

CURRICULUM VITAE

Eric Post Kindwall, M.D.

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Date of Birth:

January 17, 1934, New York, N.Y.

Education:

1948-1949	Sigtuna Stiftelson's Humanistiska Läroverk Sigtuna, Sweden
1952	Wauwatosa High School, Wauwatosa, Wisconsin
1956	B.A. University of Wisconsin Madison, Wisconsin Zoology Major-Languages Minor
1960	M.D. Yale University School of Medicine New Haven, Connecticut
	M.D. Thesis Title: <u>Some Observations on Decompression Sickness</u>

Postgraduate Training and Fellowship Appointments:

1958	Summer Research Fellowship National Science Foundation
1959	Summer Research Fellowship National Institutes of Health
1960-1961	Post-Doctoral Fellowship in Diving and Submarine Medicine, Laboratory of Aviation and Naval Medicine, Department of Physiology, Karolinska Institute, Stockholm, Sweden
1961-1962	Rotating Intern, University of Virginia Hospital,

Charlottesville, Virginia

- 1962-1965 Psychiatry Resident, Massachusetts Mental Health Center,
Boston Dept. of Neuropharmacology, Harvard,
Research in Brain Catecholamines (Prof. Norman Weiner) 1964-65
- 1963-1964 Premedical Tutor, Winthrop House,
Harvard University, Cambridge, Massachusetts
- 1963-1965 Teaching Fellow in Psychiatry, Harvard University

Private Practice

General Psychiatry, Boston, 1965-1966

Military Service: 1966-present

Inducted into the U.S. Navy as General Medical Officer in July 1966. Rank: Lieutenant Commander. Student, School of Submarine Medicine, U.S. Naval Submarine Base, New London, Connecticut, July 1966 to December 1966. Medical Officer and Radiation Safety Officer aboard Polaris nuclear submarine U.S.S. *Robert E. Lee* SSBN 601 (G), January 1967 to August 1967. Assistant Director, U.S. Navy School of Submarine Medicine, Submarine Base, New London, Connecticut, September 1967 to January 1969. Senior Officer in charge of Diving Medicine Course. Medical Officer at Submarine Escape Training Tower. Active duty terminated January 1969. Promoted to Commander, July 1969. Resigned from Naval service January 1974. Re-commissioned, Lieutenant Commander, Medical Corps, U.S. Naval Reserve (Active) April 6, 1990. Appointed Commanding Officer U.S. Naval Reserve Medical Unit P1355, Medical College of Wisconsin, February 1991-1993. Promoted to Commander, May 1991. Retired from Naval Service to Honorary Reserve, October 1995.

Faculty Appointments:

1969-1988
Assistant Adjunct Clinical Professor of Pharmacology
Division of Environmental Medicine
Medical College of Wisconsin
Milwaukee, Wisconsin

1989-1998
Associate Professor of Hyperbaric Medicine
Department of Plastic and Reconstructive Surgery

Medical College of Wisconsin
Milwaukee, Wisconsin

1989-1998
Associate Professor of Pharmacology and Toxicology
Medical College of Wisconsin
Milwaukee, Wisconsin

Associate Professor, Emeritus, Medical College of Wisconsin
October 14, 1998

Hospital and Administrative Appointments:

1965-1966
Boston State Hospital, Community Program: Instructor, General Practitioner
Psychiatric Teaching Program; Director, East Division Admitting Service;
Chief, Electro-Convulsive Unit; Instructor, Boston University Psychiatric Nursing
Master's Degree Candidates 1965-1966

1969-1988
Chief, Department of Hyperbaric Medicine, St. Luke's Medical Center,
Milwaukee, Wisconsin

1969-present
Honorary Staff, Columbia Hospital, Milwaukee, Wisconsin

1969-1971
Courtesy Staff, Shorewood Sanitarium, Shorewood, Wisconsin

1970-1971
Student Health Psychiatrist, UWM Infirmary, Milwaukee, Wisconsin

1973-1974
Consulting Staff, St. Mary's Hospital, Milwaukee, Wisconsin

1980-1981
Consulting Staff, Deaconess Hospital, Milwaukee, Wisconsin

1986-1998
Consulting Staff, Waukesha Memorial Hospital, Waukesha, Wisconsin

1989-1998
Senior Attending Staff, Froedtert Memorial Lutheran Hospital,
Milwaukee, Wisconsin

