



Transcript: #370 The Brain Lymph Drainage Connection to Chronic Fatigue Syndrome & ME with Dr. Raymond Perrin

- Wendy Myers:** Hello, everyone. I'm Wendy Myers. Welcome to *The Myers Detox Podcast*, where we talk about everything related to toxins and detox. You can learn more at my website myersdetox.com.
- Wendy Myers:** Today we have an amazing show for you. We have my guest Dr. Raymond Perrin, who is going to be talking about the brain lymph drainage connection to chronic fatigue syndrome & ME. It's also connected to dementia, fibromyalgia and lots of other neurological inflammatory issues.
- Wendy Myers:** On today's show we're going to be talking about the causes of poor brain lymph drainage. We'll discuss massage techniques to aid brain lymph drainage as well as just lymphatic system drainage. We'll also explain how the brain and lymphatic drainage system becomes clogged with toxins. We'll explain why that happens, why there's actually a backflow of toxins, why the brain is vulnerable to toxins and the compounding issues of "leaky brain".
- Wendy Myers:** We'll also talk about the link between poor brain lymph drainage and long-term COVID symptoms. Dr. Perrin has found that people that have a backed up lymphatic systems or their brain isn't draining properly also tend to be more prone to long-term COVID symptoms, which includes chronic fatigue. That's a very, very interesting conversation.
- Wendy Myers:** We'll also discuss Dr. Perrin's "Perrin Technique." How it can reverse chronic fatigue naturally and even prevent it. There are signs and symptoms before people get chronic fatigue, fibromyalgia and pain syndromes. We'll talk about what to look for, how you can address this naturally and how to get your brain toxins flowing out again.

- Wendy Myers:** It's a really, really interesting conversation. I know those of you listening to this show are concerned about your body burden of toxins. I created a quiz. You can go to heavymetalsquiz.com and take this two minute quiz. After the quiz you get a free video series that answers all of your questions related to detox. Things like how long it takes to detox and what kind of testing is good? What kind of supplements should I take? Where do I get started to begin detoxing? All of these frequently asked questions are answered and you get a totally free video series after the quiz. Take it at heavymetalsquiz.com.
- Wendy Myers:** Our guest today, Dr. Ray Perrin, is a registered osteopath, neuroscientist and specialist in chronic fatigue syndrome. He's an honorary clinical research fellow on the faculty of Biology Medicine and Health at the University of Manchester, in England.
- Wendy Myers:** Dr. Perrin qualified in 1984 from the British School of Osteopathy in London. He has extensive experience treating top sports men and women including Olympic athletes.
- Wendy Myers:** In 1991, he was appointed official osteopath of the World Students Game in Sheffield. Dr. Perrin's research since 1989, into chronic fatigue syndrome or CFS/ME, has expanded our knowledge of the disease and how to diagnose and treat it.
- Wendy Myers:** In July 2005, he was awarded a doctorate by the University of Salford, UK for his thesis on the involvement of cerebral spinal fluid and lymphatic drainage in CFS/ME.
- Wendy Myers:** In 2007, he also held an academic post of honorary senior lecturer at the Allied Health Professions Research Unit, University of Central Lancashire, in Preston, UK.
- Wendy Myers:** He was appointed member of the scientific committee for the second, third, and fourth World Congress on neurobiology and psychopharmacology affiliated with the European Association of Psychiatrists annual conference in Greece.
- Wendy Myers:** In 2015 he joined the international faculty of the German School of Osteopathy in Hamburg, Germany and teaches osteopathic theory and practice to students in colleges all over Europe. He's lectured internationally and in the UK to CFS/ME patient groups and the medical profession on the manual diagnosis and treatment of CFS/ME.
- Wendy Myers:** He has published papers in major medical journals including *The British Medical Journal*. He is the author of the best-selling book, *The Perrin Technique: How to Beat CFS/ME*, published by Hammersmith Press in London.

Wendy Myers: Dr. Perrin is a vice patron of the University College of Osteopathy. In 2015 he was the recipient of The Inaugural Research And Practice Award from the Institute of Osteopathy. He is a founding member of the newly formed International Osteopath and Research Group and still continues to run clinics in Manchester and London, specializing in the treatment of CFS/ME and fibromyalgia.

Wendy Myers: You can learn more about Dr. Perrin and his work at theperrintechnique.com. Dr. Perrin, thank you so much for joining the show.

Dr. Ray Perrin: Thank you very much for inviting me, Wendy.

Wendy Myers: Tell me, how did you get involved in this topic and this area of medicine with chronic fatigue?

Dr. Ray Perrin: Well, it all started in 1989 which goes back quite a long way now. I'm an osteopath by profession, and I was very involved in sports medicine. One of the sports teams I was treating was one of the British cycling teams, and that eventually became one of the main teams in the world in cycling. One of their members had a back problem but he hadn't been cycling for seven years because he had ME chronic fatigue syndrome. In those days they used to call it yuppie flu. The younger, mobile people were coming down with this flu-like illness.

Dr. Ray Perrin: He said, "I've got this. I've had it for seven years. I've been out of cycling just working in an office when I can. Most of the time I'm fatigued, can't concentrate and definitely can't get on a bike."

