

## **CURRICULUM VITAE - CARL EDMONDS OAM**

**DEGREES:** MB, BS. MRCP (Lond), FRACP, Dip DHM, DPM, FRANZCP, MRCPsych, FAFOM.

**POSITIONS.** Residencies and registrar positions at Sydney Hospital, Royal Perth Hospital, Hollymoor and Rubery Hill Hospitals in Birmingham, Prince Henry Hospital in Sydney, Callan Park and Roseville Hospitals in Sydney,

Honorary positions in Sydney Hospital, Alanbrook Hospital and the Evesham Clinic, Balmoral Naval Hospital, all in Sydney.

1967-1975 Officer in Charge, Royal Australian Navy School of Underwater Medicine.

1971-2001 Co-founder and Director of the Diving Medical Centre, Australia.

1975-1999 Consultant in Diving Medicine to the Royal Australian Navy Submarine and Underwater Medicine Unit, HMAS Penguin.

1971-1975 Foundation President of the South Pacific Underwater Medicine Society.

1969-75 Australian Standards Committee into Compressed Air Diving,

1992-6 Honorary Medical Adviser to the State Volunteer Rescue Association, NSW.

1973-1991 Foreign Affairs Committee, Undersea Medical Society. Workshop Committee, Undersea Medical Society.

1986-1987 Editorial Committee for the "Undersea Biomedical Research" UMS.

1993 - 1995 Editorial Committee. Undersea and Hyperbaric Medicine Journal

Many South Pacific Underwater Medical Society Committees, from 1971 onwards.

Consultant to DAN.SEAP on diving accidents and deaths 1996-2011

**AWARDS** 1987 Recipient Craig Hoffman Memorial Award for services to Diver Safety, International Undersea and Hyperbaric Medicine Society.

1989 South Pacific Underwater Medicine Society. Honorary Life Membership.

1998 Recipient Divers Alert Network (SE Asia/Pacific) award for Medical Advisory Services to the Diving Industry

1999 Recipient Charles W Shilling Award by International Undersea and Hyperbaric Medicine Society.

2003 DAN AMERICA Award

2004 Citation for Contribution to Diving and Hyperbaric Medicine, Australian and New Zealand College of Anaesthetists

2008 Recipient, Order of Australia OAM, Queens Birthday Honours List

## **BOOKS**

## **AUTHOR**

"**Otological Aspects of Diving**" (1973) by Edmonds, Thomas, Tonkin Freeman and Blackwood. Australian Medical Publishing Co.

"**Dangerous Marine Animals of the Indo-Pacific Region**" (1975) by Carl Edmonds. Australian Sport Publications.

"**Marine Animal Injuries to Man**" (1984) by Carl Edmonds - Wedneil Publications 2nd edition.

"**Dangerous Marine Creatures** (1989) by Carl Edmonds. Reed Publishers, Balgowlah, Australia. **2nd Ed** 1995 Best Publ, Arizona, U.S.A.

"**Diving and Subaquatic Medicine**" (**1st Edition** 1976, **2nd** 1981) by Edmonds, Lowry and Pennefather. A Diving Medical Centre publication **3rd Ed**, Butterworth/Heinemann, London. 1989. **4<sup>th</sup> Ed** by Edmonds, Lowry, Pennefather and Walker. Arnold/Oxford Uni Press, London 2002

"**The Abalone Diver**" (1987), National Safety Council of Australia, M orwell, Victoria.

"**Diving Medicine for Scuba Divers**" (1992) by Edmonds, McKenzie and Thomas. A JL publication, Melbourne. **2nd Ed**, 1997. **Japanese Ed** 1995  
3<sup>rd</sup>-5<sup>th</sup> editions (*eBook*) 2010-13 at [www.divingmedicine.info](http://www.divingmedicine.info)

**CONTRIBUTOR** to: "**Diving Medicine**" Edited by Strauss. Grune & Stretton (1976)

"**Diving Medicine**" **2nd edition**, Ed by Bove and Davis, W.D. Saunders. (1990). **3rd edition** , 1998. **4<sup>th</sup> Ed** 2004.

