

Rapid Recovery Hyperbarics

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Hyperbaric Oxygen Therapy and Multiple Sclerosis

MS is a demyelization disease of the central nervous system (CNS). It is characterized by exacerbations, remissions, and stability. It is aggravated by any type of stress. The disease is erratic and debilitating, but of all the hundreds of treatments that have ever been tried on MS, HYPERBARIC OXYGEN THERAPY is the safest, most effective, and most cost effective.

Medical literature going back thirty years attest to the effectiveness of HYPERBARIC OXYGEN THERAPY in treating MS. In 1983, the New England Journal of Medicine published a randomized, double-blind, placebo- controlled study, the abstract of which is printed below (Fischer, BH, et al: Hyperbaric-oxygen treatment of multiple sclerosis. N Eng J Med 308(4):181-86, 1983), which demonstrated the effectiveness of HYPERBARIC OXYGEN THERAPY for MS. Again in 1987, a follow-up study was published in the Journal of Neurology, Neurosurgery, and Psychiatry, which not only confirmed the results of the Fischer study, but revealed significant preservation of cerebellar function (coordination) with HYPERBARIC OXYGEN THERAPY (Barnes, MP et al: Hyperbaric oxygen therapy in the treatment of multiple sclerosis. J Neurol Neurosurg Psychiatry 50(11):1402-6, 1987).

While these and subsequent studies have been ignored in the United States, this is not the case in the rest of the world. In the United Kingdom, 110 HYPERBARIC OXYGEN THERAPY facilities are treating 12,000 MS patients. The explanation of Hyperbaric Oxygen Therapy's benefit in MS may be do to the modulation of the immune system that occurs with hyperbaric oxygen. HYPERBARIC OXYGEN THERAPY reduces the over activity of the immune system while at the same time creating a more favorable environment for myelin repair.

It is important to note that HYPERBARIC OXYGEN THERAPY is not a cure for MS, its effectiveness is dose sensitive, and long term follow up treatment is required. Having said that, it does seem to alter the natural history of the disease in a favorable fashion.

HYPERBARIC OXYGEN THERAPY in the treatment of MS has been controversial because there have been several flawed studies - flawed in their design, inappropriate selection of patients, inappropriate pressures, etc. Still, as it is the mainstay of therapy for MS in the United Kingdom, a vast amount of clinical experience has shown this to be a treatment with great potential. For example, in the UK, Dr. P. B. James MB, ChB, DIH, PhD, of the Wolfson Hyperbaric Medicine Unit, University of Dundee, has a large network of charity centers providing HYPERBARIC OXYGEN THERAPY for the treatment of MS. It is unfortunate that

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in the United States MS patients are not even given information about the actual improvements in long-standing symptoms reported in some clinical trials of hyperbaric oxygenation.

The correct time to treat is when the disease starts and MR spectroscopy has shown that lactate is present in the acute areas affected (Miller DH, Austin SJ, Connelly A, Youl BD, Gadian DG, McDonald WI Proton magnetic resonance spectroscopy of an acute and chronic lesion in multiple sclerosis. Lancet 199;1: 58-59) .

HYPERBARIC-OXYGEN TREATMENT OF MULTIPLE SCLEROSIS

A Randomized, Placebo-Controlled, Double-Blind Study N Eng J Med 1983;308:181-86.

