



Dr Ron Ehrlich: Hello and welcome to Unstress, I'm Dr Ron Ehrlich. Did you know that mercury was toxic? Did you know that along with arsenic and lead it is the most toxic element there is. Today we're talking about mercury and I've always found this an interesting topic on so many different levels, not just because it makes up 50% of what has always been euphemistically called silver amalgam fillings for the teeth, they are actually 50% mercury, but because of the way dental associations and Government regulatory bodies deal with this issue.

I think the Australian Dental Association really does a great job. It provides some really awesome information, some great resources, great continuing education and support for the professional. This dentistry is a very challenging job, but I'm really disappointed they haven't embraced this issue more proactively and dare I say logically. While alerting people to the hidden epidemic in chronic infections and inflammations and its effects on systemic health is something the profession as a whole has totally embraced. It's really embraced this holistic view. When it comes to the toxicity of materials it's a different story. We need to reduce the toxins we're exposed to in our modern world and the mouth seems like a reasonable thing to include.

There are hundreds perhaps thousands of chemicals we're exposed to in our modern world. We've talked to Professor Marc Cohen in the episode in March last year about the 10 toxic truths. We spoke to Dr Mark Donohoe in April last year about multiple chemical sensitivity. Also the fabulous Alex Stuart in June last year about low tox life and later in the year in November, we spoke to Kate Harris CEO of Good Environmental Choices Australia, GECA.

So it's important and it's a big topic. But this is more specific on the one hand and an eye opener on the other hand. It certainly was for me in 1985 when I first thought seriously and logically about this issue. Up until then I had been placing mercury in the form of fillings actually into human beings as I had been taught at universities and as the dental associations and health authorities like the National Health and Medical Research Council, the NH and MRC and many others around the world encouraged me to do and reassured me of its safety.

Now, before we dive in let me give you some basic biochemistry that we're going to discuss in this episode. There are several forms of mercury. One form is inorganic mercury which is said to be not active and therefore not a problem apparently to human health. There is another form called organic mercury which is harmful to human health. If microbes come into contact with the inorganic form they convert it to the organic form or the more biologically active and harmful form. It's a process called methylation where mercury is transformed from the inorganic to the organic form. You probably know that we share our [inaudible 00:03:40] with microbes so I think it's reasonable to assume that this biotransformation from inorganic to organic mercury can occur in a human body. You don't have to actually assume it, it does happen.

It's disappointing to note that dental associations and regulatory health authorities still endorse the use of dental mercury amalgam with some exceptions. But in 2019 that is the case but if a dentist uses it by law today they must dispose of any excess they haven't used in the mix as toxic waste. They're not allowed to dispose of it in the garbage, the toilet or the sink because of the potential harm to the environment which I always assumed it was important because of its potential harm to human health but in a strange twist of logic apparently the only safe place according to the authorities to put dental mercury amalgam is in a human being. Now, if my editor thought it was a good idea we would pause at this point in the podcast for about a minute or so and think about what I just said. Well, I actually thought about it in 1985 for a lot longer than that and I haven't used the materials since then. But it's a disturbing example of how toxins are regulated in our world.

My guest today is Dr Lisa Matrize, a holistic dentist with over 30 years of clinical experience and a passionate advocate of Say No to Mercury. As you will hear, it's a UN global initiative and well, I'll let her explain. I hope you enjoy this conversation I had with Dr Lisa Matrize.

Dr Ron Ehrlich: Welcome to the show, Lisa.

Dr Lisa Matrize: Oh hi Ron and happy new year.

Dr Ron Ehrlich: Happy new year to you. 2019 what a great year I hope it's going to be. Listen, we're going to talk about mercury obviously but I wondered if you could just share with our listener a bit of a background, a bit of rundown on how you got involved in this issue.

Dr Lisa Matriste: Well it is quite a long journey and being a dentist for over 30 years I actually personally suffered from mercury poisoning about 20 years ago and fortunately I was appropriately diagnosed and cured by a specific and targeted heavy metal detox. So it's a bit of a shock to people to understand that if you're a dental worker and you're exposed to using dental amalgam that we will have a very unsafe exposure which accumulates through our lifetime. So I am motivated because of my personal experience to get out there and to help others because mercury toxicity is something that people don't know how to manage and yet we are all exposed. Living in this modern culture we are all exposed at some level or another.

