



Expert Voice Podcast - Dr Elizabeth Steels CONTENT EDIT.mp3

Victor Hello I'm Victor Tuballa and this is Expert Voice Eagle Natural Health's podcast and your partner in natural health and well-being.

Welcome to the first podcast of the series and we are delighted to have you join us.

Joining us on the line from Brisbane today is Dr. Beth Steels clinical biochemist and nutritionist. Dr. Steels is a specialist in complementary medicine and nutraceutical research, which is driven by her desire to continually advance the evidence base for natural health products within broader healthcare. She has built a reputation for rigorous standards and solid results. Applying the same parameters to her clinical trials as the pharmaceutical industry whilst being fully compliant with international good clinical practice guidelines, I'm pleased to welcome Dr. Steels today. Dr. Steels, thank you so much for your time today and welcome to Expert Voice.

Dr. Steels Thank you. I'm very pleased to be here today.

Victor Let's get straight to this topic of nutritional psychiatry Dr. Steels. It's a relatively new and growing field of study, so what has most captured the interest the researchers about this topic?

Dr. Steels The most important aspect of doing research is to get reproducible results and have an outcome that we can measure. We never put nutrition and psychology in the same room for many years because it was hard to capture any physical and functional changes that occur when the brain is actually under stress.

More recently we have been able to capture the functionality of the brain in a way that allows us to actually assess which nutrients are good and which ones are bad. We call this term brain plasticity or neuroplasticity. This is your brain's ability to modify your connections. At night, you rewire your brain and it repair itself for the next day. This process of repairing your brain has got a term called neurogenesis.

If we are carrying out proper neurogenesis during the night, in the morning your memory is a lot better. Your ability to learn is a lot better. And your ability to regulate mood and make good decisions is a lot better.

What we now know, is that if we have an altered neurogenesis process, we actually start seeing signs of mental illness. We've got a direct connection to the brain function and mental health status and the way we're interacting in society. The essential process to this neurogenesis is a lovely little molecule and it's called the brain derived neurotropic factor (BDNF).

This factor produces a protein, and this protein tells your brain and your spinal cord how to survive, how to grow, how to mature and how to handle the next day. Now we have a process of neurogenesis, we can now put things into the pot to see what produces a better process, and what things inhibit our brain from repairing every night.

This has given us a research tool to now use to assess mental health rather than just asking questions. Most mental health assessment has been done on questions: you might say one thing in the morning, and two hours later have a completely different response. Our emotions do go up and down all day. This is a functional test and that is what we're really excited about.

Victor I think it's really exciting to know that there is something like the brain derived neurotropic factor. That there is something now that we could potentially measure when it comes to neurogenesis. It's an exciting field, but what's more exciting is the idea of

nutrition getting back to basics once again, and where diets could potentially play a role in this.

How do you see the field of nutritional psychiatry evolving, and are there any particular trends or areas you feel that will become a focus in the near future?

Dr. Steels We started looking at whole foods and whole populations of people. This new field of research is exploding, judging by the number of papers that are being written about this at the moment and the quality of journals where that research is being published. We now have a journal of international nutritional psychiatry. To have a journal in its own name for this one area of medicine tells you that it's become mainstream. It's telling us that everybody is interested and it's telling us that doctors, pharmacists and pharmaceutical companies are all watching this space very closely because we now have our own category of medicine. We also seeing a lot of research being published in the most reputable journals like *The Lancet* - when we see this research being published in really high-level clinical journals, we know that a lot of people around the world are reading it. We're hoping this translates to more research, more clinicians taking this on board and then ultimately more clinical practices for our patients.

Victor Most people are aware of the role of a whole food diet and in particular its role in maintaining optimum health and general well-being. Can you tell us about the role of whole food diets and in particular how proper servings of foods such as fruits, vegetables, protein sources, etc., can help with brain function and mental health?

Dr. Steels The original research started with whole diets and there are very strong correlations and observational evidence across all countries, races and all parts of different societies where if we actually have a good diet quality, mental health is improved.

A poor diet is actually not going to protect you against depression, but a really good quality diet will protect you against depression. They have done studies across the world that show that good nutrition (when you take away all the other factors) has a positive effect on mental health.

The most important research that's been done is on the Mediterranean diet. We also know that's very protective for cardiovascular disease. They have shown that a Mediterranean diet is associated with a 30 per cent reduced risk of depression over other diets.

In Australia, a group of nutritionists are doing another study called the Smiles Study. In this study, they've given nutritional consults as a supportive adjunct to their cognitive and pharmacology package for people that are suffering various mental health issues. They found again that there's a 35 per cent increase or reduction in severity of mental health issues in the people that were given nutritional guidelines and counselling for two months, versus those who got their normal conventional medication.

