Multiple Sclerosis and Pain

Does pain occur in multiple sclerosis (MS)?
In the past, pain was not thought of as an MS symptom. While neurologists accepted numbness, tingling, itching, and other sensory symptoms as occurring in the MS patient, they often did not recognize pain as part of the spectrum of symptoms of MS.

Over the past few years physicians have come to realize that pain is not only possible as a symptom of MS, but that in some patients, pain is a key symptom. It can be a major cause of reduced function, decreased sense of well-being, and an important target for treatment. In some studies, up to one in four people with MS have ongoing pain which in some way affects their function.

"Pain is an emotional and sensory experience..." (IASP, 1973). Psychosocial variables have long been shown to have a significant impact on pain perception, and in turn disability due to pain.

Specifically, the intensity of the pain, the degree to which it interferes with activities, and the extent to which it disrupts mood, predict chronicity of pain. Identification of the presence of such possible co-morbid problems can guide appropriate early intervention.

Today we know that the pathophysiology of pain is complex, with messages being sent from the periphery to the brain, from the brain down and strongly influenced by emotions. Context, catastrophizing, acceptance, central sensitization, opioid induced hyperalgesia, emotions, expectations for future pain, prior experience, repeated exposure to painful stimuli, past exposure to trauma all have an effect on the perception of pain. The emotional component of pain or the suffering endured by patients is equally important as the somatosensory component.

What kind of pain can occur with multiple sclerosis?
There are a variety of types of pain types that may occur with MS, including:

- **Trigeminal neuralgia** — There is a facial pain syndrome known as trigeminal neuralgia which is more common in people with MS than in the general population. It is a sharp, electrical jabbing pain on one side of the face, usually in the cheek. It can be very severe, and lasts a few seconds. It may occur many times a day. It may be triggered by touching the face, feeling a breeze on the face, or even chewing.

  Treatment of trigeminal neuralgia includes medications that alter nerve function such as carbamazepine, phenytoin, lamotrigine, Neurontin®, Lyrica®, and so on. Sometimes, surgical procedures may be useful (for example, using a balloon catheter to put pressure on the nerve to numb it, or heating the nerve up electrically). Some patients may benefit from a
focused radiation beam directed at the nerve.

- **Burning limb pain** — A second type of pain is a burning pain that often involves the legs but may occur anywhere in the body. This may be worse at night and is often constant. There may be sensitivity to the touch, and sometimes the affected limb feels cold. This is likely due to altered sensory signals to the spinal cord and brain due to demyelination.

Medications that are used to treat burning limb pain include some antidepressants such as nortryptiline which are effective in nerve pain, and some anti-seizure medications such as carbamazepine, gabapentin, and others. Duloxetine hydrochloride has been approved for peripheral nerve pain and may also be used for the pain related to MS. Tramadol may be useful for such pain. Sometimes long-acting pain medications may have to be used. Physical measures such as exercise and stretching may be useful. Lidocaine patches may provide relief at more severely affected locations.

- **Neck and back pain** — Some people with MS can experience neck and back pain. This may be due to immobility, or to the same type of wear and tear that many people without MS experience. This type of pain is often an aching, stiff sensation that can be moderately severe. At times, imaging to rule out other causes of pain such as lumbar disc disease may be important. Trials of anti-inflammatory medications may be beneficial. Therapy, stretching, aquasize, and other physical measures may be useful.

- **Other sources of pain** — Finally, there are occasional patients who have hip or shoulder disease related to prior steroid therapy. On occasion, repeated steroid use causes an alteration of blood supply to the hip or shoulder joint, and this may cause injury to the hip. Imaging with X-ray or MRI scanning may show damage if this is the case. If the damage is severe enough, the patient may require joint replacement surgery. Since many other disorders can cause pain, it’s important to consider other sources of pain and not just ‘pin it on MS’.

**What else can I do?**

Regular exercise and stretching do reduce certain kinds of pain, particularly back pain and muscular pain. Such activities also help with fatigue and increase a sense of well-being. Trying to get restful sleep is also important when fighting pain. Some people find that alternative pain management strategies such as acupuncture, cognitive behavioral therapy, and psychophysiological pain and stress management techniques such as biofeedback, relaxation training and self-hypnosis are useful. If pain is hard to control, a formal pain management program may be useful. If you are on pain medications, make sure you have a good bowel regimen as constipation is common and will only increase the discomfort you are feeling.