

Hyperbaric oxygen therapy (HBOT) for multiple sclerosis (MS)

Review Question:

What is the effect of hyperbaric oxygen therapy (HBOT) in the treatment of multiple sclerosis?

The short answer:

This review found that HBOT is not effective in the treatment of multiple sclerosis. There is consistent evidence that HBOT has little to no effect on improving disability or stopping disability from getting worse in people with MS. There are very few major side-effects associated with HBOT. Minor side-effects include visual disturbance and inner ear trauma.

This is the printable version of an online resource providing plain language summaries of high quality research about MS treatments.

Visit the **Making Sense of MS Research** web site to learn more
www.makingsenseofMSresearch.org.au

THE SHORT ANSWER

This is a summary of the research about the effect of hyperbaric oxygen therapy (HBOT) in people with multiple sclerosis (MS) written in plain language for people with MS and their family members. It is based on a report (known as a systematic review) that was produced by The Cochrane Collaboration.

In February 2011, the authors of the report searched for all the randomised controlled trials (RCTs) on this topic and combined the results. They found nine trials, including 504 participants. As at August 2012, there were no new RCTs conducted in this area.



Up to date as at August 2012

THE DETAILED ANSWER

For people with MS, there is consistent evidence to show that a course of HBOT has **little to no effect on:**

- Disability getting worse
- The chance of having a relapse
- Weakness in the arms or legs
- Bladder and bowel function
- Visual disturbances

Side-effects

HBOT is considered to be a relatively safe therapy.

Occasional serious side-effects can include lung injuries, drug reactions and injury or death due to a fire in the pressurised chamber. None of the people in the studies experienced any of these side-effects.

More minor side-effects experienced by people in the studies include

- visual disturbances
- middle ear injury

WHAT IS THIS TREATMENT?

HBOT involves breathing pure oxygen in a specially designed, pressurised chamber. It gained popularity as a proposed treatment for multiple sclerosis (MS) in the 1980s. HBOT is typically delivered over multiple sessions (20 sessions within a month), lasting for up to 90 minutes and may involve top up sessions after this time. In Australia, HBOT is not covered by Medicare as a treatment for multiple sclerosis. However, people with MS may choose to pay for it privately.

What we don't know from the results of this review

The authors stated that no further studies of HBOT are needed as the answer is clear that it is not effective for people with MS.

What about the quality of the included studies?

The nine studies included in this review were all randomised controlled trials, which are considered the most rigorous study design. The authors suggested that the quality of these trials was strong, meaning we can have reasonable confidence in their results.

The really detailed answer

For more information, or to read about the individual studies included in this review, you can to access the Cochrane review on which this evidence summary is based:

- Bennett MH, Heard R. Hyperbaric oxygen therapy for multiple sclerosis. Cochrane Database of Systematic Reviews 2004, Issue 1

DOES THIS APPLY TO ME?

Despite the fact that research shows that it is ineffective, hyperbaric oxygen therapy (HBOT) may still be offered to, or accessed by, people with MS in Australia and elsewhere.

It may be helpful to remember that it has been thoroughly tested in people with

- different kinds of MS
- mild to severe levels of disability
- all the studies tested at least 20 sessions of HBOT (delivered as a four-week course of treatment)

If I am similar to the people in the studies, can I expect the same results?

It is important to remember that studies deal with averages and statistics. Even if you are similar to the people in the studies, we can't know for sure that you will respond in the same way.

What we can say, is that, on average, the studies show that people with MS who use HBOT do not experience any benefits.

QUESTIONS FOR MY HEALTH PROFESSIONAL

- I'd still like to consider HBOT, what do you recommend?
- What else can I consider other than HBOT?

FIND OUT MORE

For more information about HBOT you can contact;

- Your health professional
- Your local MS Australia office

Or, you can google the following web sites:

- A to Z, Hyperbaric Oxygen Therapy (MS Trust)

Would you like to talk to someone about this?

Information can be unsettling or overwhelming, particularly when it relates to making a decision that requires weighing up difficult choices. Finding out about possible side-effects can be scary. Inconclusive or negative findings can be frustrating or confusing.

If you would like to talk to someone about the information that is presented here, please contact your local MS Society on the details below.

MS Australia – ACT/NSW/VIC

Free call: 1800 042 138 (from all three states)

E: msconnect@msaustralia.org.au

MS Australia – Queensland

P: (07) 3840 0888

Freecall: 1800 287 367

E: info@msqld.org.au

MS Australia – SA & NT

P: (08) 7002 6500

E: info@ms.asn.au

MS Australia – Tasmania

P: (03) 6220 111

E: aboutus@mstas.org.au

Multiple Sclerosis Society of WA

P: (08) 9365 4888

Country callers: 1800 287 367

E: enquiries@mswa.org.au



These summaries have been derived from Cochrane reviews published in the Cochrane Database of Systematic Reviews in The Cochrane Library. Their content has, as far as possible, been checked with the authors of the original reviews, but the summaries should not be regarded as an official product of the Cochrane Collaboration.

Up to date as at August 2012