

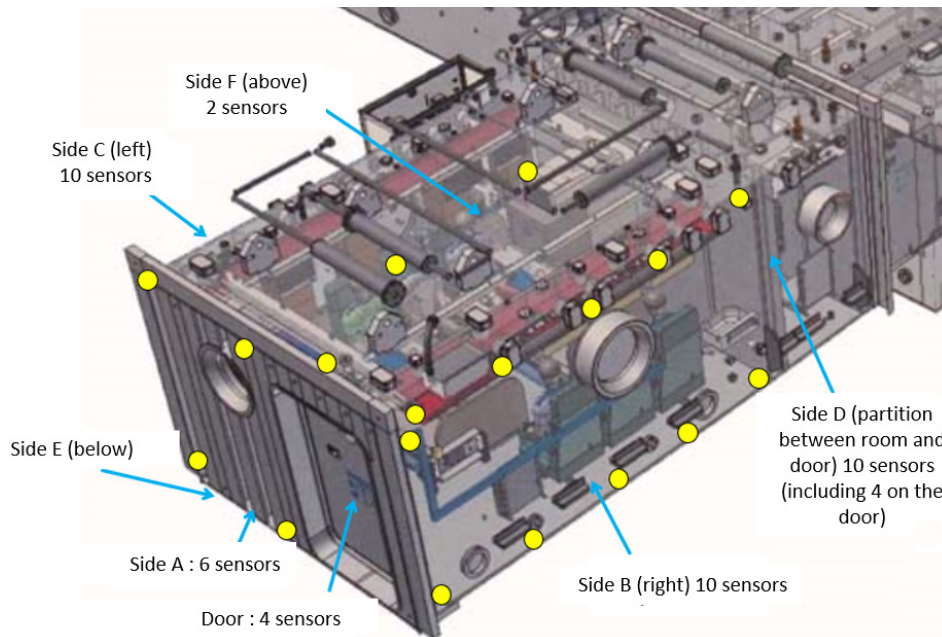
Diving and Hyperbaric Medicine

*The Journal of the South Pacific Underwater Medicine Society
and the European Underwater and Baromedical Society©*

SPUMS

Volume 54 No. 3 September 2024

EUBS



Pneumatic testing of hyperbaric chambers

Necrotising infection clinical composite endpoint

HBOT for spondylodiscitis

Methylphenidate and oxygen toxicity

Return to diving after COVID-19

Challenging cases for diving medical examiners

Arterial dissection in divers

Tympanocentesis prior to submarine escape

Evaluation of a hyperbaric ventilator

Investigation of diving fatalities

Large lungs and barotrauma risk

Five case reports

CONTENTS

Diving and Hyperbaric Medicine Volume 54 No. 3 September 2024

154 The Editor's offering

Original articles

155 Validation of necrotising infection clinical composite endpoint in a retrospective cohort of patients with necrotising soft tissue infections

Victoria Bion, Dylan Jape, Rachel Niesen, Margaret Angliss, Frank Bruscano-Raiola, Biswadev Mitra, Bridget Devaney

162 The role of hyperbaric oxygen treatment in the management of spondylodiscitis

Kübra Canarlan Demir, Burak Turgut, Gözde B Sariyerli Dursun¹, Fatma S Konyalıoğlu, Taylan Zaman

168 Methylphenidate and the risk of acute central nervous system oxygen toxicity: a rodent model and observational data in human divers

Ivan Gur, Yehuda Arieli, Yinnon Matsliah

176 Medical examination of divers after COVID-19 infection: a prospective, observational study using published (original and revised) guidelines for evaluation

Charlotte Sadler, Anna Lussier, Ian Grover, Karen Van Hoesen, Peter Lindholm

184 Retrospective analysis of challenging cases for medical examiners of diving

Inge Reus, Erik van de Sande, Rienk Rienks, Thijs Wingelaar

188 Arterial dissection in scuba divers: a potential adverse manifestation of the physiological effects of immersion

Neal W Pollock, John Lippmann, John Pearn, John Hayman

196 Role of tympanocentesis in the prevention of middle ear barotrauma induced by fast buoyant ascent escape from 200 m underwater

Xu Liu, Hengrong Yuan, Jieying Peng, Guanghao Zhu, Nan Wang, Yukun Wen, Hongliang Zheng, Yiqun Fang, Wei Wang

Technical reports

204 Acoustic emission, an innovative diagnosis tool for therapeutic hyperbaric chambers: or how to requalify safely using pneumatic pressure test

Johann Catty, Olivier Seguin, Jean-Laurent Juillie, Daniel Mathieu, Erika Parmentier-Decrucq

212 Evaluation of a new hyperbaric oxygen ventilator during pressure-controlled ventilation

Cong Wang, Qihong Yu, Yaling Liu, Ziqi Ren, Ying Liu, Lianbi Xue

217 The investigation of diving accidents and fatalities

John Lippmann, James Caruso

Short communication

225 Large lungs in divers: a risk for pulmonary barotrauma?

Robert A van Hulst, Pieter-Jan AM van Ooij

Case reports

230 Maxillary sinus barotrauma with infraorbital nerve paraesthesia after breath-hold diving

Kubra Canarlan Demir, Zeliha Yücel

233 Lateral ST-elevation myocardial infarction from systemic air embolism after CT guided lung biopsy

Aung Myo Htay, Emma Wilson

237 Bispectral index with density spectral array (BIS-DSA) monitoring in a patient with inner ear and cerebral decompression sickness

Gerald Schmitz, Sharon Aguero

242 Decompression sickness in surface decompression breathing air instead of oxygen

Jan Risberg, Helle Midtgaard

249 Hyperbaric oxygen treatment (HBOT) in a case of traumatic chondronecrosis of the cricoid cartilage

Subhranshu Kumar, HBS Chaudhry, Chandrasekhar Mohanty, Sourabh Bhutani, Muhammed Risham, Kshitij Lanjekar

Letter to the Editor

252 Hyperbaric medicine and climate footprint

Alice Varichon, Rodrigue Pignel, Sylvain Boet

Errata

253 Correction: Formulating policies and procedures for managing diving related deaths: a whole of state engagement from frontline and hospital services in Tasmania

Elizabeth J Elliott, Karl Price, Bernard Peters

SPUMS notices and news

254 The President's report

Neil Banham

255 Notices and news

EUBS notices and news

259 The President's report

Jean-Eric Blatteau

260 Notices and news

262 Courses and meetings

263 Diving and Hyperbaric Medicine: Instructions for authors

(Short version – updated June 2024)