"**Paediatric Medicine**" Edited by Black, Butterworths (1979). Ch on Drowning

"**Hyperbaric & Undersea Medicine**" (1981) Ed. by Davis Med. Seminars Inc. San Antonio.

"**Physicians Guide to Diving Medicine**" (1985) Ed. by Shilling. UMS Pub. USA.

"**Scuba Safety in Australia**" (1993) Ed by Wilkes, Knight and Lippmann. JL publication, Melbourne.

"**Oxford Handbook of Sports Medicine**" (1998) Sherry and Wilson. Oxford University Press. Manual-Oxford-de-Medicina-Deportiva. Medicina de buceo.

**Case Histories of Diving and Hyperbaric Accidents. Ed by Waite C.** Chapter on Otological barotraumas – middle and inner ear 1988. UHMS Bethesda USA

**Occupational Lung Diseases** (1999). Butterworth/Heinemann. 2nd ed.

## **JOURNAL PUBLICATIONS (Sample only)**

### **GENERAL DIVING MEDICINE**

EDMONDS C, THOMAS R L (1972) Medical aspects of diving Parts 1-6  
Med J Aust 2:1199-1201, Med J Aust 2:1256-1260  
Med J Aust 2:1300-1304, Med J Aust 2:1367-1370  
Med J Aust 2:1416-1419, Med J Aust 2:1458-1460

EDMONDS C. Reappraisal of a Diving Disaster. Royal Australian Navy School of Underwater Medicine Report 1/67.

EDMONDS C. A non-fatal case of blue ringed octopus bite. Med J Aust. 1969. 2:601

EDMONDS C (1970) A salt water aspiration syndrome. Milit Med 135:779-785.

EDMONDS C (1972). The Diver RANSUM Research Report 2/72.

FAGAN P, MCKENZIE B, EDMONDS C (1976) Sinus barotrauma in divers. Ann. Otol Rhinol. Laryngol 85(1):64-65.

TURNER B, PENNEFATHER J, EDMONDS C (1980) Cardiovascular effects of hot water immersion - Suicide soup. Med J Aust 2:394-395.

EDMONDS CW. Diving accident management in remote areas. UHMS/ NOAA/ DAN Workshop on Diver Accident Management, Duke University. Ed by Bennett and Moon, 1990.

EDMONDS C. Burst lung, CAGE and scuba diving deaths. Edit. Med J Aust. 1990. 153:65.

EDMONDS C. Asthma and diving. SPUMS Journal 21 (2) 4-6. 1991.

EDMONDS C, WALKER D. Scuba diving fatalities in Australia and New Zealand. The human factor. SPUMS Journal 1989;19(3) 94-104.

EDMONDS C, WALKER D, Scuba Diving Fatalities in Australia & New Zealand. The Environmental Factor. SPUMS Journal 20 (1) 2-4. 1990.

EDMONDS C, WALKER D, Scuba Diving Fatalities in Australia & New Zealand. The Equipment Factor. SPUMS Journal 21 (1) 2-4. 1991.

EDMONDS C. Nitrous oxide induced decompression sickness following shoulder barotrauma. SPUMS Journal 24 (2); 76-78. 1994.

EDMONDS C. Sinus barotrauma: a bigger picture. SPUMS Journal 24 (1); 13-19. 1994.

EDMONDS C. Pearl diving. The Australian story. SPUMS Journal. 24 (1). Suppl. 4-15. 1996

EDMONDS C. Pearls from the deep. A study of Australian Pearl Diving 1988-1991. . SPUMS Journal. 24 (1). Suppl. 26-30. 1996

EDMONDS C. Scuba kids. SPUMS Journal. 26 (3). 153-157. 1996

EDMONDS C. Underwater oxygen treatment of decompression sickness. SPUMS Journal 25 (3); 122-129. 1995

EDMONDS C. Drowning syndromes. The mechanism. SPUMS Journal 28 (1); 2-9. 1998.

