

Diving and Hyperbaric Medicine

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Diving and Hyperbaric Medicine
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EDITORIALS

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SJ Mitchell
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2023 September 30;53(3):171.
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2023 December 20;53(4):298.

ORIGINAL ARTICLES

March 53 (1) 2023

Effects of external bleeding and hyperbaric oxygen treatment on Tamai zone 1 replantation
Tuluy Y, Aksoy A, Sir E
Finger; Microsurgery; Reperfusion; Surgery
2023 March 31;53(1):2–6. doi: 10.28920/dhm53.1.2-6. PMID: 36966516.
A review of 149 Divers Alert Network emergency call records involving diving minors
Helfrich ET, Saraiva CM, Chimiak JM, Nochetto M
Arterial gas embolism; Children; Decompression illness; Pulmonary barotrauma; Scuba diving
2023 March 31;53(1):7–15. doi: 10.28920/dhm53.1.7-15. PMID: 36966517.
Underwater pulse oximetry reveals increased rate of arterial oxygen desaturation across repeated freedives to 11 metres of freshwater
Mulder E, Sieber A, McKnight C, Shagatay E
Breath-hold diving; Diving reflex; Hypoxia; Oxygen consumption; Safety; Unconsciousness
2023 March 31;53(1):16–23. doi: 10.28920/dhm53.1.16-23. PMID: 36966518.
Intraindividual variability of the Eustachian tube function: a longitudinal study in a pressure chamber
Peters N, Jansen S, Klußmann JP, Meyer MF
Diving; Ear barotrauma; Ears; Middle ear; Pressure equalisation
2023 March 31;53(1):24–30. doi: 10.28920/dhm53.1.24-30. PMID: 36966519.

June 53 (2) 2023

Compressed gas diving fatalities in Australian waters, 2014 to 2018
Lippmann J, Lawrence C, Fock A
Carbon monoxide; Cardiovascular; Diving deaths; Fitness to dive; Obesity; Scuba
2023 June 30;53(2):76–84. doi: 10.28920/dhm53.2.76-84. PMID: 37365124.
Effectiveness of hyperbaric chamber ventilation
Matity L, Burman F, Kot J, Caruana J
Carbon dioxide; Fire or explosion; Hyperbaric oxygen; Life support; Oxygen; Pressure
2023 June 30;53(2):85–91. doi: 10.28920/dhm53.2.85-91. PMID: 37365125.
Determining best practice for technical assessment of hookah surface supply diving equipment during diving fatality investigation
Meehan D, Smart D, Lippmann J
Diving deaths; Investigations; Surface supply breathing apparatus; SSBA
2023 June 30;53(2):92–99. doi: 10.28920/dhm53.2.92-99. PMID: 37365126.
Technical validation of the EMMA capnometer under hyperbaric conditions
Tucker A, Smart D
Carbon dioxide; Capnography; Hyperbaric oxygen treatment; Intensive care medicine; Patient monitoring
2023 June 30;53(2):100–110. doi: 10.28920/dhm53.2.100-110. PMID: 37365127.
Hyperbaric oxygen and treadmill exercise partially prevented bone loss and bone microarchitecture deterioration in ovariectomized rats
Peng X, Gao B, Wang X, Qin X, Peng M, Zeng X
Animal model; Endocrinology; Hyperbaric oxygen treatment; Osteoporosis; Ovariectomy
2023 June 30;53(2):111–119. doi: 10.28920/dhm53.2.111-119. PMID: 37365128.
How fit are military hyperbaric personnel after an asymptomatic or mild symptomatic COVID-19 infection? A retrospective study

Schaap J-P, Zuluaga Fernandez ME, Houtkooper A, Endert EL, van Ooij P-J AM
Fitness to dive; Health status; Health surveillance; Infectious diseases; Lung; Lung function; Pulmonary function
2023 June 30;53(2):120–128. doi: 10.28920/dhm53.2.120-128. PMID: 37365129.

