

Getting the Most Out of HBOT

A plain-language guide for patients and families in Canada.

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A plain-language guide for patients starting a course of HBOT. Hyperbaric oxygen therapy (HBOT) means breathing pure oxygen while sitting or lying inside a pressurised chamber. It is used in Canada for 14 conditions that Health Canada recognises, ranging from emergencies such as carbon monoxide poisoning and decompression sickness to slow-healing wounds and radiation injury to healthy tissue. If your care team has recommended HBOT, you have likely been told what to expect in broad terms. This guide fills in the practical detail: what a course of treatment looks like, what actually happens inside the chamber, how to prepare, the side effects to watch for, and the habits that give the therapy its best chance of working. None of this replaces the instructions of the team treating you. Where their advice differs from anything here, follow theirs, because they know your medical situation and you do not have to figure any of this out alone.

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What a typical course looks like

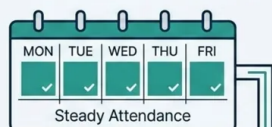
HBOT is rarely a single visit. For the wound-healing, radiation-injury, and infection indications, it is a course of repeated daily sessions stretched over several weeks. A common pattern is one session a day, five days a week, for a total that often reaches 30 or more sessions, though the exact number depends on the condition and how your tissue responds. Your team sets the plan and adjusts it as they go.

Two Distinct Treatment Trajectories

The condition dictates the schedule; chronic conditions require weeks of steady attendance for gradual healing, while emergencies require immediate, short-term intervention.



Chronic Indications



Steady Attendance



30+ Sessions for Gradual Healing

Emergency Indications



Higher Pressure



1 to Few Urgent Sessions

{ Sudden sensorineural hearing loss requires a 14-day critical window for optimal outcomes. }

FIGURE

Hyperbaric oxygen therapy follows one of two schedules depending on the condition. Chronic indications such as non-healing wounds, radiation tissue injury, and certain infections call for a steady course, usually one session a day, five days a week, often thirty or more sessions in total, so tissue can heal gradually. Emergency indications such as carbon monoxide poisoning and decompression sickness instead use one to a few urgent sessions, sometimes at higher pressure. Sudden sensorineural hearing loss sits between the two and is generally treated within a roughly fourteen-day window, as earlier treatment tends to give better results.

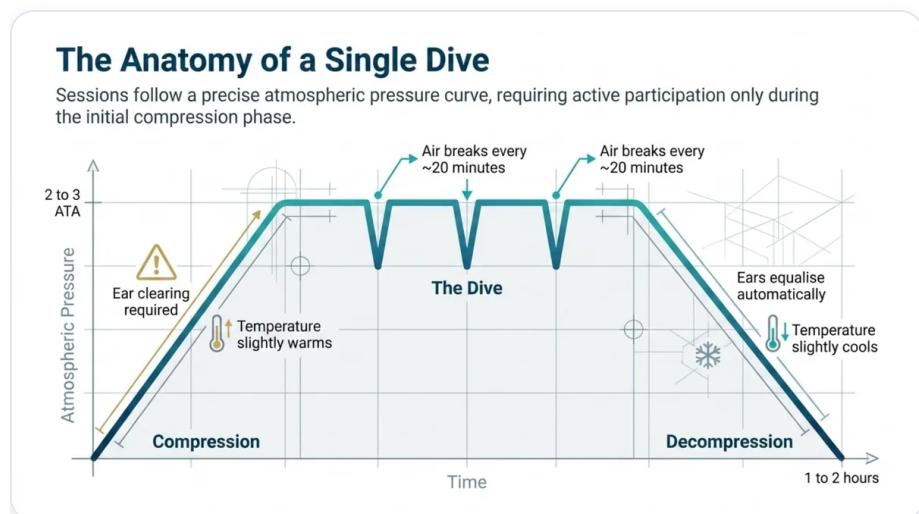
Emergencies work differently. For carbon monoxide poisoning, decompression sickness, or arterial gas embolism, treatment may be just one session or a small number of sessions delivered urgently, sometimes at a higher pressure than

the elective conditions use. For sudden sensorineural hearing loss, timing matters a great deal: the best outcomes are seen when treatment starts within 14 days of the hearing loss beginning, so do not delay if that is your indication.