Dr Ron Ehrlich: Let's get right into it and let me just ask you why is mercury a problem? You mentioned you had mercury poisoning and I'm guessing the obvious question is how did you determine that? And that might be a good segway into why it's a problem.

Dr Lisa Matriste: So we have a new global action and it's called the Minamata Convention on Mercury. The levels of mercury are escalating in all our environment and also in our population. It's a serious threat to human health and our environment. So just as we've seen global action by countries coming together and implementing policy on lead, for example, we now have unleaded petrol in about 80% of the countries of the world. We recognized that there was depletion of our ozone layer and so we've got actions happening there. And of course climate change, global warming, greenhouse gases. Mercury is a new global action.

Dr Lisa Matriste: So fortunately with my health symptoms and they were predominantly massive fatigue, a lot of really terrible black moods, sleep disturbances but essentially I found myself in my early 30s not being to walk and the conventional doctors said, "Oh well you're depressed. You've got a lot happening, you're raising three kids." And I was having all this coughing as well. So I consulted with a naturopath and she said, "Lisa, you're a dentist, you're going to be full of mercury from using dental amalgam." And she knew about this because first of all she was European and the Europeans have been at the forefront of identifying how mercury gets into our lives and into our environment. She was also married to a dentist who suicided. So, sure enough, she took the appropriate tests which was a hair sample and my mercury readings were way off the charts and so there was very targeted detox and I'd get my hair levels tested at least annually. My mercury levels just dropped and dropped and dropped and with that Ron came seven years of absolute wellness. I didn't even get a cold. It was like I went from death's door to this bouncing person, this transformation of when you deal with your heavy metal exposure was quite profound.

Dr Ron Ehrlich: I mean yeah obviously life-altering. You mentioned ... how do we know whether we've got it or not? Actually, I do know that the question nowadays is are you exposed to a toxin or not, it's not really that, the question is is the toxin affecting you because we're all exposed to a hell of a lot. But how do we know if we've got high mercury levels?

Dr Lisa Matriste: Well this is one of the tricky things that's happened throughout time and we definitely need more emerging scientific research on this. So being diagnosed with mercury poisoning the classic test ... well, first of all, you've got to find a health practitioner that knows about heavy metal toxicity and in Australia, there's probably three organizations that I feel have got the level of expertise to diagnose it. Your regular GP will probably just order a blood test and the problem with ordering a blood test for mercury is that it is used as a standard for acute exposure or a recent exposure for example if a fluorescent light bulb exploded or a thermometer dropped but it is not a reliable indicator for low-level chronic exposure levels which is what happens if you're exposed to dental amalgam.

Dr Lisa Matriste: We have a hair test also urine test and feces, a stool test. Now we've also got genetic testing too. In the 30 odd years that I've been part of this mercury landscape, we do know that there is an evolving science in how to test it appropriately because it hides in different areas for different individuals and that's what's made it so tricky. It's not like an asbestos exposure where you will develop a distinct disease entity. With mercury toxicity, we know that it's a cardiotoxin, it's a nephrotoxin, it causes birth defects so it's a

reproductive toxin. It's a respiratory toxin. So it's got this whole cluster of various manifestations so it can be quite puzzling unless you go to an expert in toxicology who knows how to diagnose it.

Dr Ron Ehrlich: It's interesting you say that about blood because urine and feces are reliable? So this is what's called the tri-test isn't it? The three, the hair, the urine, the feces.

Dr Lisa Matriste: Yeah, so there is a company called Quicksilver and I know the founder of that Chris Shade, he's an American toxicologist, he does a combination of hair, blood and I think there's a feces test. Mercury when ... it comes in various forms. You've got mercury vapour which you can't smell but it gets generated as a gas. So this is one of the dangerous things with mercury or elemental mercury is that it off-gases. It even off-gases at temperatures below freezing point. So it's a really weird substance. You've got mercury vapour, you've got various compounds of mercury, you've got also what we call methylmercury which is the big concern that is in our environment. This is where the bacteria bioconvert the elemental mercury, the inorganic mercury and it makes it more soluble and it disseminates.

