

Airing Pain Programme 4: Diet, CBT and Mindfulness

How diet can help manage pain, the benefits of mindfulness, CBT and exercise, and a Q&A with pain specialist Mark Turtle.

In this programme Airing Pain looks at a range of lifestyle changes and psychological approaches we can use to help with managing pain. Dr Rae Bell tells us how a good diet can help in managing pain, telling us about foods which are natural painkillers and why we should perhaps give cola a miss. Ron Parsons describes the exercise routine which has helped him to manage his lower back pain.

Chris Main discusses Cognitive Behavioural Therapy and Vidyamala Burch explains how mindfulness can help people to live in the moment and accept pain while overcoming fear, anxiety and depression. Pain specialist Dr Mark Turtle answers your questions on weight loss, getting referred to a pain management programme by your GP and coping with visits to the dentist in our Q+A session.

Paul Evans: Hello and welcome to **Airing Pain** a programme brought to you by Pain Concern, a UK charity that provides information and support for those who live with pain. Pain Concern was awarded first prize in the 2009 NAP Awards in chronic pain and with additional funding from the Big Lottery Funds Awards For All programme and the Voluntary Action Funded Community Chest this has enabled us to make these programmes.

I'm Paul Evans and each fortnight **Airing Pain** will look at the topics that affect us: the coping mechanisms, medical interventions and therapies that might help us regain control of our lives. And in today's programme...

Rae Bell: People need to think carefully about what they are eating – not only the content of what they're eating but how many times a day they eat.

Vidyamala Burch: It really was made plain to me that my situation was incurable and so whether I was going to have a good life or a life full of distress and suffering was partially dependent on whether I was going to take responsibility for how I live.

Ron Parsons: Some of the older people with the arthritic pain do find it difficult to do the exercises and yet there are others, and I can name one who is 86 years old, who religiously does her exercises every day in bed before she gets up and she knows the benefit of it.

Evans: More on those stories coming up. But first a word of caution, that whilst we believe the information and opinions on **Airing Pain** are accurate, based on the best judgement available, you should always consult your health professional on any matter relating to your health and well-being. He or she is the only person who knows you and your circumstances and therefore the appropriate actions to take on your behalf.

Now bearing that in mind, one of our aims on **Airing Pain** is to find answers to questions you've raised with us, so please do take advantage of this opportunity to connect with our experts via our message board, email and not forgetting pen and paper.

The first question today is about back pain: 'My doctors told me that I will be in less pain if I lose weight. Will I? And why?' Today's expert is consultant anaesthetist and pain specialist Dr Mark Turtle.

Mark Turtle: Firstly one must remember that pain has a large variety of effects on an individual. It tends to reduce a person's self-esteem. Being overweight also reduces a person's self-esteem, so being overweight can have an adverse effect on the overall situation and therefore make the person less tolerant to their pain and to painful situations.

That's one background comment, but I think specifically that this may refer to spinal pain and it is often suggested that people with spinal pain should lose weight. Now, there is a relationship between weight and spinal pain. It's not a straight line relationship. In other words, somebody who is a little bit overweight will not have rather less pain than somebody who is grossly overweight and somebody who's excessively overweight have more pain again. In fact, what happens is that if you look at the instance of pain and relate it to weight, there is a very small increase in the pain, as weight goes up, until a certain weight is achieved and then the increasing pain goes up excessively. So, in other words, there is a very small relationship, unless you are quite markedly overweight.

Now, quite apart from this evidence it does seem logical that somebody might lose a bit of weight to ease their back, because after all, the lumbar spine in particular, is the only structure which supports the top part of the body, so if the top part of the body weighs less, that part of the back has to do less work and therefore one would assume that it would be less painful. And then a final comment is that the evidence shows that levels of activity are probably the most important thing with regard to low back pain, in other words, increasing activity tends to reduce the problems whereas recumbency makes it worse. And of course the lower your weight the more likely you are going to be able to indulge in physical activity.

Evans: That's consultant anaesthetist and pain management specialist Dr Mark Turtle. He's also president of the Welsh Pain Society. Later in the programme we will be talking about nutrition and its role in pain management, but staying with lower back pain and physical activity for the moment, Ron Parsons lives with his condition and he's also patient representative to the Fife Pain Management Committee.

Ron Parsons: I've got a lower back problem, which is basically fair wear and tear, probably from an old rugby injury. I've also got upper back fair wear and tear, which is causing pain in the neck and the shoulder areas and just over 18 months ago I broke a wrist, badly, which is turning arthritic now. First thing in the morning it's very, very stiff.

