

Living
For Today

Managing
MS Pain



“Pain in multiple sclerosis (MS) has been reported to occur in a range of up to 70% of all patients at some point in their disease course.”

- Lorraine Denis, RN, Ottawa MS Clinic

“Pain is a serious issue. The presence of pain impacts on one’s role, mood, ability to work, achieve adequate rest, and on interpersonal relationships. Chronic, untreated pain causes isolation, anger and depression.”

- Wendy Morrison, Nurse, UBC MS Research

“Most pain in MS can be prevented, eliminated or improved, and the remaining people with chronic pain can be managed by strategies that involve multidisciplinary approaches and newer therapies.”

- Dr. Jock Murray, Professor Emeritus,
Dalhousie University,
Dalhousie MS Research Unit

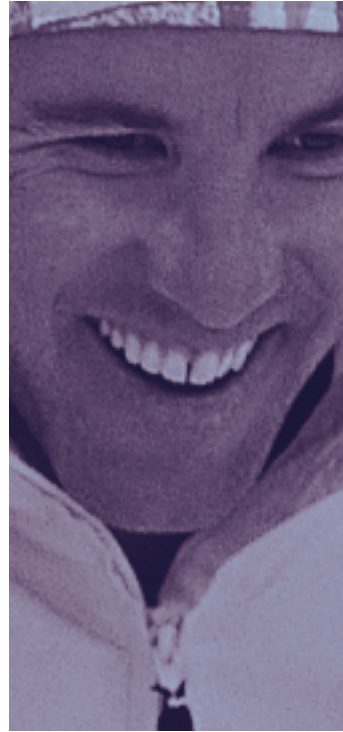
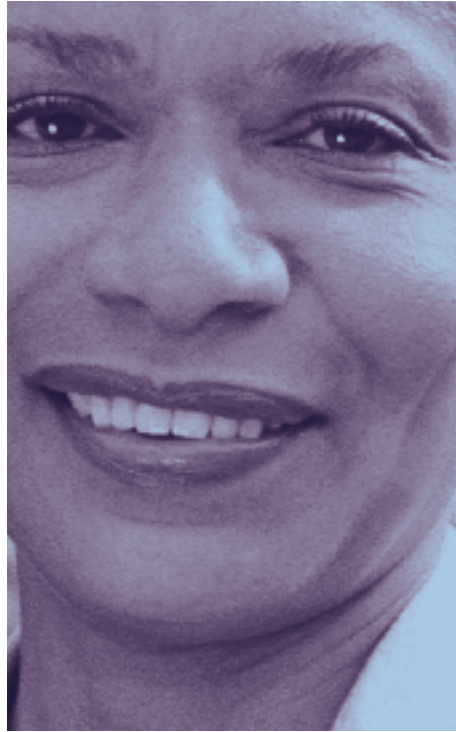




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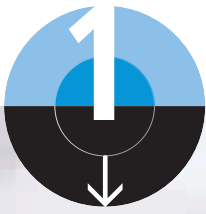
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For many years, MS was considered a “painless disease”. However, it is now recognized that more than 50% of people with MS will experience some type of pain. Thanks to growing advocacy on the part of healthcare professionals and patient support groups, managing MS pain is emerging as a critical new focus in managing the disease and improving the lives of people with MS.

For people with MS, the consequences of pain can have a severe impact on quality of life. Pain may contribute to sleep disturbance, leading to fatigue and depression. It can prevent you from going to work and fulfilling social roles. Most unfair of all, pain is a self-perpetuating condition – the more pain we experience, the lower our pain threshold (or ability to tolerate pain) becomes.

The good news is that most MS-associated pain can be prevented, eliminated or improved through a variety of management strategies and newer therapies.

This booklet will review the different types of pain and how they require different types of treatment. The booklet will also address the many pain problems specific to MS, and the steps that can be taken to alleviate pain in MS.



What's the Point of Pain?

