioning cranial module which shows the brain as a functioning piece, not as a piece of dead meat.

Steven Bruce
Thank you.

Jon Howet
Because I think it's important. People who have not learned about cranial work, and we've all done it, we know what the frontal bone is and the parietal bone and the occipital bone and we've done it, we've probably drawn pictures. I want people to understand it, to live it, to own it, because when they own it, they can change people's lives. This is not about just a handful of people learning it. This is about humanity getting back to the grips with where our professions have gone. We need to claim this back, the brain and spinal cord are part and parcel of one another. The spinal cord is an extension of the medulla oblongata, the pons and the midbrain. And if we don't treat them like that, and we don't take the torque out of these brains, we are just letting people pass into different forms of stasis, and I think we have the ability to change the world with this.

Steven Bruce
Thank you. Yeah, Jon, we are right on time at the moment. But I want to drag you back to one question. So, you've got 30 seconds, you promised to tell us about CSF leak, which is more common skull or spinal?

Jon Howet
I believe that it's probably well, it's more common spinally if there are lumbar punctures done. And I've seen roses or what they call the rose effect where you've got plenty of pin pricks around that. I think from a cranial standpoint, it happens when you get trauma, as I mentioned earlier on, if you don't get drainage, because the central canal is not draining into the spinal canal. And remember too that CSF produces a buoyancy effect of the ventricular system. It doesn't float through the air, but it takes away 25 grams of brain weight. So, it is in a position of moving and it does that to allow the fourth ventricle to have that insertion into the central canal or the central canal into the spinal canal. If you don't have the buoyancy, it collapses. And you not only compress that, but you compress the vertebral venous plexuses. Now, if you then get stagnation within the boundaries of the ventricular system, you're going to increase the amount of CSF within the boundaries. And you can change and you will change boundaries. And that implicates itself because it then impacts caudate nucleus, corpus callosum, thalamus, hypothalamus, and the cerebellum. Now, leakage is something, I mean, you're talking about something I know nothing about as far as leakage is concerned, but I do know there's a buildup. So if you have a buildup of CSF, you're going to have a buildup of fluid going through the apertures of Luschka and Magendie, which then swell into the systems at the base of the brain. Now, is that leakage or is it not leakage? Or is this just a trauma related thing? Because if you have too much leakage and your boundary areas of the ventricular system are traumatized and cut, like an aneurysm and a stroke, then you've got a problem.

Steven Bruce
Jon, I'm sorry, we're gonna have to cut you short there. And we didn't get through all of your slides, we got most of them through. And there's a number of people who asked questions who I didn't have a time to deal with. But I think that's gone down so well. People love it when someone comes on with your passion, enthusiasm and, let's face it, five decades of knowledge of putting this stuff into practice. And I'm hoping that you'll see a lot of interest. Have you written a book on this already?

Jon Howet
I have a book that is coming out next month called The Dislocated Brain. Because I really feel and I hope the audience that we're talking to tonight, I think humanity owes this to itself, that we've got to start investigating. I don't have all the answers. But I do know when we take the torque out of the brain, you can expect miracles. What they are, I have no idea. But if you think when you torque that brain, that is the same fascia that organizes your sphincter, your rectal sphincter, or organizes the pressure in your gluteal muscles or in your Achilles tendon or in your knee and we're looking to fix knees with surgery and so on and so forth. Let's have a look. What is the fascial system? Why was it generated on the 18th day, two days after the brain and spinal cord? Does that not give us an idea of how high up on the imperative mesenchyme is? And its physical work, this is in our domain. And we need to own it, and we need to help humanity. And that is, if we've got that out tonight, then I'm so grateful.

Steven Bruce
I think, Jon, we almost certainly have, and I'm sure there will be lots of people with great interest in your book and in the course. But thank you so much for coming and joining us this evening. It's been a great treat listening to you. And I'd love to hear more of what you do, particularly when there's more evidence to be shared with the audience and so on.

Jon Howet
Yeah, we do need more evidence. We always do. We need more exactitudes, but it'll come. All of this comes in due course. But we all have to keep trying.

Steven Bruce
That is, it for this evening, I'm afraid. I hope you've enjoyed that. And I hope we did what we said on the tin, we talked about a different approach to looking at the brain structure, the brain hierarchy. I hope Jon has explained how your brain is a bit like an Amazon warehouse. I think you'll probably appreciate having attended for the live broadcast because anyone who watches the recording is going to have to answer some questions in order to get their certificate and, boy, are there going to be some difficult questions coming out of that this evening.