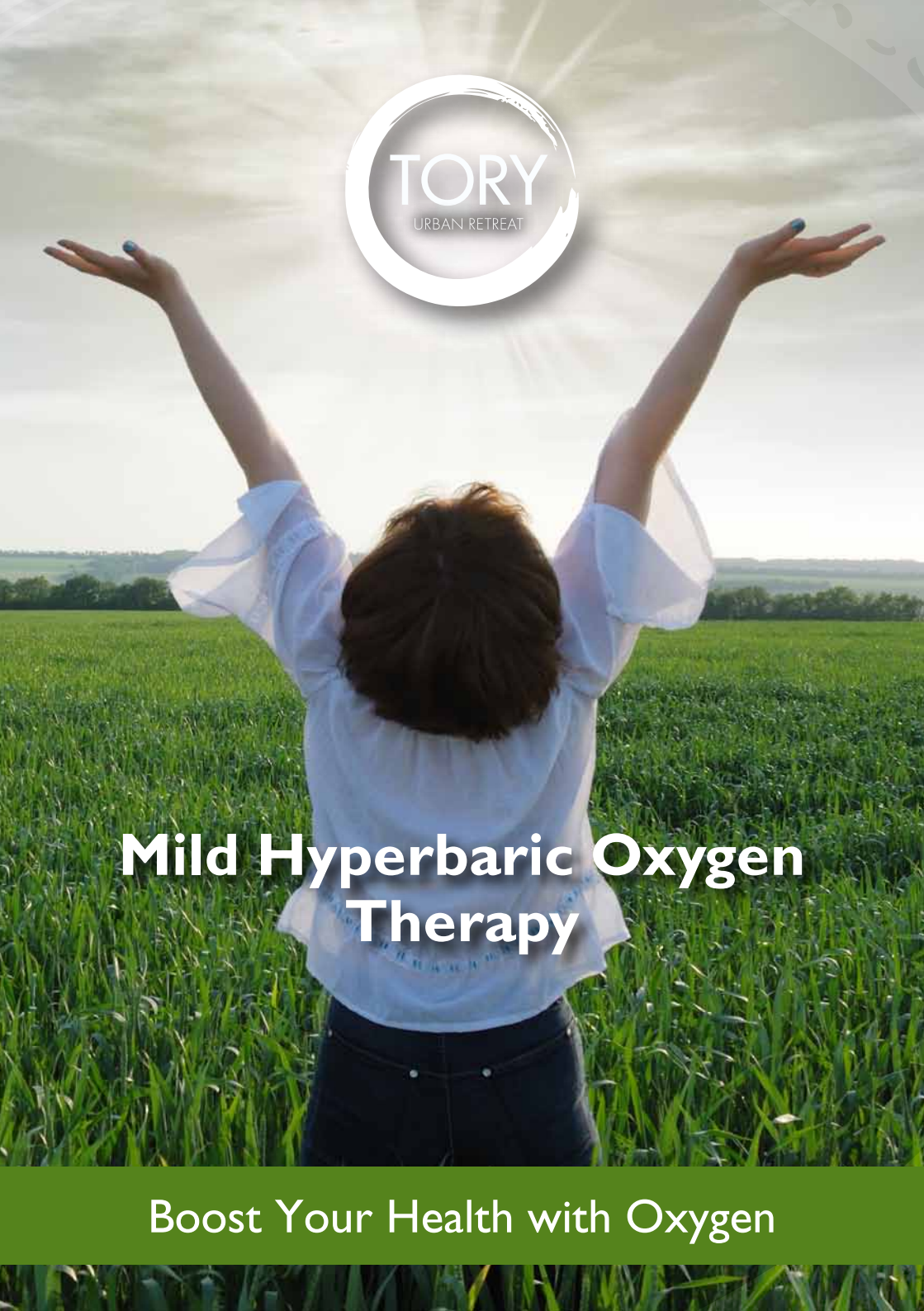
TORY
URBAN RETREAT
Mild Hyperbaric Oxygen Therapy
Boost Your Health with Oxygen

What is Mild Hyperbaric Oxygen Therapy (mHBOT)?

mHBOT involves breathing pure oxygen in a chamber pressurised with air. This allows the body to absorb more oxygen into the blood cells, blood plasma, cerebral-spinal fluid and joint fluids, other tissues and joints and bones.