EDMONDS C, WALKER D, SCOTT B. Drowning with SCUBA. SPUMS Journal 27 (4); 182-189. 1997.

EDMONDS C. Snorkel diving – A review . SPUMS Journal 29 (4); 196-202 1999.

EDMONDS C, WALKER D, Australian snorkeling deaths. SPUMS Journal. 2000.

EDMONDS C. Children and diving. SPUMS Journal 33 (3); 206-211. 2003.

EDMONDS C, WALKER D, Snorkelling deaths in Australia, 1987-1996 *MJA* 1999; 171: 591-594

EDMONDS C.. Diving Medicine – from art to pseudo-science *Div Hyper Med J.* 37 (2); 94-8. 2007

EDMONDS C. Scuba Divers Pulmonary Oedema – A Case Report. *Div Hyper Med J.* 39 (4); 195-6. 2009.

DIVING doctors diary. A regular series of case reports presented in SPUMS J, (*Diving and Hyperbaric Medicine J*) over the last three decades.

## **DECOMPRESSION SICKNESS**

EDMONDS C. Treatment of decompression sickness in remote areas. *Med Subaquatique et Hyperbare.* 1978. 17: 85-86.

ERDE A, EDMONDS C (1975) Decompression sickness - a clinical series. *J. Occup Med* 17(5):324-328.

HOW J, WEST D, EDMONDS C (1976) Decompression sickness in divers. *Singapore Med J.*17:92-97.

EDMONDS C Underwater oxygen treatment of decompression sickness. *South Pacific UMS J* Jan 1979. 17-26.

GORMAN D, BERAN R, EDMONDS C, et al. The neurological sequelae of decompression sickness. Ninth International Symposium on Underwater and Hyperbaric Physiology. Bethesda.MD: Undersea and Hyperbaric Medical Society, 1987.

EDMONDS C. Peripheral neurological abnormalities in dysbaric disease In *Describing Decompression Illness*. 42nd Undersea & Hyperbaric Medical Society Workshop. Edited by Francis and Smith. UHMS Maryland. 1991

EDMONDS C. Dysbaric peripheral nerve involvement. *SPUMS Journal* 21 (4) 10-12. 1991.

EDMONDS C. Underwater oxygen treatment of decompression sickness. *SPUMS Journal* 25 (3); 122-129. 1995

EDMONDS C. Underwater oxygen treatment of decompression sickness. In *Treatment of Decompression Illness. 45<sup>th</sup> Workshop, Undersea and Hyperbaric Medical Society*. Ed by R Moon and P Sheffield. p 255-265. 1996,

EDMONDS C. The conundrum of decompression sickness. In *Acute Management of Decompression Sickness*. UHMS, Stockholm. Ed by David Elliott. UHMS, Bethesda. 2000

EDMONDS C. Evacuation by air. In *Acute Management of Decompression Sickness*. UHMS, Stockholm. Ed by David Elliott. UHMS, Bethesda. 2000

EDMONDS C. Misuse of model based dive computers: The need for validation. Ed by R W Hamilton. Publ by Undersea Hyperbaric Med. 2005. p 3-10.

EDMONDS C, Harvey R, Randle R. Dysbaric osteonecrosis. A case report. *SPUMS Journal* 27 (3); 122-125. 1997.

EDMONDS C, MCINNES S, BENNETT M. Reverse dive profiles, The making of a myth. *SPUMS Journal*, in press 2005.

MCINNES S, EDMONDS C, BENNETT M. The relative safety of forward and reverse dive profiles. In press. *Undersea Hyper Med*. 2005

## **LONG TERM SEQUELAE OF DIVING**

EDMONDS C, HAYWARD L. Intellectual impairment with diving. A review. 9th International Symposium on Underwater and Hyperbaric Physiology. Undersea and Hyperbaric Medical Society, Bethesda, MD. 1987.

