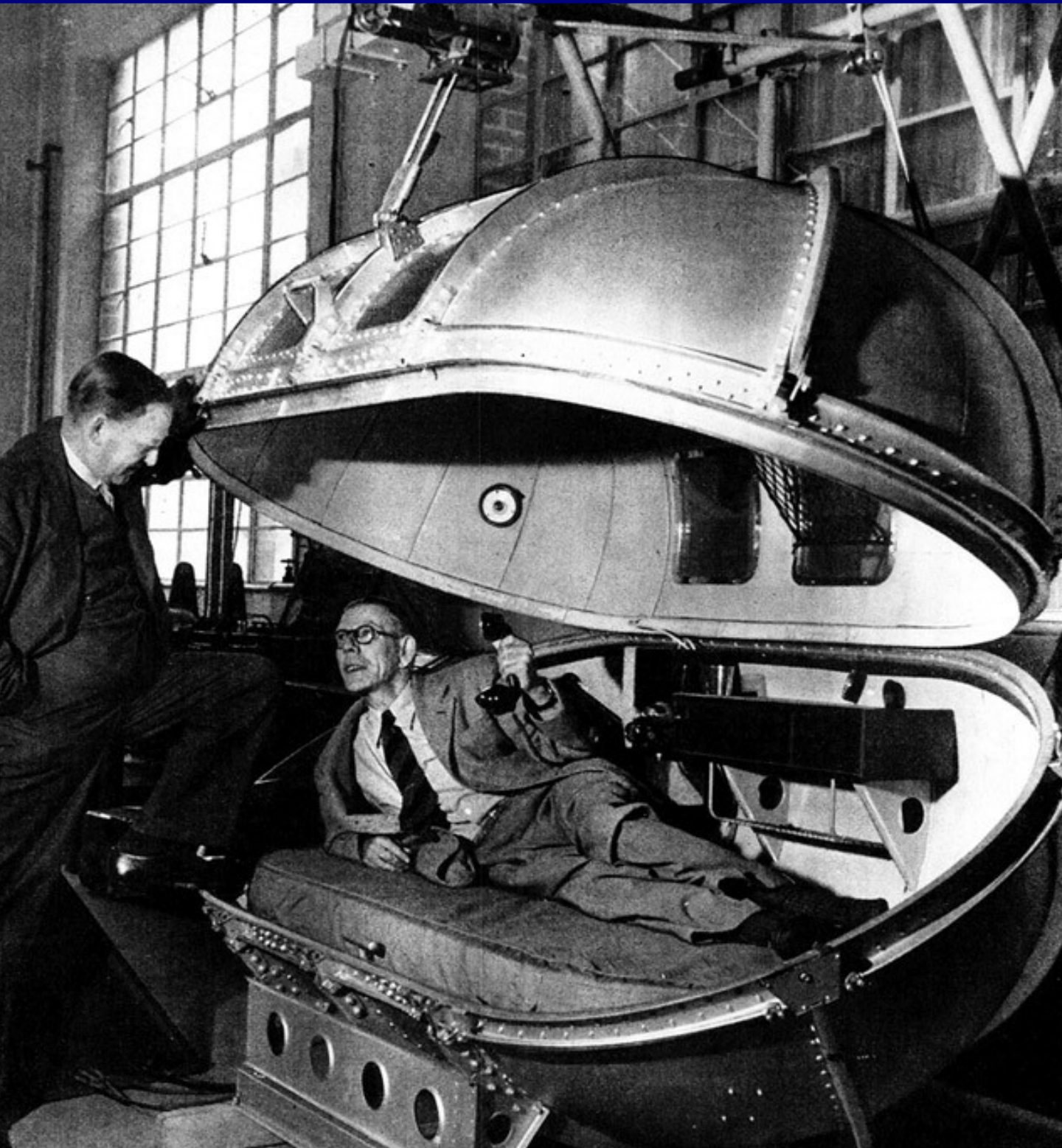


# HyperActivity

The Newsletter of the British Hyperbaric Association

Issue 23; Oct 2020

ISSN 2056-726X (Print); ISSN 2056-7278 (Online)

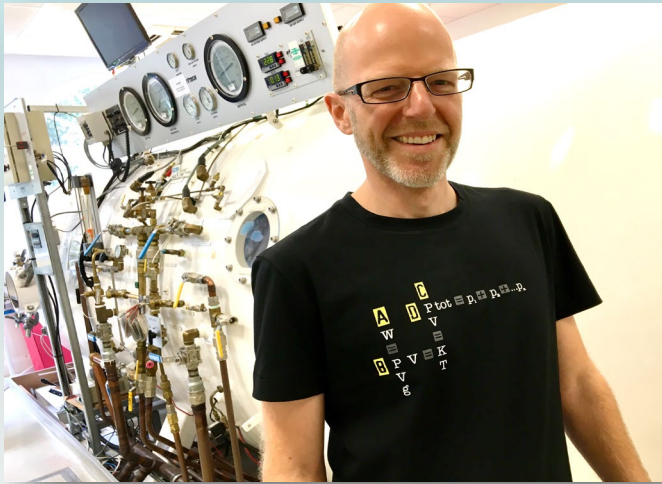


**30 years of the BHA – BHA 2020**

**Meetings in 2021? – Recently published research**

# HyperActivity

## A VIEW FROM THE CHAIR



*Oliver Firth,  
British Hyperbaric Association Chair*

I'm sure we're all familiar with the Second Law of Thermodynamics, which can be summed up in two words: "entropy increases". The tendency of everything to descend from order into chaos is a well-recognised empirical truth; how else do we explain the slice of pizza that always slips topping-side down onto the carpet? Or that thick knot of Byzantine complexity which emerges from two perfectly straight wires when we get our earphones out of our pocket? (Actually a riveting paper, entitled Spontaneous Knotting of an Agitated String, confirmed that Apple iPhone earbud cables, at 1.39m, are pretty much the perfect length to maximise their tangle potential.)