Dr. Ray Perrin: I said to him, "I can't help that, but I can definitely help your posture and your spine." We had one lecture when I was in college. I went to The British School of Osteopathy to train as an osteopath, which is now The University College of Osteopathy in London. There I had one lecture of psychosomatic disorders and ME came up. Give tender loving care, smile at the patient and you'll be fine.

Dr. Ray Perrin: Anyway, I treated his spine and got his mechanics working better. Amazingly his ME symptoms started to improve. He came to me after just a couple of months and he was symptom free from his chronic fatigue/ME. We used to call it ME in this country, and then it became chronic fatigue ME. In America they've had many different names for it. It's now accepted universally as ME/CFS. ME stands for myalgic encephalomyelitis.

Dr. Ray Perrin: I noticed myalgic is muscle pain, cephalo is to do with the brain and myelitis is inflammation of the spine. I noticed that he had this, but other patients were coming in with spinal problems who also felt fatigued and had very similar symptoms to this gentleman.

Dr. Ray Perrin: He told me that he's been trying everything to try and get better. He went back on his bike and he was fine forever more. He said, "It's been seven years of hell and now it's better."

Dr. Ray Perrin: He told me, he was the one. All practitioners, and you probably have the same thing happen where people come in with books and loads of different research papers saying, "Read this." I started reading on the subject and I realized I was obviously helping him in some way, but I had to work out why and how.

Dr. Ray Perrin: I found out at that time there were no known treatments for ME that worked universally, and it was very much in the infancy of being accepted as a disease.

Dr. Ray Perrin: Then I came up with a theory. The theory was, and this is going right back to 1989, that there were build ups of poisons in the spine and spinal cord which is a continuation of the brain, so into the brain. This increase in toxicity and inflammation, inflammatory toxins, led to this disease that we called ME. By working on the spine, I could open up the passages and drain the problem away, drain the toxins away.

Dr. Ray Perrin: There was no science to back me up at all. It was just a theory. When I came up with this theory, that there was a drainage system of the brain that we were able to work on and to stimulate the drainage, it was more than out of the box, it was out of the planet and out of the universe. We're going to be discussing lymphatics in this podcast obviously, but when I started looking at lymphatics, I thought they were very much involved in the whole problem. When I started seeing other patients, they all had swellings of lymphatic tissue in their neck and in their chest areas. I felt that there was definitely a lymphatic connection there.

Dr. Ray Perrin: My treatment developed over the many years I worked with this and became known as The Perrin Technique. This is the diagnosis and treatment of chronic fatigue syndrome/ME and other conditions through what I called the newer lymphatic drainage.

Dr. Ray Perrin: When I gave my earlier lectures years ago or a couple of decades ago now, scientists looked at me like I was mad or from a different planet. Some walked out and there were some neurologists saying, "It's nonsense. How can you say that there's a drainage system of the brain into the lymphatic system? It just doesn't exist. There's no lymphatic drainage of the brain at all."

Wendy Myers: Yes, it's amazing the resistance you can have to new concepts. Is there a possibility? I just don't understand why people can't be open-minded to new possibilities. We don't know everything about the body.

Dr. Ray Perrin: Especially when you say you can help it without drugs, as well. That's the big thing. Without big pharma being involved, everyone wants to know the research. Anyway, I was helping people. I was using my ideas to develop a

treatment plan that actually helped and that became known as The Perrin Technique.

Dr. Ray Perrin: I've been working on this for many years. I've done clinical trials at universities, in hospitals and with the National Health Service, as well. Yet, I still haven't got full recognition within the Health Service because I'm not a drug, and there's not big bucks to be made, unfortunately. Hopefully, one day we'll have enough evidence to make people realize that we can make a difference.

Dr. Ray Perrin: I'm not saying I've got the answer. Unfortunately with this sort of disease, ME/chronic fatigue and other conditions like fibromyalgia, there's not one answer. I've got part of the jigsaw puzzle.

Wendy Myers: Can you tell us, based on your method, how do toxins normally drain away from the brain? This is a concept that it is very, very new. We recently discovered the brain has a glymphatic system. How does that all work?

Dr. Ray Perrin: I looked back and the scientists talking about what's now called the glymphatic system, were talking about it in the 1940s, even. Russia did some research on sheep showing there was this drainage. In the UK we had work at the University of Southampton, showing in rats that there was this drainage system of the brain.

Dr. Ray Perrin: It was all theory and all hypotheses. As an osteopath, going back to the roots of osteopathy which came from America and Andrew Taylor Still, the first osteopath who developed the field in Kirksville, Missouri, in the late 19th century. He talked about the waters of the brain draining into lymphatics.

Dr. Ray Perrin: That was furthered by William Garner Sutherland who was one of his disciples, one of his peer students who became the founder of cranial osteopathy and cranial psychotherapy. They both talked about the drainage of the brain, of the cerebral spinal fluid into the lymphatics. They had no proof that this was actually occurring, no visible proof. There were no scans, obviously, in those days. There was no way they knew this was happening for sure, but their whole treatment was based on the fact that there was a drainage system.

Dr. Ray Perrin: So, where is it and how does it work? Well, with my research I've discovered that scientists had found that through the cribriform plate which is a plate of part of the ethmoid bone, which sits in the skull around here, above the nasal cavity where the olfactory nerves go through little perforations in this plate, there's blood vessels around the nerves. These blood vessels supply the nerves and they have spaces around these blood vessels called perivascular spaces. These are spaces around the part where the blood goes.

