



## 7 Vital Facts You Should Know About Medical Magnets...But Don't

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### 1. Pain is your personal alarm system, warning you to take evasive action.

To explain this point effectively, pain can be split into 2 categories:

- 1) Injury - eg. lower back strain, whiplash and tennis elbow
- 2) Disease – eg. arthritis, degeneration and Fibromyalgia

Injuries generally occur after an impact, sprain or strain on a joint or muscle group. The resulting structural damage causes inflammation and nerve irritation which is a source of pain. When in pain, your body becomes naturally protective of such areas. These injuries generally respond best to assessment, accurate diagnosis and treatment from a health professional such as a physiotherapist. Response to quality treatment should be noticed immediately.

Disease (dis-ease) is a condition, disruption or imbalance in your natural state - that of ease. These conditions are typically a result of family history or genetics, early childhood and lifestyle factors such as diet, stress and activity levels. As such, pain stemming from disease is best treated with professional advice and lifestyle change. Therapy, be it drug, magnets, physiotherapy or massage can provide relief from pain during the transition to wellbeing.

Arthritis, joint pain and tissue damage are not simply unavoidable symptoms of aging. They are signals from your body that something is not right and that treatment is required and/or lifestyle changes are necessary to address the cause.

Know that in properly and wholistically addressing the causes of your condition, you will most likely reduce the risks of developing all of the major lifestyle diseases such as diabetes, heart attack, stroke, cancer and dementia.

## **2. Drugs have negative side effects – Magnets do not.**

By their very nature, drugs are designed to block or inhibit normal processes within the body, such as an enzyme performing a vital role. They can be life saving when used in acute care, but alternative approaches should be seriously considered in the longer term.

Drugs can only be of value in a disease state, only then can the body benefit from blocking an essential process and there are almost always unwanted side effects. One study showed that Non-Steroidal Anti-inflammatory Drugs may have provided relief from pain, but [also delayed tissue healing](#).

Consider the recent withdrawal of the popular drug Vioxx® and concerns with Celebrex® due to increased risk of cardiovascular disease. Even the ibuprofen class of non-steroid anti-inflammatory drugs (NSAID) sold under various trademarks such as Nurofen, Brufen, Actfree and Heron Blue have had their fair share of adverse publicity due to the potential damage they cause to the digestive system. Recent research suggested as many as 1 in 5 Australians could be vulnerable to side effects, including heart trouble, ulcers or asthma attacks in asthma sufferers if they take this class of drug.

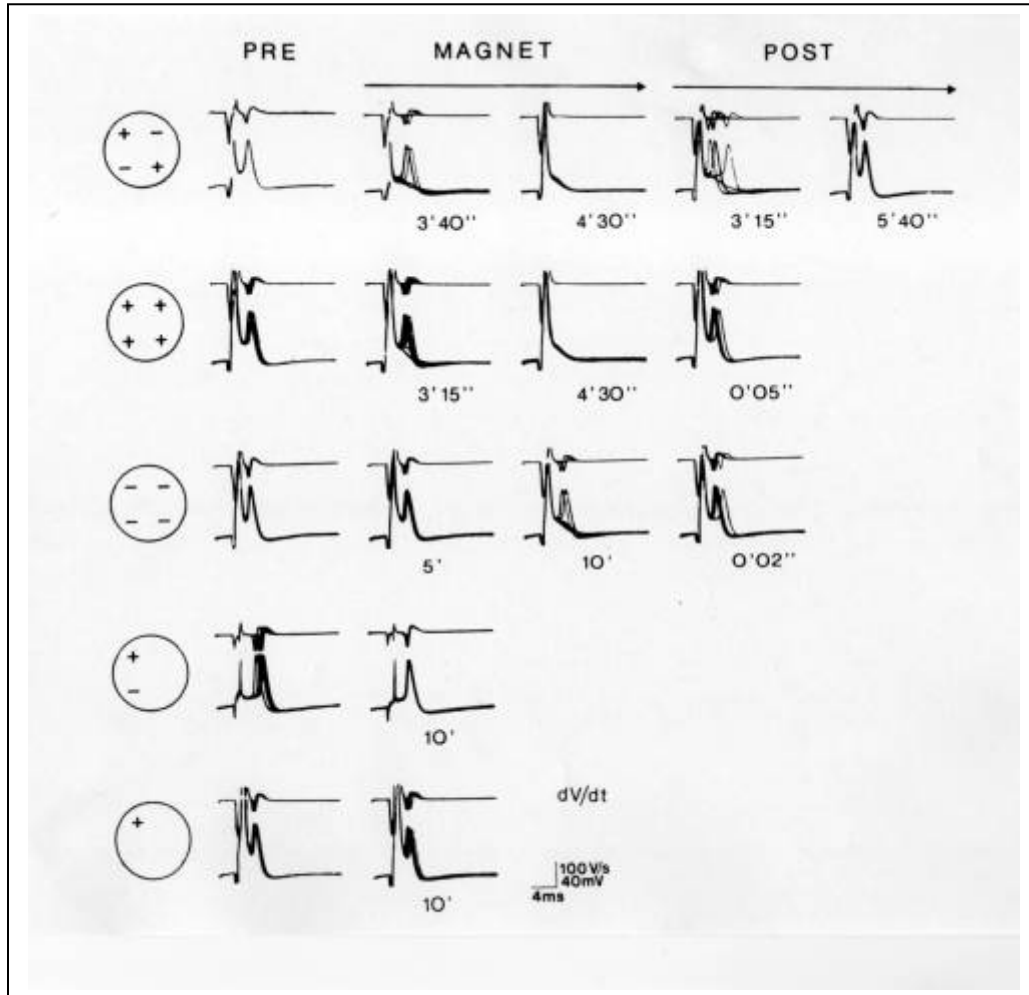
Prescription pain killers, which may provide effective short term pain relief, mainly serve to turn off the alarm signals without addressing the root cause of the pain.