Dr Lisa Matriste: So you've got these different forms of mercury and hence you need to have different types of testing to check out what we call the various mercury species. Coming through the urine, the urine is a test of inorganic mercury levels, what is being excreted through the kidneys. Coming through the feces you've got a combination of organic and inorganic so we've got elemental mercury the inorganic, and then we've got the methylmercury which is the organic version. Blood and hair, the type of mercury that's found in those tissue samples is predominantly methylmercury.

Dr Ron Ehrlich: Which is the more bioactive form of mercury?

Dr Lisa Matriste: Yes, absolutely, however, all levels and all types of mercury are considered to be profoundly toxic.

Dr Ron Ehrlich: Let's just go back a step here and let's just remind our listener of where they would be exposed. You've mentioned dental amalgam and you and I as dentists know what that means but for the ordinary person out there who may not have the dental background you and I have Lisa, let's remind our listener where their greatest sources of mercury in our environment come from.

Dr Lisa Matriste: Very good question, Ron. The greatest, the most direct and the most intentional exposure to mercury in any population is coming from dental amalgam. This person who has had silver fillings put into their teeth by a dentist, this will be their primary source of mercury exposure in their lifetime. This was a statement put out from the World Health Organization, 20 years ago in the 1990s. It's about six to ten times more than a dietary consumption of fish. The role that the dental sector has in both the direct exposure to people as well as indirect exposure from that dental amalgam residue entering our environment is very significant indeed. Whereas through our dietary sources which are primarily products from the ocean, it's a lot less.

Dr Ron Ehrlich: Now you and I ... you mentioned you'd been a dentist for over 30 years and hey guess what, so have I. But you and I would have both been told back at dental school when we were learning to put this material into people's mouths and I'm a bit ashamed of myself as a health practitioner for thinking, "Hang on, isn't this toxic?" Of course, our lecturers told us it was locked in, it didn't escape.

Dr Lisa Matriste: Yes, when I interview new dental graduates they've been taught exactly the same thing. Here in Australia, dental amalgam is still being presented as the material of first choice for restoring adult teeth that have got decay in it. This is a problem because we've got maybe a five-year-old child who might have their first erupting adult teeth and they're getting dental amalgam which is composed of 50% liquid mercury being put directly into their bodies. This is still part of the curriculum and we know that the mercury in that dental amalgam is not stable, Ron. There's been a change just this year in the policy statement from the Australian Dental Association, they can no longer ignore the science that that mercury from a silver filling is not stable. They have made a concession, I checked their policy statement a few months ago, they now admit that there is a release of the mercury out of that dental amalgam. But then they put in a qualifying statement, they believe it to be of minute levels that would not cause any harm.

Dr Lisa Matriste: Going back to that issue, is it stable is it not stable? We now know it is definitely not stable. You can measure the mercury in a person's mouth by breath measurements, the level of mercury emissions coming out of the amalgam. You can measure it in the saliva. Essentially if you've got more than four amalgams in your mouth and you have your saliva tested, the level of mercury in that saliva if it was a water supply it would be deemed unsafe to swallow. This is what's going on in every person's mouth who's got dental amalgam in it. Essentially your saliva is not safe for you to swallow.

Dr Ron Ehrlich: Yes, I know. I think this is what makes this issue actually so interesting on so many different levels because if we are still arguing about something like mercury ... because I know when we look at the most toxic elements I think there are about 120, 118 elements in the periodic table, remember that back in chemist and high school? There are 118 elements in the periodic table, the three or four most toxic elements would be?

Dr Lisa Matriste: I think there's compounds, dioxin, your radioactive and then I think number three on the list is mercury.

Dr Ron Ehrlich: Yeah, that's right. If we're talking about mercury we know that it's toxic and yet it is still being taught at universities. I haven't had contact with the ... that shocks me really. Even that shocks me.

Dr Lisa Matriste: Well many countries and I've just come back from the United Nations, in November we had the second meeting. We had 150 countries there. 101 countries have made what we call ratification of the Minamata Convention. So it's the equivalent of the climate change Paris Agreement but it's addressing the problems of mercury. I get around there and I talk to many countries. India is going to be banning dental amalgam in 2020. They've taken steps. So have Vietnam also. In the European Union 2018, so last year, they made a ban on the use of dental amalgam in children and women of childbearing age. There is definitely momentum that this product is going to be addressed and phased out. But here in Australia we are very much lagging behind. There's an indifference in Government about addressing the seriousness of mercury and I was also speaking in Beirut in November as well. We have many Governments willing and who are concerned about the level of mercury for their people and their environment and they're doing something about it but sadly in spite of my active lobbying for the last seven years, our Australian Government is indifferent to this topic.