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Delivering manual cardiopulmonary resuscitation (CPR) in a diving bell; an analysis of head-to-chest and knee-to-chest compression techniques

Johnson G, Bryson P, Tilbury N, McGregor B, Wesson A, Hughes GD, Hughes GR, Tabner A
Cardiovascular; Deaths; Diving deaths; Diving incidents; Diving medicine; Diving research; Resuscitation
2023 September 30;53(3):172–180. doi: 10.28920/dhm53.3.172-180. PMID: 37718290.

An evaluation of the NUI Compact Chest Compression Device (NCCD), a mechanical CPR device suitable for use in the saturation diving environment

Tabner A, Bryson P, Tilbury N, McGregor B, Wesson A, Hughes GR, Hughes GD, Johnson G
Cardiovascular; Deaths; Diving deaths; Diving incidents; Diving medicine; Diving research; Resuscitation
2023 September 30;53(3):181–188. doi: 10.28920/dhm53.3.181-188. PMID: 37718291.

Decompression procedures for transfer under pressure ('TUP') diving

Risberg J, van Ooij P-J, Eftedal OS
Bell diving; Decompression sickness; Decompression tables; Diving tables; Occupational diving
2023 September 30;53(3):189–202. doi: 10.28920/dhm53.3.189-202. PMID: 37718292.

Hyperbaric oxygen treatment in children: experience in 329 patients
Aydin F

Barotrauma; Carbon monoxide; Hearing loss sudden; Safety; Side effects
2023 September 30;53(3):203–209. doi: 10.28920/dhm53.3.203-209. PMID: 37718292.

Snorkelling and breath-hold diving fatalities in Australian waters, 2014 to 2018
Lippmann J

Diving deaths; Cardiovascular; Fatalities; Freediving; Immersion; Snorkelling; Spearfishing
2023 September 30;53(3):210–217. doi: 10.28920/dhm53.3.210-217. PMID: 37718294.

Self-reported vitality and health status are higher in Dutch submariners than in the general population
Houtkooper A, Wingelaar TT, Endert EL, van Ooij PJAM

Long-term health surveillance; Naval medicine; Occupational health; Quality of life; Submarine medicine
2023 September 30;53(3):218–223. doi: 10.28920/dhm53.3.218-223. PMID: 37718295.

Outcomes of hyperbaric oxygen treatment for central and branch retinal artery occlusion at a major Australian referral hospital

Williamson J, Sharma A, Murray-Douglass A, Peters M, Lee L, Webb R, Thistlethwaite K, Moloney TP
Blindness; Circulation; Ophthalmology; Retinal artery occlusion; Vision
2023 September 30;53(3):224–229. doi: 10.28920/dhm53.3.224-229. PMID: 37718296.

Contemporary practices of blood glucose management in diabetic patients: a survey of hyperbaric medicine units in Australia and New Zealand

Laupland BR, Laupland K, Thistlethwaite K, Webb R
Blood sugar level; Diabetes; Hyperbaric oxygen treatment; Protocol; Questionnaire
2023 September 30;53(3):230–236. doi: 10.28920/dhm53.3.230-236. PMID: 37718297.

A retrospective review of the utility of Chest X-rays in diving and submarine medical examinations
Meintjes WAJ, Davids LR, van Wijk CH

Fitness to dive; Health surveillance; Medicals – diving; Occupational health; Occupational diving; Radiological imaging; Respiratory
2023 September 30;53(3):237–242. doi: 10.28920/dhm53.3.237-242. PMID: 37718298.

A retrospective review of divers treated for inner ear decompression sickness at Fiona Stanley Hospital hyperbaric medicine unit 2014–2020

Mason JS, Buzzacott P, Gawthrope IC, Banham ND
Diving medicine; Diving research; ENT; Hyperbaric oxygen; Persistent (patent) foramen ovale (PFO); Right-to-left shunt; Vertigo
2023 September 30;53(3):243–250. doi: 10.28920/dhm53.3.243-250. PMID: 37718299.

