

## Inside you'll learn:

1. Pain Medicine is now recognised as a medical speciality in Ireland, with chronic pain affecting 13% of the Irish population;
2. How balancing the Autonomic Nervous System using three elements can reduce or resolve pain, so you can break free from just "managing" it;
3. How the Stress Response and the Relaxation Response are crucial to understanding how the body heals itself;
4. How to take responsibility for your health, with an introduction to Dr Lissa Rankin's 6 step process.

### REFERENCES from page 5

1. IASP Newsletter June 2014
2. Breivik H, Collett B, Ventafridda V, Cohen R, Gallacher D. Survey of chronic pain in Europe: prevalence, impact on daily life, and treatment. *Eur J Pain*. 2006
3. Patients results are scored using The Roland Morris Low Back Pain Disability Questionnaire. A new research project with UCC uses Cortisol swabs.
4. Herbert Benson, Harvard University, The relaxation Response
5. Physiological is a physical reaction, the pain physically hurts, it is real. This is distinct from Psychological, which may imply the pain is in the mind.
6. Dr Walter Cannon, Harvard University, The Stress Response
7. Whole Health Medicine Institute training Material July 2014
8. McEwen BS. The neurobiology of stress, from serendipity to clinical relevance. *Brain Res*. 2000
9. The Stress Solution, Lyle, H. Miller, PhD. And Alma Dell Smith, PhD. APA 2009
10. Dr David Kallmes, Mayo Clinic, USA. 130 patient trial, 65 real Vertebroplasty procedure & 65 fake. Reported on BBC Horizon Programme in February 2014. Dr Kallmes found the results were similar, he did the trial because looking back over his records he realized even when the wrong vertebra were filled by mistake the procedure was still effective.
11. Meaning, Medicine and the 'Placebo Effect' Cambridge University Press, Daniel E. Moerman 2002
12. Ted Kaptchuk, director of Placebo Studies, Harvard University: Potential Applications for the Healing Power of Placebos. 6th Jan 2012
13. Mind over Medicine Hay House, Lissa Rankin MD, 2013
14. "We are responsible to our disease, not for our disease" Dr Christiane Nothrup. Mind over Medicine, Lissa Rankin MD, 2013
15. Rachel Naomi Remen MD Clinical Professor University of California San Francisco School of Medicine. Lecture Whole Health Medicine Institute, July 2014
16. BBC News Thursday 28th August 2014



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## Engaging Patients in Resolving Chronic Pain

Pain Medicine is now recognized as a Medical Specialty in Ireland.<sup>1</sup> Chronic pain affects 13% of the Irish population, preventing an independent lifestyle.<sup>2</sup> There is a growing movement that suggests treatment of chronic pain could be improved by a shift in the way we view this condition. A shift that would challenge how we think about health care provision for Chronic Pain in Ireland. It would benefit patients, family, friends and medical practitioners alike.

The shift is viewing the condition of chronic pain in terms of re balancing the Autonomic Nervous System (ANS) using three elements. The pain recovery of my patients over the last 12 years supports this view.<sup>3</sup> An explanation might allow the same pain reduction or resolution to be achieved by many more patients.

### Element One

With guidance from a trusted expert, understand the physiological functions of the two different operating modes of the ANS.

### Element Two

Finding help from a supportive specialist professional combined with personal research to identify what might over activate your the Sympathetic Nervous System (SNS). The purpose of this is to identify what to avoid, resolve, change or what you can tolerate in only small doses.

### Element Three

Actively build a robust new health support team for yourself, identifying activities that are conducive to your Parasympathetic Nervous System (PNS). This may include instigating a different way of thinking and forming new habits. The aim is to reduce your SNS to allow your PNS to successfully create an environment in your body that is perfect for self-repair.