Sadly, as any physicist will confirm, entropy is not preventable; but we can curb, control, work with, and understand it. Indeed, in the current pandemic, the need for reliable predictions of the evolution of an infectious disease has led epidemiologists to develop models based on thermodynamics. Whether they will hold true is yet to be seen of course.

Currently it feels as though entropy is increasing in many areas, but as life becomes more chaotic, we should always remember the First Law: energy can neither be created nor destroyed, only transferred or changed from one form to another. I do believe that human energy, ingenuity and invention will find a

solution to our current predicament. Perhaps hyperbarics will offer some assistance – there are now nine trials registered on [clinicaltrials.gov](https://clinicaltrials.gov), investigating many aspects of HBOT efficacy in patients with COVID-19, and we await the results with keen anticipation. In the wider field of hyperbarics in general, the REDCap database will finally be going live, and I would again encourage all units to participate and contribute.

It has clearly been impossible to organise our Annual Scientific and General Meetings in the usual way this year, a particular disappointment given that they were to be held at DDRC during their 40th anniversary celebrations. Nevertheless the team there are working hard to realise a virtual version, to be convened on 20th November 2020, with talks delivered in the morning and the AGM in the afternoon. Given that arrangements are ongoing and by their nature rather fluid, I would suggest anyone who is interested in attending or participating keep their eyes on the BHA website, where further details will be announced when they are confirmed. I do look forward to "meeting" you all there.

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**Cover Photo:** *Winston Churchill's one-man pressure chamber, used on his personal plane during WWII. It had ash trays, and a telephone*

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**NEXT ISSUE OF HYPERACTIVITY:** will be published in April 2021. Please send all copy to [janesayer223@gmail.com](mailto:janesayer223@gmail.com)

HYPERACTIVITY is the Newsletter of the British Hyperbaric Association (BHA)  
It is published by the BHA c/o the West Scotland Centre for Diving and Hyperbaric Medicine, Oban  
**ISSN 2056-726X (Print)**  
**ISSN 2056-7278 (Online)**



The British Hyperbaric Association  
2020 Annual Scientific Meeting  
Friday 20<sup>th</sup> November  
0900hrs – 1230hrs (GMT)  
AGM in afternoon  
Hosted online by DDRC Healthcare  
Hyperbaric Medical Centre, Plymouth, UK

2020 has brought unique challenges for those working in hyperbaric medicine and for the first time the 2020 Annual Scientific Meeting will be presented on line.

The theme of the meeting is to share how we have met challenges during the Covid-19 pandemic and how we continue to offer safe hyperbaric medicine. It will also aim to update attendees regarding other recent developments in the field of hyperbarics.

The webinar will be delivered by 'Zoom' and is free of charge to attend

Please register at [www.ddrc.org/events](http://www.ddrc.org/events) A link will be emailed prior to the event.

For any further enquiries please email [info@ddrc.org](mailto:info@ddrc.org)

DDRC Healthcare, Hyperbaric Medical Centre, Plymouth Science Park, Plymouth, PL6 8BU, UK  
UK Registered Charity no. 279652



In *HyperActivity* #22 Patrick Farrell gave a personal account of the first meeting of the British Hyperbaric Association (then known as the "Unbenders") hosted by the DDRC at Fort Bovisand in February 1990. Subsequently, Martin Sayer, from the Oban chamber, found the letter in their archives sent out advertising the event, along with the agenda and the expected list of attendees. This scanned version of the letter was sent to Mr Alan Gale who was the technical manager of the Oban facility at that time. The two-day Agenda plus the list of attendees is reproduced on the next pages.

### DIVING DISEASES RESEARCH CENTRE

Registered Office: Fort Bovisand, Plymouth, Devon, PL9 0AB  
Telephone (0752) 408093  
Fax: (0752) 404127

Dr. M. R. Cross  
Dr. P. J. Bryson

30 January 1990

Alan Gale  
SMBA  
PO Box 3  
OBAN  
Argyll  
PA34 4AD

Dear Mr Gale

I enclose the proposed program for the Unbenders Meeting on Saturday 24th February and Sunday 25th February. This is a changeable program and I welcome any ideas that you may put forward to make the weekend a success. I would also be very grateful if you would put down on paper what you feel you wish to get out of this weekend and what you feel the purpose of an "Unbenders Club" should be. I feel that by having common and understood goals then we can achieve a great deal more.

Please will you let us know your accommodation requirements. I have provisionally booked twelve twin rooms in Fort Bovisand's new accommodation block. If you have any objections to sharing a twin room with either a person coming with you or with someone from another chamber, then let us know and we can try and book further rooms as necessary.

Food will be provided during the weekend. We are endeavouring to raise the money to cover the cost of the food and accommodation and have got at least half the way so far, with more money promised. Section 63 Approval has been recommended and is simply for final verification at present. We will let you know if and when we get formal acknowledgement.

Please can you let me know your planned means of transport to the centre, if you are coming by train or plane and require a lift to the centre from the station/airport then please let us know your time of arrival. A map is enclosed in case you come under your own steam and do not know our whereabouts.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'P. J. Bryson', written over a horizontal line.