Selecting optimal air diving gradient factors for Belgian military divers: more conservative settings are not necessarily safer

De Ridder S, Pattyn N, Neyt X, Germonpré P
Computers-diving; Decompression; Decompression sickness; Decompression tables; Diving; Simulation; Models
2023 September 30;53(3):251–258. doi: 10.28920/dhm53.3.251-258. PMID: 37718300.

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Risk assessment of SWEN21 a suggested new dive table for the Swedish armed forces: bubble grades by ultrasonography

Hjelte C, Plogmark O, Silvanus M, Ekström M, Frånberg O

Decompression; Decompression illness; Decompression tables; Diving; Echocardiography; Risk; Venous gas emboli

2023 December 20;53(4):299–305. doi: 10.28920/dhm53.4.299-305. PMID: 38091588.

Rapture of the deep: gas narcosis may impair decision-making in scuba divers

Ahti PA, Wikgren J

Cold; Deep diving; Gases; Nitrogen narcosis; Personality; Psychology; Scientific diving

2023 December 20;53(4):306–312. doi: 10.28920/dhm53.4.306-312. PMID: 38091589.

Full-face snorkel masks increase the incidence of hypoxaemia and hypercapnia during simulated snorkelling compared to conventional snorkels

Grundemann J, Vrijdag XCE, Wong NYE, Gant N, Mitchell SJ, van Waart H

Diving research; Equipment; Hypercapnia; Hypoxia; Safety

2023 December 20;53(4):313–320. doi: 10.28920/dhm53.4.313-320. PMID: 38091590.

Measuring whole body inert gas wash-out

Plogmark O, Silvanus M, Olsson M, Hjelte C, Ekström M, Frånberg O

Decompression sickness; Diving research; Gas kinetics; Nitrogen; Physiology; Pressure

2023 December 20;53(4):321–326. doi: 10.28920/dhm53.4.321-326. PMID: 38091591.

Comparing the EMMA capnograph with sidestream capnography and arterial carbon dioxide pressure at 284 kPa

Vrijdag XCE, van Waart H, Sames C, Sleigh JW, Mitchell SJ

Capnography; Hyperbaric chamber; Intensive care; Patient monitoring

2023 December 20;53(4):327–332. doi: 10.28920/dhm53.4.327-332. PMID: 38091592.

Within-diver variability in venous gas emboli (VGE) following repeated dives

Doolette DJ, Murphy FG

Bubbles; Decompression sickness; Diving; Echocardiography; Risk

2023 December 20;53(4):333–339. doi: 10.28920/dhm53.4.333-339. PMID: 38091593.

SHORT COMMUNICATION

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Validation of sham treatment in hyperbaric medicine: a randomised trial

Louge P, Pignel R, Serratrice J, Stirnemann J

Blinding; Hyperbaric research; Placebo; Research methods

2023 March 31;53(1):51–54. doi: 10.28920/dhm53.1.51-54. PMID: 36966522.

June 53 (2) 2023

Hyperbaric medicine in Canadian undergraduate medical school curriculum

Talbot Z, Lee A, Boet S

Education; Hyperbaric oxygen treatment; Teaching

2023 June 30;53(2):138–141. doi: 10.28920/dhm53.2.138-141. PMID: 37365131.

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Investigation into the effect of hyperbaric hyperoxia on serum cardiac Troponin T levels as a biomarker of cardiac injury

Marjot J, Mackenzie J, Jepson N, Reeves E, Bennett M

Biomarkers; Cardiovascular; Health; Heart; Hyperbaric oxygen treatment

2023 September 30;53(3):281–284. doi: 10.28920/dhm53.3.281-284. PMID: 37718303.

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Pulmonary oxygen toxicity breath markers after heliox diving to 81 metres

de Jong FJM, Brinkman P, Wingelaar TT, van Ooij PJAM, van Hulst RA

Diving research; Helium; Military diving; Unit pulmonary toxic dose; Volatile organic compounds