Dr Ron Ehrlich: Now that does segway into my question which is your involvement in this movement which is Say No to Mercury. Tell us a bit about that movement and also you mentioned the Minamata Agreement and I think it might be good for our listener to just hear a bit more about what that initiative is.

Dr Lisa Matriste: I became quite enraged seven years ago when I became aware that our Australian Government stood up at the United Nations and said we don't want dental amalgam included in this global treaty because we need to keep using dental amalgam for our public health measures. It's a cheap and strong alternative and we don't want to see dental amalgam phased out. I couldn't understand why our Government would want to keep endorsing a product that's 200 years old when cost-effective alternatives have been out there for 60 years and as a dentist I haven't put an amalgam in anybody's mouth in 30 years and it's just an unjustifiable and unnecessary way of treating dental disease.

Dr Lisa Matriste: I thought I've got to do something about this, this just isn't right. So that's how my son and I talked about it and we decided that we would become activists in this area and so Australians for Mercury-Free Dentistry was born and as I learnt more and more about the hazards the problems of mercury I realized that here in Australia we've got really significant problems. Australia has got twice the global average of mercury pollution.

Dr Ron Ehrlich: Wow.

Dr Lisa Matriste: And it's a serious threat to our food and our water security and you don't hear anything about it. Then I became aware of the use of mercury-based fungicides in our sugar cane growing industry. We've got pollution coming along the Great Barrier Reef. 30% of Australia's land mass is mercury-contaminated from the gold rush days. Then I understood the connection between climate change and mercury

pollution. The utilization of fossil fuels so the coal and gas ... the generation of energy via fossil fuels creates 40% of the world's mercury emissions. There's focus about the greenhouse gases that gets generated which I think is about 10% of the Co2 gets created from the fossil fuel sector, but it's 40% that's of the mercury air pollution emissions.

Dr Lisa Matriste: Just recently I became aware of the concern that with climate change and global warming, we're getting melting of what we call the permafrost layer. That permafrost has been storing the world's industrial mercury pollution for hundreds of years and it's all now melting and it's being released at unprecedented levels. The level of mercury pollution has risen by 20% in the last five years and it's going to keep rising. The mercury is rising. There's a sense of great concern and alarm that this is an issue if I can work toward if knowing how it affects everybody and everything, it's what keeps me motivated. I know the work that I'm doing and my organization is doing is very important in the big picture.

Dr Ron Ehrlich: And of course you're not the only concerned because the United Nations has launched this Minamata Agreement. Can you share with our listener a bit about that? What that initiative is and what it hopes to achieve?

Dr Lisa Matriste: Absolutely. There's a couple of websites that your listeners can go to. There's my website of course sayingnotomercury.com.

Dr Ron Ehrlich: Yep, we'll have links to that of course.

Dr Lisa Matriste: Then the United Nations Initiative, it's called mercuryconvention.org. Now the Minamata Convention, Minamata some background, I was there in 2013. The victims come from a very small fishing village off the coast of Japan called Minamata. In the 1950s really weird things started happening in this fishing village. Seagulls were dropping out of the sky. You can see YouTube videos of cats running around in circles and then the people started just dropping and going into these rigours or seizures. They were considered at the time to be demonically possessed. The fish started floating to the surface and listening to the stories of these victims they would go out and they would harvest this fish and they would think we are receiving blessings, we are receiving blessings from the sea.

Dr Lisa Matriste: It took a number of years to work out what was happening and it was identified by the scientists that an industrial plant was dumping their mercury into the rivers which would go out into the oceans and this was the first significant identification of mercury pollution. But what they couldn't work out was what was the mechanism that was ... how it was finding its way into the people. They found out that it's this tricky conversion of mercury by bacteria in the environment that made this methylmercury and then it would accumulate in the food chain, in the fish, and the people would eat the fish and then they would suffer acute problems. But it's still happening generations on. This is another serious and very significant fact with mercury poisoning, it has its impact for about three generations. Your body stores of mercury will be, particularly if you're a woman, it will pass into your children via the placenta and if you're a man it will concentrate within the testicles, it will mutate the sperm and so we see reproductive issues. We see the birth defects, we see neurological damage being done. We see high levels of infertility as well. It's just not happening in humans it's happening in all animal species that are exposed to these levels of mercury.

