

## Hyperbaric oxygen therapy

**How it works:** Hyperbaric oxygen therapy (HBOT) is a method of boosting oxygen intake by exposing the athlete to oxygen at a higher than normal atmospheric pressure—picture a space-pod-looking capsule where you sit and breathe a heavy-duty dose of oxygen. The therapy is typically used to treat carbon monoxide poisoning, gangrene, crush injuries in which oxygen delivery to tissue has been compromised and decompression sickness (the ailment that deep-sea divers experience when they resurface too quickly). "Oxygen plays a role in healing injuries where you have a lot of swelling," explains Alfred Bove, M.D., Ph.D., an associate dean at the Temple University School of Medicine. "Swelling can block the blood supply, so if you bring oxygen to the injury, you reduce swelling and bring blood back to the site, which affects healing."

Treatments are prohibitively expensive, and since insurance companies consider HBOT experimental in all but a few circumstances (such as carbon monoxide poisoning and decompression sickness), even hospitals rarely use it. Several hockey and football teams have purchased or rented chambers to speed players' recovery following injury.

**What the research says:** One study published in the American Journal of Sports Medicine in 1997 found that HBOT did not speed recovery from acute ankle sprains experienced by 32 subjects. However, a report of three case studies, published in the journal Physiotherapy in 1993, suggested that the treatment does help speed healing. One patient, who suffered a sprained ankle that was expected to take three weeks to heal, had two HBOT sessions and was able to resume full training after four days. Another athlete, who had developed Achilles tendinitis, received one session and started training again the next day.

**What an athlete says:** "I've found its best benefits are in treating bad contusions and fractures," says Michael Ryan, head athletic trainer and physical therapist for the NFL's Jacksonville Jaguars. "A deep thigh bruise, for instance, can be very debilitating. The hyperbaric chamber, used as early intervention, slows the inflammatory process and allows you to implement more aggressive rehabilitation."

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