



### HYPERBARIC OXYGEN TREATMENT

#### WHAT IS HBO & WHERE IS IT USED?

HBO treatment involves breathing pure oxygen through a mask while sitting in a pressurised chamber. This allows higher than normal concentrations of oxygen to be dissolved in the blood than is possible at atmospheric pressure.

Oxygen therapy is now widely used in many countries, notably in the USA, Russia, Japan, China and in Europe. It is primarily used to treat carbon monoxide poisoning and aid the healing of injuries and different types of wounds. Increasingly today the technique is being used in professional sport to ensure the fastest possible recovery by expensive sports stars sidelined through injury.

The widespread and growing use of HBO confirms it to be a very safe treatment at the pressures we use.

Dundee pioneered the use of HBO in the UK to help with the management of MS.



#### DOES HBO HELP WITH MULTIPLE SCLEROSIS

It must be clearly stated that HBO is not a cure for MS. It is a means that enables a patient to improve the management of the disease and hopefully improve some of the symptoms or prevent them from becoming more severe.

While there are many accounts of a variety of neurological functions improving or being stabilised by the HBO treatment of MS, it has been in bladder function that the positive results have been most frequently described by researchers. Objective measurements of bladder capacity and bladder emptying have shown the HBO has undoubted beneficial effects. A two-year study in Glasgow has demonstrated the importance of maintaining regular HBO treatment to prevent the progressive deterioration in bladder function commonly seen in MS.

The value of this prevention of irreversible bladder nerve damage is measured not only in the terms of comfort and well-being of the MS person, but also in the minimising of the tendency towards chronic bladder infection and to kidney damage which clearly have long-term consequences.

Perhaps the strongest testimony to the success of the therapy is shown by the fact that there are now several privately funded Treatment Centres in operation throughout the UK, 13 of which are in Scotland.

#### HOW DOES IT WORK

Oxygen is one of nature's primary healers. The body normally heals itself using of course oxygen from the air. Giving more oxygen extends the body's ability to heal, and can limit the damage caused by the disease.

Breathing oxygen under pressure causes the dilated and leaky blood vessels in MS to constrict back to the normal size and reduces the swelling due to fluid gathering which can lead to cells dying. At the same time more oxygen is delivered by the bloodstream and the net effect is to improve and accelerate the normal healing process.

#### START HBO AS SOON AS POSSIBLE

The aim of the oxygen treatment in MS is to minimise the amount of damage being caused, promote rapid healing and to limit the scar formation, which can prevent nerve function being restored. Clearly this is most appropriate as soon as possible after the symptoms start and modern MRI techniques which speed up diagnosis are helpful because the therapy can now start earlier with benefits following more quickly than was previously possible.

The main objective of any useful therapy in the established disease is to limit further damage rather than cure existing scars. In other words, prevention is not only better, but also much more realistic than cure.

#### WHAT DOES THE TREATMENT CONSIST OF?

##### INITIAL TREATMENT

This consists of visiting Inverness Centre for daily treatment for 15 consecutive days. On each daily visit you will breathe pure oxygen through an oxygen mask while sitting in a pressurised chamber. You will share the chamber with other patients and it is a nice way to relax for an hour or so with a good book.

During the 15-day treatment you will be closely monitored by our qualified Chamber Operator and the Centre Manager and fully assessed every 5 days.

##### FURTHER TREATMENT

The initial course of 15 sessions is only the start; we recommend treatment be continued at regular intervals thereafter - say once a week - in order to retain the benefits and help stabilise the disease.

If at any time after treatment you experience a relapse, we suggest that HBO sessions should be immediately increased.