Two things are worth setting your expectations on early. First, the benefit of a course comes from completing it, not from any single visit, so the schedule asks for consistency over weeks. Second, for chronic conditions, healing is gradual and often continues after the course ends rather than appearing dramatically partway through. Steady attendance, not a single breakthrough day, is what the evidence supports.

What happens in a session

A session has a predictable shape, and once you have been through it a few times it becomes routine.



FIGURE

A single session follows a predictable pressure curve. During compression the chamber is gradually pressurised toward a treatment pressure of about two to three times normal atmospheric pressure; this is when you actively clear your ears, and the air feels slightly warm. At treatment pressure you settle in for the main part of the session, breathing oxygen for roughly one to two hours, with short air breaks about every twenty minutes. During decompression the pressure is slowly returned to normal, your ears equalise on their own, and the air cools a little.

Compression. When the door is sealed, the chamber begins to pressurise. You will feel the air around you get denser and you will hear the gas flowing in. The pressure used for most conditions is roughly two to three times normal atmospheric pressure (described in clinical terms as 2 to 3 ATA), comparable to the pressure a diver feels some metres underwater. The chamber may feel slightly warm during this phase, because compressing gas releases heat. Compression is the part where your ears need attention, which is covered next.

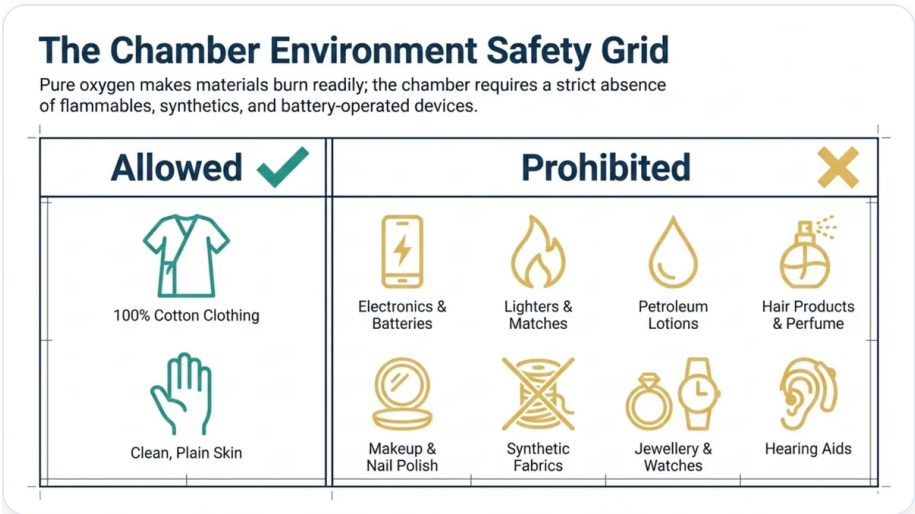
Ear clearing. As pressure rises, the air space behind your eardrum needs to equalise, exactly as it does on a descending aeroplane or driving down a mountain. You do this by gently clearing your ears: swallowing, yawning, moving your jaw, or pinching your nose and softly blowing against it. Your team will coach you and will slow or pause the compression if you need more time. Never push through sharp ear pain. Tell the operator, who can ease the pressure so you can catch up. This single skill helps prevent the most common side effect of HBOT.

The "dive." Once you reach treatment pressure, you settle in at a stable depth, which is why staff often call the session a "dive." This is the main part of the treatment and typically lasts between one and two hours. You breathe oxygen, usually through a mask, hood, or the chamber atmosphere depending on the type of chamber. Many programmes build in short "air breaks," where you breathe ordinary chamber air for a few minutes, often around every 20 minutes, to reduce the small risk of oxygen-related effects. During the dive you can usually rest, listen to audio, or watch a screen. You can speak with the team throughout by intercom.

Decompression. At the end, the chamber is slowly returned to normal pressure. Your ears equalise again, this time in the opposite direction, which is usually easier and happens on its own. You may notice a slight cooling as the pressure drops. Once you are back at surface pressure the door opens and you are done for the day.

How to prepare

A little preparation makes each session smoother and safer.