Dr. Ray Perrin: These spaces, from the research done by earlier scientists, showed to contain cerebrospinal fluid. What we're seeing is a drainage of cerebrospinal fluid which

is a fluid in the brain and down the spine, which drains out of the brain through these spaces, mainly in the olfactory pathway into the lymphatic system outside the brain. At that time, scientists knew of no lymphatic system, true lymphatic system in the brain, however there was this drainage system through the cerebral spinal fluids. It wasn't just the olfactory nerves, the pathway through the optic nerve pathways, the trigeminal nerves in the cheeks and the oratory pathways were the main areas of drainage. Down the spine too, this is so important, down the spine as well.

Dr. Ray Perrin: There's a drainage system that happens in health. It should happen in healthy people but it was never proven to exist in humans or even animals, truly proven by scans because we didn't have the technology until 2012. Only nine years ago now.

Dr. Ray Perrin: In 2012, at Rochester University in New York, Jeff Iliff and his colleagues discovered using a new type of scan technique, that there was actually this drainage that did exist in mice. Not in humans, but in mice. When it didn't drain away, it built up in parts of the brain. One of the main areas was the limbic system in the brain, what we call the thalamus and the basal ganglia. This surrounds very close to the main organ I felt being affected, that's the hypothalamus. The hypothalamus is one of the main organs for so many parts of the body controlling the hormones. It's the mother of the hormonal system, the hypothalamus. People always talk about the pituitary gland, but it's the hypothalamus that controls the pituitary gland, that controls the adrenals and that controls the thyroids.

Dr. Ray Perrin: It's amazing that when I came up with the idea that there was this drainage going on, I knew the scientists who had looked into this had to be right. When people said there was no lymphatic drainage of the brain, why did they say that? You have to think about why we have a lymphatic system in the first place. I know you're steeped in detoxing so you know a lot about the lymphatics, but you also probably realize that it's the least taught system in the whole of the medical world. I lecture about the lymphatics all over the world. When I ask a whole group of doctors and say, "Why do we have the lymphatic system?" They look blank. We need it. Why? Well, we need it because the blood can't drain everything away. Why not?

Dr. Ray Perrin: A lot of them don't realize that the reason why we have a lymphatic system is mainly because of the macromolecules, the large molecules. Small molecules can get through the capillaries, the capillary walls. It's a filter system. Larger molecules can't get in. So what do the large molecules do? Well, they have to be drained away somehow and that's why they have the lymphatics. If you look at the capillaries of the lymphatics, their walls are like gills of a fish opening and closing and allowing large molecules in. That is the key to this whole of neuro lymphatic system science. According to general medicine, for years and years since the blood-brain barrier was proven in the '60s, I think it was actually

proven to exist way before that, then you could scan the blood-brain barrier and see it.

Dr. Ray Perrin: The blood-brain barrier is a barrier that stops any large molecules from entering the brain. Therefore, if large molecules can't get into the brain, you don't need the lymphatic system. That's why there isn't a lymphatic system in the brain because you don't need one. I come along and say that chronic fatigue syndrome, ME, fibromyalgia and Alzheimer's, there's a lot of research on this new lymphatic with Alzheimer's because it's a very important point. With Alzheimer's they've looked at the beta amyloid molecules. These are large protein molecules that get stuck in the brain and outside the patients, they're not draining away.

Dr. Ray Perrin: The early research was done by Iliff in Rochester. His colleagues were looking at the amyloid beta. They basically injected amyloid beta into the brains of these mice and watched how they drained away. Basically what you have is a built up of large molecules in the brain, but large molecules officially can't get to the brain because there's a blood-brain barrier. How did they get in? This comes back to the hypothalamus, because the hypothalamus controls the whole system of hormones. Every hormone in the body ends up in the hypothalamus. The hypothalamus measures the levels and sends messages back. This is known throughout the whole of endocrinology and medicine, it's the biofeedback mechanism.

Dr. Ray Perrin: If you say you have insulin being produced in the pancreas, this all flows in the blood and into the brain out of the hypothalamus. The hypothalamus will measure it, measure the insulin, and then send messages back to the pancreas to produce more or less. This controls the insulin levels. We know insulin is a huge molecule, just to give you an example of the size of molecule we're talking about. We know the blood-brain barrier takes in certain molecules of small molecules, such as water. Water has a molecular weight of 18 daltons, measured in daltons. We're quite proud of Dalton because Dalton was a scientist from Manchester, England, where I come from.

Dr. Ray Perrin: A water molecule is 18 daltons large. An insulin molecule is 5,808 daltons, it's huge. It's a walloping massive molecule. When I gave a seminar a few years ago to a whole group of osteopathic physicians in New York, one of them said, "You know, we love you Ray. We love your work, but this is crazy, an insulin molecule going into the brain, that big, impossible. What about the blood-brain barrier?" When there's 7 areas that could add to an illness in the brain which haven't got a good blood-brain barrier at all.