There are no known side effects reported with the use of static magnets (such as Q magnets). Also there are no concerns of becoming addicted to using the magnets. They do not cause dependency like narcotics or other analgesics. You may remove them at any time without any negative effects, except that in some cases, your pain will return.

## **3. Scientific Research has proven that different types of magnets have different physiologic effects. Medical Magnets have been optimised to produce therapeutic effects.**

The image on the following page is from a published study comparing the effects of different magnetic arrangements on the firing of an action potential, which is the nerve's way of transmitting a pain signal. The magnetic arrays are schematized to the left of the respective rows. The neuron was stimulated to elicit an action potential (PRE). After exposure to the Quadrapolar array, the firing of action potentials was blocked completely in 4 minutes 30 seconds (first row), despite increased stimulus intensity. After removal of the array (POST), action potentials reappeared and the rate increased gradually over five minutes 40 seconds.

Two magnets of alternating polarity (fourth row) and a single magnet of positive polarity (fifth row) did not block action potentials after ten minutes.



Comparison of five different magnetic field arrays on dorsal root ganglion neuron.  
McLean, M.J., Holcomb, R.R., Wamil, A.W., Pickett, J.D.: Effect of steady magnetic fields on action potentials and sodium currents of sensory neurons in vitro. [Environmental Medicine, 8: 36-45, 1991](#).

Laboratory experiments such as this one show that the common bipolar magnets have a minimal effect on neuronal tissue. It is the field gradient that blocks the sodium and calcium pumps on the membrane wall of nerve cells, reducing the ability of the nerve ending to transmit a signal back to the brain that there is a pain stimulus.

The Quadrapolar technology has been used extensively and was researched by the former Division of Neuromagnetics, Department of Neurology at Vanderbilt University

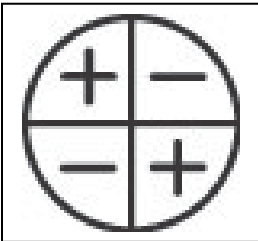
Medical Centre. After many years of testing, research and clinic trials world-wide the Quadrapolar magnet has become the popular choice for natural pain relief and injury recovery.



The first generation of quadrapolar magnets were developed by Neurologist, Dr Robert Holcomb and were comprised of four separate bipolar magnets assembled into a quadrapolar array. The four magnets were then encased in a plastic housing. The field gradient which is the change in magnetic field strength over distance was strongest where the individual magnets touched.



Q magnets are the next generation of quadrapolar magnets and are a world first. They combine an innovative design with the latest magnetisation techniques to include four alternating poles within the one magnetic body. This means that there is no “wasted” space between the four individual round magnets of the original design. Instead of the field gradient being at its steepest where the four magnets meet, the next generation Q magnet has a much steeper field gradient right along the boundary of the alternating pole quadrants.