## ENGAGING PATIENTS IN RESOLVING CHRONIC PAIN

The three elements involve the patient choosing, valuing and learning tools to reduce anxiety, and instigate a calmer state. These might include movement skills, body awareness, and deep breathing, selecting appropriate medical interventions, and most importantly appointing trustworthy health professionals.

### **What does the Autonomic Nervous System (ANS) do?**

Simply put our ANS is responsible for working away quietly in the background of our bodies to ensure our organs function.<sup>4</sup> We do not consciously instruct our heart to beat and pump blood around our bodies, but it does, the ANS sees to it. This is an important point: The ANS is a *physiological function*, not *psychological*.<sup>6</sup>

### **How does ANS work?**

The ANS controls many critical body functions and these include two modes of operation: the SNS also known as 'fight or flight' mode or the Stress Response'; and the PNS, known as 'rest and digest' mode or the 'relaxation response'.

To keep things simple we can imagine that the ANS works by operating in one mode or the other, in which case it's a bit like a switch, if SNS is switched on, PNS is switched off and vice versa. Reassuringly all the essential functions are always switched on, otherwise we would have no heart beat! In fact it is a little more complicated than that, and for some activities the two modes work together to complement each other.

*The important point is: the ANS is operating constantly, but either the SNS or PNS is dominant.*

### **Why are there two modes of operation?**

The Sympathetic Nervous System (SNS) and Parasympathetic Nervous System (PNS) have different functions, both are essential to our health.

The SNS known as the stress response stimulates the brain to release 'action' hormones such as adrenaline and cortisol, the heart rate speeds up and the immune system activity is reduced. A state of readiness for action is vital should we sense danger and need to protect ourselves, hence the SNS is also known as 'fight or flight' mode. The origin of fight or flight is probably evolved from human origins as hunter-gatherers or earlier. If a wild animal were to unexpectedly appear we would freeze in fright, hope they don't notice us and fight if they do, or run away as in flight. In some cases the SNS appears to enable 'super powers' - famously sports personalities have continued to play with broken limbs, parents have lifted incredible weights to rescue a child. It's only later

when the ANS switches to PNS mode that the heart rate slows down and the adrenaline dissipates. The SNS is also a helpful response in less dramatic stressful circumstances, providing energy to give our best in an interview, an important meeting or exam.<sup>6</sup>

The PNS stimulates the brain to produce relaxation hormones such as endorphins, the immune system is enhanced, heart rate slows and the body returns to equilibrium.<sup>7</sup> There are countless examples of the body's ability to heal itself, from a common cold or sunburn for example, but this is only possible in PNS mode. The body will not concern itself with repairing a cut or graze, or mending a broken bone if we were to witness an out of control vehicle hurtling towards us or someone else. In fact, the body is not designed to self heal in an emergency situation because the PNS is toned down and the SNS is necessarily dominant.

As we have seen the Stress Response and the Relaxation Response can have specific functions and are helpful healthy responses. The frequent activation of the SNS in modern life seems to be a result of an increase in stress stimuli<sup>8</sup> particular to our current lifestyles; social media, family communications, work, money, life purpose for example.<sup>9</sup> We are all familiar with the concept of stress as a negative result of modern living - what the latest research shows is a causal link with chronic pain.

### **What is ANS dysfunction?**

ANS dysfunction is when the SNS is in 'overdrive' - it is dominant disproportionately to the PNS. The secret life of the SNS appears to be responsible for ANS dysfunction. Overuse of the SNS, has devastating consequences for those involved in treating or experiencing chronic pain.

*In many cases it appears that the physiological result of ANS dysfunction fuels the perpetuation of chronic pain by impairing the body's natural self repair system.*

The SNS is being switched on by low level stress: criticism at work, financial pressures, insecurity in relationships, medical diagnoses, unfulfilled expectations, and social media overwhelm, to name but a few. Any low level stress can stimulate the SNS: low self-esteem and lack of confidence provide the perfect conditions for SNS overdrive. Equally, feeling the need to constantly 'fight' to be believed or understood, a common phenomena for those experiencing chronic pain, is another perfect condition to trigger SNS overdrive.