FIGURE

Because the chamber is an oxygen-rich environment, anything that could spark or fuel a fire is left outside. Wear the cotton clothing or gown the facility provides and arrive with clean skin. Leave behind lighters and matches, electronics and batteries, and oil-based products such as petroleum lotions, hair products, perfume, makeup, and nail polish; jewellery, watches, and hearing aids are usually removed as well. Your care team will give you the exact list for their chamber.

Ear and sinus issues. A cold, blocked sinuses, or congestion makes ear equalisation harder and more uncomfortable. Tell your team before the session if you are congested, have an ear infection, or have recently had ear surgery. They may delay a session or suggest a decongestant rather than have you struggle to clear your ears under pressure. Do not start any new medication for this without checking with them first.

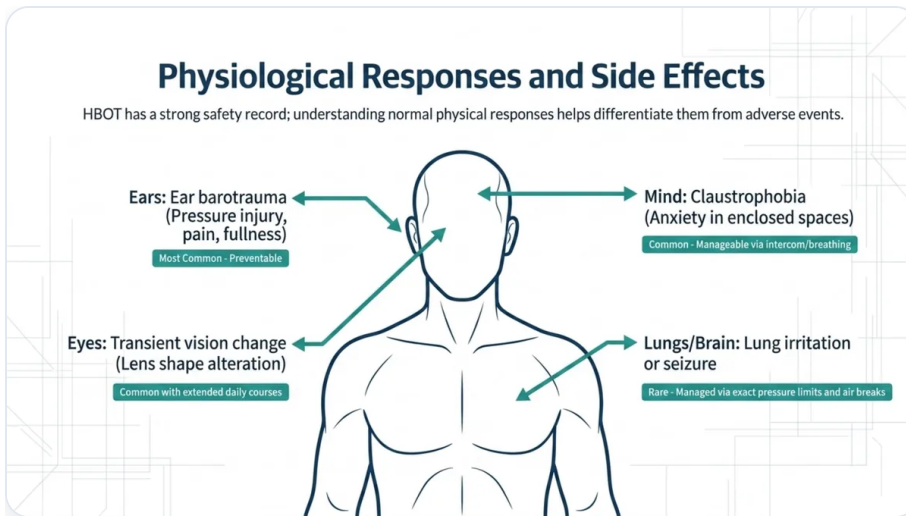
No prohibited items. A hyperbaric chamber is an oxygen-enriched, pressurised environment, and oxygen makes things burn far more readily than normal air. For that reason there are strict rules about what comes inside. Lighters, matches, and electronic devices with batteries are not permitted. Flammable and petroleum-based products are also kept out, which means skipping oil-based skin lotions, hair products, makeup, perfume, deodorant sprays, and nail polish on treatment days unless your team specifically approves a product. Your programme will give you its own exact list. When in doubt, leave it out and ask.

Clothing. You will usually be asked to change into cotton clothing or a gown the centre provides, because some synthetic fabrics can build up static and are discouraged near pure oxygen. Wear something comfortable and easy to change into. Leave jewellery, watches, and hearing aids out unless your team tells you otherwise, and remove or check anything that traps air.

What to tell the team. Before you start, and at each visit, keep your team informed about your full medication list (some medicines interact with hyperbaric oxygen), any chest or breathing problems, whether you have diabetes and what your recent blood sugars have been, any history of seizures, claustrophobia or anxiety, pregnancy, recent surgery, or any new symptom such as a cold, fever, or cough. Eat a normal meal beforehand unless told otherwise, and if you have diabetes ask specifically how to manage your food and medication around sessions, because oxygen under pressure can lower blood sugar.

Safety and side effects

HBOT delivered by a trained team at a recognised programme has a strong safety record. Most side effects are mild, temporary, and manageable, and serious events are uncommon. Knowing what is normal helps you tell it apart from what is not.



FIGURE

Hyperbaric oxygen has a strong safety record, and knowing the normal effects helps you tell them apart from anything that needs attention. The most common effect is ear barotrauma, a pressure-related ear discomfort that is largely preventable with good ear clearing. Over a longer daily course some people notice temporary short-sightedness from a reversible change in the lens of the eye. Claustrophobia or anxiety in the enclosed space is usually managed through the intercom and steady breathing. Lung irritation and seizures are rare and are guarded against with set pressure limits and regular air breaks.