This is early research, but it is showing that small changes in diet towards a more Mediterranean and healthy diet have a massive impact on mental health.

Victor The exciting thing you mentioned was that in terms of a Mediterranean diet you are getting a 30 per cent reduction in depression. That's amazing. Imagine if you packaged that into a pill. It's exciting to know that a simple dietary change can make such a massive difference when it comes to mental health and wellbeing.

I recently listened to your webinar on nutritional psychiatry and I was fascinated by the compelling information that you shared about nutrients. Particularly in regard to the twelve specific nutrients that you looked at when it comes to mental health.

Could you share with us today some information about these twelve nutrients?

Dr. Steels We already knew that Mediterranean diet was the best diet for mental health. By looking at the nutrients and then assessing which ones could help regenerate the brain through this brain drive growth effect we identified twelve that actually press the button to allow your brain to regenerate at night. We've got actual physical evidence that these nutrients are key, and that is what is really exciting.

It involves the B vitamins: folic acid, B1 and B6 are the main ones. Vitamin C, which human beings are unable to make, so there's a definite requirement for that every day.

There's also the Omega 3s, which probably have most of the data.

Magnesium and zinc are two minerals which also stimulate the regeneration of the brain independently. If we make someone magnesium deficient, we will actually bring on depressive symptoms. The more deficient a person becomes, the more severe the symptoms become. If we reintroduce magnesium, we suddenly see an increase in mental health.

We now know that magnesium is a key element in supporting mental health. We've also shown that both magnesium and zinc will improve the outcomes for the patient. These nutrients can be taken along with any other medication that a person is on without a concern that there is going to be issues.

One study also found that Vitamin C works as well as fluoxetine [an antidepressant]. All these nutrients have been shown to make the current medication (that somebody is on) work better and more effectively. It's a very safe add-on therapy to add without raising any other toxicity concerns that you might get with other medications.

Victor Depression in society is on the increase. I truly believe that the evidence that you provided today is something that all health care practitioners dealing with such conditions should strongly take into consideration, alongside of course other conventional treatments.

You've also spoken during your recent webinar about a nutrient profiling system for depression that was created. Can you share more details on this?

Dr. Steels What we need to do now is create something that's really easy for everybody to use. It's is a formula and luckily nobody has to work it out for themselves.

We take the percentage of the daily value of each of these twelve antidepressants nutrients and divide it by the number twelve. Then we convert it to a percentage out of 100.

What we're identifying is what you need to do in order to get all these nutrients as quickly and easily as possible. The results have shown that green veggies and some good fish sources will give you the majority of these nutrients. Some vegetables will give you up to 48 per cent of all of these twelve antidepressant nutrients in one day. If you eat a certain range of foods then you're going to improve your mental health.

It's not an all or nothing. If you have a mostly bad diet, try to make sure at least one of your three daily meals are a healthy one, which contains some of these twelve antidepressant foods.

You'll sleep better, when your brain regenerates, and you'll have a better outlook the next day. It's important not to feel stressed or guilty if you don't always eat a healthy diet. It just causes stress, which is one of the most common health problems that we suffer from.

Ideally, a GP or pharmacist should be prescribing fruit and vegetables to their patients.

They need to have a conversation about food with their patients. Ultimately your doctor, pharmacist, nutritionist and everybody around you needs to be aware that a little bit of good nutrition goes a long way, and then we will make better choices.

Victor What are some tips for listeners to consider when it comes to choosing foods to support their mental wellbeing and their overall wellbeing?

Dr. Steels These antidepressant nutrients are anti-inflammatory foods. Poor nutrition creates an inflammatory environment in the body, and that includes the brain. The brain becomes inflamed inside a perpetuation of foods that are high in calories and allowing nutrients perpetuates that. An anti-inflammatory diet is the same thing as having an anti-depressive nutrient diet.

My key is to eat colour. Just look for colourful foods and make sure that every day you eat some of these.

For instance, I'll have a radish, carrot, cucumber and a capsicum every day - sometimes I throw it together in a breakfast panini. Sometimes I'll use them to make an omelette. Or sometimes I just munch on them during the day.

I have a set of foods that I put in the fridge in a bowl, which is my quota of antidepressant nutrients. I know I need to eat those: the kids have their bowls too. I know that we've got to eat these particular foods. Some days, I'll just munch on a radish but other days I'll put it into a salad. It's just being aware that even those four will have a huge impact on mental health.