1989-1990
Consulting Staff, St. Luke's Medical Center, Milwaukee, Wisconsin

1989-1998

Director of Hyperbaric Medicine
Medical College of Wisconsin, Milwaukee, Wisconsin

1990-1995

Associate Staff, Milwaukee County Medical Complex, Milwaukee, Wisconsin

1990-1998

Consulting Staff, Children's Hospital of Wisconsin, Milwaukee, Wisconsin

Specialty Certification:

Diplomate, National Board of Medical Examiners, 1962

Board Eligible - Psychiatry

Qualified Submarine Medical Officer, U.S. Navy, 1967

Certified as Diver's Examining Physician (North Sea) by
British Secretary of State for Energy, Health and Safety
Executive, 1976-August, 1994.

Certified, Diver's Examining Physician, Norwegian Sector, (North Sea)
Norwegian Directorate of Health, 1979-to present

Member, Hyperbaric and Diving Medicine, Certificate Examination Committee,
American Board of Preventative Medicine. 1999-to present

Medical Licensure:

Massachusetts, November 15, 1962, #27375 (Inactive)

Connecticut, December 7, 1967 #13286 (Inactive)

Wisconsin, October 25, 1968; #16584

Awards, Honors:

1971 Milwaukee Fire Department, Distinguished Service Award

1976 The Undersea Medical Society, National Plan for
Safety and Health of Deep-Sea Divers in Quest
for Subsea Energy, Contribution Certificate.

1980 Marquis Who's Who in the Midwest

1980 Diver's Doctor Award, Underwater Search and
Recovery Team, Indiana State Police

- 1981 Award for Best Scientific Presentation, Junior Classification, Midwestern Association of Plastic Surgeons, May, 1981
- 1983 Appointed Group Leader, People-to-People program. Led group of Hyperbaric Physicians to France, Germany, Sweden and England.
- 1984 Marquis Who's Who in the World
- 1984 Marquis Who's Who in Frontier Science and Technology
- 1993 Boerema Award for Exceptional Contributions in the Field of Hyperbaric Medicine
- 1993 Craig Hoffman Memorial Safety Award for Longstanding and High Quality Contributions to Diving Safety
- 1995 U.S. Navy Meritorious Service Medal
- 1997 Robert R. J. Hilker Award by the Central States Occupational Medical Association
- 1998 Paul Bert Award by the Undersea and Hyperbaric Medical Society for contributions to the advancement of Hyperbaric Medicine
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Memberships in Professional and Honorary Societies:

Undersea and Hyperbaric Medical Society
 Executive Committee 1970-77 and 1979-84
 Secretary-Treasurer 1971
 Vice-President 1978-79
 President-Elect 1980-81
 President 1981-82

American College of Occupational Medicine
 Member, Committee on Liaison with Government Agencies, 1997-1998

Aerospace Medical Association

American Medical Association

Wisconsin State Medical Society

Milwaukee County Medical Society

Ethics Committee, 1988-1994

Milwaukee Academy of Medicine

Submarine League

Member, U.S. Naval Institute

Submarine Veterans Association

American Trauma Society

American Society of Military Surgeons

The Wound Healing Society

South Pacific Underwater Medicine Society

European Underwater and Baromedical Society

Editorial Boards:

Founding Editor, Pressure - Newsletter of the Undersea and Hyperbaric Medical Society, 1972-1974.

Founding Editor, Hyperbaric Oxygen Review, Undersea and Hyperbaric Medical Society, Bethesda, Maryland, 1979 -1986.

Editorial Board, Journal of Hyperbaric Medicine, 1986 -1992.

Editorial Board, Undersea and Hyperbaric Medicine, 1992-1995.

National and International Advisory Committees and/or Activities:

Chairman, Code Committee for Work in Compressed Air, Wisconsin Dept. of Industry, Labor and Human Relations 1970-71. Certified Air Master License #1.

Consultant to Employers Insurance Company of Wausau, Medical Aspects of Work in Compressed Air, 1971-1997

Founding Chairman, Medical Education and Standards Committee, Undersea and Hyperbaric Medical Society, 1972-73.