What I did originally, was, go to a chiropractor with a lower back problem because it was really getting very painful. He did a good job on me but then advised me that if I wanted to keep the back in as good a condition as it could possibly be, that I'd have to go through a fairly strenuous set of exercises daily, which I have done religiously for 20 years. I still am quite painful first thing in the morning but once I have done the workout, you know, I can manage the day. I still get twinges, but I'm able to play golf and really participate in all the sports that I want to.

First of all I do a light warm up in the morning, just to get the body moving and get the body warm and then I go through a series of about 13, 14 stretching exercises, exercising different aspects of the lower back and there are a whole lot, I mean it's a set of about 14 exercises and the whole thing with the warm up takes me about 35 minutes. I also now, of course, have started doing exercising on the wrist as well and the neck. And the neck is more again, a series of six exercises with the neck followed by relaxation exercise. So my whole exercise routine for the hand and the neck and the back now works out now to be about 50 minutes every morning.

Evans: Ron Parsons. You're listening to *Airing Pain*, presented this week by me, Paul Evans, and brought to you by Pain Concern, a UK charity providing information and support for people who live with pain and also for those who care for and about us. You will hear about the importance of physical activity many times during the course of these programmes but another keystone of a self-help pain management regime is diet. Rae Bell is head of the multi-disciplinary clinic at Haukeland University Hospital, Bergen in Norway.

Rae Bell: Clinicians should start to examine their pain patients' diets because this hasn't been the usual work up for a chronic pain patient. I know that my colleagues at the pain clinic at Haukeland in Norway initially were rather sceptical, but they also began to ask their

patients what they ate and the first thing they discovered was the same that I had noted: that many patients had poor diets.

Many of our patients are depressed and they don't feel like making food; they don't earn a lot of money, so they can't buy everything they want to eat. And so it's especially important, I think, that chronic pain patients have a good healthy balanced diet and there are several reasons for this: firstly, the nervous system has the capacity to dampen pain – I'm sure most people have heard of the body's own morphine like substances called 'endorphins'. In order to be able to function optimally, the nervous system requires specific nutrients, such as essential amino acids – there is one called 'tryptophan', which is very important in the body's own pain dampening systems and tryptophan is found in chicken and sea food, turkey, avocados, bananas... There's just a sort of an example. So on the very basic level the nervous system needs nutrients. We know that specific vitamin deficiencies can cause pain problems, for example, vitamin B12 deficiency can cause very unpleasant peripheral poly neuropathy, which is a nerve pain in the feet and also possibly in the hands. Vitamin D deficiency can cause diffuse musculoskeletal pain.

Evans: Now the media is full of claim and counter-claim of what is and what isn't good for us. So what should we know about food before believing the headlines?

Bell: I think it's really important that common sense is involved when considering what kind of food we should eat because we are bombarded with a jungle of misinformation and lots of weird diets and I don't think pain patients should be on weird diets.

The World Health Organisation published a report in 2003 where they described how there's been a huge change globally moving from predominantly plant-based foods to high energy foods and they were especially focusing on the balance between the intake of Omega 3 fatty acids and Omega 6 fatty acids. And the ideal ratio in these fatty-acids is 4:1, four times the amount of Omega 6 compared to Omega 3, but in the, for example, the average American diet today, the amount of Omega 6 is around 15-25 times the amount of Omega 3 intake.

Omega 6 fatty-acids are found in red meat, dairy products and especially in, for example, soya oil and soya oil is used to make a lot of fast foods and snacks. So I think the widespread use of soya oil has contributed to high levels of Omega 6. Omega 3 is found in fatty fish, oily fish, also in flaxseed oil, flaxseed and walnuts. That's some examples of foodstuffs having relatively high levels of Omega 3.

And Omega 6 has to do with inflammation. We need to have a certain supply of Omega 6 because we need to be able to have inflammation in the body to heal injury, but if we get too

much that can create its own problems. And Omega 3 has an anti-inflammatory effect, so one aspect with regard to diet and I think for pain patients is to ensure that one has sufficient levels of Omega 3 and that one reduces the amount of Omega 6.

Evans: We will stay with the subject of diet, because it's so important and should be so easy to address in our lives as we try and manage our pain. Here's Rae Bell of Haukeland University Hospital in Norway again.