BOGUSLAV H. FISCHER, MD., MORTON MARKS, M.D., AND THEOBALD REICH, M.D.
Abstract. Several uncontrolled studies have suggested a beneficial effect of hyperbaric oxygen on multiple sclerosis. We studied 40 patients with advanced chronic multiple sclerosis who were randomly divided into two matching groups. The experimental group received pure oxygen and the placebo group received a mixture of 10 per cent oxygen and 90 per cent nitrogen; both groups were treated at a pressure of 2 atmospheres absolute for 90 minutes once daily, for a total of 20 exposures. Objective improvement occurred in 12 of 17 patients treated with hyperbaric oxygen and in 1 in 20 treated with placebo. ($P < 0.0001$). Improvement was transient in seven patients treated with oxygen and LONG-LASTING in five. Those with less severe forms of the disease had more favorable and lasting response. At one year follow-up, deterioration was noticed in 2 patients (12 per cent) in the oxygen group, neither of whom had had a initial response, and in 11 patients (55 per cent) in the placebo group, one of whom had had a positive initial response ($P < 0.0008$). Minor ear problems and reversible myopia were the only side effects observed. These preliminary results suggest a positive, though transient, effect of hyperbaric oxygen on advanced multiple sclerosis, warranting further study. This therapy cannot be generally recommended without longer follow-up periods and additional confirmatory experience.

Medline Search for: "Multiple sclerosis" AND "Hyperbaric Oxygen" Randomized Controlled Trials

1: Barnes MP, Bates D, Cartlidge NE, French JM, Shaw DA.
Hyperbaric oxygen and multiple sclerosis: final results of a placebo- controlled, double-blind

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trial. J Neurol Neurosurg Psychiatry. 1987 Nov;50(11):1402-6. PMID: 3320274 [PubMed - indexed for MEDLINE]

2: Maillard P, Clanet M, Bourdiol AM, Arne JL.
[Effects of hyperbaric oxygen therapy on the visual evoked potentials of patients with multiple sclerosis] Bull Soc Ophtalmol Fr. 1987 Jan;87(1):43-5. French. No abstract available. PMID: 3301038 [PubMed - indexed for MEDLINE]

3: Confavreux C, Mathieu C, Chacornac R, Aimard G, Devic M.
[Ineffectiveness of hyperbaric oxygen therapy in multiple sclerosis. A randomized placebo-controlled double-blind study] Presse Med. 1986 Sep 6;15(28):1319-22. French. PMID: 2950392 [PubMed - indexed for MEDLINE]

4: Harpur GD, Suke R, Bass BH, Bass MJ, Bull SB, Reese L, Noseworthy JH, Rice GP, Ebers GC.
Hyperbaric oxygen therapy in chronic stable multiple sclerosis: double-blind study. Neurology. 1986 Jul;36(7):988-91. PMID: 3520382 [PubMed - indexed for MEDLINE]

5: Wiles CM, Clarke CR, Irwin HP, Edgar EF, Swan AV.
Hyperbaric oxygen in multiple sclerosis: a double blind trial. Br Med J (Clin Res Ed). 1986 Feb 8;292(6517):367-71. PMID: 3080173 [PubMed - indexed for MEDLINE]

6: Wood J, Stell R, Unsworth I, Lance JW, Skuse N.
A double-blind trial of hyperbaric oxygen in the treatment of multiple sclerosis. Med J Aust. 1985 Sep 16;143(6):238-40. PMID: 3897808 [PubMed - indexed for MEDLINE]

7: Neiman J, Nilsson BY, Barr PO, Perrins DJ.
Hyperbaric oxygen in chronic progressive multiple sclerosis: visual evoked potentials and clinical effects. J Neurol Neurosurg Psychiatry. 1985 Jun;48(6):497-500. PMID: 3891920 [PubMed - indexed for MEDLINE]

8: Barnes MP, Bates D, Cartlidge NE, French JM, Shaw DA.
Hyperbaric oxygen and multiple sclerosis: short-term results of a placebo-controlled, double-blind trial. Lancet. 1985 Feb 9;1(8424):297-300. PMID: 2857361 [PubMed - indexed for MEDLINE]

9: Fischer BH, Marks M, Reich T.
Hyperbaric-oxygen treatment of multiple sclerosis. A randomized, placebo-controlled, double-blind study. N Engl J Med. 1983 Jan 27;308(4):181-6. PMID: 6336824 [PubMed - indexed for MEDLINE]