The result of this new Q magnet design is a...

- ✓ Stronger magnet
- ✓ Smaller, more compact device which is more comfortable to wear
- ✓ Steeper field gradient and enhanced therapeutic effect for pain relief.

For the most part, where [magnetism in medicine](#) is used to develop cutting edge therapies, [magnetic field gradients](#) are almost always involved.

The reasons cited for the effectiveness of most magnetic products is the interaction of the magnetic field with the iron of hemoglobin in the blood and a resulting increase in circulation. This unscientific theory [can be easily debunked](#) with just a basic understanding of physics.

Whereas Quadrapolar or Q magnets can provide increased circulation at the site of old injuries, this is not the principle reason for how the relieve pain. Research has shown that it is not the magnetic field strength that is the secret, it is the unique field gradient produced by the Quadrapolar arrangement of the four magnetic poles.

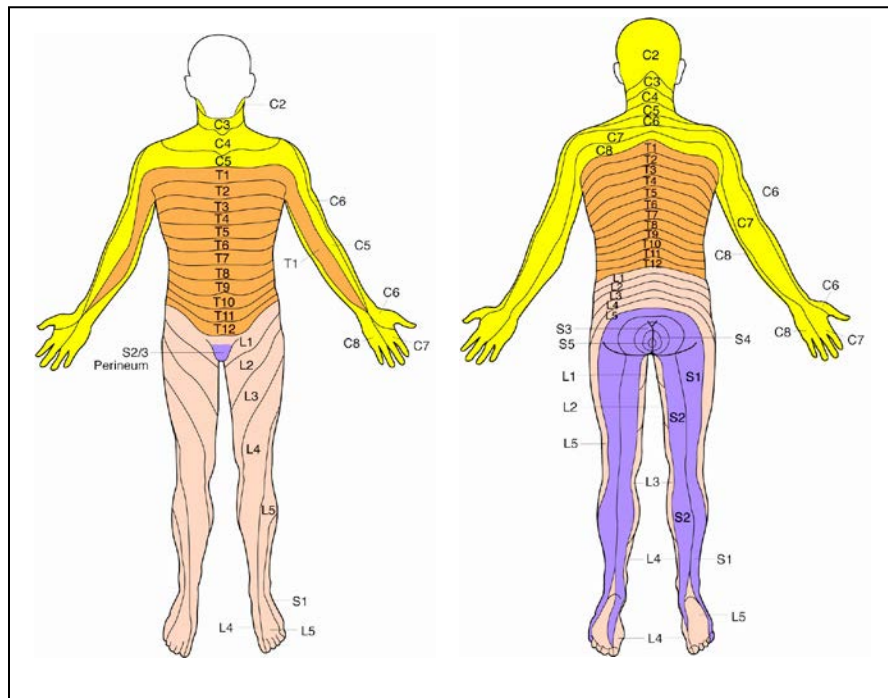
#### **4. Medical Magnets are effective for treating a wide range of painful conditions.**

Medical Magnets such as Q magnets are effective in the treatment of acute pain, chronic pain, and postoperative pain. They are also used for common aches and pains of daily

living such as headaches, neck pain, jaw pain, tooth pain, shoulder pain, upper and lower back pain, elbow and wrist pain, hip, knee and ankle pain.

The Q magnets are most effective when placed over an area of strong pain where there are abnormally functioning pain fibres. Since all pain is interpreted in the spine, they can also be placed over the spinal segments of the nerves that innervate that area.

Pain receptors at the end of C nerve fibres are affected by the chemical irritation from the inflammatory response. Q magnets block the ion gates and allow the chemical irritation to be flushed away naturally by the surrounding lymphatic system, thus aiding the healing process.



Dermatomes are areas of skin supplied with afferent (carry messages to the brain) nerve fibres by a single nerve root. Dermatome mapping helps to understand why pain may travel beyond the injury site to other areas of the body. Understanding dermatomes helps to locate the correct Q magnet placements over the spinal segments.

## 5. Correct positioning of a Medical Magnet is necessary for the best results.

Pain relief success when using magnets depends entirely upon correct placement of the magnet.