Bell: There are actually a number of foodstuffs that have been demonstrated to have anti-inflammatory effects, just like non-steroidal anti-inflammatory drugs, for example, in virgin olive oil there is a substance called oliocamfole and it has been shown to have a similar effect to ibuprofen. And this is really interesting because non-steroidal anti-inflammatory drugs have a lot of adverse effects, so if we can achieve some of the same effect through a diet, that would be ideal.

Now, if we think about antioxidants – antioxidants are found in many foodstuffs and many antioxidants have anti-inflammatory effects, for example, resveratrol is an antioxidant which is formed in certain plants when they are under attack by bacteria or insects and it's found in the skin of red grapes and I'm sure everyone will be happy to know in red wine and it has a powerful anti-inflammatory effect. Other antioxidants are found in the reddish-blue pigments in like blueberry skins and cherries. But the problem is there's a lot of hype in the media and when you watch television, lots of advertisements saying, 'Buy this antioxidant product.' But actually you don't really need a huge intake and the best way to get antioxidants is through the diet, not through pills.

And I think most people will know whether their diet is healthy or not. If we are busy, we're on the run and we just have a little snack here and there, that's not good enough. We need to be getting vitamins; we need to be eating fish – more fish, less red meat; lots of fresh vegetables – green leafy and brightly coloured vegetables, because it's the colour pigments which contain the antioxidants. So if you think of a colourful Mediterranean kind of diet then you are on the right track.

Evans: So that's what we should eat, but what should we avoid?

Bell: Specific foodstuffs can increase pain. I am working... I have some colleagues in France who are doing very good science on an area called 'polyamines', which is very interesting. Polyamines regulate a receptor in the nervous system which is involved in increasing pain. Oranges, orange juice contains very high levels of polyamines. That doesn't mean that you

should stop drinking orange juice, it just means you should think twice before drinking many glasses a day or huge numbers of oranges. Peanuts have quite high levels of polyamines.

Then there is the question, the whole question of coffee. For the chronic pain patient, coffee can disturb sleep, everyone knows about that, and when you have chronic pain and you can't sleep, you sleep poorly, then you will feel the pain more strongly. If this is consumed on a regular basis it can increase risk of developing a chronic daily headache. It has interactions with analgesic drugs; it increases the effect of paracetamol and aspirin and that's why it's used as what we call a co-analgesic. There are some pain relieving drugs which contain caffeine, but caffeine has other attributes which are not beneficial at all, actually deleterious.

High levels of caffeine can link to osteoporosis, so if you drink more than six cups of coffee a day your risk of developing osteoporosis is increased and this is also the same for cola. I'm amazed by how much cola my patients drink and I have patients that drink regularly, every day, four litres of some kind of cola beverage and cola contains phosphoric acid, caffeine and sugar. I mean, the taste might be nice, but it has nothing positive about it otherwise and it can cause osteoporosis in the same way as drinking large amounts of coffee because it has such high caffeine levels.

Evans: That was Rae Bell of Haukeland University Hospital in Norway.

Back to our message board... and this is another question we have received: 'I've just finished a 3-month course at a pain management clinic. I've had chronic pain for 8 years and it's taken me all that time and a new GP to get help. For five years I was house-bound and depressed. Why don't all GP's know about pain management and why does it take so long to get help?'

Answering your questions today is Dr Mark Turtle, President of the Welsh Pain Society.

Turtle: Right at the beginning I would say that we must differentiate between different forms of pain measurement. Now I assume by the way the question is put, that one is referring to a cognitive behavioural-orientated pain measurement programme, rather than a sequence of treatments within the pain clinic.

Now, one of the things one has to remember is that there is a lack of knowledge, not only from society in general, but from health professionals. I'm thinking in terms of understanding about chronic pain, what the remedies are, how you manage it. It's not taught, for example, to any great degree at medical school. Tied up with this often is that it's not a conventional

illness which people understand; it doesn't follow the 'medical model' – what I mean by that is that somebody presents with a symptom, the health professional attributes it to a particular pathological disease process, applies the appropriate remedy for that condition and then expects the symptoms to disappear. The trouble with chronic pain is that it often doesn't follow that model, either because you can't find the cause or the treatment is worse than the cause or there is no specific treatment for that particular condition. So we've got a lack of understanding and inability sometimes to take the patient's problems seriously.