Dr P. Bryson



## UNBENDERS MEETING THE PROPOSED PROGRAMME:

### SATURDAY 24<sup>TH</sup> FEBRUARY 1990

NOON - Delegate introductions and buffet lunch

#### AFTERNOON SESSION

Chairman, Phil Bryson

- 2.00 - Welcome
- 2.05 - Maurice Cross: The statistics of diving accidents in the South West, reflected around the Country
- 2.25 - Discussion
- 2.40 - Tom Shields: Gas mixtures versus air and O<sub>2</sub> for recompression, history, etc.
- 3.00 - Discussion
- 4.00 - Nick McIver: Adjuvant Therapy
- 4.20 - Discussion followed by Tea
- 4.45 - Zoltan Torok: Back up O<sub>2</sub> therapy
- 5.00 - Surgeon Commander James Francis: Current research on decompression sickness, air embolism and treatment regimes
- 6.00 - The bar will be open
- 8.00 - Dinner

### SUNDAY 25<sup>TH</sup> FEBRUARY 1990

#### MORNING SESSION

Chairman, Maurice Cross

- 9.00 - Welcome
- 9.05 - Pat Farrell: The problem of small chambers
- 9.20 - Discussion
- 10.00 - Roly Gough-Allen: Common Standards  
Staff Availability  
Staff Qualification.
- 10.15 - Discussion
- 10.40 - Phil Bryson: The continuation of the Unbenders Club and its usefulness
- 11.00 - Discussion followed by Coffee
- 11.30 - Open forum: suggestions for discussions welcome.
- 12.30 - Lunch provided

## BHA - the First Meeting



### UNBENDERS MEETING

#### LIST OF PEOPLE WHO HAVE AGREED TO COME

DR AG MURCHISON AND DR ES MUIR  
ESPLANADE SURGERY, OBAN

ALAN GALE  
SMBA, OBAN

DR NKI McIVER AND DR T PACE  
NORTH SEA MEDICAL CENTRE LTD.  
GREAT YARMOUTH

DAVID CAPPS JENNER OR ALAN JOHNSON  
BUE SERVICES LTD  
GREAT YARMOUTH

DR JDM DOUGLAS  
TWEEDDALE SURGERY, FORT WILLIAM

INSPECTOR DAVID GLEESON AND SERGEANT  
BILL PEARSE  
JOINT UNDERWATER SEARCH UNIT  
RUNCORN, CHESHIRE

ZOLTAN TOROK  
ADMIRALTY RESEARCH ESTAB.  
ALVERSTOKE, GOSPORT

SURGEON COMMANDER JJW SYKES AND  
SURGEON COMMANDER TJR FRANCIS  
INSTITUTE OF NAVAL MEDICINE, GOSPORT

DR M HAMILTON-FARRELL AND PAM GROGAN  
HYPERBARIC OXYGEN UNIT  
WHIPPS CROSS HOSPITAL

GEORGE ELLIOT AND DR CHRIS APPLERLEY  
WATERWAYS DIVING & LEISURE  
ELLESMERE PORT

PATRICK FARRELL  
SEATON

DR TOM SHIELDS AND DR LESLEY THOMPSON  
HYPERBARIC MEDICINE UNIT  
ABERDEEN

DR JOHN GALWAY  
PORTADOWN

DR ELLISON AND DAVID LODGE  
JERSEY

## FILM: "Dave Not Coming Back"

*Diving documentary probes murky emotional depths*



In October 2004, two cave divers and long-time friends, Don and Dave, dive in Boesmansgat, a mythical cave in South Africa. Dave was breaking a world record for depth. It would take them 15 minutes to reach the bottom, but 12 hours to surface. Once he touched bottom, against all odds, Dave finds a body.

The two friends decide to come back and retrieve it. They call the parents, enroll 8 support divers, and hire a cameraman to document the historic dive in its entirety – from the preparation on the surface to the operation at the bottom of the cave.

Little did they know that, from that dive, Dave would not be coming back.

In a time of over-performance driven by self-promotion and self-filming, Dave Not Coming Back is a story of loss and mourning where ego and altruism, hubris and self-control, risk-taking and spirituality all go hand in hand. A chain of paradoxical choices that lead to a tragedy long foreseen, yet impossible to prevent.

Directed by	Jonah Malak
Duration	92 minutes
Produced by	Némésis Films
Year	2020

This incident was reported in the following paper:

Mitchell SJ, Cronjé FJ, Meintjes WA, Britz HC (2007). Fatal respiratory failure during a "technical" rebreather dive at extreme pressure. *Aviat Space Environ Med.* 78 (2): 81–6. PMID 17310877.

## JOHN LAMB



*Edited from X-ray magazine - October 01, 2020:* John S. Lamb of Vandagraph passed away on Wednesday 29 July 2020. He died at his home in Farnhill, Yorkshire with his family present. John was aged 78. John Lamb's name is synonymous with oxygen. He literally wrote the book on it.

### Oxygen Fascination

*John had been fascinated with the gas since 1963. "I was involved with medical products - from design through to service and sales. Oxygen is used heavily. The galvanic sensor revolutionised oxygen analysis, and it all appeared to be magic. I started giving technical lectures to biomedical engineers throughout the UK. The result was a massive increase in sales and a substantial drop in returns. As they learned, they started to change the sensors in a planned maintenance scheme, which resulted in reduced down time and weekend call outs. I am not claiming this is as my idea, but I think the dissemination of the information assisted in their plans."*

### The Early Years

John Lamb began his commercial career in medical instrumentation. This covered design, service, and maintenance of equipment used in clinical care areas. He subsequently moved to a small medical supply company in Newcastle, and later to another in Yorkshire.

The late 1960s was an interesting time for John because micro-fuel technology was introduced into medicine along with oxygen monitoring. When the Yorkshire company closed down in 1977, these two 'components' (micro-fuel technology and oxygen monitoring) became the main product of his newly formed company, Viamed.