Dr. Ray Perrin: Two of those are in the hypothalamus. The posterior pituitary gland is another one. The pineal gland, which controls melatonin levels for sleep is another one. There's areas of the brain that have huge gaps in the blood-brain barrier. These gaps mean that large toxins can get in, and they do. We need a lymphatic system

of the brain. If you haven't got one, as soon as we're born we'd all die, so we have to have one. We knew that there must be one. This is amazing, the way other scientists and other doctors around the world didn't think the same. There were a few, but not many.

Dr. Ray Perrin: In 2012, it was proven in mice that this glymphatic system, they called it, existed. It was very interesting when they found this because it was only in mice. What they did then, they showed that when it doesn't work, it hits this area around the hypothalamus and the thalamus. Let's talk of the basal ganglia. Basal ganglia produces lots of different chemicals, neural chemicals, but one of the main ones it produces it's GABA, gamma-aminobutyric acid. This is a pain suppressant. This gets irritated by toxins coming in. If the drainage doesn't work and it fills up in this area, which the status in Rochester showed, you end up with a buildup of toxins affecting the pain suppression so you get more pain.

Dr. Ray Perrin: This is very, very much what's happening with people with fibromyalgia. One of the main treatments they get for that is Pregabalin or gabapentin to help stimulate the GABA. That's a drug that works for this. There's another area, the thalamus, that also gets involved. The thalamus produces a chemical called NMDA, which then stimulates substance P. Now NMDA receptors are very, very acutely stimulated by alcohol. It's very interesting that most people with chronic fatigue, ME and fibromyalgia can't cope with it, even the tiniest bit of alcohol. This is the toxicity side of alcohol. It can affect these NMDA receptors big time, and then affect the thalamus. The thalamus control, the Basal ganglia and the hypothalamus are all parts of the limbic system, the emotional side of the brain.

Dr. Ray Perrin: This isn't what affects the emotions and makes people fit into depression, secondary depression. It's not true depression and anxiety states and all sorts. Cognitive function is affected because the drainage from the cribriform plate, from the hypothalamus through that, goes through the prefrontal areas affecting the thought processes. People have the brain fog. The most interesting thing, if you look at the brain and this end is the hypothalamus, the thalamus and basal ganglia, it's very central to all the thought processes. All the nerves going from the front, from the frontal area to the back, to the doing parts of your brain. Everything becomes an effort; talking, walking, eating and sleeping. Everything becomes more of an effort because the central core, this middle part of the whole process, the junction box I call it, has been affected.

Dr. Ray Perrin: That basically explains why we need the drainage system. The drainage system does drain off toxins through, into the lymphatic system. The lymphatic system is a living system which has nerves controlling it, sympathetic nerves. One of the main areas controlling the autonomic nervous system, especially sympathetic nerves, is the hypothalamus itself. The hypothalamus is poison. It causes autonomic disturbance and this sort to the lymphatics itself. The main ducts of the lymph, the thoracic duct, pumps at a rate of about four beats a minute. When I was in college many years ago, in the 1980s, we were told lymph doesn't

have a pump of its own, but it does. It's controlled by sympathetic nerves, controlled by the area of the brain that's being poisoned when you have this buildup, which then causes a vicious circle. It causes more toxicity and more damage. This vicious circle ensues to eventually have a buildup of these poisons leading to what we call ME, CFS, fibromyalgia and all of the things, including probably Alzheimer's.

Dr. Ray Perrin: There's research done on Creutzfeldt-Jakob's disease, mad cow disease in humans, which is the same. Who knows what other neurological disorders are caused by this vicious circle of toxins building up, affecting the drainage system.

Wendy Myers: It's certainly very concerning with some of the Franken virus that are out there. The tests, the nasal swab test that's rubbed right on that very vulnerable cribriform bone area. That's part of your blood brain barrier. It's very concerning, I would never do that test. It's very concerning. What are your thoughts on that? On rubbing acQ-tip on that very sensitive area?

Dr. Ray Perrin: If you notice one of the main symptoms of Coronavirus COVID-19, at the beginning, is announcing a loss of smell. This is because the toxins got through the pathway into the brain. This is what we saw in South Canada, where there was a build-up of poisons of the virus through the blood-brain barrier. They saw a post-mortem through the blood-brain barrier into the hypothalamus, through this pathway. This was seen by a professor and his team in Toronto. This is the same, very similar virus, now, Coronavirus. This pathway is very important. It's very important to keep a healthy nasal passage at all times. With my techniques, we give self-massage and self-techniques to open up these passages to keep them moving.

Dr. Ray Perrin: Putting a swab up that can probably irritate it. It probably can create inflammation, inflammation causes toxicity and inflammatory toxins. If you think about lymphokines and about cytokine storms. Post-virally we see this again and again. You have a virus and then you develop chronic fatigue, one of the names is post-viral fatigue. It's this pathway that is affected and the buildup of cytokines. Cytokines are large trinity molecules that are there to help the immune system beat the virus. It doesn't kill the virus, it attaches to it. They are signaling molecules. Cytokine interleukins in defense attach to the virus and then the antibodies will attack the virus. That's in simplistic terms.

Dr. Ray Perrin: Basically, it's good to have cytokines and we need cytokines, but if you have too many of them, this cytokine storm, you have a lot of cytokines attaching to healthy cells. If the viral load is too great, going in through the cribriform plate into the brain, causing loss of smell. Then hitting the hypothalamus and affecting the hypothalamus causing high fever, which is one of the areas controlled by the hypothalamus. This is what's happening. It's a classic increase in inflammatory toxins because this drainage system is not working.

