

## **What is Magnotherapy?**

Magnotherapy is the application of a magnetic field to a living body. Magnotherapy is not new, it has been used for hundreds of years to help relieve pain and accelerate the natural healing process. In recent times Magnotherapy has become more popular for two reasons, first the quest for complementary remedies as a natural therapy, and secondly the advancement of magnet technology. This paper serves as a basic introduction to Magnotherapy.

## **How does it work?**

The truth is nobody really knows. A magnetic field can be generated in the form of a pulsed Electro-magnetic field or a static field. Professionals favour pulsed electro-magnetic fields and equipment, a technology that does appear to provide superior results when compared to static magnetic fields. This type of equipment is used in hospitals and by physiotherapists. The downside is that Electro-magnetic fields require a supply of electricity and are therefore more suitable for controlled clinical use, not for personal, kennel or stable use. To overcome this problem some products use a battery as a source of power to develop a pulsed field. These tend to be inconvenient as they are heavy and awkward; certainly quite a sizeable battery would be required to produce the same depth of magnetic field as the more expensive transformer powered products.

A static magnetic field can be generated from various magnetic materials, from flexible magnetised sheet (as used for 'fridge magnets') through to complex rare earth magnets. There are a number of suppliers of this type of Magnotherapy product due to an increase in public awareness of the benefits that Magnotherapy can provide. However; an unfortunate trend used in the marketing of many of these products is the use of scientific gobbledegook in an attempt to describe how Magnotherapy works and provide credibility to the product. It can only be assumed that the authors of some of these 'scientific explanations' enjoy an enviable imagination! One only has to read the marketing material of a number of different suppliers to become thoroughly confused; indeed many of the theories are scientifically impossible and no evidence is available to support them. It is unfortunate that legislation covering the advertising and claims for complementary products has been a long time coming and even now it has been introduced (June 1 998) it is restricted to products that are intended for human use and not for animal use. If the same legislation were applied to animal products pet owners would enjoy the benefit of being better informed as to the capabilities of a product.

## THE MYTHS EXPLAINED

### ***'Magnetic products should not be used on open wounds or pregnant females'.***

The origins of this statement probably originate from trials in America with electro-magnetic equipment. There is growing evidence that suggests Electro-magnetic waves can be detrimental to health and cell structures. An unfortunate by-product of Electro-magnetic equipment is the generation of small amounts of Electro-magnetic waves, which is probably the reason for this advice. There is no evidence that supports static magnetic fields having a detrimental effect on pregnant females or open wounds, in fact many users have found they have a very positive effect.

### ***'Magnets should only be applied for a given number of hours.'***

The earth's natural magnetic field passes through all of us all of the time, we cannot switch it off. Extended use of a magnetic field is only considered detrimental when a gauss (a measurement of magnetic power) level in excess of 2000 is applied. The gauss reading for this purpose should be read at the surface of the product, not of the magnet, as gauss figures of magnets can provide meaningless information. When suppliers state that magnets should only be worn for a limited number of hours it is likely that they are referring to the physical and practical characteristics of the products packaging rather than the actual magnetic properties. If the tissue under the product is restricted from breathing then the product should only be applied for a minimal time. In any event an animal that has any type of equipment or dressing applied should be checked regularly.

### ***'Magnets increase blood circulation and blood flow'.***

There is no scientific evidence to support this. However; it is believed that the benefits derived from Magnotherapy are attributable to an improvement in the efficiency of the blood subsequent to passing through a magnetic field, providing that the field is of sufficient gauss to cause molecular agitation. It is not understood why this should be, but certainly the blood's ability to carry oxygen and dispose of waste products does appear to improve and this could account for some of the remarkable benefits that have been experienced by people and animals.

### ***'Bi- polar magnets'.***

The description of a magnet as 'bi-polar' implies it is a special type of magnet. There is nothing special about a bi-polar magnet because every magnet must have a minimum of two poles (north and south), because without these it would not be a magnet!

### ***'North poles are better for some complaints and south poles are better for others.'***

This of course is nonsense. A magnetic field is a loop and therefore it is impossible to apply one pole without the other.

### ***'Magnotherapy is suitable for all conditions'.***

Certainly static magnetic fields are safe to use with all conditions insofar as there is no clinical evidence to the contrary, but that does not mean a magnetic field can help all conditions. If the condition can be helped by more efficient blood circulation then Magnotherapy is worth a try and will probably prove successful. If in doubt a general practitioner or veterinarian should always be consulted.