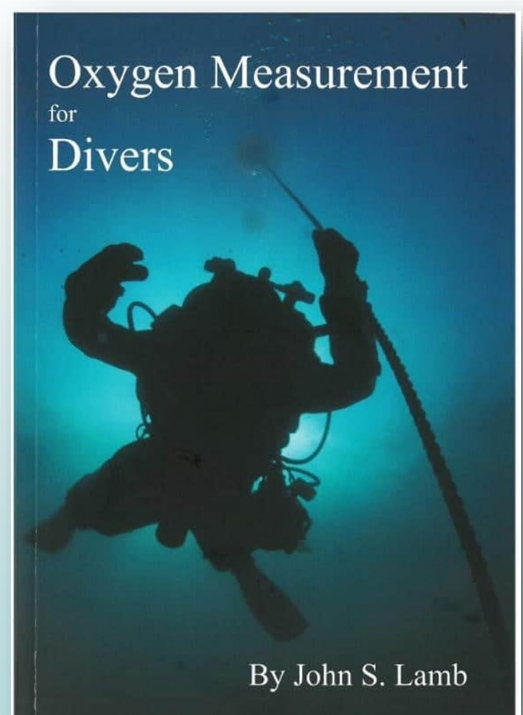
John Lamb and Viamed would go on to build a strong reputation for designing, manufacturing and distributing of a wide range of quality medical equipment. It is possible that if you or your family have been treated with a device that uses Oxygen in the UK, John Lamb's technology would have assisted with your care. Viamed's items include oxygen devices used for patient monitoring, as well as neonatal intensive care equipment. John was very proud that his VN202 Oxygen analyser was accepted for use with emergency ventilators in the UK during the current COVID-19 pandemic.

### The birth of the Oxygen Analyser

John Lamb noticed the genesis of Nitrox diving, and acted accordingly. In 1993 John combined his affection for diving with his extensive knowledge of oxygen, and founded 'Vandagraph' with his wife, Jean. John realised that there was a safety need for analysing and monitoring oxygen when nitrox diving. He had the vision and expertise to take a medical oxygen analyser and manufacturer an analyser specifically for scuba divers. It is thought that this Vandagraph unit was the first oxygen analyser invented for this market.

### The Oxygen Books

When John published his first book at the turn of the century, CCR recreational diving was very new, hence the rebreather section was only four pages long. Jump forward almost two decades and there was a pressing need for reliable and up-to-date information. In 2017 John published 'Oxygen Measurement for Divers'.





## NEWS:

### RHH opens medical hyperbaric chamber

*Hospital Healthcae, 18 September 2020:* The Royal Hobart Hospital (RHH), Tasmania, recently opened its new Department of Diving and Hyperbaric Medicine, featuring a state-of-the-art dual-capability hyperbaric chamber. The chamber is reported to be a first for the Southern Hemisphere — delivering patient treatment and a world-class research and training facility



Queensland-based Fink Engineering designed and engineered the rectangular shape for hyperbaric chambers in 1994. Unlike traditional cylindrical-shaped and double-locked hyperbaric chambers with a typical patient capacity of two to five patients, the rectangular-shaped hyperbaric chambers feature a triple lock and can simultaneously treat up to 10 patients.



The hyperbaric chamber now in operation at the RHH is fitted with a depressurisation capability to simulate altitude. There are currently only a few dual-capable chambers like it in the world. Said to be a first for the Southern Hemisphere, this can pressurise (hyperbaric) and depressurise (hypobaric), meaning that aside from treating patients with its hyperbaric capabilities, the chamber can be used for altitude research and training using its hypobaric capabilities. It will be possible for researchers, for example in the aerospace sector, to study the effects of high altitude on the body, in particular low oxygen levels and low ambient air pressure.

### Hyperbaric oxygen for COVID-19 patients: Trials and Statements

Yao W, Wang T, Jiang B, Gao F, Wang L, Zheng H, et al. Emergency tracheal intubation in 202 patients with COVID-19 in Wuhan, China: Lessons learnt and international expert recommendations. *Br J Anaesth.* 2020:In press. doi: 10.1016/j.bja.2020.03.026.

UHMS Position Statement: Hyperbaric oxygen (HBO2) for COVID-19 patients. Available from: [https://www.uhms.org/images/Position-Statements/UHMS\\_Position\\_Statement\\_Hyperbaric\\_Oxygen\\_for\\_COVID-19\\_Patients\\_v13\\_Final\\_copy\\_edited.pdf](https://www.uhms.org/images/Position-Statements/UHMS_Position_Statement_Hyperbaric_Oxygen_for_COVID-19_Patients_v13_Final_copy_edited.pdf).

Hyperbaric oxygen therapy (HBOT) as a treatment for COVID-19 infection. Available from: <https://clinicaltrials.gov/ct2/show/NCT04343183?term=Hyperbaric+oxygen&cond=COVID&draw=2&rank=1>

Hyperbaric oxygen for COVID-19 patients. Available from: <https://clinicaltrials.gov/ct2/show/NCT04332081?term=Hyperbaric+oxygen&cond=COVID&draw=2&rank=2>

Management by hyperbaric oxygen therapy of patients with hypoxaemic pneumonia with SARS-CoV-2 (COVID-19). Available from: <https://clinicaltrials.gov/ct2/show/NCT04344431?term=Hyperbaric+oxygen&cond=COVID&draw=2&rank=3>

Safety and efficacy of hyperbaric oxygen for ARDS in patients with COVID-19 (COVID-19-HBO). Available from: <https://clinicaltrials.gov/ct2/show/NCT04327505?term=Hyperbaric+oxygen&cond=COVID&draw=2>.

European Committee for Hyperbaric Medicine. ECHM position on hyperbaric oxygen therapy (HBOT) in multiplace chambers during coronavirus disease (COVID-19) outbreak. Available from: <http://www.eubs.org/wp-content/uploads/2020/03/ECHM-position-on-HBOT-and-COVID-19-16th-March-2020.pdf>.