Dr. Ray Perrin: If your drainage system doesn't work to begin with and you get COVID, you are very likely to get the long COVID syndrome that we're seeing, the post-COVID 19. This is why people get ME. They're susceptible to it before the virus hits them. Their drainage system doesn't work. We're working on a new research project at the moment in the UK, within national health service, with a hospital near me. We are looking at a self-massage routine based on my techniques, that will help people with long COVID. They can do it at home. If it's successful, we have to roll it out throughout the world.

Wendy Myers: So interesting.

Dr. Ray Perrin: This is very up to the moment, we talk about this because the post viral was one of the big names for ME years ago, it's post-viral fatigue syndrome. The virus is a major trigger for ME. It's a pre-viral condition. The problems of the lymphatics and the problems of detoxification. These spaces go down to the spine as well, and out to the nerves when the spinal laser. There's also these perivascular spaces. This drains toxins down the spine. If your spine's dysfunctional in any way, you've got spinal problems and maybe you had trauma on your head, or maybe you could have been born with it. You've probably noticed some families have come to you saying, "Our family's got chronic fatigue, ME." We see this again and again.

Dr. Ray Perrin: It could be the bones of your skull, if the facial bones look very similar to your parents. If you look like your parents because the facial bones are very similar, genetically. Cranially it is the same inside the cranium. Maybe someone has got a defect in the cribriform plates, in the ethmoid bone and their child's developed the same defect. They could be born with a defect and then it can build up the toxins because their drainage isn't working from day one. It could be trauma from birth. We see a lot of firstborn babies because of the trauma of being the first born going through the birth canal, we see a lot of ME patients are first born. This could be the trauma and it might not be any trauma further along, or it could be later on you could have injury on your head or spine.

Dr. Ray Perrin: Sports people develop chronic fatigue, ME and fibromyalgia much more than un sporting people because they're overloading their bodies and their spine is not draining properly. There's lots of different causes for this buildup of toxins, lots of different causes for the buildup of inflammatory toxins. You can help with some adaptogens, a holistic and naturopathic way from a nutritional point of view, but one of the main causes is stress. Stress is one of the biggest causes of neural inflammation. People somehow have a very, very stressful life and then suddenly they're hit by a virus, they go downhill and they don't recover. We look at all the history of emotional stress, physical stress, and environmental pollution. Finally, I'm not going to get political but you hopefully get a president that looks at the environment a bit more than your previous president.

Wendy Myers: Yes, it's interesting. Working with a client population, you always hear about someone having a virus or they had a car accident or another traumatic event, and that was the beginning of the end for them. They were just on a downward spiral from there. It's interesting to see with a car accident where someone has a traumatic injury to their spine that would then cause them subluxations or other types of injuries, knocking the spine out of alignment that would then suppress the lymphatic drainage system into the lymphatic system. Can you talk about that a little bit?

Dr. Ray Perrin: The lymphatic system is controlled by sympathetic nerves and the main part of the thoracic spine is involved in sympathetic. If you have an injury in any part of the spine, it'll be able to affect the sympathetic nerves which directly control the pumping of the lymph. Many of your listeners will be familiar with cranial osteopathy, craniosacral therapy. It's known by quite a lot of practitioners in the States and worldwide. I came up with a concept in 2007, which was formulated into a paper which was published in *The Journal Of The American Osteopathic Association* on what is the cranial rhythm. This fits into what you asked about the spine, the lymph and the lymphatics. The lymph has a pump of around four beats a minute. The cranium has the cerebral spinal fluid, the fluid in the brain follows the heart rate. It's produced by the blood and it goes back to the blood. In the brain itself, it follows the same rate as the heart rate, 50 to 100 beats a minute, and eventually drains into the lymphatics.

Dr. Ray Perrin: Just to point out that in 2017, 10 years after my paper was published, they finally proved that the lymphatic system existed in humans. They did the first scans in Virginia, in the States, and it showed that this drainage actually did exist. There were actually lymphatic vessels lining the brain around the meninges, the membranes of the brain that was actually lymphatic vessels, true lymphatic vessels. This drainage system has now been proven in the human body and we know it exists. 10 years ago I did this paper saying that the cranial rhythm is what we feel. When we feel the cranial rhythm in any patient's chronic fatigue, it's always out of sync. It's always disturbed in some way.

Dr. Ray Perrin: The reason why it's disturbed is because it is the lymphatic system we are feeling. It's an actual physical pumping mechanism we can feel. How does this occur? What are we feeling? The cerebral spinal fluid in the brain moves according to the heart rate, 50 to 100 beats a minute. When it drains to these passageways, we now know that it does do that into the lymphatics, there's two waves coming together. The very fast heart rate with the very slow wave of the thoracic duct, the main duct to the lymph, which is about four beats a minute. This was discovered many years ago by professor John Kim in London, in the 1970s.

