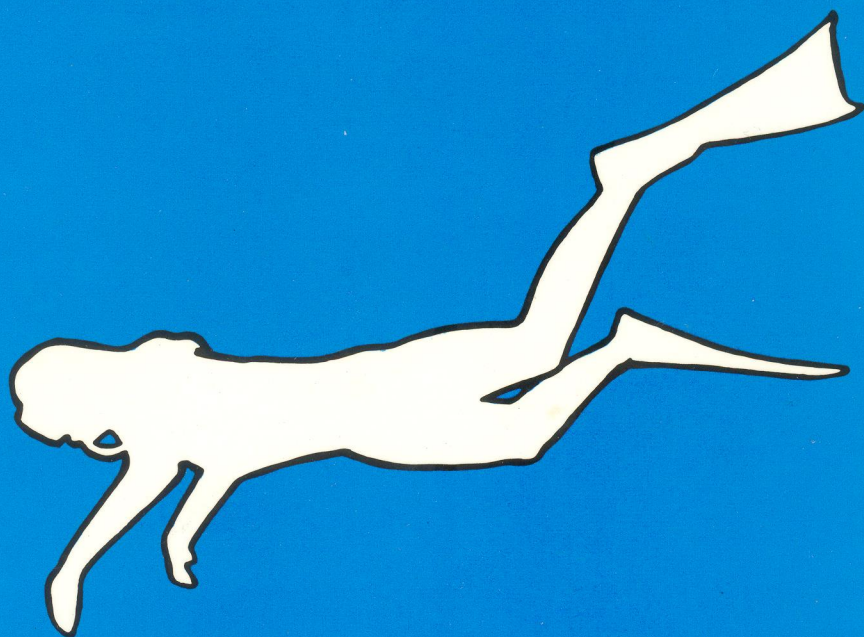


OXYGEN AND THE DIVER



KENNETH DONALD

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D.S.C., O.B.E., Q.P., D.Sc., M.A., M.D.,

F.R.C.P., F.R.C.P.E., F.R.S.E.

Professor Emeritus of Medicine, Edinburgh University

SSI SCUBA SCHOOLS INT.
® Albrecht Salm
Instructor No. 12653



Albrecht Salm
Master Scuba Diver Trainer
PADI MSDT # 33913

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OXYGEN AND THE DIVER

This book is the first to give a comprehensive review of the dangers to the diver when breathing oxygen.

Professor Donald, who is the accepted authority in this field, describes how unexpected hazards attended the sudden expansion of self-contained free diving during the relentless underwater combat of the Second World War. This is the only full account of the unique series of human experiments in which the safe times and depths for oxygen diving were established.

The author has reviewed all other important studies of oxygen toxicity in divers up to the present day. Considerable care has been taken to determine the original details of these investigations, many of which have not been fully published.

After the dangers of oxygen had been demonstrated during the 1940s, the almost universal use of air was adopted for shallow water swimming and diving up to fifty metres. It has since been supplemented by oxygen-nitrogen mixtures. Mixture diving is more economical of gas and allows the diver to go considerably deeper without the risk of oxygen poisoning or need for staged decompression. Much emphasis has been placed in the book on the dangers of the imprudent use of mixtures. Other factors which may affect the incidence of oxygen poisoning are also reviewed.

Whilst the book is written primarily for diving experts, many of the diving fraternity will find it an enjoyable and invaluable source of reference.

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KENNETH DONALD

AUTHOR

Professor Ken Donald entered the Royal Navy in 1939, having established himself as an outstanding scholar and junior doctor at Emmanuel College, Cambridge, and St Bartholemew's Hospital, London. He served as Flotilla Medical Officer in HMS Hotspur and earned a Distinguished Service Cross at the first Battle of Narvik. He and his wounded finally escaped via the Lofoten Islands.

In 1942 he commenced his famous studies into the toxic effects of hyperbaric oxygen.

After the war he returned to academic clinical medicine, initially at St Bartholemew's Hospital and later at many other famous hospitals, culminating in the Chair of Medicine at Edinburgh University in 1959. His clinical research, particularly into heart and lung disease, has achieved worldwide recognition.

Professor Donald has always maintained close links with the Royal Navy, with particular interest in diving, submarine and survival medicine. He became Chairman of the Underwater Physiology Sub-Committee (RNPRC) in 1954 and the Chairman of the main Royal Naval Personnel Research Committee in 1969. He has also served, since 1975, as Chairman of the Advisory Committee to the Secretary of State for Scotland on the safety of divers in the North Sea Oil Industry.

Professor Donald, who admits to being "something slightly over 65", now lives with his wife on the beautiful Welsh borders.





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