There is also a lot of lack of information and maybe even disinformation, so that sometimes the GP and the people working in his practice may actually not know what is available and may have heard perhaps that, for example, the waiting list is extremely long, when in fact that may not necessarily be the case.

Now, the final problem, which is, I'm afraid very, very important and that is financial constraint. Something like 1 in 5 people in the population have a chronic pain problem, so the number of people we are talking about within the UK is extremely large. So that even if we had an ideal system, it would be difficult to apply that for all those people, so unfortunately it is likely they are going to have to be in some sort of strait somewhere in the system and the health professionals are worried that the whole system will get clogged up.

But just coming back to my original point, I believe that every GP ought to know about their local pain clinic, but that trained clinic may then make use of a pain management facility and so won't understand why a general practitioner may not know the full details of what is contained within that pain clinic.

Evans: Mark Turtle referred there to cognitive behavioural therapy or CBT, so what is that?

Chris Main is Professor of Clinical Psychology at Keele University where he's researching how best to develop patient-centred approaches to care, particularly with people who have lower back pain.

Chris Main: Cognitive behavioural therapy is a way of looking at the patient and the situation they are in – looking at their beliefs about pain, looking at what they are actually doing. And it's surprising how often we are unaware of habits that we've developed. We are all quite capable of building up good habits and bad habits and I think that sometimes looking at this carefully, doing a bit of detective work perhaps on yourself, perhaps keeping a diary under some guidance will help you identify things you are doing that perhaps you weren't aware of. I think, more importantly, identifying things that are in fact unhelpful, or superstitions that we have that are really not very useful.

But the role of the professional in this situation is to offer some guidance in terms of their experience of working with people that have got pain. And indeed in pain management programmes for many years we've built up patients' stories of all sorts of different ways that people cope with situations. And really the whole pain management movement has been developed on the basis of real concerns, real problems that patients actually have. We've known for a long time that showing people how to relax is helpful, can counteract muscle spasm and, surprisingly, it can make people less tired. There are clinics in the country which are teaching things like mindfulness, which patients find helpful. Not everyone, but certainly there is a proportion of people that are helped by various types of relaxation that help them to get rid of some the stress in their bodies, because pain is a stressor.

Evans: Now, Professor Chris Main mentioned clinics that offer mindfulness. What is mindfulness? Well, one of the organisations that offer training in the area is Breathworks. They have run programmes for a wide variety of organisations, ranging from local authorities to NHS trusts. Vidyamala Burch founded the organisation in 2001 and it's based on her own experience of living with chronic pain for the last 35 years.

Burch: I was in hospital in New Zealand in Auckland. I was very ill, had a big, sort of personal crisis and there were a few significant events in that time. One is that I had a terrible night. It was a real sort of dark night of the soul and I thought, 'Oh my God, I just cannot get through to the morning'. And then I had this other voice that came in, that said to me very, very clearly, 'You don't have to get through till the morning, you just have to get through the moment.' And my whole experience completely changed – I relaxed, I softened and I thought, 'Well, I can do that – I can get through this moment and I can get through this moment and I can get through this moment.'

And that was such a personally significant experience that it changed my life. It completely changed my perspective on how I related to the past and how I related to the future. So rather than be caught up in all these regrets about the past or anxieties about the future, I thought, 'Well, that's all just in my head. The only thing that I'm ever really experiencing is just this moment and I can do more than just survive this moment, I can live this moment fully.'

Another thing that happened during that time in hospital is, they sent a chaplain to see me, I think because they didn't quite know what to do with this young woman, who had an incurable spinal injury and it was obvious that I needed help. So the chaplain was this lovely, elder gentleman that came and sat by my bed and held my hand and he asked me to visualise a time when I'd been happy and a place when I'd been happy and so I went back to

the mountains of New Zealand, where I'd done a lot of climbing in my teens. Then he brought me back to my hospital bed and that was also very significant because I felt totally different, because of what I had done with my mind. My actual experience of pain lying in a hospital bed hadn't changed at all and yet my overall experience of myself as a human being had completely transformed by what I'd done with my mind. And I came out of the hospital realising I had this huge tool at my disposal which was my mind.

Evans: So that's the background, but what is the central principle that Vidyamala Burch and Breathworks is teaching?

Burch: It's awareness. We are teaching people to be aware of their experience in the moment physically, mentally and emotionally. And if you are aware of what's happening, you can then divide it up into two different components that we call primary and secondary suffering. So in the case of my back pain, the primary suffering is the unpleasant sensations in my back and my legs and my neck and various other places as I'm sitting here.