Pain is actually a positive, protective mechanism. It alerts us to potential bodily harm when we touch something hot or sharp. Through pain, we soon learn to avoid things that may be dangerous.

Pain also helps us to heal. When injured joints and muscles ache, we take care to use the injured area gently so that it can recover. During illness, pain forces us to rest, which allows our bodies to mount an immune response and fight disease.

However, in many cases, pain (particularly drawn-out, chronic pain) serves no useful function and only compromises quality of life. Unless it resolves on its own, this pain should be treated.

How pain is treated depends on the **type** of pain it is.



Types of Pain

Pain is characterized by its **origin** (where it comes from) and **duration** (how long it lasts).

Origins

Nociceptive Pain

Pain that results from tissue damage. Pain receptors in the tissues, called the

nociceptors, send electrical impulses to the brain signaling pain messages.

Neuropathic Pain

Pain **not** caused by tissue damage. It occurs due to damage or faulty connections within the nervous system. This distorts messages to the brain and may cause the brain to interpret signals as pain messages even when there's no injury.

Neuropathic pain occurs in various disease states, including MS, and often becomes more intense as the underlying condition deteriorates, sometimes resulting in disability.

Neuropathic Pain in MS

Pain signals are carried throughout the body to the brain via nerve cells, which make up the nervous system. Think of the signals as an electrical current travelling through a circuit. If the circuit is damaged, the signals cannot get through.

MS attacks myelin, a protective sheath covering your nerve cells. The more your myelin is damaged, the more difficult it is for the signals to get through. Sometimes signals become distorted by the poor transmission and your brain receives them as pain.

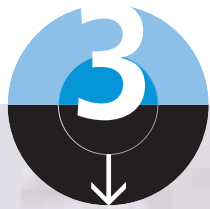
Duration

Acute Pain

Short-term, often intense pain, usually associated with tissue damage such as a burn, cut or blow. Acute pain is often self-limiting; it gets better by itself and goes away when healing occurs. In most cases, it will respond to simple painkillers such as acetaminophen or ibuprofen.

Chronic Pain

Persistent, long-lasting pain which may be caused by a chronic condition such as arthritis or cancer, or which may not have an obvious cause. Chronic pain may continue for weeks or months, long after any possible healing has occurred. The pain intensity may vary, but for many, the pain seems always to be there. Chronic pain usually doesn't respond to the same treatments used to relieve acute pain.



Types of Pain in MS

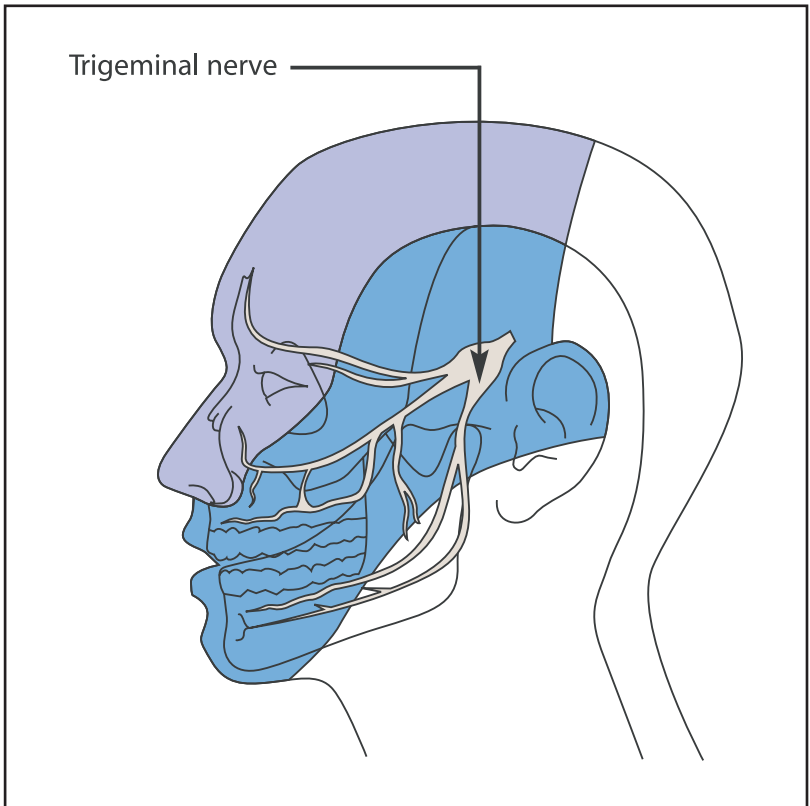
Pain in MS may be caused directly by the disease acting on your nervous system or indirectly following decline in function.