Position of the Belgian Society for Diving and Hyperbaric Medicine (SBMHS-BVOOG) on Diving after COVID-19 pulmonary infection. Available from: [http://www.sbmhs.be/2020%200412%20Position%20of%20the%20BVOOG.pdf?fbclid=IwAR2gju6gVB1XtlKH1gWYiqxVuNWgWk-crrYCuJh1cF4S7bKqCqlz\\_qE1RU](http://www.sbmhs.be/2020%200412%20Position%20of%20the%20BVOOG.pdf?fbclid=IwAR2gju6gVB1XtlKH1gWYiqxVuNWgWk-crrYCuJh1cF4S7bKqCqlz_qE1RU).

Sadler C, Alvarez Villela M, van Hoesen K, et al. UC San Diego guidelines for evaluation of diving during COVID-19 pandemic. Available from: <https://health.ucsd.edu/coronavirus/Pages/health-professionals.aspx>.



# RECENTLY PUBLISHED RESEARCH (1)

*These are recently published papers that may be of interest to the general BHA membership. The list now includes research published in the Undersea and Hyperbaric Medicine journal and Diving and Hyperbaric Medicine. Listing here is based on web-based searches only; quality is not inferred!!*

## HYPERBARIC MEDICINE

Effects of repetitive hyperbaric oxygen therapy on neuroprotection in middle cerebral artery occlusion rats. By: Chang, Heng-Chih; Yang, Yea-Ru; Wang, Ray-Yau. *BRAIN RESEARCH* Volume: 1748 Pages: 147097 Published: 2020 -Dec-01 (Epub 2020 Sep 05)

Outcomes of hyperbaric oxygen treatment following hydrogen peroxide ingestion: a systematic review. By: Fee, Megan; Akers, Katherine; Reed, Brian; et al. *CLINICAL TOXICOLOGY* Volume: 58 Issue: 11 Pages: 1126-1126 Meeting Abstract: 81 Published: NOV 1 2020

Ghrelin system is involved in improvements in glucose metabolism mediated by hyperbaric oxygen treatment in a streptozotocin-induced type 1 diabetes mouse model. By: Song, Limin; Yuan, Junhua; Liu, Yuan; et al. *MOLECULAR MEDICINE REPORTS* Volume: 22 Issue: 5 Pages: 3776-3767 Published: NOV 2020

Hyperbaric oxygen protects against myocardial ischemia-reperfusion injury through inhibiting mitochondria dysfunction and autophagy. By: Chen, Wan; Lv, Liwen; Nong, Zhihuan; et al. *MOLECULAR MEDICINE REPORTS* Volume: 22 Issue: 5 Pages: 4264-4254 Published: NOV 2020

Bone marrow edema syndrome/transient osteoporosis of the hip joint and management with the utilization of hyperbaric oxygen therapy. By: Ververidis, Athanasios N; Paraskevopoulos, Konstantinos; Keskinis, Anthimos; et al. *JOURNAL OF ORTHOPAEDICS* Volume: 22 Pages: 32-29 Published: 2020 Nov-Dec

Magnitude and clinical predictors of blood pressure changes in patients undergoing hyperbaric oxygen therapy: a retrospective study. By: Schiavo, Simone; Djaiani, Carine; DeBacker, Julian; et al. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH* Volume: 17 Issue: 20 Published: 2020 Oct 19

Cycled hyperbaric oxygen improves the healing of diabetic foot ulcers. By: Shaughnessy, Allen F. *AMERICAN FAMILY PHYSICIAN* Volume: 102 Issue: 8 Pages: Online Published: 2020 -Oct-15

Hyperbaric oxygen potentiates diabetic wound healing by promoting fibroblast cell proliferation and endothelial cell angiogenesis. By: Huang, Xu; Liang, Pengfei; Jiang, Bimei; et al. *LIFE SCIENCES* Volume: 259 Pages: 118246 Published: 2020-Oct-15 (Epub 2020 Aug 10)

Effects of hyperbaric oxygen therapy on inflammation, oxidative/antioxidant balance, and muscle damage after acute exercise in normobaric, normoxic and hypobaric, hypoxic environments: a pilot study. By: Woo, Jinhee; Min, Jae-Hee; Lee, Yul-Hyo; et al. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH* Volume: 17 Issue: 20 Published: 2020 Oct 10

A randomised clinical trial to compare the efficacy of hyperbaric oxygen therapy with neoadjuvant chemotherapy with neoadjuvant chemotherapy alone for carcinoma breast: a pilot study. By: Aphale, Rijuta; Shah, Samir M. *INDIAN JOURNAL OF SURGERY*. Early Access: OCT 2020

The effectiveness of hyperbaric oxygen therapy as salvage treatment for sudden sensorineural hearing loss: a retrospective study. By: Almutairi, Nasser; Alnofal, Ebraheem; Algouhi, Amani; et al. *CUREUS* Volume: 12 Issue: 10 Article Number: e10819 Published: OCT 6 2020

Hyperbaric oxygen for radiation-induced cystitis: A long-term

follow-up. By: Pereira, D.; Ferreira, C.; Catarino, R.; et al. *ACTAS UROLOGICAS ESPANOLAS* Volume: 44 Issue: 8 Pages: 567-561 Published: OCT 2020

Successful treatment of anti-MDA5 dermatomyositis associated cutaneous digital pulp ulcerations with hyperbaric oxygen therapy. By: Jeter, Jonathan; Wolf, E. George; Richards, Michael; et al. *JCR-JOURNAL OF CLINICAL RHEUMATOLOGY* Volume: 26 Issue: 7 Pages: E266-E267 Published: OCT 2020

Blindness and neurological sequelae following carbon monoxide poisoning: effective treatment with hyperbaric oxygen. By: Cardoso, Patricia C.; La Fuente, Alicia; Subbotina, Nina; et al. *ARCHIVOS ARGENTINOS DE PEDIATRIA* Volume: 118 Issue: 5 Pages: E480-E485 Published: OCT 2020