How does mHBOT work?

To understand ***mHBOT***, a good analogy is a can of fizzy drink. The can is a pressurised vessel, in the can there is liquid, then a gas is added. According to Henry's Law, gas under pressure will dissolve into the liquid. Hence the "fizzy" in the drink.

In the Hyperbaric chamber, as the pressure goes up, more oxygen is "pushed" into the fluids to boost oxygen levels. Supplementary oxygen is added to the chamber via the use of an oxygen concentrator.

This oxygen becomes infused into all the body's fluids, blood, plasma and cerebral fluids. Red blood cells become saturated with oxygen and all remaining oxygen dissolves directly into other body fluids and tissue.

Why is oxygen so important?

Nature dictates that healing cannot take place without adequate oxygen levels in the body's tissues. Cells and tissues without oxygen die, or become hypoxic, a condition in which the body, or a region of the body, is deprived of oxygen.

Hypoxia is a major factor in the development of stroke, heart attack, Alzheimer's, dementia and cancer.

Oxygen has natural healing properties and increasing the amount circulating oxygen throughout the body promotes faster and more effective healing for a wide variety of diseases and illnesses. It also provides numerous preventative health benefits.

mHBOT may...

- ☑ Stimulate growth of new blood vessels to locations with reduced circulation, including areas of arterial blockage.
- ☑ Aid in the treatment of atherosclerosis, stroke, wound healing and brain injury, including Autism and dementia.
- ☑ Increase energy, stamina and endurance levels, while reducing fatigue.
- ☑ Provide an optimal environment for the body to carry out vital cell processes.
- ☑ Increase the capacity for the body to heal itself by increasing production of stem cell and vascular endothelial growth factors (VRGF).
- ☑ Enhance the white blood cells' ability to fight infection.
- ☑ Promote the growth of new collagen - the foundation of firm new skin.

History of mHBOT

Its history can be dated back to 1662 when a British physician, using a system of organ bellows and valves, discovered that acute illness responded better to increased oxygen pressure.

By 1878 Paul Bert, a French physiologist, had discovered the link between decompression sickness and nitrogen bubbles. He correctly hypothesized that the pain from decompression sickness could be reversed with recompression.

In the 1930's, the US military were using HBOT to treat deep-sea divers with decompression sickness.

By 1955, studies had shown that HBOT was effective in increasing the benefits of radiation treatment on cancer patients.

Now in the 21st century, rapidly increasing amounts of clinical and medical research validates this increasingly popular and powerful treatment. HBOT is FDA approved.

Mild hyperbaric oxygen therapy has been developed as a safe and effective method of hyperbaric oxygen therapy. Unlike HBOT where oxygen levels are at 100% and must be performed under medical supervision in hospitals, mHBOT is safe for health centre and home use as the chamber is pressured with air.

How could mHBOT benefit me?

- Significantly reduces oedema
- Significantly reduces inflammation
- Improves range of motion due to reduced swelling
- Increases the production of collagen (anti-ageing)
- Increases healing and recovery from injury
- Supports scar tissue repair
- Enhances the growth of new blood vessels (angiogenesis)
- Increases oxygen levels in tissues
- Increases oxygen perfusion around wounds
- Improves bone regeneration for faster recovery
- Stimulates stem cell and growth factors
- Helps destroy viruses and anaerobic bacteria
- Increases removal of toxic bio-waste (Detoxification)
- Increases white blood cell production (Increased immune function)
- Increases effectiveness of antibiotics
- Reduces surgery complications, especially for smokers and diabetics
- Improves physical training (strength, energy and endurance)
- Increases effectiveness of chemotherapy
- Slows gut transit time in inflammatory bowel disease
- Improves gut wall function and absorption of nutrients
- Improves mind acuity, memory and concentration

mHBOT for sports

Many elite athletes use mHBOT regularly and they report less muscle fatigue, lower levels of lactic acid build up and greater endurance. Higher concentrations of oxygen in the blood at the cellular level allows them to increase performance and healing and recovery to occur at a much faster rate.