Consultant, Conditions treated with hyperbaric oxygen to be covered by Medicare, U.S. Social Security Administration, 1972.
Chairman, Workshops, Undersea and Hyperbaric Medical Society, 1973.

Consultant, High Altitude Compressed Air Tunneling, Mexico City, AA Mathews, Inc., April 1973 and May 1974.

Consultant, Santa Fe Engineering and Construction Co., Dysbaric Osteonecrosis and Diving (Gulf Coast) 1975.

Consultant, Compressed Air Tunneling on the Washington D.C. Metro and Baltimore Subways, Traylor Brothers Construction Co., 1975.

Medical Supervision of an experimental 530-foot saturation dive with tri-mix breathing gas on semi-submersible oil drilling platform "Venture I", Forties field, North Sea; Design consultant for the helicopter transportable, pressurized titanium emergency evacuation chamber for off-shore saturation divers. International Underwater Contractors of New York, 1976.

Consultant to the Surgeon General in the Chinese Navy (Taiwan) in Diving and Hyperbaric Medicine, 1976-present.

Consultant, Diving and Compressed Air Work, National Institute of Occupational Safety and Health, 1975-76.

Consultant, Diving Standards (Medical Aspects) Occupational Safety and Health Administration, 1976.

Founding Chairman, Committee on Hyperbaric Oxygenation of the Undersea and Hyperbaric Medical Society. 1976-1980. Member, to the present.

Consultant, Hyperbaric Oxygen Therapy, U.S. Food and Drug Administration, 1977.

Consultant, Compressed Air Tunneling, Baltimore Subway, Fruin-Colnan Const. Co., 1977.

Medical Advisory Board, National YMCA, Underwater Activities Program, 1977.

Consultation and site visit, San Isidro Air Force Base, Dominican Republic, for planning and design of hyperbaric chamber installation for the Dominican Republic Air Force, 1978.

Consultant, High altitude diving at 6000 feet to water depths of 190 feet, Flaming Gorge Dam Project, Dutch John, Utah and Soldier Canyon Dam Project, Colorado, Osberg Construction Co., 1977 and 1979.

Consultant and medical coverage, pipeline outflow diving, Port Sheldon, Mich. Bultema Dock and Dredge Co., 1978-80.

Midwest Regional Coordinator, Divers Alert Network, (DAN), National headquarters at Duke University. (Coordination and management of all diving accidents in the 12-state region from Wyoming to Ohio) 1980 to 1988.

Consultant, Compressed Air Work, World Health Organization (WHO), Geneva, 1981.

Consultant, Compressed Air Tunneling, Cleveland, K & M Construction Co., 1981.

Consultant, Diving Program/Hyperbaric Medicine, Indonesian Navy, 1981-1984.

Consultant, Management of decompression sickness, Hong Kong Subway Construction, Wan Chai Extension, Maida Construction Co. (Japanese Contractor) 1983.

Consultant, Cabin atmospheres and space suit pressures for the U.S. Space Station. Designing out and/or the management of probable accident scenarios. National Aeronautics and Space Administration (NASA), 1983-84.

Consultant, Design of Water-filled Zero Gravity Simulator National Aeronautics and Space Administration (NASA), 1989.

Chairman, Multi-place Chamber Subcommittee, Hyperbaric Oxygen Safety Committee, Undersea and Hyperbaric Medical Society, 1989-1995.

Chairman, Commission on Undersea Physiology and Medicine, International Union of Physiological Sciences, 1989-1998.

Member, *ad hoc* Committee on Hyperbaric Medicine, Scientific Advisory Board, Department of the Air Force, 1993.

Member, Subcommittee on Medical Hyperbaric Systems (PVHO) of the American Society of Mechanical Engineers, October 1993 to present.

Member, Technical Committee on Hyperbaric and Hypobaric Facilities, National Fire Protection Association (NFPA), 1993 to present.

Member, CO Detector Conjoint Task Force #4 on Standards Evaluation, 1994-95.

Medical Advisory Board Curative Health Services 1996 to present

Consultant, Compressed Air Work, Taipei, Taiwan, Subway System, 1997-1999

Community Advisory Committees and/or Activities:

Consultant, Diving Medicine, Dacor Corporation, Northfield, Illinois, 1975-80.