Hyperbaric oxygen for severe traumatic brain injury: a randomized trial. By: Zhong, Xianliang; Shan, Aijun; Xu, Jianzhong; et al. *THE JOURNAL OF INTERNATIONAL MEDICAL RESEARCH* Volume: 48 Issue: 10 Pages: 300060520939824 Published: 2020 -Oct

Hyperbaric oxygen treatment following mid-cervical spinal cord injury preserves diaphragm muscle function. By: Smuder, Ashley J; Turner, Sara M; Schuster, Cassandra M; et al. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES* Volume: 21 Issue: 19 Published: 2020 Sep 30

Evaluation of pressure in water-filled endotracheal tube cuffs in intubated patients undergoing hyperbaric oxygen treatment. By: Benzidi, Younes; Duburcq, Thibault; Mathieu, Daniel; et al. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Pages: 237-230 Published: 2020 -Sep-30

Assessment of insulin sensitivity during hyperbaric oxygen treatment. By: Wilkinson, David; Szekely, Suzy; Gue, Brian; et al. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Pages: 243-238 Published: 2020 -Sep-30

The evaluation of in-chamber sound levels during hyperbaric oxygen applications: Results of 41 centres. By: Zaman, Taylan; Celebi, Abdusselam; Mirasoglu, Bengusu; et al. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Pages: -244 249 Published: 2020 -Sep-30

An observational trial to establish the effect of hyperbaric oxygen treatment on pelvic late radiation tissue injury due to radiotherapy. By: Andren, James; Bennett, Michael H. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Pages: -250 255 Published: 2020 -Sep-30

Hyperbaric oxygen therapy in a patient with Guillain-Barre syndrome receiving mechanical ventilation. By: Song, Lisha; Xing, Baopeng; Yang, Weimin; et al. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Pages: 305-303 Published: 2020 -Sep-30

The effect of hyperbaric oxygen treatment on late radiation tissue injury after breast cancer: A case-series of 67 patients. By: Spruijt, Nicole E; van den Berg, Roy. *DIVING AND HYPERBARIC MEDICINE* Volume: 50 Issue: 3 Published: 2020 -Sep-30

Randomized controlled clinical trial evaluating the efficacy of hyperbaric oxygen therapy in facilitating the healing of chronic foot ulcers in diabetic patients: the study protocol. By: Alves Lopes, Jocefabia Reika; Dias, Mariza D'Agostino; Correa, Joao Antonio; et al. *TRIALS* Volume: 21 Issue: 1 Article Number: 816 Published: SEP 29 2020

Responses of matrix metalloproteinases to hyperbaric oxygen treatment: changing for good or ill? By: Silva, Flavio S.; Canedo, Vitor S. R.; Abreu, Bento J.; et al. *CONNECTIVE TISSUE RESEARCH* Early Access: SEP 2020

## RECENTLY PUBLISHED RESEARCH (2)

Hyperbaric oxygen as salvage therapy for neonates suffering from critical ischemia of the glans penis after circumcision. By: Polak, Nir; Fishelev, Gregory; Lang, Erez; et al. *UROLOGY* Published: 2020 -Sep-18 (Epub 2020 Sep 18)

Hyperbaric oxygen therapy in chronic inflammatory conditions of the pouch. By: Hasan, Badar; Yim, Yunjoo; Ur Rashid, Mamoon; et al. *INFLAMMATORY BOWEL DISEASES* Published: 2020 -Sep-18 (Epub 2020 Sep 18)

Hyperbaric oxygen-induced long non-coding RNA MALAT1 exosomes suppress MicroRNA-92a expression in a rat model of acute myocardial infarction. By: Shyu, Kou-Gi; Wang, Bao-Wei; Fang, Wei-Jen; et al. *JOURNAL OF CELLULAR AND MOLECULAR MEDICINE* Early Access: SEP 2020

The effects of hyperbaric oxygen on rheumatoid arthritis: a pilot study. By: Sit, Michelle T; Schmidt, Thomas W; Edmonds, Lance D; et al. *JOURNAL OF CLINICAL RHEUMATOLOGY : PRACTICAL REPORTS ON RHEUMATIC & MUSCULOSKELETAL DISEASES* Published: 2020 -Sep-16 (Epub 2020 Sep 16)

Hyperbaric oxygen therapy after acute ischemic stroke with large penumbra: a case report. By: Hussein, Omar; Sawalha, Khalid; Abd Elazim, Ahmed; et al. *EGYPTIAN JOURNAL OF NEUROLOGY PSYCHIATRY AND NEUROSURGERY* Volume: 56 Issue: 1 Article Number: 93 Published: SEP 10 2020

Evaluation of the effect of hyperbaric oxygen therapy on hypertrophic scar formation in a rabbit ear model: An experimental study. By: Ince, Bilsev; Ismayilzade, Majid; Arslan, Abdullah; et al. *DERMATOLOGIC THERAPY* Article Number: e14146 Early Access: SEP 2020

Utilization, utility, and variability in usage of adjunctive hyperbaric oxygen therapy in spinal management: a review of the literature. By: Mao, Jennifer Z; Laird, Patrick S; Imperato, Nicholas S; et al. *WORLD NEUROSURGERY* Published: 2020 -Sep-02 (Epub 2020 Sep 02)

Hyperbaric oxygen therapy cognitive function in a rat model of mild cognitive impairment via ERK signaling. By: Lin, Yuerong; Lin, Xianzhong; Zheng, Xiaohong; et al. *ANNALS OF PALLIATIVE MEDICINE* Volume: 9 Issue: 5 Pages: 3480-3472 Published: SEP 2020

Hyperbaric oxygen therapy: descriptive review of the technology and current application in chronic wounds. By: Hajhosseini, Babak; Kuehlmann, Britta A.; Bonham, Clark A.; et al. *PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN* Volume: 8 Issue: 9 Article Number: e3136 Published: SEP 2020