Dr. Ray Perrin: So you have two waves coming together and physicists watching this will know if you have two waves come together, it produces a third wave called an interference wave. For the non-physicists among us, which most of us are, you

just have to go to a beach. When you go to the beach, you see a big wave coming in and a smaller one going out. They clash together and they produce a third wave. In the human body this third wave is what I call the cranial rhythmic impact or the cranial rhythm. This is always disturbed in ME patients. By stimulating the cranial rhythm, by stimulating the lymph drainage from the brain and the spine and getting everything moving the back way, instead of this backflow that I have discovered now exists.

Dr. Ray Perrin: So with the sympathetic nerves controlling the lymph, it pushes the lymph in the long way, causing electric grade flow which causes lots of what we call varicose lymphatics, in the chest and the neck. We can feel them and palpate them. These are part of the signs of ME and fibromyalgia that we can see, this neural lymphatic system. The lymphatic system isn't working correctly. Basically by stimulating this drainage and draining the toxins away, we can help restore the balance. The hypothalamus will start working better. The thalamus, the basal ganglia, the limbic system, all these areas that are affected will start working as the toxins drain away.

Wendy Myers: What is your method for draining these toxins? I've heard Dr. Klinghardt mentioned sleeping on a slanted bed to aid lymphatic drainage.

Dr. Ray Perrin: Yes, sleeping on one side you're helping the drainage of the cranium, but you're not helping the drainage everywhere else. In fact, if you sleep tilted up, it's going to be harder for the lymphs to pump upwards. It would help the lymph drain from the legs, but we're not talking about standard lymphatic drainage problems. There are many lymphatic drainage techniques and pumping techniques. There's an osteopathic thing called an abdominal pump, there is a Peter pump where you move your legs up. These stimulate the lymph to work better when they're sluggish, but if it's a backflow, it's the control mechanism of the lymph that we need to get working. That's the hypothalamus and the sympathetic nervous system.

Dr. Ray Perrin: We need to get that working correctly. I've developed a technique, which I simply called The Concertina Effect. Like a concertina, you push one side in and then it creates a pressure, which of course forces the air out of a concertina or accordion. Same thing here we push down, we stimulate the lymph with our cranial techniques, we stimulate massage techniques and we get self massage. This is part of the study we'll be doing in the UK for post COVID. There'll be draining down to the collarbone, which is where the drainage occurs and up the chest, the back and backwards towards that. This pressure creates a force that goes into the bloodstream and drains the toxins away. Once it starts going in, it creates another physical phenomenon called The Siphon Effect. Anybody who's had a fish tank and taken the rubbish from the bottom of the fish tank knows about siphons, or if they've taken petrol from a car illegally, they know about siphons.

Dr. Ray Perrin: If you have a tube and you suck it up, it will then continue to flow out by the gradient pressure difference. That's what we do. We drain down, we drain up and we create this effect. This then drains into the bloodstream and takes the toxins with it. Bit by bit by bit the toxins will drain out and the lymphatics will drain the correct way. This backflow will cease to exist and the health is instilled. Now on top of that, there are other things that are needed. For a lot of ME patients, it's not straightforward. That's where people like you come in.

Dr. Ray Perrin: The analogy I use and I'm not trying to plug my new book, but my publisher will be very annoyed if I don't plug my new book, which comes out in early spring. It's *The Perrin Technique, Second Edition* and it's full of all the science behind my work. My first book, which was published in 2007, *The Perrin Technique* was based on my ideas without the scientific evidence to prove it. Now we have the evidence to prove what I've been saying about the lymphatic system and about the drainage.

Dr. Ray Perrin: The analogy I like to use, and I use this in my new book is the jigsaw puzzle analogy. Basically what you find with a jigsaw puzzle is you start with the corners, then you do the edges and then you go to the center. If you have a very simple jigsaw, it might just have the four corners and just a few edges. More complex jigsaws have more pieces. So what are the corners for chronic fatigue syndrome, ME? What are the cornerstones, corner pieces for treating these conditions? That's rest and relaxation, which is different from rest because you can rest and you'll still be stressed out in your mind. Rest and relax, learn how to chillax as they call it nowadays, meditate.

Dr. Ray Perrin: If you can't get away from stress and you're resting, learn how to meditate, try mindfulness and certain techniques to help you focus on the now. It's very, very useful. The most important thing which I instigated in 1989, when all the doctors in the world were saying, push, push, push, push, push. I said, pace, stop and pace, half of what you feel capable of doing so you're not overloading your sympathetic nervous system. Those are the four cornerstones, four corner pieces, rest, relaxation, meditation, and pace. Then the edge pieces, it's The Perrin Technique, work on the neuro lymphatics and work on the structural integrity of the body. Then you've got the middle pieces and that's where nutrition comes in and maybe some drug therapy, maybe some talk therapy is necessary for different patients needs.

Dr. Ray Perrin: As an expert in toxicity you know that the brain is a very large organ. It's quite a big organ, made up of over 100 billion neurons. Each one of those neurons connects to others. There's trillions of synapses, trillions of chemical changes all the time going on in the brain and each one of them can be affected by different toxins. That's why every ME patient is different, because different toxins affect different patients in different places in the brain. This causes a terrible dilemma for doctors when they see patient after patient come in, each one with a different presentation.