WILLIAMSON A, CLARKE B, EDMONDS C. The influence of diving variables on perceptual and cognitive functions in professional shallow-water divers. *Environ Research* 1989; 50, 93-102.

WILLIAMSON A, EDMONDS C, CLARKE B. The neurobehavioural effects of professional abalone diving. *Brit J Ind Med.* 1987; 44, 459-466.

EDMONDS C, COULTON T. Multiple aptitude assessments on abalone divers. In Edmonds C, ed. *The Abalone Diver*. National Safety Council of Australia. 1986.

HJORTH R, VIGNAENDRA V, EDMONDS C. Electroencephalographic and evoked cortical potential assessments in divers. In: *The Abalone Diver*. Morwall: National Safety Council of Australia, 1986.

ANDREWS G, HOLT P, EDMONDS C, et al. Does non-clinical decompression stress lead to brain damage in abalone divers? *Med J Aust* 1986; 144:399-401.

EDMONDS C, BROUGHTON J (1985) Intellectual deterioration with excessive diving. *Undersea Biomed Res* 12(3):321-326.

EDMONDS C. The mythology of diver's dementia. Conference on The Long Term Sequelae of Diving. 1993, Godesund, Norway. In press, NUTEC.

## **OTOLOGY**

EDMONDS C. Vertigo in divers. *Royal Australian Navy SUM Report* 1971;1-71.

FREEMAN P, EDMONDS C (1972) Inner ear barotrauma. *Arch Otolaryngol* 95:556-563.

EDMONDS C (1973) Round window rupture in diving. *Forsvarsmedicin* 9:404-405.

EDMONDS C. Vertigo in diving. in *The Use of Nystagmography in Aviation Medicine, an AGARD (NATO) monograph*. CPP-128. Neuilly Sur Seine, France. 1973

FREEMAN P, TONKIN J, EDMONDS C(1974) Rupture of the round window membrane in inner ear barotrauma. *Arch. Otolaryngol* 99:437-442.

EDMONDS C, FREEMAN P. Hearing loss in Australian divers. 1985; *Med J Aust.* 143: 446-448

EDMONDS C. (1974) Inner ear barotrauma. *Fifth Int. Hyperbaric Congress* pub. by Simon Fraser Uni, Canada.

EDMONDS C, FREEMAN P, TONKIN J. Fistula of the round window in diving. Amer Acad Opth Otolaryngol . 1974. 78:444-447.

EDMONDS C, BLACKWOOD F A (1975) Disorientation with middle ear barotrauma of descent. Undersea Biomed. Res 2:311-314.

EDMONDS C (1981) Middle ear autoinflation. Undersea Biomed Res 8 (1-Suppl) A 82:.

EDMONDS C. Diving and inner ear damage. Editorial. SPUMS J. 34: 1-3. 2004

EDMONDS C. Inner ear barotrauma. A retrospective clinical series of 50 cases. SPUMS J. 34: 11-14. 2004

### **SCUBA DIVERS PULMONARY OEDEMA**

EDMONDS C. Pulmonary oedema, dyspnoea and diving. South Pacific Underwater Medical Society J. 2001; 31(2): 75-78.

EDMONDS C. Scuba divers pulmonary oedema – A review. Div Hyper Med J. 39 (4); 189-194. 2009.

EDMONDS C, LIPPMANN J, LOCKLEY S, WOLFERS D. Scuba divers pulmonary oedema : recurrences and fatalities. Diving Hyperb Med. 2012;42(1):40-44.

EDMONDS C. Scuba divers pulmonary oedema. Chapter 30 in Diving and Subaquatic Medicine, 5th edited. by C. Edmonds, M. Bennett, S. Mitchell, J. Lippmann. Taylor and Francis publ. 2015.

