



OH TODAY

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FEELING THE PAIN

How should we help persistent pain sufferers?

David Stevens is a physiotherapist with a special interest in pain. He discusses that how we think about pain, can help improve the quality of our life.

Pain can have a huge impact on us. It is unpleasant, both physically and emotionally. Once we have experienced pain, we are reluctant to experience it again.

As we get older, we pay more attention to pain. Babies don't really know what it means - they just cry. As we get older, pain doesn't make us cry in the same way, but it does upset us. We start to learn more about what pain means and it begins to have a more profound effect on us.

Why do we have pain?

Most scientists think humans and other intelligent or higher-level animals experience pain in order to survive. We need a system that alerts us to when we have damaged ourselves or when we are in danger, to prevent further harm being done.

The Pain Alarm System

If we were to tread on a nail and it didn't hurt, we wouldn't know we had a dirty metal object in our skin and flesh. We

wouldn't know that bacteria were making their way around our body. As we all know, infection can kill rapidly. Evolution has come up with a system of alerting us to danger, so in the above case, we would see a medical professional and get treatment.

If we put our hand on something hot, we have learned to take it away fast, to limit the damage. If our back hurts, we tend to do less physical activities. We instinctively want to protect ourselves from further harm. This is generally good, but sometimes it can be detrimental to our wellbeing and livelihoods.

How does Pain work?

We used to think that pain was experienced in the body part that was damaged. So, if we stubbed a toe, we automatically assumed the pain was produced in the toe. However, we've now realised that it is the brain that causes the pain - not the damaged part.

In simple terms, pain is produced when the body is damaged. Chemicals in the damaged cells are released into the



surrounding area and chemicals end up activating nerves in the damaged tissues. These nerves then send a signal to our brain. Only when these signals reach our brain and are processed by all the different parts of the brain, do we feel or experience pain.

After the signals are processed, the brain decides whether to trigger a pain sensation. It is the brain that causes the pain – not the damaged body part.

When we feel or experience pain there is a complex interaction between the tissues, peripheral nerves, the spinal cord, nervous system pathways and the brain. We know that it is a two-way system. The brain can send signals and nerve impulses back down these pathways from the brain to the body part affected. Overall, there are a whole host of things involved in the pain experience.

Acute Pain

Acute pain is what most people first think of when discussing pain. Acute pain is temporary and is caused when our pain receptors get activated by an injury, for example when we fall over and break a bone. There is an intense amount of pain

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– in this case, the pain doesn't start to die down until we get a plaster cast on it. A few hours after it has been treated it's much better, and six weeks later it's usually healed.

The pain subsides as the pain nerves have stopped being activated and our arm is fixed. We have also stopped worrying about it. This type of acute pain goes away quickly.

What if the pain doesn't go away?

Our pain system is not always correct. It can go wrong and can cause pain in a different place to the original injury. You may have heard of phantom limb pain - people who have lost a limb can experience pain that seems to come from the limb that is no longer there. Our nervous system is not perfect and can malfunction. Sometimes, the pain doesn't go away and becomes persistent.

Nerve fibres become irritated and send impulses to the brain. If these nerve fibres don't stop being irritated (if you have pain in one part of the body for more than 3 - 6 months) then they start to become so sensitive that they will still continue sending signals to the brain, even when the injury has healed. The brain is then tricked into thinking there is still damage and so the brain continues to produce pain.

As signals from the nerves travel to the brain they pass through the spinal cord. This part of the spinal cord helps to restrict or reduce the flow of nerve impulses. As it is receiving too many nerve impulses, this area becomes more sensitive, and so it allows more impulses to travel up toward the brain. This process is known as peripheral and

central sensitisation.

As the pain signals haven't gone away, our brain tries to deal with them. Now the impulses travel to the parts of the brain that are involved with fear, sadness, emotion, anxiety, depression, worry, beliefs and understanding. They even go to the motor control and memory parts of our brain.

The Pain Cycle

At this stage, the pain is caused more by a sensitive and malfunctioning nervous system than tissue damage. This persistent pain is not like acute pain and cannot be treated in the same way. What works for acute pain doesn't work for persistent pain.

Pain is all-consuming, unpleasant and worrying and it starts to get us down. We end up not being able to do the physical things we used to do. We don't go out as much, stop walking the dog, stop sport and we can have problems with work. Anxiety can also be an issue. It can impact us socially, financially and psychologically. To deal with all the negative effects of having a painful condition, people seek help.

Typically, a GP will give medications, take blood, order x rays, MRI scans, and refer

to a physiotherapist or chiropractor. Injections or surgery may even be necessary. This approach works well if we have acute pain, but persistent pain can be made worse by these approaches.

So, it is important to get an accurate diagnosis. Physiotherapists are best placed to do this.

Different people also react differently to various pain medications. Some individuals get good pain relief and no side effects, whereas others don't get any pain relief and lots of side effects.

Pain medications work very well with acute pain but hardly at all with persistent pain. Persistent pain is maintained by a hypersensitive nervous system – it won't go away, so the more we treat it like acute pain, the more we fail to get rid of it. By failing to get rid of it we learn there is nothing we can do, and this makes us psychologically and emotionally suffer. We get trapped in the 'pain cycle'.

At this stage, wellbeing can be severely affected, and the cycle needs to be broken. Knowing how to manage your persistent pain will produce a significant improvement in your wellbeing and recovery. ■



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David Stevens is Physiotherapy Development Lead at PAM Group Ltd

TOP TIPS FOR MANAGING PAIN DIFFERENTLY

- 1** List the problems and issues that you want to change or overcome.
- 2** Accept the pain may not go away, but it can be reduced considerably.
- 3** Pain doesn't always mean harm or danger and that it's safe to move.
- 4** Understand the role of medications.
- 5** Find what types of exercise are safe and beneficial.
- 6** Challenge negative thoughts to help change unhelpful behaviours.
- 7** Learn how to relax and plan so that activities are successful and worry-free.
- 8** Think about a plan if things go wrong.
- 9** Pace yourself within your tolerance levels.