Effects of hyperbaric oxygen on graft survival outcomes in composite grafting for amputated fingertip injury. By: Lee, Yoonsuk; Heo, Jae Won; Moon, Jin Sil; et al. *ARCHIVES OF PLASTIC SURGERY-APS* Volume: 47 Issue: 5 Pages: 450-444 Published: SEP 2020

The treatment of perioperative spinal cord injury with hyperbaric oxygen therapy: a case report. By: Wilson, Jamie R F; Schiavo, Simone; Middleton, William J; et al. *SPINE* Volume: 45 Issue: 17 Pages: E1127-E1131 Published: 2020 -Sep-01

Successful management of cutaneous paragonidiosis in a dog treated with mefenoxam, minocycline, prednisone, and hyperbaric oxygen therapy. By: White, Amelia G.; Smart, Kimberly; Hathcock, Terri; et al. *MEDICAL MYCOLOGY CASE REPORTS* Volume: 29 Pages: 42-38 Published: SEP 2020

Effects of hyperbaric oxygen treatment on calvarial bone regeneration in young and adult mice. By: Izumino, Jin; Kaku, Masato; Yamamoto, Taeko; et al. *ARCHIVES OF ORAL BIOLOGY* Volume: 117 Article Number: 104828 Published: SEP 2020

Molecular and therapeutic aspects of hyperbaric oxygen therapy in neurological conditions. By: Fischer, Inbar; Barak, Boaz. *BIOMOLECULES* Volume: 10 Issue: 9 Published: 2020 Aug 27

The mechanism of NMDA receptor hyperexcitation in high pressure helium and hyperbaric oxygen. By: Bliznyuk, Alice; Hollmann, Michael; Grossman, Yoram. *FRONTIERS IN PHYSIOLOGY* Volume: 11 Article Number: 1057 Published: AUG 25 2020

Potential markers of healing from near infrared spectroscopy imaging of venous leg ulcer. A randomized controlled clinical trial comparing conventional with hyperbaric oxygen treatment. By: Longobardi, Pasquale; Hartwig, Valentina; Santarella, Luigi; et al. *WOUND REPAIR AND REGENERATION* Early Access: AUG 2020

Integrin-mediated adhesive properties of neutrophils are reduced by hyperbaric oxygen therapy in patients with chronic non-healing wound. By: Baiula, Monica; Greco, Roberto; Ferrazzano, Lucia; et al. *PLOS ONE* Volume: 15 Issue: 8 Article Number: e0237746 Published: AUG 18 2020

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### DIVING AND ALTITUDE MEDICINE

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Itchy erythematous plaques after scuba diving: a quiz. By: Schwob, Emilie; Marmion, Nicolas; Dereure, Olivier; et al. ACTA DERMATO-VENEREOLOGICA Volume: 100 Issue: 10 Pages: adv00130 Published: 2020 May 11

Surgical approach for acute ischemic colitis after scuba diving: A case report. By: Choi, Eun Soo; Kwak, Han Deok; Ju, Jae Kyun. TURKISH JOURNAL OF TRAUMA & EMERGENCY SURGERY Volume: 26 Issue: 3 Pages: 485-482 Published: MAY 2020

## LOCKDOWN WEBINARS

During (and since) the original lockdown, Chantelle Newman of the "Diver Medic" website commissioned an impressive series of webinars that covered a wide range of diving medicine and other diving-related topics. The talks were recorded and are all accessible online at: [www.thedivermedic.com/on-demand-webinars](http://www.thedivermedic.com/on-demand-webinars)



Each talk is in the region of 1 hour plus or including questions. The following is a list of those webinars that may be of interest to the membership of the BHA:

Jill Heinerth	Immersion Pulmonary Edema / IPE
Mark Powell	Real Life DCI: Case Studies
Dr. Douglas Ebersole	Women's Health and Diving
Dan Orr	Five mistakes divers make
Martin Sayer	Emergency recompression – the patient's pathway
Dr. David Charash	Otic Barotrauma, What every diver needs to know!
Tec Clark	Diving Physiology- Physical Stressors
Dr. Douglas Ebersole	Changes in Diving after COVID19
Dr. Frans Cronje	DCI Classification and Treatment
Dawn Kernagis	Human Performance in Extreme Environments
Dr. Doug Ebersole	Five Common emails I get as a DAN Cardiology Consultant
Dr Frans Cronje	"All that tingles is not bends"
Keith Rootsart	Sea Urchin - The silent killer!
Michael Emmerman	"Life in the Fast Lane- A problematic personality profile for some divers"
Michael Emmerman	"Is it really DCS?"



# Hyperbaric and diving medicine meetings and conferences in 2021 *(perhaps!!)*

## SPUMS 2021

### NO DECISION

SPUMS2020 was cancelled because of CoVid-19. No announcement has yet been made concerning the 2021 conference.

**Website:** [www.spums.org.au](http://www.spums.org.au)

## ICHM 2020

*International Congress on Hyperbaric Medicine*

### NO DECISION

New dates have not yet been announced. Delegates are advised to check the website for updates.