The secondary sufferings are all the ways, if I'm not aware, that I react automatically to that primary suffering. So, physically, it will be secondary tension. So because I've got these unpleasant sensations, I tense against them, which makes my pain worse. I may have mental states which are unaware reactions to the pain, like catastrophising – thinking, 'Oh my God, when is this going to end? I can't bear it, I've had it for ever, it's not fair, poor me, why me?' – those kind of things. And the emotional secondary suffering will be things like fear, anxiety and depression.

So we accept that an individual will have all these experiences going on, that's normal, but what we do is we encourage people to turn towards their experience, get to know it and then tease apart the primary and the secondary. Then we teach people how to accept the primary suffering, to accept the unpleasant sensations that are unavoidable if you are living with chronic pain, but not to accept the secondary suffering. We teach people how to reduce or even overcome the secondary suffering, which is the fear and the anxiety, the catastrophizing, the secondary tension and so on.

What we do on our courses, is on the first week we are very welcoming, we're very kind and then we get everyone to lie down, those people that can, we get them to lie down. We pay attention to the comfort and we go, 'Have you got the right height of pillow? Is it just right? Would you like a blanket? Would you like an eye bag? Would you like something under your knees to support your lower back?' etc., etc. And then we will lead a body scan which is this way of going through the body and just very, very gently, very, very gradually, inviting

awareness inside the body. And at the end of that people have had an experience of accepting their pain because for most people, actually, it's such a relief to stop fighting. It's so exhausting running away from yourself all the time.

Evans: Vidyamala Burch of Breathworks.

And mindfulness is something that might be relevant to the last of today's questioners on our message board. 'I've been living with back pain for the past 10 years and I normally use relaxation to manage it. However, I find dental treatment very stressful and the pain of having fillings makes it absolutely impossible to relax and makes my pain a lot worse. What can you suggest I do?' Dr Mark Turtle.

Turtle: The first thing to say is that, 'well done', you've obviously worked out ways of managing your problem, you've accepted that there is a difficulty which isn't going to evaporate and you've demonstrated that there are strategies, which you can employ to turn your situation into one that is tolerable. And I'm sure that you can find some help to expand the value of what you are doing to enable you to experience this rather stressful situation.

And the first thing that we must remember is that you are not particularly unique. It is well recognised that people find going to visit the dentist a stressful experience and yet without necessarily having a logical explanation. The first thing I would suggest is that you try and find somebody to give you a little bit of help in talking it through – so a counsellor, particularly a psychologist, who understands about these things, because planning in advance is the key to it really. It's working out what you're going to do when you get in that situation, because if subconsciously you have in the back of your mind a fear that you are going to lose control in that situation, it almost is guaranteeing you will do. Whereas if you feel that you have some strategies up your sleeve, you're some way towards being able to cope with that situation.

Some people will find alternative practitioners able to give them this sort of advice. If none of this really gets you anywhere, then it may be appropriate to go and see your doctor and it may be considered acceptable and appropriate to be given a sedative to take beforehand. If this is the case, of course, you would want to involve your dental practitioner as well, so that everybody knew what was happening.

Evans: Dr Mark Turtle. And don't forget that ***Airing Pain*** is here to help you, so if you would like to put a question to our panel of experts, then please do via Pain Concern's message board, email or good old-fashioned pen and paper. And you can download or subscribe to all the previous editions of ***Airing Pain*** from ableradio.com/podcasts/airing-pain. And finally, I leave you with some sound advice from Rae Bell.

Bell: Pain patients should be increasing the amount of Omega 3, reducing the amount of Omega 6, thinking of eating a colourful meal with fresh fruit and vegetables, cutting out cola, reducing the amount of coffee. Don't drink coffee with caffeine in it after 12 in the middle of the day if you have sleep problems. People need to think carefully about what they are eating – not only the contents of what they're eating, but how many times a day they eat. I have a number of pain patients who perhaps only eat once or twice a day and if you have a tension headache that can be triggered or exacerbated by irregular eating, too-long intervals between meals. So we recommend that our patients eat three main meals and two light meals between the main meals, so that you are eating regularly through the day.

Contributors

- Rae Frances Bell, Head of Multidisciplinary Clinic, Haukland University Hospital
- Vidyamala Burch, Founder of Breathworks
- Ron Parsons, Patient
- Chris Main, Professor of Clinical Psychology, Keele University
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