

CHRONIC PAIN – RECENT ADVANCES

By Simon Butler Physiotherapist

Chronic pain means pain that has lasted longer than 6 months. This is longer than pain should last, even though the pathology that initially caused the pain should have settled down or repaired. Given this criteria this excludes pain from Cancer.

At a recent pain conference it was revealed that as we move into the next century it is predicted there will be three plagues. One is Cancer, the second is A.I.D.S, and the third is chronic pain. In the United States *one family in three* has a member who suffers chronic pain.

Ideas of Pain being challenged

Painful pathology such as a soft tissue whiplash injury of the neck or a bad strain of the low back should resolve over 12 weeks or so. What mechanisms may perpetuate pain well beyond normal healing times are starting to be understood. Sometimes relatively minor trauma may set off a cascade of worsening pain and stimulus like movement or a cool draft sets off pain. The old theories about pain have no expectations.

In the past physios and doctors have assumed pain was a very simple sensation. A peripheral stimulus (e.g. strained ligament) stimulated a pain nerve and the impulse is sent to the brain where the message was interpreted. Pain is now known to much more complex; it is thought of now as an experience not a simple sensation like touch or taste.

Central Pain

One mechanism, but not the only mechanism for chronic pain is the concept of central pain or central sensitisation. This is where the peripheral stimulus (eg. the strained ligament) must go via nerves through a number of 'switchboards' one at the dorsal horn of the spinal cord and at higher centres in the central nervous system. These 'switchboards' can become sensitised and therefore can fire off with too little stimulus or even the wrong stimulus. Actual chemical changes happen at these switchboards causing this sensitivity. Of course if a switchboard fires off too easily then a small input (what would be a minor feeling normally) can be amplified into severe or long lasting pain. This is just one of a number of mechanisms that operate with chronic pain but to a group of patients who suffer chronic pain and have been told for many years that 'it is all in their head' it is welcome news that there are some physiological mechanisms that perpetuate pain.