Medical Supervision, Compressed Air Tunneling, R-W Construction Co., Milwaukee, 1970.

Consultant, Fire Fighting in Compressed Air Tunnels, West Allis Fire Department, 1970-74.

Medical Supervisor, Compressed Air Tunneling, Tomaro Construction Co., Milwaukee, 1970, 1979, 1980, 1981, 1986-87.

Medical Supervisor, Compressed Air Tunneling, Grange Construction Co., Milwaukee, 1971-73.

Medical Supervisor, Compressed Air Tunneling, W.J. Lazinski Construction Co., Milwaukee and Green Bay, Wisconsin, 1971-74.

Advisor, Medical Aspects of Scuba Safety, Dive Rescue and Recovery Team, Milwaukee Fire Dept., 1986 to present.

Advisor, Deep tunnel rescue team, Milwaukee Fire Dept., 1987-present.

Consultant, Wisconsin Electric Power Company, Pressurization test of containment vessel with human occupancy. Point Beach Nuclear Power Plant, 1992 and 1994.

Consultant and medical provider for divers. -- City of Milwaukee Water Intake Extension. Durocher Dock and Dredge Co. 1996

Research Grants, Contracts and Awards

American-Scandinavian Foundation Grant. For study of Diving Physiology, Karolinska Institute, Stockholm, Sweden 1960. Total funds: \$5,000; 100% effort; Principal Investigator.

Office of Naval Research Contract #N00014-73-A-0139-0001 (NR 101-952) "Preliminary Measurement of Nitrogen Elimination in Man During Decompression from Increased Atmospheric Pressure". Total funds (1972-73) \$63,800. 20% effort; Principal Investigator. Contract renewed 1973-1974, (NR 201-013). Helium Elimination in Man During Decompression Comparing Air Breathing with Oxygen Breathing. Total funds (1973-74) \$32,000. 20% effort; Principal Investigator.

National Institute of Occupational Safety and Health Contract #5 RO1 OH00659-02 "Radiologic Survey to Detect Aseptic

Necrosis of the Bone Secondary to Occupational Exposure to Compressed Air. Total funds (1977-1979) \$20,000. 10% effort; Principal Investigator.

National Institute of Occupational Safety and Health Grant: 5 RO1 OH 00947-01-3 Safe Decompression Schedules for Tunnel Workers. Total funds (1981-83) \$242,000; 25% effort; Principal Investigator.

Johnson Wax Fund. Support for Mark Low, Graduate Student in our laboratory for Master's Thesis "The Effect of Ambient Pressure on Nitrogen Elimination in Man During Decompression" Total Funds (1977-78) \$10,000.

Office of Naval Research Contract #N00014-76-C-0339 (NR 201-181) "Effects of Hyperbaric Oxygenation on Acute Alcohol Intoxication". Total Funds (1978-79) \$5,000; 10% effort, Co-investigator.

St. Luke's Research Foundation. Support for a pilot study on The Effects of Hyperbaric Oxygen in Acute Carbon Monoxide Poisoning in Pigs. (The P.I. solicited the funds from a utility company and private donor) Total funding \$10,000. Work being carried out at Medical College of Wisconsin and the University of Pennsylvania. 10% effort; Principal Investigator.

St. Luke's Research Foundation. Support for production of an educational videotape on the dangers of decompression sickness for sport Scuba divers. \$2,000. (1987)

United States Air Force, Research Grant: Effects of Hyperbaric Oxygen on Crush Injury in the Rat. \$2500. (1991)

Invited Lectures, Visiting Professorships, Site Visits

Invited Speaker: Current Status of Hyperbaric Oxygenation and Industrial Applications, Central States Society of Industrial Medicine and Surgery, March 12, 1969.

Site Visit: Evaluation of Clinical Hyperbaric Program, Long Beach Naval Hospital, for: Research Division, Bureau of Medicine and Surgery, U.S. Navy, Jan. 31-Feb. 1, 1972.

Invited Speaker: Medical Aspects of Compressed Air Work in Soft Ground Tunneling Symposium, UW-Extension, Milwaukee, Wisconsin, Nov. 7, 1974.