The two main types of pain (acute and chronic) have been reported by people with MS. Each type is associated with a variety of different nociceptive and neuropathic syndromes which may vary in intensity and duration.

Acute MS Pain – Paroxysmal, spasmodic episodes

Trigeminal Neuralgia (TN)

An extremely painful nervous disorder in which gentle stimulation of the face or mouth results in a stabbing, electric shock-like pain; simple activities like tooth-brushing, washing, shaving or even a cold wind can bring on an attack. Pain usually lasts for a few seconds, but several attacks may occur in succession giving an impression of persistent pain. Symptoms may affect lips, eyes, nose, scalp, forehead and jaws. TN affects up to 7% of people with MS.



Muscle Spasm and Spasticity

An involuntary muscle contraction that is not co-ordinated with other muscles. Painful tonic spasm (PTS) is an extreme form of spasticity seen in 1 in 10 people with MS. The muscle suddenly contracts causing a violent and painful extension or flexion of the limb. It feels like an extreme cramp.

L'hermitte's Sign

Electric sensations (and sensations of light) that feel like a surge of pins and needles down the back and neck. They are caused by a discharge of partially demyelinated neurons brought on when the neck is flexed forward.

Chronic MS Pain

Musculoskeletal Pain

Caused by abnormal stresses on joints, muscles and ligaments. It is often a result of muscle weakness. Low back pain is a particularly common MS-associated pain, caused by poor posture or wheelchair use.

Musculoskeletal pain often responds to traditional painkillers.

Chronic Neurogenic Pain (Dysaesthesia)

A continuous burning, aching or prickling sensation, typically persistent in the extremities and usually worst in the legs. This appears to be a direct result of MS disrupting the central nervous system.

Allodynia

Hypersensitivity to touch. A painful response to normally non-painful things such as stroking with a soft brush, getting dressed, or going out in the wind.

Optic neuritis

Pain experienced when the eye is moved. Optic neuritis is often a first symptom of MS.



Pain Management Strategies in MS

The management of pain in MS over time will require a multidisciplinary team. These individuals may include your nurse, neurologist, pain specialist, psychiatrist, occupational and physiotherapist, psychologist, as well as practitioners of alternative and complementary medicines.

Identification and characterization of pain is the first step toward relieving it. Pain is a subjective experience and may be difficult for you to describe and practitioners to assess. Fortunately there are a number of tools available to evaluate pain more precisely, helping to direct your physician to the most appropriate therapy.

One of the most widely used of these is the McGill Pain Questionnaire. This will enable you to specify the location, quality, pattern and intensity of your pain.

The McGill Pain Questionnaire

This questionnaire has been designed to tell us more about your pain. Four major questions we ask are:

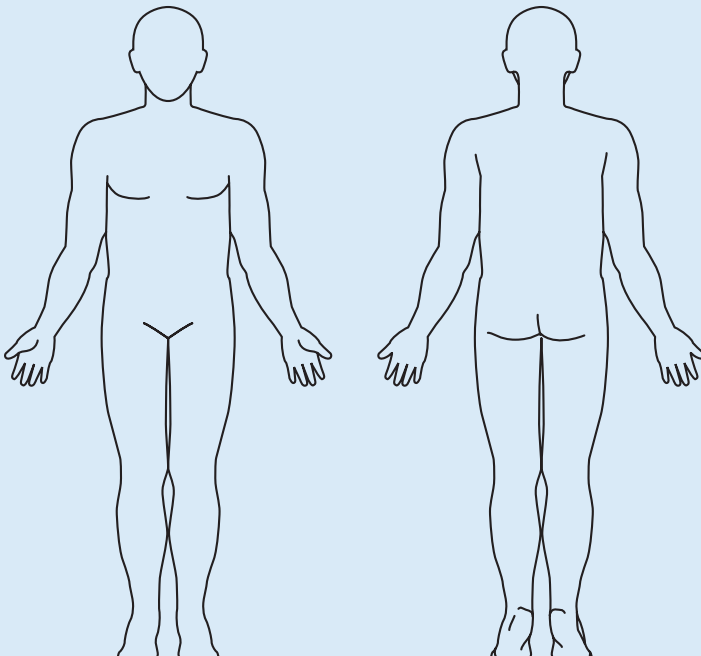
1. Where is your pain?
2. What does it feel like?
3. How does it change with time?
4. How strong is it?

It is important that you tell us how your pain feels now. Please follow the instructions at the beginning of each part.

Part 1. Where is Your Pain?

Please mark on the drawing below the areas where you feel pain.

Put "E" if external, or "I" if internal.



Part 2. What Does Your Pain Feel Like?

Some of the words below describe your present pain. Circle ONLY those words that best describe it. Leave out any category that is not suitable. Use only a single word in each appropriate category – the one that applies the best.

① Flickering
Quivering
Pulsing
Throbbing
Beating
Pounding

② Jumping
Flashing
Shooting

③ Pricking
Boring
Drilling
Stabbing
Lancinating

④ Sharp
Cutting
Lacerating

⑤ Pinching
Pressing
Gnawing
Cramping
Crushing

⑥ Tugging
Pulling
Wrenching

⑦ Hot
Burning
Scalding
Searing

⑧ Tingling
Itchy
Smarting
Stinging

⑨ Dull
Sore
Hurting
Aching
Heavy

⑩ Tender
Taut
Rasping
Splitting

⑪ Tiring
Exhausting

⑫ Sickening
Suffocating

⑬ Fearful
Frightful
Terrifying

⑭ Punishing
Grueling
Cruel
Vicious
Killing

⑮ Wretched
Binding

⑯ Annoying
Troublesome
Miserable
Intense
Unbearable

⑰ Spreading
Radiating
Penetrating
Piercing

⑱ Tight
Numb
Drawing
Squeezing
Tearing

⑲ Cool
Cold
Freezing

⑳ Nagging
Nauseating
Agonizing
Dreadful
Torturing

Part 3. How Does Your Pain Change with Time?

1. Which word or words would you use to describe the pattern of your pain?

1. Continuous/Steady/Constant
2. Rhythmic/Periodic/Intermittent
3. Brief/Momentary/Transient

2. What kind of things relieve your pain? _____

3. What kind of things increase your pain? _____

Part 4. How Strong is Your Pain?

People agree that the following 5 words represent pain of increasing intensity. They are:

- 1 Mild 2 Discomforting 3 Distracting 4 Horrible 5 Excruciating

To answer each question below, write the number of the most appropriate word in the space beside the question.

1. Which word describes your pain right now? _____

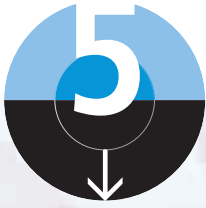
2. Which word describes it at its worst? _____

3. Which word describes it when it is least? _____

4. Which word describes the worst toothache you ever had? _____

5. Which word describes the worst headache you ever had? _____

6. Which word describes the worst stomach ache you ever had? _____



Therapeutic Options for MS Pain

There are a number of different treatment options for pain in MS. The choice of treatment depends largely on the nature of the pain itself, rather than the exact underlying cause. If possible, a single drug is used to avoid the drug interactions and additional side effects of multiple drugs. Alternative therapies may be combined with pharmacologic agents for maximum benefit. Finally, it is important that any co-existing depression be treated; untreated or inadequately treated depression can increase your perception of pain intensity.