Dr Ron Ehrlich: Because we're bandying these two terms around of organic and inorganic so I think for our listener I know that the most of the health organizations say this mercury that's released is not harmful, it's inorganic, which means it's not very active biologically but, big but here, when the inorganic comes into contact with microbes of which this program has explored on many occasions. Microbes are everywhere, the microbes convert this inorganic form into a bio-available organic form which is much more active. So that was a little bit of chemistry 101. But then the Minamata Agreement, that was the history of why they used the word Minamata because of that terrible exposure and all the consequences, then the UN went further and actually has got this Minamata, what is it? Convention or Agreement?

Dr Lisa Matriste: Yes, so it's called the Minamata Convention on Mercury. The discussions have probably been going on for over 10 years and my involvement in this process is now over seven. It came into force. It's

very significant as a global agreement. We've got 128 countries making a legal obligation that they would implement the measures that were finalized in Geneva within their own countries. I played a significant role in getting Australia under the Abbott Government to actually sign onto this Health and Environmental Treaty. We've got our climate change deniers but there are no deniers about mercury pollution. It is real, it is a very serious threat. It represents the greatest consensus in history on any particular issue. 128 countries of the world voluntarily agreeing that they need to address their level of mercury pollution within their own countries and also to assist other countries that may not have the capacity to do so.

Dr Ron Ehrlich: Wow. So Australia under the Abbott Government, when was this? What year was this ...

Dr Lisa Matraste: 2013.

Dr Ron Ehrlich: 2013.

Dr Lisa Matraste: I was there at the diplomatic conference which was signed, it was chosen by the United Nations to be in the Minamata village in Japan. Our Australian Ambassador signed on behalf of our Australian Government. This was the 10th of October, 2013.

Dr Ron Ehrlich: Well done, that's quite an achievement.

Dr Lisa Matraste: Well it ain't over yet.

Dr Ron Ehrlich: No, and what does it hope to achieve?

Dr Lisa Matraste: Well the text we need to address mercury air emissions and they're primarily coming from the generation of coal gas releases into our environment. This is our mercury levels in water and this is where the dental sector has a responsibility to really clean up their act. I know there was a study done by an environmental consultancy group in Victoria and it was identified that the main releases of mercury entering our waterways were coming from the Royal Dental Hospital in Melbourne. There's a responsibility for all dental clinics to install devices known as separators so they can at least trap the mercury from dental amalgam before it goes into our waterways. Then that deals with another problem, where does all this mercury that's getting collected, where does it go? Sadly it gets collected, the mercury is separated or distilled off it in Melbourne and then our dental amalgam manufacturer buys all of that to make more dental amalgam. So this is another very important mission and objective of Say No to Mercury. We need to block the sale of recycled mercury. We need to contain it and it needs to be not ... it needs to go into interim storage and taken totally out of its cycle so that it doesn't go back into a quasi-health product such as dental amalgam.

Dr Ron Ehrlich: Because of course it as you go into the dentist and you have a filling drilled out, the suction takes it into the suction unit and through the waters, ends up in the water supply, ends up in the fish, ends up in the sea. What proportion of dental practices in Australia has this effective filter? Well, you would know this, it's not an estimation, you probably know the pretty accurate figure here. What would that be?

Dr Lisa Matraste: Well yeah, it's a very accurate figure, it's about 700 out of 10,000 dentists. Only two places in Australia have actually run any projects through the state of Victoria and also the ACT. Many years ago there was a voluntary agreement or promotion that if you're a dental clinic you need to install these devices known as separators. I've been lobbying for the mandatory installation of these separators by the year 2015. That was quite some time ago and still, nothing has been done. This is where there's a very important initiative from a dental professional organization called the International Academy of Oral Medicine and Toxicology. I understand you're a member of that organization?

Dr Ron Ehrlich: I am and it's an impressive organization. I was just looking at their scientific board yesterday and noted that six of seven of the board, six of them have PhDs in toxicology so I think well regarded.

Yes, I agree I think it's a good organization and it's a very impressive organization. One we're going to be talking to this year as well.