Invited Speaker: The Use of the MS-8 medical mass spectrometer in monitoring hyperbaric gases. Workshop on Problems and Solutions in the Use of Mass

Spectrometry in Hyperbaric Environments, Defense and Civil Institute of Environmental Medicine, Downsview, Ontario, Canada, Sept. 10, 1975.

Faculty, Diving Medicine Course, (University of Hawaii) Truk, Caroline Islands, Feb. 23-29, 1976.

Visiting Professor: Naval General Hospital, Tsoying, Kaoshiung, Taiwan, March 2, 1976 and Chinese Naval Hospital, Keelung, Taiwan, March 3, 1976.

Faculty, Diving and Hyperbaric Medicine Course, University of Amsterdam, Amsterdam, Netherlands, Sept. 20-24, 1976.

Invited Speaker: Diving and Compressed Air Medicine, American Industrial Health Conference (AOMA), Boston, Massachusetts, April 26, 1977.

Faculty, Management of Decompression Related Diving Disorders, Submarine Medical Officer's Course, Her Majesty's Canadian Navy, Downsview, Ontario, Canada, annually or biennially, 1978 to present.

Invited Speaker: "Hyperbaric Medicine in the U.S.", Annual Scientific Meeting, Japanese Society for Hyperbaric Medicine, Tokyo, Japan, October 26, 1979.

Invited Speaker: Diving Accident Management, Our World Underwater, Chicago, Illinois, May 9, 1981.

Invited Speaker: Seminar on Hyperbaric Medicine, Dr. Ramalan Naval Hospital, Surabaya, Indonesia, June 26, 1981.

Grand Rounds: Uses of Hyperbaric Oxygen, Södersjukhuset, Stockholm, Sweden, Sept. 1, 1981 (Lecture given in Swedish.)

Invited Speaker: "Hyperbaric Oxygen in the United States and the United Kingdom: Seventh International Congress on Hyperbaric Medicine, Moscow, U.S.S.R., September 6, 1981.

Invited Speaker: Applications and Uses of Hyperbaric Oxygen in Vascular Disease, and Applications of Hyperbaric Oxygen Therapy in the United States, Sixth Surgical Congress, Ribeirão Preto School of Medicine, Ribeirão Preto, Brazil, March 26, 1986.

Visiting Professor: Orthopedic Applications of Hyperbaric Medicine, University of São Paulo School of Medicine, São Paulo, Brazil, March 29, 1986.

Site Visit: Evaluate Diving Medical Research Program, The Biotron, UW-Madison for: Sea Grant Program National Oceanic and Atmospheric Administration, April 16, 1987.

Faculty, Diving Medicine Course (Duke University) Bonaire, Netherlands West Indies, Oct. 16-21, 1988.

Faculty, Diving Medicine Course, (Temple University), Cayman Brac, Cayman Islands, January 20-27, 1990.

Invited Speaker: HBO Teaching Course for Plastic Surgeons, American Society of Plastic and Reconstructive Surgeons, 1989-1991.

Invited Speaker: Caisson Work, Armed Forces Institute of Pathology, Walter Reed Army Hospital, D.C., March 15-17 1991.

Keynote Speaker: Role of Hyperbaric Oxygen in Clinical Toxicology, European Association of Poison Centers and Clinical Toxicologists, Istanbul, Turkey, May 27, 1992.

Invited Speaker: In Search of Optimum Schedules for Caisson Decompression, Oxford University, Oxford, England, September, 1992.

Visiting Professor and Invited Speaker: Use of Hyperbaric Oxygen in Burns. International Burn Symposium, São Paulo, and Department of Plastic & Reconstructive Surgery, University of São Paulo, Brazil, 1993.

Grand Rounds, Karolinska Hospital, Stockholm, Sweden: Surgical Indications for Hyperbaric Oxygen Therapy (Lecture delivered in Swedish) August 9, 1993.

Invited Speaker: Critical Care Society, Taipei, Taiwan, Republic of China, October 3, 1993.

Grand Rounds: Update on the Surgical Uses of HBO, Tri-Service General Hospital, Taipei, Taiwan, Republic of China, October 4, 1993.