Ear barotrauma. Pressure injury to the eardrum and middle ear is the most common side effect of HBOT. It happens when the ear cannot equalise fast enough during compression, causing pain, fullness, or, rarely, a small bleed or eardrum tear. It is largely preventable by clearing your ears actively and speaking up the moment you feel pain so the operator can slow down. Most cases are minor and settle on their own, and the team can address persistent problems.

Oxygen handling. Breathing oxygen under pressure for long periods can, rarely, irritate the lungs or, very rarely, trigger a seizure that stops once the oxygen is removed. This is why programmes use measured pressures and treatment times and build in air breaks. These events are uncommon at the pressures used for routine care, and the staff monitor you throughout.

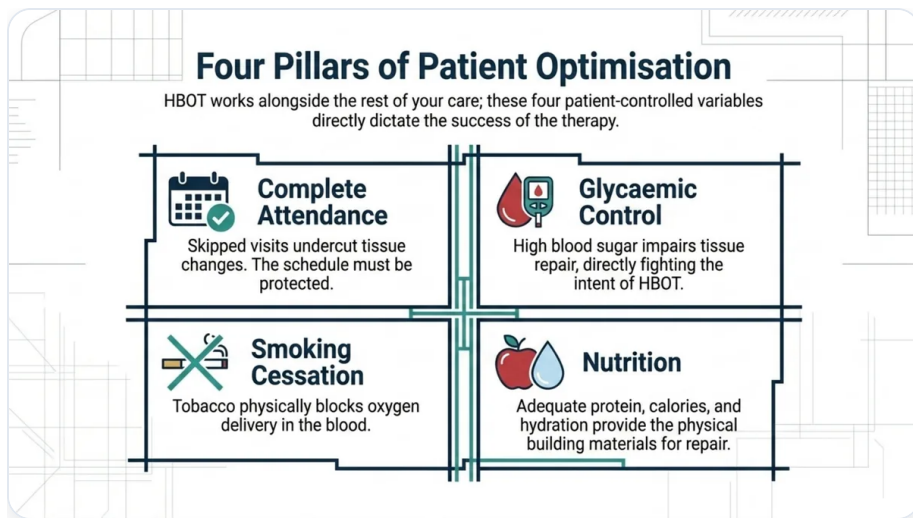
Claustrophobia. Some people feel anxious or confined inside the chamber, particularly in smaller single-person chambers. This is common and the team is used to it. Talking through what to expect, keeping the intercom open, distraction with audio or video, and slow breathing all help, and in some cases a doctor can prescribe something to ease anxiety. Tell the team in advance if enclosed spaces bother you.

Transient vision change. A course of daily HBOT can temporarily change the shape of the lens of the eye, making you more short-sighted (objects in the distance look blurry) over the weeks of treatment. This change is fairly common in people who receive many daily sessions, and it becomes more likely the longer the course runs. The good news is that it is reversible: vision usually drifts back to baseline within several weeks of finishing the course, often two to four weeks. Because of this, it is wise not to update your eyeglass prescription until some weeks after treatment ends. Tell your team about any vision change so they can confirm it is the expected, temporary kind.

When to speak up immediately: sharp or worsening ear pain, chest tightness or trouble breathing, any twitching or seizure-like feeling, or rising anxiety you cannot settle. The team would always rather hear about it early.

What helps treatment work

HBOT works alongside the rest of your care, not instead of it. A few things meaningfully improve your odds of a good result.



FIGURE

Hyperbaric oxygen works best alongside the rest of your care, and four things within your control make a real difference. Attending the full course matters because skipped sessions interrupt the steady healing the schedule is designed to build. For wound and diabetes-related conditions, keeping blood sugar well controlled helps tissue repair. Stopping smoking removes the carbon monoxide and vessel narrowing that work against the extra oxygen. And good nutrition, with enough protein, calories, and fluids, gives the body the materials it needs to rebuild.

Attend the full course. This is the single most important thing you control. The repeated sessions are what drive the tissue changes the therapy aims for, and skipped or scattered visits undercut the plan. Treat the schedule as a block to protect. If you must miss a session, tell your team rather than simply not coming, so they can adjust.