## The Psychological Link

How we think and feel and the emotions we generate, can affect our pain. We need to understand how the two modes of the ANS can be triggered in our bodies and learn how to actively address ways to re balance it, to encourage self-healing mechanisms in the body to activate.

## The Placebo Effect

The most powerful evidence of this is demonstrated in several recent 'Placebo Effect' studies. It appears that 'fake' surgery can heal with similar success rates to 'real' surgery.<sup>10</sup> Dr Kallmes states: 'Pain relief and improvement in function was the same for both groups, the assumption is that it worked because it relieved patients of their pain long enough for the bone to heal naturally'.

The question is 'what', exactly relieved the pain? It may be expectation, belief, and or the attitude of the health professionals involved, all these factors are implied by Kallmes. The result of the patient's response to the surgery (real or false) was to settle down the SNS, trigger the PNS and consequent self-healing. Daniel Moerman MD researched a book on the success of placebos, including inert pills, saline drips and surgery, he proposes that the term 'placebo' is renamed, he thinks it is more accurate to call it 'The Meaning Effect'. Having studied many cases for his research, including his own patients he concludes: 'close consideration shows that what we think, say, and know about the world can have a dramatic influence on our biology'<sup>11</sup> Ted Kaptchuk, director of Harvard University Placebo Studies in 2012 stated that his team says that the placebo is important because it is hiding 'the clinical encounter', the act of caring for a person, which is critical to recovery.<sup>12</sup>

## The Placebo, Meaning or Caring Effect?

Kaptchuk's work highlights the importance of 'words, gestures, eye contact, warmth, empathy compassion' within the health care professional/patient relationship. Dr Lissa Rankin<sup>13</sup> writes and speaks eloquently about changing the medical profession to include more compassion alongside the brilliance of modern medical science. This makes sense, there is no doubt medical science has improved our quality of life and extended life, we simply need to couple this progress with the notion that we can take responsibility for our health, to seek out health care professionals we can trust, who will care for us.

## Responsibility to our illness

Let's not confuse blame and responsibility, it's not healthy to blame or be blamed, however, we might all wish to be more responsible to our illness<sup>14</sup>, to be able to respond with awareness rather than reacting to situations beyond our control. Equally, repression is counter to responsibility, repression is a major cause of stress and can contribute to illness.

## Isolation, Depression and Pain connection

Chronic pain can be isolating and we may repress feelings of frustration, misery, practical issues or inconvenience plus our need to be believed and listened to. Much medical research suggests that isolation makes us vulnerable to illness and sustained pain and that relationships further recovery.<sup>15</sup> Many of the patients I have treated have experienced feelings of isolation, they may not live alone, but perhaps in emotionally inadequate relationships. It seems many of us who assume that our lives are satisfactory are affected by stress and isolation. One relationship with a health practitioner who is supportive, dependable, reliable and respectful can make all the difference. A study on depression published in the Lancet August 2014 reports that 60% of a group of 500 Cancer patients halved their depression scores with a new nurse-led approach. Patients reported that they were less anxious, less fatigued and experienced less pain. That is 60% of the group involved in the nurse-led study improved by 50% compared with 17% of those in a similar group who had standard NHS care.<sup>16</sup>

## Conclusion

A radical shift in understanding about Chronic Pain may mean patients being pro active. The three elements could be the place to start: understanding the ANS dysfunction, identifying both SNS and PNS triggers, and the patient selecting their own appropriate health care practitioners. Does this constitute a shift in our understanding of chronic pain? Yes, I think it does. It certainly challenges how we think about health care provision for Chronic Pain in Ireland. To begin with and quite radically, it opens up the possibility for some patients to resolve their chronic pain rather than manage it. In other cases it may allow patients to control their pain. In every case a constructive partnership with supportive health practitioners will be essential.