Sports training is tough on the body. If you want to succeed you have to push yourself. But your body also needs time to recover. mHBOT helps your body to recover faster by reducing inflammation and accelerating muscle repair. So you can push yourself further than before with more rigorous training schedules giving you better results.

Ever wondered why a muscle tear (strain) heals faster than a ligament tear (sprain)? The answer is oxygen! Muscles have an abundant supply of oxygen providing them with the necessary energy needed for increased protein synthesis for tissue repair and regeneration. Ligaments and tendons on the other hand, do not. So the question is how do we get more oxygen to the tissues? The answer is simple - pressure! mHBOT supplies pressure optimally.

Elite athlete powered by oxygen

World class ultramarathon runner Jo Johansen has become a "believer" in the power of oxygen after starting to use mild Hyperbaric Oxygen Therapy this year.

Jo on her way to winning the 2014 Hillary Ultra.

For Jo, a run of 25 kilometres is just a "walk in the park" compared to the hundreds of kilometres she undertakes in a race. With that sort of physical exertion, the body takes a huge amount of punishment; so to off-set the damage Jo climbs into a hyperbaric chamber for 90 minutes 5 times a week.

In Jo's words, "I use the chamber 5 days out from a targeted event to saturate my cells with oxygen. It drives vital oxygen into the muscles and improves blood flow.

It improves my mental focus and since starting Hyperbaric Oxygen Therapy, my performances seem effortless. In fact I've been able to take 3 minutes off my best marathon times."

Jo adds, "Post event I use the chamber to accelerate the elimination of toxic by-product like lactic acid, to reduce inflammation and swelling. By taking a good quality nutritional supplement beforehand I am finding I heal and recover faster than I have ever done in the past.

It would be no exaggeration that hyperbaric oxygen has dramatically improved my sports performance, aided in my recovery and I can see the treatment being key to prolonging my career as a competitive Ultra-Marathon runner. I would highly advise anyone who undertakes high training loads, or trains and plays at a competitive level, to seriously investigate this treatment and reap the rewards."

Effective treatment for concussion

As concussions in sport, especially at school level, become an increasingly prevalent topic of discussion and concern, it is vital that parents know they can help their child recover – regardless of how long ago the accident occurred.

Hyperbaric Oxygen Therapy is one of the lowest-risk treatments available for TBI (traumatic brain injury). Easily administered to a patient of any age. Small children can be accompanied by a parent inside a chamber. A course of treatment allows the concussion victim to return to their normal life with greatly reduced symptoms.

Todd was a promising schoolboy rugby talent. However both his sport and his continuing education were severely impacted by a number of serious head clashes. His symptoms manifested as daily headaches that extended into the evening and kept him awake. Simple exercise created blurred vision and head-spinning bouts of dizziness. Unable to concentrate on school work and suffering with light sensitivity, his academic results were slipping away.

After 13 HBOT sessions of 90 minutes in duration, Todd's headaches reduced from every day to once a week and he began sleeping through the night. The light sensitivity and dizziness also receded. After 24 treatments, the headaches ceased and all other symptoms disappeared.

"Hyperbaric Oxygen Therapy (HBOT) for Reduction of Secondary Brain Damage in Head Injury"

– Journal of Neurotrauma, 21:44-48. 2004

Conclusion: *Translational research of HBOT in a variety of Traumatic Brain Injuries (TBI) models has shown neuroprotective effects in the absence of increased oxygen toxicity. Recent clinical trials favour HBOT as promising safe therapeutic strategy for severe TBI patient.*

"Role of Hyperbaric Oxygen Therapy in Severe Head Injury in Children"

– Journal of Pediatric Neuroscience. 2012 Jan-April 7(1) 4-8

Conclusion: *In children with traumatic brain injury, the addition of HBOT significantly improved outcome and quality of life and reduced risk of complications. Patients receiving HBOT were significantly better than the control group with decreased hospital stay, better Glasgow Coma Scale and drastic reduction in disability.*

Many school level high impact sports can lead to concussions.