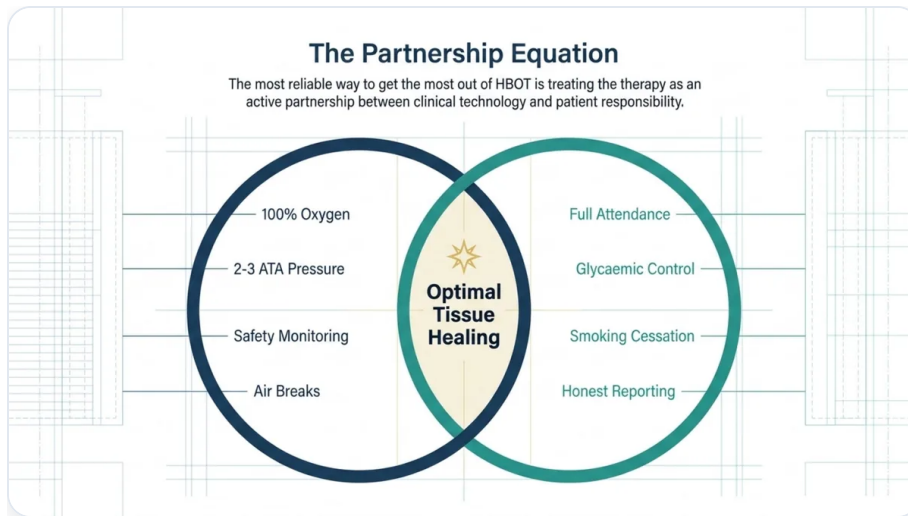
Glycaemic control for wounds. If you are being treated for a slow-healing wound and you have diabetes, keeping your blood sugar in the range your care team advises is central to healing. High blood sugar impairs the body's ability to repair tissue and fight infection, working against everything HBOT is trying to do. Coordinate your diabetes care closely with your wound and hyperbaric teams throughout the course.

Stopping smoking. Smoking works directly against HBOT. Tobacco smoke narrows blood vessels and loads the blood with carbon monoxide, which binds to haemoglobin in place of oxygen, reducing the very oxygen delivery to tissue that the therapy is trying to boost. Even cutting back helps, and stopping helps most. Ask your team or your family doctor about Canadian cessation supports; provincial quitlines and programmes are available at no cost.

Nutrition. Healing tissue needs building material. Adequate protein, enough overall calories, and good hydration support wound repair and recovery, and deficiencies in certain vitamins and minerals can slow healing. If you have lost weight, have a poor appetite, or are unsure your intake is adequate, ask whether a dietitian referral would help. Good nutrition will not replace the therapy, but poor nutrition can hold it back.

Working with your hyperbaric team

Your hyperbaric team includes physicians, nurses, and trained chamber operators or technologists, and they do this every day. The therapy goes best when you treat it as a partnership.



FIGURE

Getting the most out of hyperbaric oxygen therapy comes down to a partnership. The clinical side provides oxygen at the right pressure, careful safety monitoring, and air breaks; your side contributes full attendance, blood-sugar control, not smoking, and honest reporting of how you feel. When both work together, the treatment has its best chance to support tissue healing. Ask questions, report changes early, and keep your wider care team informed so everything stays connected.

Ask questions freely. It is reasonable to ask how many sessions are planned, what pressure and session length your condition uses, what side effects to expect, and how progress will be measured. Understanding the plan makes it easier to stick to.

Report changes honestly and early, both inside the chamber and between visits. A new cold, an ear that will not clear, a change in your wound, a new medication from another doctor, a blurry patch of vision, or a rough night of anxiety are all things the team wants to know. None of these are complaints; they are the information your team needs to keep treatment safe and on track.

Keep all of your care connected. HBOT usually sits within a larger plan that may involve your family doctor, a wound clinic, a surgeon, or other specialists. Make sure each knows what the others are doing, carry an up-to-date medication list, and bring questions written down so nothing gets missed in the visit.

Finally, give the course time. For chronic conditions especially, improvement is gradual and is best judged over the whole course rather than session to session. Showing up consistently, managing the habits above, and staying in close contact with your team is the most reliable way to get the most out of HBOT.

This guide is general patient information from an independent Canadian hyperbaric resource and is not medical advice. Always follow the specific instructions of the team treating you.

Canada Hyperbarics, canadahyperbarics.ca. Reviewed each quarter. General patient information; not a substitute for the advice of the team treating you.