You can incorporate these nutrients into spaghetti Bolognese, Mexican omelette, or frittatas. I've got kids and obviously we've all managed to hide veggies in their foods, and sometimes we need to do it for the adults as well.

Often with mental health issues we are so tired. We just want to get through our day, go to sleep, and we're not happy. Telling somebody how they'll feel next year is no good - it's too far away when you just want to get through the week or you're trying to get to Friday. I recommend just eating as best as you can, and don't beat yourself up if you don't always manage it.

Victor Nothing starts the day better than a nice omelette with a mixture of capsicum, green and red capsicum to be exact, carrot, maybe some kale – there's a plethora of colours there. Are there any other useful assessment tools used in this area of study?

Dr. Steels This is what we're developing now. There are two assessment tools that you can start looking at. One is the antidepressant food score. It is being turned into an easy-to-read document and book, so people can see where they fit and whether they've got room for improvement.

There's another one called the dietary inflammatory index (DII). This allows you to put your foods in and it will tell you whether your diet is high in inflammatory foods or neutral.

This makes it very easy for people to know if they're getting those twelve antidepressant nutrients without having to be a nutritionist.

We're doing the research and creating easy tools that people can use to check their own diet, without having to do a nutrition degree in order to know what to eat. I think the main thing is to watch this space as you see more and more practical tools being put out there for everybody to use.

Victor I think that's important to know that given the fact that mental health is a major concern at the moment, it's good to know that there are tools that are or have been developed or are being developed. This, along with books, can certainly help everyone and give people more information and more power when it comes to dealing with such conditions.

An area that's close to my heart is herbal medicine. In particular medicinal herbs that are centred on mental health. Herbs that we know of, such as St. John's wort, passionflower, kava, lavender, withania, (also known as ashwagandha) and of course the beautiful

turmeric with the components of curcumin. In your opinion, is there a place for herbs when it comes to mental wellbeing?

Dr. Steels There's a resounding yes there. We should use herbs in cooking. One that you mentioned is curcumin from turmeric. We actually know that will reduce brain inflammation - and brain inflammation is associated with a poor diet. Research shows that it can actually work on this brain derived growth factor and can help regenerate brain cells slowly while we sleep. Curcumin or turmeric is something that you need to add into your cooking. You'll absorb it better if you have a bit of black pepper, and a bit of oil with it and you cook it with foods.

There are some very good commercial products around as well if you don't like these herbs. You can take it as a capsule or tablet.

Put turmeric into as many foods as you can. It is going to help reduce whole body inflammation and have a long term, positive effect on health.

I like using a lot of the other herbs as teas. Passionflower, which is passiflora, is a beautiful flower which helps relaxation. It gives you a feeling of wellbeing without any sedative effect.

Lavender and passionflower are really supportive during the day, when you just need to slow down before you go into a meeting or a podcast. Green teas and mild herbs are quite safe for most of us to take when we're a little bit stressed.

If you need help getting to sleep, withania or kavas are very good. For some people it's not about getting through the day, it's about being how to turn off at night. You don't want heavy sedation at night. These herbs help slow the mind down and let you sleep better. As you know, when you sleep neurogenesis works and your brain regenerates.

Herbs such as St. John's wort have been used for many years, specifically for depression, not particularly anxiety and stress.

It's important to make sure you've got a good team around you. Your doctor will need to be aware of any herbs you are taking, so it's important that your GP and herbalist work together.

Victor Nothing beats smelling lavender before going to bed. It helps you to calm yourself down from the day. One of the things I love about the herb kava is whenever I do my training or education work, I always say to people, 'Have you ever met a stressed Fijian before?'. That because in Fiji they love their kava. Kava's benefits include reducing nervous tension and anxiety that's part of daily life.

It's good to know the information that's out there is now becoming more valid, more heavily researched and is therefore giving us the confidence that it can do its job when it comes to general health, wellbeing and in particular mental health and wellbeing.

It's been interesting to hear this fascinating area of nutritional psychiatry and the important role that diets and in particular certain nutrients and indeed certain herbs can play when it comes to our moods and our mental well-being.

As a practitioner, I am extremely interested to see if when and how nutritional psychiatry will become a routine part of mental health clinical practice.

Thank you so much for your time today and for sharing with our audience these critical points about the emerging and important field of nutritional psychiatry.

Dr Steels Thank you very much for having me.

Victor If you've enjoyed what you've heard today we'd appreciate you jumping into iTunes to provide us with a rating and a review. If you have a topic that you'd like us to cover, we want to hear from you. Get in touch with us via the Eagle Natural Health website which is www.eaglenaturalhealth.com.au in the Contact Us section. I'm Victor Tuballa, thanks for listening.