Dr Lisa Matriste: So this again another link that you would be recommended to put on with this podcast to direct people to. We've got an Australian chapter now and it's about creating not only biocompatible dentistry for patients but also occupational protection and also environmental protection from the hazards of mercury. There's an accreditation called the SMART Accreditation standing for Safe Mercury Amalgam Removal Technique. Certainly, dentists that become SMART certified are the ones that Say No to Mercury endorses for the general public to go and see and if they want to have their dental amalgams addressed these would be the most appropriately trained practitioners in Australia.

Dr Ron Ehrlich: Just taking a little diversion here, why the resistance? Maybe it's obvious but maybe we just need to talk about it. If something as obvious as mercury, why do you think there's such resistance?

Dr Lisa Matriste: That is a commonly asked question, Ron. Because it just seems to be madness. Why would we keep recommending or putting in a product that's 200 years old? What substance and what do we use now in our modern society that is 200 years old? We see our communication systems, on every single level, what still exists after 200 years? This protection of dental amalgam is deeply embedded within the institutions, within the manufacturers and I've thought long and hard about why is this still going on? Even at the United Nations level, the dental sector is the most resistant of all sectors in changing their ways.

Dr Lisa Matriste: I made reference earlier about mercury-based fungicides, well the sugar cane growers have agreed that they will stop using that product by 2020. Fluorescent light bulbs are going to be stopped being used by 2020. We see batteries no longer contain mercury. We see the emphasis on renewable energies but the dental sector is still wanting to keep using this product. It doesn't make sense.

Dr Lisa Matriste: I can think of a few reasons why. I think it's business as usual. The manufacturers even though they've got the alternative they just want to keep their systems in place for as long as they're told to. Human nature doesn't like change, our behaviours don't change unless there's usually from law or regulation. Look at seat belts for example, we know it's for our best protection if we strap on before we turn on that ignition. But it took for there to be a level of regulation and punishment to get people motivated. I think that's one aspect.

Dr Lisa Matriste: The other thing is there's a business case for the continued use of dental amalgam. You and I both know this about if you put an amalgam in a tooth the expansion and contraction that happens every time you have something hot every time with something cold in that metallic you generate stress fractures. Then over time, you'll lose a [inaudible 00:41:41], that's a corner of a tooth. Then if you're seeing a mercury-based dentist they'll screw in a pin, they'll plug it up with more amalgam and then you lose another corner. Then you might need a crown on that tooth and then with all the work being done on that tooth the nerve will die and then you'll need a root canal and then the root canal the infections don't go away, so then you need an extraction and then you either need a bridge or a denture or an implant.

Dr Lisa Matriste: You can track it all back, it all goes back to that first amalgam. Irrespective of whether that mercury's leaching out and causing you a health problem it's using mercury-based dentistry or using metallic based dentistry slowly kills the tooth. Let's face it, there's a lot of money that can be made out of just trying to keep fixing up the damage that's being caused in that tooth. Maybe that's another motivation but we certainly see that in the dental cycle of our patients, come their 50s we see the legacy of using amalgams in everyday practice.

Dr Ron Ehrlich: Now listen if our listener wanted to get a few tips about how to minimize their exposure to this toxic substance, what would you be recommending if you had to leave them with two, three, four tips on how to minimize their exposure?

Dr Lisa Matriste: Well as I said earlier the greatest exposure will in the population that uses dental amalgam is coming from their amalgams. Within my own practice, we've done some before and after

measurements and the hair samples are pretty good. If you've got elevated mercury levels definitely we find within three months after having the last amalgam removed and that's by using the SMART protocol. I have to emphasize the importance of SMART, Safe Mercury Amalgam Removal Technique. If you have a dental amalgam drilled out and you don't have those levels of protection, very quickly and I'm talking within seconds of that dentist drill touching that amalgam the vapours you'll inhale those through the nose and within seconds they're within your lungs, your blood supply and circulating around. We do know that in large scale studies and when I'm talking about large scale studies thousands, thousands of people.

Dr Lisa Matraste: I know Denmark did a study and also a clinic, there's a research called [inaudible 00:44:46], they documented over 1,500 patients with amalgams and this is a very important study because the patients listed all their health problems and then they had their amalgams removed using the SMART protocol and then they did a questionnaire I think it was a few months later, about three months later, of their health conditions. There was also a similar test done with the MELISA test which is an autoimmune marker test. We can confidently say that 80% of people lose 80% of their health symptoms following the SMART removal technique of their dental amalgams.