In regards to the placement of Q magnets, the simplest principle is to place the Q magnet over the area of tenderness. It's possible that you may need multiple Q magnets to gain adequate pain control and the basis for positioning may not be obvious. Clinical

experience has shown that placing multiple Q magnets along neural pathways proximal (towards the spine) to the affected site is effective.

The pain of a wasp sting or of tendonitis due to tennis elbow may respond to placement directly over the tender spots. However, the pain of radiculopathy lancinating into the heels may respond to placement of several Q magnets over the paraspinous region of the point of entry of the S1 nerve root.

Some physicians have achieved success in treating patients with Complex Regional Pain Syndrome (CPRS) by placing Q magnets over the superior cervical ganglion and over the paraspinous regions of entry of roots from the affected limb into the spinal canal.

Placement of Q magnets over acupressure points on the wrist may avert nausea of chemotherapy or surgical anesthesia. Thus, interfering with neural traffic along the referral patterns may dictate the most effective placement of Q magnets. The optimal use of multiple Q magnets requires a willingness to use careful neurological localization and even paradigms of acupressure and acupuncture.

The best Q magnet to use for an application is dependent on three criteria in the following priority:

- a) The depth of the nerve from the surface at the skin.
- b) The size of the nerve you are seeking to dampen the hypersensitive signal.
- c) The comfort factor of wearing a device on a certain part of the body.

If the nerve you are seeking to have an effect on is for example, the sciatic nerve (runs through the buttocks and down the back of the leg), then since it is a relatively deep and large nerve, it would be best to use the larger [QF28-3](#) or [QF28-6](#) model.

It is recommended to use at least the larger [QF28-3](#) model over the spinal dorsal column.

If it is a nerve near the hand such as a radial nerve you would likely use the [QF20-3](#) or even [QF10-2](#), as these nerves are relatively small and close to the surface. The other factor is that the smaller devices such as the [QF10-2](#) and [QF20-3](#) may be more comfortable in places such as the wrist and arm.

Also note, that the arrows on the Q magnets all need to point up towards the head of the person wearing it. Otherwise the magnetic fields they generate may interfere with other magnets placed in close proximity.

## **6. Medical Magnets are easy to apply, but need to be specific.**

Q magnets are easy to apply with sports tape such as Fixomull™ or Hyperfix™, double stick adhesive such as [QFix28](#) or for the [Q6-1.5](#) use [QFix6](#) plasters. You may also get creative with your application by using sport type bandages and braces for knees, backs, elbows, elastic bandages, headbands or your own creation using Velcro secured materials.

## 7. Quadrapolar Magnets offer a far more targeted form of pain relief, guarding you from doing further damage.

Sufferers of chronic pain can unfortunately have the added problem of having their pain remain undiagnosed. They experience severe pain because the nerve cells that are responsible for pain transmission are overactive. This is primarily due to the abnormal activity of "voltage-gated sodium channels" in these nerve cells. Conventional drugs, such as local anaesthetics, block all types of sodium channels, causing numbness. This can lead to you performing an activity and not even being aware that you are doing further damage.

Studies show that Quadrapolar magnets have a strong physiologic effect on abnormally firing C-fiber nerves. C-fibres are unmyelinated nerves with slow conduction and are associated with the chronic, dull ache type of pain. Quadrapolar magnets are less effective at blocking the signals of A[Delta] fibre nerves. A[Delta] fibres are myelinated nerves with fast conduction and are associated with sharp, acute pain. As such A[Delta] fibres carry the reflex action that results in pulling away from noxious stimuli.

This means that patients using Quadrapolar magnets are not at any greater risk of further injury due to performing tasks that could do damage, since the reflex action and the bodies natural warning signals are still operating.

Visit [www.qmagnets.com](http://www.qmagnets.com) now to order your Q magnets

Used correctly, Quadrapolar magnets can provide strong pain relief without the side-effects. Since around one in five people suffer from chronic pain at some point in their life, the potential role these magnets can play in improving the quality of your life is enormous.

If you have any questions about pain relief magnets simply call Neuromagnetics Australia on:

Phone: 1800 762 463 International Phone: +61 7 3822 3729

Email: [customerservice@qmagnets.com](mailto:customerservice@qmagnets.com)

Visit our website at: [www.qmagnets.com](http://www.qmagnets.com)