Grand Rounds: Naval General Hospital, Tsoying, Kaohsiung, Taiwan, Republic of China, October 6, 1993.

Invited Speaker: Medical College of Pennsylvania Wound Healing Symposium, Orlando, Florida, February 1994.

Invited Speaker: "Early Recognition of Conditions Requiring HBO," Flight for Life EMT's, McHenry Hospital, Illinois, June 16, 1994.

Invited Speaker: "Rescue Work in Compressed Air." City of San Francisco Fire Department, San Francisco, California, May 9, 1994.

Grand Rounds: Gorgas Army Hospital, Panama Canal Zone, August 5, 1994.

Course Director: "Clinical Hyperbaric Medicine," St. Agnes Hospital, White Plains, New York, 1994 and 1995.

Course Instructor: "Clinical Hyperbaric Medicine," at Naval Undersea Medical Institute, US Naval Submarine Base, New London/Groton, Connecticut, for Undersea Medical Officer Candidates, 1994 to present

Grand Rounds: Whipp's Cross Hospital, London, England, January 3, 1995.

Course Director: "Clinical Hyperbaric Medicine," Institute of Physiology, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia, 1995 and 1996 and Bled, Slovenia 1997

Invited Speaker, South Georgia Medical Center, Valdosta, Georgia, June 3, 1996.

Course Director: "Clinical Hyperbaric Medicine," Bethesda Memorial Hospital, Boynton Beach, Florida, January 22-26, 1997.

Invited Speaker, Symposium on Compressed Air Work, Tri-Service General Hospital, Taipei, Taiwan, Republic of China, March 26, 1997.

Invited Speaker, Jen-Ai Hospital, Bing-Dong, Taiwan, Republic of China, March 27, 1997.

Invited Speaker, I-Jen Hospital, Tao Yuan, Taiwan, Republic of China, March 28, 1997.

Course Director: "Clinical Hyperbaric Medicine," U.S. Naval Hospital, Bremerton, Washington, April 12-13, 1997.

Invited Keynote Speaker: Hyperbaric Technicians and Nurses Association of Australia Annual Meeting, Sidney, Australia, September, 1997.

Course Director, "Clinical Hyperbaric Medicine", University of Graz, Austria, November 1998 and June 1999

Hospital Committees

Utilization Review Committee, St. Luke's Hospital, 1972
Chairman, Research Committee (IRB), St. Luke's Medical Center, 1978-1986.

Medical College Teaching

Preceptor for one month elective rotations in Hyperbaric and Diving Medicine for senior medical students, Medical College of Wisconsin, 1972-1998.

Lecture: "Oxygen as a Drug", Pharmacology, (2 hrs) all second year medical students, MCW. 1986-1992.

Other Educational Activities

Director, Clinical Hyperbaric Medicine course, St. Luke's Hospital, 1976-1988.

Director, Clinical Hyperbaric Medicine course, Medical College of Wisconsin, 1989-present.

Course Director for multiple 5-day 40 hour UHMS approved core-curriculum courses in Hyperbaric Medicine given in West Palm Beach, Miami, and Tampa, FL, White Plains, Mt. Vernon and New York, N.Y, Bryan, TX, Rapid City S.D., Brick, N.J. and Thousand Oaks, CA. 1998-2000