Because the selection of therapeutic options involves a variety of sources – prescription drugs, over-the-counter medications, and alternative and complementary products and therapies – it is essential that you be fully informed by the appropriate health care professional and practitioner as to why they are recommending a treatment option. At the same time, it is very important to fully inform your healthcare professionals and practitioners as to what other therapeutic options you may be using to manage pain in order to avoid complications that can sometimes result from multiple drugs and treatments.

Non-Pharmacological Pain Relief

Acupuncture

Traditional Chinese medicine involving the insertion of extremely fine needles into precise nerve stimulation points in the skin and muscle. It is thought to work by increasing the body's release of natural painkillers – endorphin and serotonin – in the pain pathways of the spinal cord and brain.

Transcutaneous Electrical Nerve Stimulation (TENS)

Using the same principle as acupuncture, TENS uses an electrode on the skin to produce a weak current to stimulate a painful muscle or skin. The current causes endorphins to be released into the cerebrospinal fluid. TENS appears particularly effective in relieving radiating deep muscle pain.

Exercise

Exercise can be very helpful to prevent and treat pain from musculoskeletal causes. A regular stretching program can help the discomfort from spasticity. Optimizing weight and core strength can help prevent and treat back, neck and joint pain. Exercise has been shown to help pain from many different conditions, partly through the enhanced release of the body's own pain-relieving chemicals.

Massage

Massage stimulates blood flow around the body, which may promote relaxation and pain relief. However, it may also send muscles into spasm, so should be used with caution.

Pharmacological Pain Relief

Amytriptyline (Apo®-Amitriptyline)

This sedative tricyclic antidepressant can be useful in extreme hypersensitivity to touch pains of MS (allodynia/dyaesthesias). Also helps sleep. Side effects may include dry mouth and fatigue.

Gabapentin (Neurontin® and other generics)

This anticonvulsant is used to treat dyaesthesias and spasticity-induced pain. Side effects may include fatigue, sleepiness and dizziness.

Carbamazapine (Tegretol® and other generics)

This anticonvulsant and antipsychotic drug is the mainstay of treatment for trigeminal neuralgia in MS. Side effects may include dizziness, loss of balance and sedation.

THC/CBD (Sativex®)

This plant-based analgesic works in the endocannabinoid system by binding to sensory neurons throughout the nervous system and partially blocking the transmission of neuropathic pain signals. Side effects may include headache, dizziness, depressed mood, memory loss and dry mouth.

Baclofen (Lioresal® and other generics)

Dantrolene sodium (Dantrium®)

Tizanidine (Zanaflex®)

These muscle relaxants are used for night cramps. Side effects of baclofen may include weakness and sedation. Side effects of dantrolene sodium may include drowsiness, dizziness, fatigue or diarrhea. Side effects of tizanidine may include fatigue and low blood pressure.

Botulinum toxin (Botox®)

This medication is used as a relaxant for thigh muscle spasm. Side effects of botulinum toxin may include headache and weakness.

Naproxen (Anaprox® and other generics)

Ibuprofen (Motrin® and other generics)

Diclofenac (Voltaren® and other generics)

These non-steroidal anti-inflammatories are used for relief of musculoskeletal pain and the pain associated with optic neuritis. Side effects may include stomach irritation and ulcers with long-term use.

Pregabalin (Lyrica®)

This medication is used to treat neuropathic pain associated with damaged nerves of the central nervous system. Side effects may include dizziness, sleepiness, blurred vision, swelling of extremities and weight gain.

Please note:

All these therapies must only be used under professional supervision. Members of your healthcare team will be pleased to discuss these therapies with you in greater detail.

As we've seen, there is much that can be done for people with MS who experience pain. Exciting new therapies are emerging that are enabling us to gain increasing control over this burdensome condition.

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