NG A, EDMONDS C. Immersion pulmonary oedema and takotsubo cardiomyopathy. Diving Hyperbaric Med. In Press, 2015

EDMONDS C. The evolution of scuba divers pulmonary edema. Undersea Hyperb Med. In Press 2016,

### **EQUIPMENT**

EDMONDS C, ANDERSON T. Assessment of the Orca EDGE Dive computer. South Pacific UMS Journal 17(3);119-127, 1987.

EDMONDS C. Dive computers - the Australian experience. Proceedings of the Dive Computer Workshop, American Academy of Underwater Sciences. 1989.

EDMONDS C, LOXTON M. et al. - Deep diving and some equipment limitations. SPUMS Journal 22 (1) 1-3. 1992.

EDMONDS C. Misuse of algorithms in dive computers: The need for validation. Undersea Hyperbaric Med. 20 (supp) No51. 1993

## **BIOGRAPHY re. DIVING MEDICINE. DR CARL EDMONDS**

Undergraduate training at the University of Sydney, Australia. Residencies at Sydney Hospital and Royal Perth Hospital. General medical practice, including a post as the Royal Australian Flying Doctor, in Derby, Western Australia. Post-graduate training and qualifications in both Internal Medicine and Psychiatry obtained during 3 years in England. Other honorary and post-graduate qualifications in internal medicine, psychiatry, diving medicine and occupational medicine obtained after returning to Australia.

Introduced to SCUBA diving during an exceptionally calm surfing period in HAWAII, 1962, and returned there on numerous diving excursions, since. Diving certification from Underwater Research Group in Sydney, 1965, FAUI and RAN (Supervisory Officer, Clearance Diving Course). Participated in >150 courses in Diving Medicine, by 2005.

Also dived around Australia, including: Sydney Harbour, when in charge of the RAN School of Underwater Medicine, for almost 9 years, and the Great Barrier Reef - while convening many Diving Medicine Courses, but often for no good reason. Dived in all States and including abalone diving (NSW, SA, Tasmania) and pearl diving (WA).

Pacific Islands e.g. Fiji, Tonga, Solomons, Philippines, Palau, Sipidan, Manado, Truk Lagoon, Tahiti, Tuamotos, Rarotonga and Aititaki, Lord Howe, New Guinea, Manus, New Zealand, Vanuatu, New Caledonia, Western Samoa, etc.

Mediterranean sites around the Greek islands, Italy, Yugoslavia, Spain.

The North American zone, including both East and West Coasts of U.S.A., the Gulf of Oman, Bahamas, Caribbean and the Galapagos.

South East Asia, the Maldives, Africa, Antarctica (see article "The deep frozen diving physician"), in bubble tubs and Jacuzzis (see article on "Suicide Soup").

### EXPEDITIONS

*Practical research and field work expeditions included:*

- Antarctica, during a three month expedition under the auspices of the Department of the Antarctic, mainly involved in marine biology and diving.
- Australia-wide survey of marine animal injuries, under the auspices of the Royal Australian Navy.
- Abalone diver survey, involving most of southern Australia over a period of one year, at the instigation of the Fisheries Industry Research Committee.
- Pearl diving surveys, involving northern Australia, and carried out at the request of the pearling industry.
- North American tour of diving research establishments, whilst attached to the U.S. Navy for one year, at their invitation.
- Diving medicine courses, in dozens of remote and exotic localities (not entirely devoted to duty).

Involvement with various *expeditions and documentaries* (more as a mascot than a medic), including:

- HMS Pandora diving expedition and excavations
- Joshua Slocum's voyage, re-enactment



- Sir Douglas Mawson, Antarctic expeditions documentary.

**CURRENT INTERESTS**

Windsurfing, surfing, television viewing, family and friends, avoiding repetitive work, playing with computers, refusing to acknowledge the effects of age and blindness, not feeling guilty about spelling mistakes.

**FUTURE INTENTIONS** - Never to knock back a good offer.