BIBLIOGRAPHY

ORIGINAL PAPERS

1. Kindwall, E.P.: Metabolic rate and animal size correlated with decompression sickness. *Am. J. Physiol.* 203:385-88, August, 1962.
2. Kindwall, E.P., L. Boreus and B. Westerholm: Failure to show change in rat tissue histamine and serotonin after rapid decompression. *Am. J. Physiol.* 203:389-90, August, 1962.
3. Kindwall, E.P. and N. Weiner: The distribution and rates of formation of catecholamines in bovine brain. *J. of Neuro-Chemistry* 13:1523-1531, 1966.
4. Kindwall, E.P.: Gas gangrene-Acute medical emergency-The role of hyperbaric medicine. *Wisc. Med. Journal* 69:261-263, December, 1970.
5. Kindwall, E.P., Schenck, H., McAniff, J.: Department of Ocean Engineering - University of Rhode Island: Non-Fatal, Pressure-Related Scuba Accidents, Identification and Emergency Treatment, Scuba Safety Report Series Report No. 3, April, 1971.
6. Kindwall, E.P.: Aseptic Bone Necrosis, Occupational Safety and Health, Problems of the Diving Industry in Offshore Petroleum Production, Houston, Texas. Medical Research Report EA7104, Am. Petroleum Inst., Washington, D.C., Sept. 28-29, 1971.
7. Kindwall, E.P.: Milwaukee Sewerage Tunnel Project, In: *Dysbarism-Related Osteonecrosis, A Symposium*, (E. Beckman and D. Elliott, Eds.) pp. 41-46, Feb. 10-11, 1972, Houston, Texas: Gulf Publishing Co., 1974.
8. Nellen, J.R. and E.P. Kindwall: Aseptic necrosis of bone secondary to occupational exposure to compressed air radiologic findings in 59 cases. *Am. J. of Roentg. Radium Ther. Nucl. Med.*, 115:96, 1972.

9. Kindwall, E.P.: Massive surgical air embolism treated with brief recompression to six atmospheres followed by hyperbaric oxygen. *Aerospace Medicine* 44(4):663-666, 1973.
10. Kindwall, E.P.: Aseptic Necrosis due to Occupational Exposure to Compressed Air: Experience with 62 Cases. In: *Proc. of the Fifth International Congress on Hyperbaric Medicine* (Eds.: E. Bannister & W. Trapp) pp. 863-866. Burnaby, B.C., Canada: Simon Fraser University, 1974.
11. Kindwall, E.P.: New Treatment for Air Embolism Avoiding the Use of Table IV. In: *Proc. of Fifth International Congress on Hyperbaric Medicine* (Eds.: E. Bannister & W. Trapp) pp. 895-899. Burnaby, B.C., Canada: Simon Fraser University, 1974.
12. Kindwall, E.P. and I. Margolis: Management of severe decompression sickness with treatment ancillary to recompression; Case report. *Aviat. Space and Envir. Med.* 46:1065-68, 1975.
13. Kindwall, E.P.: Measurement of helium elimination in man breathing air or oxygen. *Undersea Biomedical Research* 2(4):277-284, 1975.
14. Kindwall, E.P., A. Baz, E. Lanphier, E. Lightfoot and A. Seireg: Nitrogen elimination in man during decompression. *Undersea Biomedical Research* 2(4):285-297, 1975.
15. Kindwall, E.P. Advantages and disadvantages of emergency ascent training. In: *Proceedings of the 7th International Conference on Underwater Education*. Colton, CA: National Association of Underwater Instructors, 1976: 252-256.
16. Jacobson, G. and E.P. Kindwall: Effects of Hyperbaric Oxygenation on Acute Alcohol Intoxication. Final Report. Office of Naval Research Contract #N00014-76-C-0339, (NR 281-181) O.N.R., Alexandria, VA., 1979.
17. Kindwall, E.P.: The Role of Adjunctive and Fluid Therapy in Decompression Sickness. *Proceedings of the 20th Undersea Medical Society Workshop: Treatment of Serious Decompression Sickness and Arterial Air Embolism*. UMS Publication #34 WS (SDS), November, 1979.
18. Kindwall, E.P., J.R. Nellen and Dr. R. Spieglehoff: Aseptic necrosis in compressed air workers using current OSHA decompression schedules. *J. Occupat. Med.*, 24(10):741-745, 1982.
19. Kolesari, G. and E.P. Kindwall: Survival following accidental decompression to a simulated altitude greater than 74,000 feet (22,555 meters). *Aviat. Space and Environ. Medicine*. 53(12):1211-1214, 1982.
20. Kindwall, E.P., P.O. Edel and H.E. Melton: Safe Decompression Schedules for Caisson Workers. Final Report, National Institute of Occupational Safety and Health, Research Grant #5 R01-OH-00947-03, December 1, 1983.