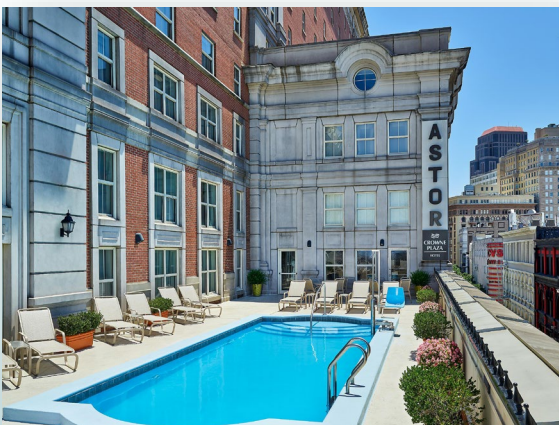
**Website:** [www.ichm2020.rio.br](http://www.ichm2020.rio.br)

## UHMS 2021

09-12 June, 2021

Crowne Plaza, French Quarter, New Orleans

### RESCHEDULED



**Website:** [www.uhms.org](http://www.uhms.org)

## EUBS 2021

8-11 September 2021

Prague, Czech Republic

### NEW DATES



**Website:** [www.eubs2020.com](http://www.eubs2020.com)

## Second Baltic International Symposium on Diving & Hyperbaric Medicine

3<sup>rd</sup>-5<sup>th</sup> June 2021

Gdynia, Poland

### NEW DATES

This symposium is dedicated to exchanging knowledge between scientists and clinical practitioners on both Diving & Hyperbaric Medicine. Lectures in this Symposium will be by invitation only, and speakers are cherry-picked to verify that they bring the latest science and medical perspective to the forum. There are also two satellite Masterclasses planned: one on Advanced Diving Medicine and the other one on Complications in HBOT.

For those who are interested, there will be a possibility to participate in the Fire Drills inside the hyperbaric chamber, to get wet under pressure!

Visit the Symposium website at <http://www.BISDHM.events>, check the programme and register now to get early registration discount and to reserve your place in the chosen Masterclass and fire-fighting exercises.



[www.hyperbaric.org.uk](http://www.hyperbaric.org.uk)

### **Aberdeen**

Aberdeen Royal Infirmary, Foresterhill,  
Aberdeen AB25 2ZN  
Daytime & Emergency Telephone: 0345 408 6008  
Clinical Lead NHS Grampian Hyperbaric Service: Dr  
Ruth Stephenson  
Email: [ruth.stephenson@nhs.net](mailto:ruth.stephenson@nhs.net)  
Web Site: [www.hyperchamber.com](http://www.hyperchamber.com)

### **Chichester**

Hyperbaric Medicine Unit, St Richard's Hospital,  
Spitalfield Lane, Chichester, West Sussex PO19 6SE  
Daytime Telephone: 01243 788122 Ext 2504  
Principal Medical Director: Dr Mark Glover.  
Email: [mark@mrmglover.onmicrosoft.com](mailto:mark@mrmglover.onmicrosoft.com)

### **Great Yarmouth**

East of England Hyperbaric Unit, Lowestoft Road,  
Gorleston, Great Yarmouth, Norfolk NR31 6LA  
Daytime Telephone: 01493 452452  
Emergency Telephone: 01493 452452  
Principal Medical Director: Dr Pieter Bothma.  
Email: [pabothma@nhs.net](mailto:pabothma@nhs.net); [pabothma@gmail.com](mailto:pabothma@gmail.com)

### **Hull**

North of England Medical Hyperbaric Unit,  
SPIRE Hospital, Lowfield Road, Anlaby, Hull HU10 7AZ  
Principal Medical Director: Bruce Mathew  
Daytime Telephone: 01482 659471  
Emergency Telephone: 01482 659471

### **London (Whipps Cross)**

London Hyperbaric Medicine, Whipps Cross University  
Hospital NHS Trust, Leytonstone, London E11 1NR  
Principal Medical Director: Dr Pieter Bothma  
Daytime Telephone: 020 8539 1222  
Emergency Telephone: 07999 292999  
Email: [mail@londonhyperbaric.com](mailto:mail@londonhyperbaric.com)  
Web Site: [www.londonhyperbaric.com](http://www.londonhyperbaric.com)

### **Midlands Diving Chamber**

Redwood House, Hospital of St Cross, Barby Road,  
Rugby, Warwickshire, CV22 5PX  
Principal Medical Director: Dr Michael Gonevski  
Daytime Telephone: 01788 579555  
Emergency Telephone: 07940 353816  
Email: [doctor@midlandsdivingchamber.co.uk](mailto:doctor@midlandsdivingchamber.co.uk)  
Web Site: [www.midlandsdivingchamber.co.uk](http://www.midlandsdivingchamber.co.uk)

### **Oban**

West Scotland Centre for Diving and Hyperbaric  
Medicine  
Tritonia Scientific Ltd., Dunbeg,  
Oban, Argyll PA37 1QA  
Principal Medical Director: Dr F. MacLennan  
Daytime Telephone: 01631 559211  
Emergency Telephone: 0345 408 6008  
Email: [fionamacleannan@nhs.net](mailto:fionamacleannan@nhs.net)  
Email: [martin.sayer@tritoniascientific.co.uk](mailto:martin.sayer@tritoniascientific.co.uk)

### **Orkney**

Orkney Hyperbaric Unit  
Old Academy Back Road, Stromness  
Orkney KW16 3AW  
Principal Medical Director: Dr A Trevett  
Daytime Telephone: NHS Orkney 01856 888000  
Emergency Telephone: Coastguard 999  
or 0345 408 6008  
Email: [andrew.trevett@nhs.net](mailto:andrew.trevett@nhs.net)

### **Plymouth**

DDRC Healthcare, Plymouth Science Park,  
Plymouth,  
Devon PL6 8BU  
Principal Medical Director: Dr Clair Ashford  
Daytime Telephone: 01752 209999  
Emergency Telephone: 08702 385001  
Email: [info@ddrc.org](mailto:info@ddrc.org)  
Web Site: [www.ddrc.org](http://www.ddrc.org)

### **Wirral**

N W Emergency Recompression Unit, Murrayfield  
Hospital, Holmwood Drive, Thingwall Wirral  
CH611AU  
Principal Medical Director: Dr Tristan Cope  
Daytime Telephone: 0151 648 8000  
Emergency Telephone: 0151 648 8000  
Email: [tristan.cope@hyperbaric-medicine.co.uk](mailto:tristan.cope@hyperbaric-medicine.co.uk)  
Web Site: [www.hyperbaric-medicine.co.uk](http://www.hyperbaric-medicine.co.uk)