The remarkable story of Sandy Phosfeld

Maureen Phosfeld had been married to Sanford (Sandy) for 34 years, a robust and vigorous railroad dispatcher until he was 58 years old.

In February 1986 he experienced a severe cerebral vascular insult (CVI) to the right side of his brain. Diagnosed by his neurologist as having a progressive form of stroke, the most severe form, Maureen was told that Sandy wasn't expected to live.

"Things seemed hopeless" said Maureen:

"My husband lay in that hospital bed for over a month and slept the entire time, he hardly ever opened his eyes and spoke not at all. His attending physician told me that would be as far as Sandy would get to returning to the real world. He advised me to institutionalise him because he required 24 hour nursing care, something I could not manage at home. I did place my husband with a rehab centre. While he was there he fell out of his wheelchair three times because of insufficient nursing supervision. He had no movement ability or physical coordination and couldn't resist gravity. So I took him out of the institution and began nursing him myself, feeding him through a naso-gastric tube, washing him and all the other jobs one must perform for a helpless individual person.

He was officially classed as bed-ridden and beyond rehabilitation. He was, in essence, a "vegetable", with the poorest prognosis. But then, 6 years later, I read in my city newspaper about Hyperbaric Oxygen Therapy as a viable treatment for stroke. So I telephoned for an appointment and travelled with Sandy to the facility. Naturally I didn't expect miracles. I was only hoping that my husband would learn to speak my name, swallow a sip of water, or turn himself in bed. I prayed that HBOT might do that.

By the end of 13 Hyperbaric Oxygen treatments, nothing much had happened except that Sandy was showing a growing agitation. He had awakened out of his lethargy and wanted something from me but made nothing known. Then, suddenly, on his 14th HBOT, he amazed the clinic staff, the doctor and myself. Sandy spoke to us.

That evening he turned himself over in bed, became progressively more active during each day and actually participated in his physical therapy sessions. He cooperated with his therapists and moved parts of his body that seemed immovable before. In another week he used his legs to push himself in his wheelchair. He spoke whole sentences, moved his left arm and squeezed a rubber ball. We returned home after he had undertaken 20 Hyperbaric treatments. He spoke without slurring his words, ate full meals, remained awake during most of the daylight hours and, once again, became my companion."

Medical Science and HBOT

More than 1,000 patients who sustained cerebrovascular disease and have been treated with HBOT have shown improvements that range from 40% – 90%.

"Reversal of residual stroke symptoms using Hyperbaric Oxygen Therapy"

– Morton Walker, D.P.M, 1996

"Hyperbaric Oxygen Induces Late Neuroplasticity in Post Stroke Patients - Randomised Prospective Trial"

– University of Muster, Germany. January 2013.

Conclusion: *"The clinical results indicate that HBOT can lead to significant neurological improvements in the post stroke patients, even at chronic late stage. The observed clinical improvements indicate that neuroplasticity can still be activated long after damage onset."*

"Hyperbaric Oxygen Therapy in Sports Injury"

– Journal of Applied Physiology 106 (2): 711-728 2009.

Conclusion: *"By coupling the advances in sports medicine, physical treatments and hyperbaric medicine, we will accelerate the time to recovery, complement surgical procedures and enhance the outcomes of physical therapy. As many professional sports teams have discovered, HBOT is a real tool to enhance their performance and reduce their down-time from injuries."*

"Applications of Hyperbaric Oxygen Therapy and Surgery"

– Division of Surgery, University of Nevada School of Medicine, Nevada, USA. 1992.

Conclusion: *"Many factors can delay wound healing such as oedema, infection, anaemia, poor perfusion and poor oxygen supply. The consequences of these factors is low oxygen tension, which adversely effects neutrophil, macrophages, collagen synthesis and fibroblast function during inflammation and repair. Hyperbaric Oxygen Therapy successfully negates these problems."*

"Hyperbaric Oxygen Treatment for Inflammatory Bowel Disease: a Systematic Review and Analysis"

– Journal of Medical Gastroenterology. March 2013.

Conclusion: *"In patients with Crohn's Disease, 78% had clinical improvements, while all 39 patients with ulcerative colitis improved."*

"HBOT lowered markers of inflammation and oxidative stress and ameliorated inflammatory bowel disease in both human and animal studies".