2023 December 20;53(4):340–344. doi: 10.28920/dhm53.4.340-344. PMID: 38091594.

REVIEW ARTICLES

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The risk of decompression illness in breath-hold divers: a systematic review

Blogg SL, Tillmans F, Lindholm P

Arterial gas embolism; Breath-hold diving; Decompression sickness; Diving; Freediving; Snorkelling; Spearfishing

2023 March 31;53(1):31–41. doi: 10.28920/dhm53.1.31-41. PMID: 36966520.

Safety and performance of intravenous pumps and syringe drivers in hyperbaric environments

Al Balushi A, Smart D

Equipment; Fire risk; Hyperbaric oxygen; Infusion devices; Safety; Risk assessment

2023 March 31;53(1):42–50. doi: 10.28920/dhm53.1.42-50. PMID: 36966521.

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Rebreather Forum Four consensus statements

Mitchell SJ, Pollock NW

Accidents; Checklists; Decompression; Education; Equipment; Safety; Technical diving; Training

2023 June 30;53(2):142–146. doi: 10.28920/dhm53.2.142-146. PMID: 37365132.

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Diving with psychotropic medication: review of the literature and clinical considerations

Querido AL, Ebbelaar CF, Wingelaar TT

Fitness-to-dive; Medications; Mental health; Pharmacology; Psychiatry; Scuba

2023 September 30;53(3):259–267. doi: 10.28920/dhm53.3.259-267. PMID: 37718301.

A systematic review of electroencephalography in acute cerebral hypoxia: clinical and diving implications

Wong NYE, van Waart H, Sleigh JW, Mitchell SJ, Vrijdag XCE

Diving research; Diving safety memos; Physiology; Neurology; Brain

2023 September 30;53(3):268–280. doi: 10.28920/dhm53.3.268-280. PMID: 37718302.

CASE REPORTS

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Successful hyperbaric oxygen treatment of a patient with a HeartMate III left ventricular assist device

Ilancheran A, Millar I, Tsouras T

Bioengineering; Case report; LVAD; Haemorrhagic cystitis

2023 June 30;53(2):147–150. doi: 10.28920/dhm53.2.147-150. PMID: 37365133.

Successful delayed treatment of acute glans penis ischaemia after adult circumcision: a case report

Lo K, Katz D, Chan V, Millar I

Anticoagulation; Case report; Hyperbaric oxygen; Surgery; Tadalafil

2023 June 30;53(2):151–154. doi: 10.28920/dhm53.2.151-154. PMID: 37365134.

Hemiplegia resulting from acute carbon monoxide poisoning

Turgut B, Canarslan Demir K, Sariyerli Dursun GB, Zaman T

Case reports; Hyperbaric oxygen treatment; Neurological manifestations; Recovery of function

2023 June 30;53(2):155–157. doi: 10.28920/dhm53.2.155-157. PMID: 37365135.

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Atypical distally distributed cutis marmorata decompression sickness associated with unconventional use of thermal protection in a diver with persistent foramen ovale

Magri Gatt P, Diacono E, Matity L, Magri K

Decompression illness; Pathophysiology; Right-to-left shunt; Wetsuit

2023 September 30;53(3):285–289. doi: 10.28920/dhm53.3.285-289. PMID: 37718304.

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Cerebral arterial gas embolism (CAGE) during open water scuba certification training whilst practising a controlled emergency swimming ascent
Case reports; CESA; Diving accidents; Emergency ascent; Pneumomediastinum; Pneumothorax; Pulmonary barotrauma

Banham N, da Silva E, Lippmann J

2023 December 20;53(4):345–350. doi: 10.28920/dhm53.4.345-350. PMID: 38091595.

Hyperbaric oxygen treatment in delayed posthypoxic encephalopathy following inhalation of liquefied petroleum gas: a case report