21. Kindwall, E.P. and H.E. Melton: Ultrasonic Detection of Stationary Bubbles in Humans. In: *Hyperbaric Medicine and Underwater Physiology* (K. Shiraki & S. Matsuoka, Eds.) pp. 247-254, Fukuoka Printing Co., Ltd., Fukuoka, 1983.
22. Raff, H., R.W. Goldmann and E.P. Kindwall: Adrenocortical function after acute carbon monoxide exposure in humans. *Arch. Envir. Health* 40(2):88-90, 1985.
23. Downs, G.J. and E.P. Kindwall: Aseptic necrosis in caisson workers: A new set of tables. *Aviat. Space and Environ. Med.* 57(6):569-574, 1986.
24. Gonnering, R.S., E.P. Kindwall and R. W. Goldmann: Adjunct hyperbaric oxygen therapy in periorbital reconstruction. *Arch of Ophthalmol.* 104:439-443, 1986.
25. Kindwall, E.P.: Caisson Decompression. In: *The Physiologic Basis of Decompression, Proceedings of an Undersea and Hyperbaric Medical Society Symposium*, Duke University, November 18, 1987.
26. Kindwall, E.P., R.W. Goldmann and P.A. Thombs: Use of the monoplace vs. the multiplace chamber in the treatment of diving diseases. *J. of Hyperbaric Med.* 3(1):5-10, 1988.
27. Bernhardt, T.L., R.W. Goldmann, P.A. Thombs and E.P. Kindwall: Hyperbaric Oxygen treatment of cerebral air embolism from orogenital sex during pregnancy. *Critical Care Med.* 16(7):729-730, 1988.
28. Kindwall, E.P., Management of Diving Accidents-Historical Review. In: (Bennett, P.B. & Moon, R.E., eds.) *Diving Accident Management*, 41st UHMS Workshop, UHMS Pub. #78 (DIVACC) 12/01/90, Bethesda, MD: Undersea & Hyperbaric Medical Society 1990.
29. Kindwall, E.P., M.P. McQuillen, B. Khatri, H.W. Gruchow and M.L. MacArthur: Treatment of multiple sclerosis with hyperbaric oxygen - A long-term study. *Archives of Neurology*, 48(2): 195-199, February, 1991.
30. Fueredi, G.A., D.J. Czarnecki and E.P. Kindwall: MR findings in the brains of compressed-air tunnel workers: Relationship to psychometric results. *American Journal of Neuroradiology*, 12(1): 67-70, 1991.
31. Lambrecht, C.J., J.R. Mateer, D.W. Olsen, H.A. Stueven, E.P. Kindwall & J.E. Cisek: Air medical transport for HBOT. *Travel Medicine International*, Mark Allen Publishing, Ltd, London, June 1992.
32. Sklizovic, D., J.R. Sanger, E.P. Kindwall, J.G. Fink, B.K. Grunert, B.H. Campbell, Hyperbaric oxygen therapy and squamous cell carcinoma cell line growth. *Head & Neck*, 15:236-240, May/June, 1993.
33. Kindwall, E.P. Hyperbaric oxygen treatment of radiation cystitis. *Clinics in Plastic Surgery*, 20(3):589-592, July, 1993.

34. Kindwall, E.P. Hyperbaric oxygen's effect on radiation necrosis. *Clinics in Plastic Surgery*, 20(3):473-483, July, 1993.
35. Kindwall, E.P., Optimum decompression tables for caisson workers. In: *Engineering and Health in Compressed Air Work* . (Eds.: F. M. Jardine and R. I. McCallum) Pages 156-171. London: E&FN Spon, 1994.
36. Sowden, L.M., Kindwall, E.P., and Francis, T.J.R., The distribution of limb pain in decompression illness. *Aviation, Space, and Environmental Medicine*, 1996, 67(1):74-80.
37. Kindwall, E.P., Use of short versus long tables in the treatment of decompression sickness and air embolism. In: *Treatment of Decompression Illness* (Eds.: R.E. Moon and P.J. Sheffield). Forty-fifth Workshop of the Undersea and Hyperbaric Medical Society, June 18-19, 1995. 1996: 122-126.

CHAPTERS AND REVIEWS

1. Kindwall, E.P. (Chairman) et al.: Work Under Compressed Air Wisconsin Administrative Code, Rules of the Dept. of Industry, Labor and Human Relations, Chap. Ind. 12.01-12.86. Wisconsin Dept. of Administration, Document Sales and Distrib., 1 W. Wilson Street, Madison, WI, Sept. 1, 1971.
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