Dr. Ray Perrin: This is where the condition comes in to work out what's going on. For some patients, they are like simple jigsaws and some patients, unfortunately, 1000 piece jigsaws and some 10,000 piece jigsaws. There's so many things going wrong and it takes a long time to help. Some you can't help completely, but you can build the cornerstones and get the borders to work properly, to fit together properly and then you can work on the sea and the sky and eventually get the jigsaw positive health back.

Wendy Myers: Then there is "leaky brain". Many people don't have the organ integrity of their blood-brain barrier for various reasons. That compounds that issue, right?

Dr. Ray Perrin: That definitely compounds the issue. If you've got problems on top of that with radioactivity, we have a lot of mobile phones that affect the blood-brain barrier integrity. There was a scientist in Finland that got into deep trouble by publishing a paper on this because one of the main companies that produced the mobile phones didn't like what he was saying. What you're saying is the truth. They found temporal lobe cancer in a lot of patients who had been using mobile phones on the site that they got the temporal lobe cancer. Mobile phone technology is a problem. You have people who are very susceptible, not to just the toxins we see, but the radiation around us and that can affect the blood-brain barrier integrity as well.

Dr. Ray Perrin: This goes with the leaky gut. The nutritionists work on leaky gut and leaky brain. There's so much to talk about with that. We can spend another hour at least talking about the gut, which a lot of people call the third thing because it's so important, the microbiome. It's interesting, I was at a conference a couple of years ago, the Royal College of Psychiatrists conference. We were presenting a paper which they were interested in. I went to one or two of the lectures, and one lecture was all about using probiotics and prebiotics for depression. It was packed. The room was full and I was standing learning from the psychiatrist that nutrition can actually help these patients. It's not a surprise to us when we know that 75% of serotonin is produced in the gut. There's a high percentage of neurochemicals are all produced by the microbiota, by the gut bacteria, as you know.

Wendy Myers: Can you prevent chronic fatigue syndrome and ME? What are your thoughts on that?

Dr. Ray Perrin: Prevention is actually interesting because I'm one of the very few people in the world that says you can prevent it, if you catch it early enough. How do you catch it early enough? That's where physical science comes in. I've devised a technique that we use, on top of going through their history, going through the symptoms, and a physical examination as an adjunct, as a sort of screening tool. There are physical signs that are in my book, that have tender points. This backflow of lymph shows up as varicose lymph flow out of varicose veins, cranial

flow problems, spinal problems and tenderness in different parts. These signs are there with even pre-ME patients.

Dr. Ray Perrin: How do we catch a pre- ME patient? As I said before, it sometimes lands in families. If two or more of the family members have chronic fatigue syndrome, fibromyalgia or both, what they often say to me is, "Can you examine my other children to see if they've got any signs?" Some of them haven't got the symptoms yet, but they have the signs and we start treating them. With the treatment, the science dissipates and some physically get back to healthy, but they didn't have the symptoms in the first place. It's very hard to do research on that. To say we prevented ME because they don't develop ME. Critics would say they never would have, but we know differently. We know that we're getting them into much better health and structurally we're helping them move forward and get a much healthier life.

Dr. Ray Perrin: I said something because of this mass pandemic, and it's getting worse and worse. I don't know how it is in the States at the moment, but in the UK it's worsening by the minute. Even though we've got the vaccines out, there is a higher level of new cases every day in the UK at the moment. With that, there will be many people who have got these physical signs that didn't know anything about it until afterwards. They'll never recover and that's when the post COVID comes in. The quicker we get there, the better. We could even physically examine patients and see if they're susceptible to getting long COVID beforehand. That's a long way off in the search to show this. There's simple measures that people can do to keep the integrity of the neural lymphatic system working and drainage system. That's what we'll hopefully be teaching to the world soon. They're all in *The Perrin Technique* book. Hopefully we'll have the science behind it and the studies behind it to get this out there.

Wendy Myers: What are your thoughts on regular lymphatic drainage massage. I went to massage school when I was 17. I was very interested in becoming a holistic health practitioner. The first course you had to take was a massage course, and it's something that I've done since I was 19 years old. I started almost 30 years ago doing regular monthly lymphatic or deep tissue type, drainage massage. What are your thoughts on that? I know your technique is very specific, but it certainly seems like that would help.

Dr. Ray Perrin: Generally as long as it's always towards the clavicle, always towards the collarbone. If you're massaging upwards. If you've got general health problems with lymphatic, when you learn lymphatic techniques, there's a Volta technique and there's different techniques for lymphatics. You learn about lymph tones and about watersheds where the lymph changes direction. The standard lymph drainage, for instance for the breast tissue, the axillary lymph nodes will take a lot of the surface lymph from the breast tissue into the axilla. However, if you start stimulating something with a lymphatic problem where there's a backflow effect, and you start stimulating the lymph to go into the

axillary lymph nodes, you'll just get congested buildup of toxins in the lymph nodes. They won't be draining away. We go straight towards the main drainage. This concertina effect anywhere else and you're asking for problems.

Dr. Ray Perrin: That's where it changes, but standard lymph drainage as long as it's always towards the collarbone will help. I teach these techniques just for standard back problems. If you stimulate the lymph as well, you're helping the patient so much more. The lymph is always lymph drainage and massage techniques to help the lymph. In fact, Andrew Taylor, the founder of osteopathy said, "You are failing your patients if you do not deal with the lymph and you should give your money back to them." He said that over 100 years ago. It's my opening line for my lectures when I teach my osteopathic students.