Canarslan Demir K, Turgut B, Ozgok Kangal K, Zaman T, Şimşek K

Brain; Dementia; Hyperbaric medicine; Neurology; Toxicity

2023 December 20;53(4):351–355. doi: 10.28920/dhm53.4.351-355. PMID: 38091596.

Hypoxic loss of consciousness in air diving: two cases of mixtures made hypoxic by oxidation of the scuba diving cylinder

Druelle A, Daubresse L, Mullot JU, Streit H, Louge P

Case reports; Corrosion; Diving tank; Hypoxia; Oxygen consumption; Rust; Unconsciousness

2023 December 20;53(4):356–359. doi: 10.28920/dhm53.4.356-359. PMID: 38091597.

TECHNICAL REPORTS

June 53 (2) 2023

Evaluation of a new hyperbaric oxygen ventilator during volume-controlled ventilation

Wang C, Xue L, Yu Q, Liu Y, Ren Z, Liu Y

Airway resistance; Intensive care; Intermittent positive-pressure ventilation; Respiratory mechanics

2023 June 30;53(2):129–137. doi: 10.28920/dhm53.2.129-137. PMID: 37365130.

LETTERS TO THE EDITOR

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Commentary on Plogmark, et al. Agreement between ultrasonic bubble grades using a handheld self-positioning Doppler product and 2D cardiac ultrasound

Metelkina A, Barbaud A

Decompression sickness; Doppler; Risk Factors; Risk Management; Scuba diving; Venous gas emboli

2023;53(3):290–291. doi: 10.2890/dhm53.3.290-291. PMID: 37718305.

Response to Metelkina and Barbaud

Plogmark O, Hjelte1 C, Ekström M, Frånberg O

Decompression sickness; Doppler; Risk Factors; Risk Management; Scuba diving; Venous gas emboli

2023;53(3):291. doi: 10.2890/dhm53.3.291. PMID: 37718306.

Carbon monoxide poisoning: lest we forget

Mathew B, Laden G

Diving; Fatality; Gas supply; Scuba; Surface supply; Toxicity

2023;53(3):292. doi: 10.2890/dhm53.3.292. PMID: 37718307.

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University of Auckland Postgraduate Diploma in Diving and Hyperbaric Medicine

Davis M

Diving medicine; Hyperbaric medicine; Education; Qualifications

2023;53(4):360. doi: 10.2890/dhm53.4.360. PMID: 38091598.

OBITUARY

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Professor Michael Heywood Bennett AM

Banham N

2023;53(2):158–159.

EUBS NOTICES and NEWS

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EUBS President's report

Blatteau J-E

2023;53(4):361.

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Annual Scientific Meeting 2023

2023;53(1):65.

EUBS and ECHM joint position statement on the use of 'mild hyperbaric therapies' in humans

2023;53(1):65.

EUBS 2023 ASM Flyer

2023;53(1):67.

June 53 (2) 2023

EUBS2023 Scientific Meeting on Diving and Hyperbaric Medicine

Ukraine war position statement on EUBS website

2023;53(2):160.

ECHM-EUBS Position statement on the use of 'mild hyperbaric therapies' in humans

2023;53(2):161–163.

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EUBS Member-at-Large elections

2023;53(3):297.

EUBS2023 Annual Scientific Meeting, Porto, Portugal, from 13–16 September 2023

2023;53(3):297.

SPUMS NOTICES AND NEWS

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SPUMS President's report

Banham N

2023;53(1):55.

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Banham N

2023;53(2):165–166.

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Banham N

2023;53(3):293.

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SPUMS President's report

Banham N

2023;53(4):363.

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Clinical Professor David Smart AM – Biography

2023;53(1):56–58.

Professor Michael Heywood Bennett AM, Conjoint, UNSW – Biography

2023;53(1):59–60.

SPUMS 2023 ASM

2023;53(1):61.

SPUMS Diploma in Diving and Hyperbaric Medicine

2023;53(1):63.