Dr Ron Ehrlich: You mentioned SMART a few times, can you just share with our listener a couple of the main parts that make up safe mercury ... the acronym again? SMART removal technique. So yeah, go on, tell us-

Dr Lisa Matraste: Safe Mercury Amalgam Removal Technique.

Dr Ron Ehrlich: Yep, what are some of the principles behind that?

Dr Lisa Matraste: The principles are protecting the patient, protecting the dental workers and protecting the environment. The specifics are if you're a patient you will be gowned with some protective layer, usually some surgical gowns. We try and eliminate any exposure of your skin during the process. You need to have an alternative breathing supply so your nose must be covered up and breathing in either oxygen or in some clinics they use happy gas in order to just relax the patient. You have to use what we call a non-latex rubber dam. It's like a square curtain that gets clipped around the tooth. Then you've got to have high volume suction on the outside and suction behind that dental dam barrier. And then the dentist can start drilling out the amalgam filling. The room also needs to have a high filtration system with an activated carbon filter. As about 20% of the mercury residue goes down the suction line and then there's quite a large level of mercury emissions, so that's got to be captured and taken away so that the dentist workers aren't inhaling it and neither is the patient inhaling it. That's where a SMART dentist will be wearing appropriate airway protection and these are masks that have got filtration system on them to again capture that mercury vapour that gets emitted.

Dr Ron Ehrlich: Wow, okay, so listen we've covered a lot of territory here today and given people a lot of food for thought. Taking a step back, just trying to finish up now Lisa because taking a step back from your role as a dentist and from your role as an activist through the Say No to Mercury group, what do you think the biggest challenge is for people today in our modern world on their health journey through life? Just taking a step back because we're all on this journey together.

Dr Lisa Matraste: We are and the concern that I have is the level of environmental pollution that we are all exposed to. This is at a level, and I'm not just talking mercury here, I'm talking plastics, I'm talking lead in our air, we need to combat the war on pollution. This is the greatest threat that we have to our survival and also to the survival of our environments. We are facing challenges that we have never ever had to face in our whole history of surviving. Sure we've had wars but this war on pollution it goes beyond boundaries. The impact of what we experience here in Australia is coming from not only local but there's air currents, water currents and we have a situation that our children today within our modern society our innocent kids they're coming into a world already affected by at least 70 highly toxic substances. The message that I give out there is pre-conception care for both partners. You have to address the toxicity that comes just from living in our modern culture. Now we've got our exposure to electromagnetic fields as well. This is a new phenomenon. These threats are real, we can measure them and we have to survive them.



Dr Ron Ehrlich: Wow, Lisa. There's a note to finish on and a challenge for us all to take up and thank you for all your work in dealing with this one issue. Thanks so much for joining us today, Lisa. It's been terrific talking with you.

Dr Lisa Matriste: Thank you, Ron, for the opportunity and it's your work as well in disseminating this information and collectively we can make a difference but it's a tough road.

Dr Ron Ehrlich: Thanks, Lisa.

Dr Lisa Matriste: All right, thank you, Ron. Bye.

Dr Ron Ehrlich: So there it is. Want to learn more? We will have links to the Say No to Mercury site in our show notes. The empowering point always worth reminding ourselves about environmental toxins is that if you make informed decisions not just about mercury but about lots of other chemicals in our food, in our home, in our furniture, in our clothes, our personal care products, you can reduce your toxic load by 80% or 90%. Clearly, that's significant and you shouldn't rely on well it's being used therefore it must be safe or surely the Government wouldn't allow an unsafe chemical product to be used? Wrong. As I often say and it's a recurring theme on this podcast, your health is just too important to leave to anybody else.

Dr Ron Ehrlich: We have the new app Unstress & Simply Be Well available on iTunes making it much easier to access to this podcast, other events and offerings we have planned this year including free webinars. Go to the website, it's worth a listen and a watch. So until next time, this is Dr Ron Ehrlich, be well.

This podcast provides general information and discussion about medicine, health and related subjects. The content is not intended and should not be construed as medical advice or as a substitute for care by a qualified medical practitioner. If you or any other person has a medical concern he or she should consult with an appropriately qualified medical practitioner. Guests who speak in this podcast express their own opinions, experiences and conclusions.