"Treatment of Lyme Disease with Hyperbaric Oxygen Therapy"

– Undersea and Hyperbaric Medical Society Annual Meeting. 1998.

Conclusion: *"Although additional statistical evaluation is still being carried out, it appears that approximately 84.8% of those treated with HBOT protocol showed significant improvement by a decrease in elimination of symptoms."*

"Hyperbaric Oxygen and Thrombolysis in Myocardial Infarction"

– The American Heart Journal, September 1998.

Conclusion: *"Hyperbaric Oxygen Treatment (HBOT) in combination with thrombolysis has been demonstrated to salvage myocardium in acute myocardial infarction (AMI). Treatment with HBOT appears to be a feasible and safe treatment for AMI and may result in an attenuated rise in creatine phosphokinase and a more rapid resolution of pain."*

"Hyperbaric Oxygenation for the Treatment of Acute Cerebral Oedema"

– Journal of Neurosurgery, January 1992.

Conclusion: *"Hyperbaric Oxygenation can be effective in reducing intracranial pressure by decreasing cerebral blood flow. It's ability to concomitantly increase cerebral oxygenation suggests its application for the treatment of traumatic cerebral oedema."*

"How mild Hyperbaric Oxygen Therapy (mHBOT) worked and why it's good for our children"

– Medicinal Veritas, 2 647. 2005.

Conclusion: *"Children on the autistic spectrum experience improvement in a wide range of their symptoms with mHBOT treatments, including increased language ability, better socialisation, less aggression, improved bowel function and better cognition, to name a few."*

"Effects of Exposure to Hyperbaric Oxygen for the Treatment of Acute Soft-Tissue Injury"

– Clinical Journal of Sports Medicine 13 (3): 138-147. 2003.

Conclusion: *"Treatments that can speed up the healing process are of greatest interest to the patient and the doctors. The advantages of HBOT are the known benefits in reducing swelling, decreased inflammation, improved collagen deposition in the skin and increasing the growth of new blood cells."*

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The HBOT experience

You may feel a change of pressure in your ears similar to the sensation of descending in an aircraft or diving deeply in water. During a treatment your heart rate and blood pressure will lower as the chamber pressurises, helping you to relax. The increased level of oxygen also promotes a deep sense of relaxation. One hour in this oxygen rich environment may be equivalent to three hours of quality sleep. A good time to relax, meditate, sleep, read or watch a movie.

Afterwards you will feel relaxed and energised and may also experience a pleasant feeling of euphoria. Some people report having their best night's sleep after a session; others say it's like having "cob-webs" removed from their brains!

Some people may temporarily experience minor detox symptoms after a treatment; most commonly fatigue - possibly for 10 minutes or so and then feel energised for the reminder of the day.

Treatment program

We are all unique individuals and our response time to any treatment is equally unique.

How many sessions will I need?
Treatment length will depend on your individual situation and objectives. Most treatments requires an initial concentration period and then further assessment and treatment relevant to the initial response to mHBOT. Your mHBOT therapist will discuss your lifestyle and health goals before any treatment is commenced.

Research shows that chronic conditions such as Stroke, Coronary Heart Disease and Diabetic Ulcers, usually require 20–40 sessions.

Acute sprain/strain injury. Individual results vary but expect considerable healing within 5–10 visits.

Pre and post surgery recovery. 2–3 treatments can prepare your body to recover better. After surgery a further 2–3 treatments will help decrease inflammation in tissue that causes pain and swelling. (Please discuss your surgery details with your Hyperbaric technician to ensure the appropriate treatment is given.)

Detoxify or decrease inflammatory conditions such as Crohn's, Ulcerative Colitis or Irritable Bowel Disease, studies show significant improvement in 10–20 sessions.

Autism, Cerebral Palsy, Multiple Sclerosis, Stroke, Traumatic Brian Injury, Concussion, Bells Palsy or Alzheimer's Disease, a minimum commitment of 40 sessions is recommended. These conditions also respond quickly when incorporated with certain dietary changes and nutritional supplementation.

