The big O2: Oxygen is proving a revolutionary therapy for addicts

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HOW many times have you been told to leave a wound alone to let the fresh air get at it? This wonder treatment is none other than oxygen - free and all around us.
But what if it could be harnessed and used to treat a range of illnesses, from MS to drug addiction? The answer is it can. Oxygen was used to treat First World War gas victims. Now it is being pioneered for the treatment of addicts and those suffering from post-traumatic stress disorder at Castle Craig Hospital, an addiction clinic in West Linton, Peeblesshire.

Hyperbaric oxygen treatment or HBOT was initially developed for diving disorders such as decompression sickness, where there are bubbles of gas in the tissues. Patients are put in a chamber where they are blasted with oxygen at ten times the normal level, removing nitrogen from the bubbles and reducing them in size until they can be reabsorbed. It also improves the transport of blood to keep oxygen-starved tissues alive.

HBOT has an anti-inflammatory effect and it also stimulates the production of stem cells and replaces any damaged ones, for example in the liver, brain or pancreas. It also helps with a range of neurological complaints such as MS, autism, cerebral palsy and mild traumatic brain injury, and because the effect is also anti-viral and anti-bacterial, it is good for the skin, healing scars and zapping acne.

At Castle Craig, HBOT is used to treat addicts whose bodies have been subject to tissue damage from years of alcohol or drug misuse. While there are many chambers operated by charity for MS users, Castle Craig is the only place in the UK using HBOT to treat addiction. Patients referred by the NHS spend an hour at a time in the chamber wearing a mask, allowing oxygen to be dissolved in the bloodstream, helping white blood cells kill bacteria, reducing swelling and allowing new blood vessels to grow more rapidly in damaged tissue.

Peter McCann, chairman of Castle Craig, introduced the treatment after chanceing on an article that said it may be useful for Korsakoff's syndrome, a brain damage caused by alcohol.

"Alcoholics who have drunk for many years quite often lose brain function because it damages the pre-frontal cortex and kills cells, or sends them into sleeping mode. That part of the brain is to do with making decisions, learning from experience and if that's impaired they can't reason, which is why they don't change their ways. It's a growing problem in Scotland and younger people are turning up with it," he says.

"The pre-frontal cortex can be repaired in time by exercise, stimulation of the brain, good food and good sleep. Add HBOT to that and it will accelerate the process."