Wendy Myers: I absolutely agree. Tell us where we can get your book and learn more about your method? Do you have a website?

Dr. Ray Perrin: It's www.theperrintechnique.com There's also the Perrin clinical consultation on the same site, where there's a worldwide network of osteopaths, physiotherapists, physical therapists and chiropractors who have trained with me, and are licensed practitioners. There's plenty more who I've trained in my techniques who are not licensed, but they've learned my techniques. I realized that there's a whole world out there and we can't train everybody. It's hands-on training and it's made it very difficult with COVID-19 to do hands-on. I managed to teach a whole group in Athens, a few months ago. Practitioners who were trained like a year before that in Greece, came along and they were my hands. I just directed them. It was very difficult to do. Hopefully with the COVID-19 pandemic going we're going to train new practitioners in the near future to be trainers as well. To teach the techniques around the world. There are licensed practitioners and they'll be on www.perrintechnique.com.

Dr. Ray Perrin: You'll find a map with practitioners. There's not many in the States who are licensed. We're always looking for new practitioners. I will be hopefully coming soon when the pandemic settles down. We hope in the near future that I'll be able to come and train as many practitioners as want to. They can then start teaching the others. The book will help, the new book especially, it's 520 pages long. Far too long for patients but they're useful for practitioners, and access everything you need to know about ME but we're too afraid to ask. Really that should be the subtitle of the book.

Dr. Ray Perrin: But the new book is called *The Perrin Technique Second Edition*. It's diagnosing and treating chronic fatigue syndrome, ME, and fibromyalgia because it's very much on the same spectrum via the lymphatic drainage of the brain. We actually have it in the title via the lymphatic drainage of the brain. We're showing the world that it's lymphatic drainage of the brain and we've been treating it for over 30 years. Hopefully the rest of the world can learn how to do it as well.

Wendy Myers: I'm sure you're going to have a lot of people who are very, very interested in this training that you're doing. There's so many people now suffering from chronic fatigue syndrome, fibromyalgia and dementia. It's staggering, the numbers. It's going to be growing so I really applaud you in your work for looking for solutions to this so that people's lives aren't completely destroyed by this. Thank you for your work.

Dr. Ray Perrin: Thank you. On the dementia side, we've not done research on dementia or Alzheimer's. Knowing that the first research done on the lymphatics was amyloid, we had a patient of ours who had successfully gotten better using my techniques for ME. His father had early stage Alzheimer's and I treated his father once a month using my techniques. They did self-massage and gentle exercises. He stayed stable for four years. Every month he came to me, he said he felt wonderful and his memory stayed the same and this is amazing. We had a log for him and we wrote down everything, case notes. We have it all down showing that he stayed as he did. In fact, some days, some months he came in saying he has never felt better. That went on until unfortunately, he had a fall. He fell and he injured his head and he went right downhill after that. Unfortunately, there was nothing I could do there.

Dr. Ray Perrin: It shows what can be done. Hopefully, with this technique, other people will hopefully find it can help people with Alzheimer's and lots of other things. I worked with a neurologist in London who says, "We're treating the physiology here by stimulating the lymph in the brain, you're helping the health of the brain, you should help everybody with any condition to improve their health." Hopefully, likewise what you do, I'm sure you feel the same.

Wendy Myers: Absolutely. It seems like we will have a lot of promise for people with traumatic brain injury also who have affected their glymphatic system negatively in some way, via an injury.

Dr. Ray Perrin: Yes, absolutely. Then I keep on saying this again and again, it's not the cure all, it's a treatment that is part of it. It's the jigsaw puzzle, you've got a lot of patients who are large jigsaws that need a lot of different disciplines to help them. If you find the right ones, most people can be helped and health can be instilled.

Wendy Myers: There's always so many variables to every health issue. Well, Dr. Perrin, thanks so much for joining us on the show.

Dr. Ray Perrin: Thank you. I hope I haven't gone into too much detail. Hopefully your listeners will have learned something from this.

Wendy Myers: Not at all. I'm sure I could continue questioning you for another two hours and I'm sure everyone else would love to listen in. I think an hour is good. We got the

point, just look in the book if you want more. You got a taste. Go get the book.
Dr. Perrin, thanks for joining us.

Dr. Ray Perrin: All the best. Take care and God bless. By the way, the initial version of the book is not available in print anymore, until the new one comes out, but it's available on Kindle. If people want to get a copy of *The Perrin Technique*, the basics of it, it's available still on Kindle or from Amazon and from any good supplier. You can get the Kindle version until the new book comes out, which should be hopefully April this year.

Wendy Myers: Okay. Fantastic.

Dr. Ray Perrin: Take care.

Wendy Myers: I'm going to be right there getting your book in April. Everyone, thanks so much for tuning in to *The Myers Detox Podcast*. It's such a pleasure every week to bring you all of this really important information to help you get to the underlying root cause of some of your health issues. I truly believe that the number one primary underlying driver of disease today is toxins and heavy metals. You have to be paying attention to this, to truly get to the underlying root cause of your health issues and your symptoms. Thanks for tuning in. I'm Wendy Myers of myersdetox.com. I'll talk to you guys very soon.