After successful treatment, occasional mHBOT may be recommended to ensure that oxygen levels remain optimum.

Published studies of HBOT

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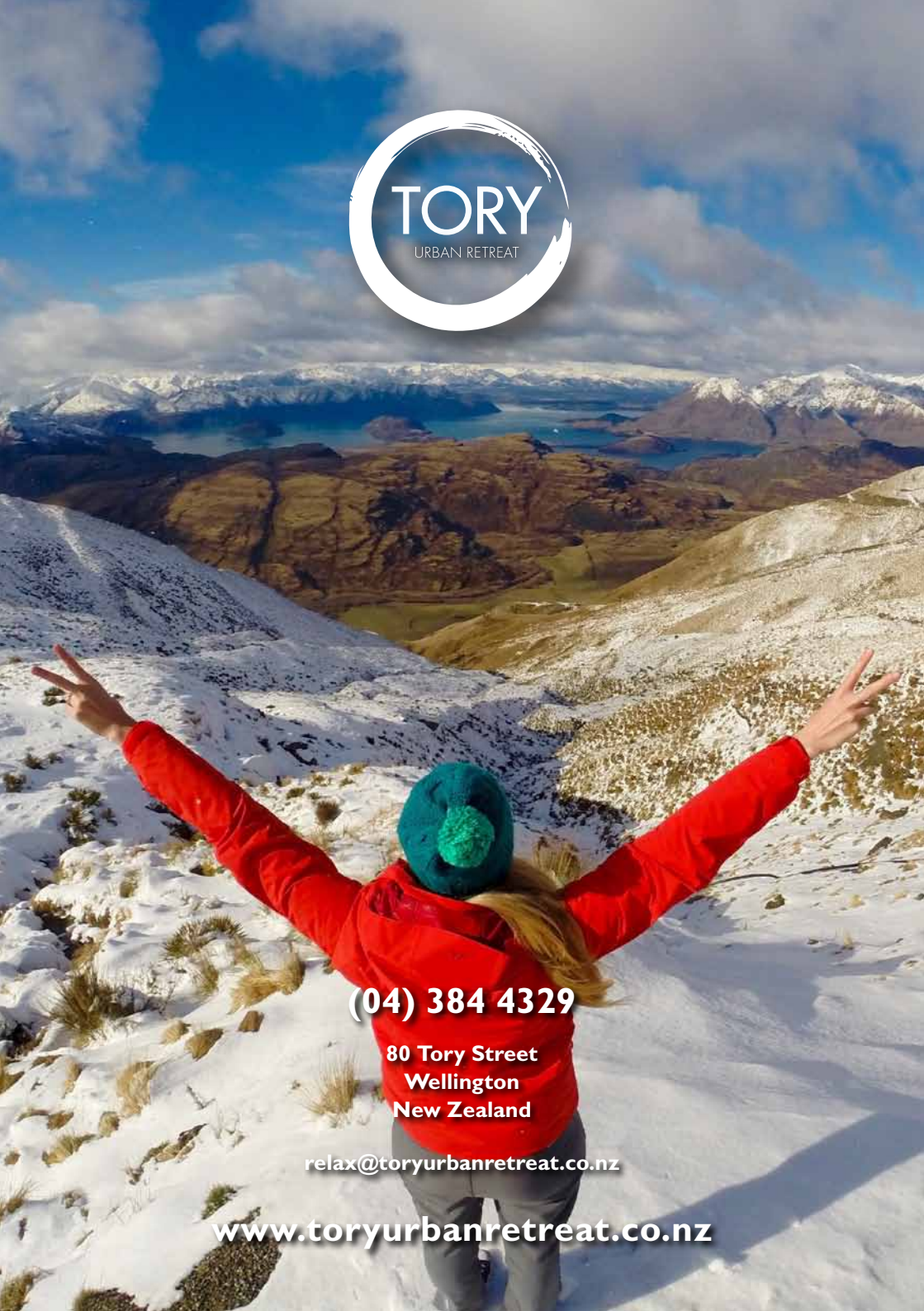
Mild Hyperbaric Oxygen Therapy & PEMFt treatment room at Tory Urban Retreat



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