

DIVING MEDICAL EXAM OVERVIEW FOR THE EXAMINING PHYSICIAN

TO THE EXAMINING PHYSICIAN:

This person, _____, requires a medical examination to assess his/her fitness for certification as a Scientific Diver for the Lighthouse Archaeological Maritime Program (LAMP). His /her answers on the Diving Medical History Form (attached), may indicate potential health or safety risks as noted. Your evaluation is requested on the attached scuba Diving Fitness Medical Evaluation Report. If you have questions about diving medicine, you may wish to consult one of the references on the attached list or contact Duke University's Divers Alert Network website or medical information hotline (also attached below). A list of local physicians familiar with diving medicine is also attached. Please contact the undersigned LAMP Diving Officer if you have any questions or concerns about diving medicine or LAMP and the Academy of Underwater Sciences scientific diving standards. Thank you for your assistance.

Chuck Meide
LAMP Diving Officer
St. Augustine Lighthouse & Museum
81 Lighthouse Ave.
St. Augustine, FL 32080

Date
Phone: 904-829-0745
Fax: 904-808-1248
e-mail: cmeide@staugustinelighthouse.com

Scuba and other modes of compressed-gas diving can be strenuous and hazardous. A special risk is present if the middle ear, sinuses or lung segments do not readily equalize air pressure changes. The most common cause of distress is eustachian insufficiency. Most fatalities involve deficiencies in prudence, judgement, emotional stability or physical fitness. Please consult the following list of conditions that usually restrict candidates from diving.

(Adapted from Bove 1998: 61 -63, bracketed numbers are pages in Bove)

CONDITIONS WHICH MAY DISQUALIFY CANDIDATES FROM DIVING

1. Abnormalities of the tympanic membrane, such as perforation, presence of a monomeric membrane, or inability to autoinflate the middle ears. [5,7,8,9]
2. Vertigo including Meniere's Disease. [13]
3. Stapedectomy or middle ear reconstructive surgery. [11]
4. Recent ocular surgery. [15,18,19]
5. Psychiatric disorders including claustrophobia, suicidal ideation, psychosis, anxiety states, untreated depression. [20 - 23]
6. Substance abuse, including alcohol. [24-25]
7. Episodic loss of consciousness. [1, 26,27]
8. History of seizure. [27, 28]
9. History of stroke or a fixed neurological deficit. [29,30]
10. Recurring neurologic disorders, including transient ischemic attacks. [29,30]
11. History of intracranial aneurysm, other vascular malformation or intracranial hemorrhage. [31]
12. History of neurological decompression illness with residual deficit. [29,30]
13. Head injury with sequelae. [26, 27]
14. Hematologic disorders including coagulopathies. [41, 42]
15. Evidence of coronary artery disease or high risk for coronary artery disease. [33 - 35]
16. Atrial septal defects. [39]
17. Significant valvular heart disease - isolated mitral valve prolapse is not disqualifying. [38]
18. Significant cardiac rhythm or conduction abnormalities. [36 - 37]
19. Implanted cardiac pacemakers and cardiac defibrillators (ICD). [39, 40]
20. Inadequate exercise tolerance. [34]
21. Severe hypertension. [35]
22. History of spontaneous or traumatic pneumothorax. [45]
23. Asthma. [42 - 44]
24. Chronic pulmonary disease, including radiographic evidence of pulmonary blebs, bullae or cysts.[45,46]
25. Diabetes mellitus. [46 - 47]
26. Pregnancy. [56]

MEDICAL EVALUATION OF FITNESS FOR SCUBA DIVING REPORT

Name of Applicant (Print or Type)

Date(Mo/Day/Year)

To The PHYSICIAN:

This person is an applicant for training or is presently certified to engage in diving with self-contained underwater breathing apparatus (scuba). This is an activity that puts unusual stress on the individual in several ways. Your opinion on the applicant's medical fitness is requested. Scuba diving requires heavy exertion. The diver must be free of cardiovascular and respiratory disease. An absolute requirement is the ability of the lungs, middle ear and sinuses to equalize pressure. Any condition that risks the loss of consciousness should disqualify the applicant.

TESTS: Please initial that the following tests were completed.

**Initial Examination
or first over age 40**

- _____ Medical History
- _____ Complete Physical Exam with emphasis
on neurological and otological components
- _____ Chest X-Ray, PA and lateral views
- _____ Spirometry
- _____ Hematocrit or Hemoglobin
- _____ Urinalysis
- _____ Audiogram
- _____ Visual acuity
- _____ Any further tests deemed necessary by the
physician.

Additional testing for initial exam over age 40

- _____ Resting EKG
- _____ Assessment of coronary artery disease risk
factors including lipid profile and diabetic
screening

**Re-examination (Every 5 years under age 40,
every 3 years over age 40, every 2 years over age 60)**

- _____ Medical History
- _____ Complete Physical Exam, with emphasis
on neurological and otological components
- _____ Hematocrit or Hemoglobin
- _____ Urinalysis
- _____ Any further tests deemed necessary by
the physician

Additional testing for over age 40

- _____ Resting EKG
- _____ Assessment of coronary artery disease risk
factors including lipid profile and diabetic
screening

Note: Exercise stress testing may be indicated based on risk factor analysis

RECOMMENDATION:

APPROVAL. I find no medical condition(s) that I consider incompatible with diving.

RESTRICTED ACTIVITY APPROVAL. The applicant may dive in certain circumstances as described in
REMARKS.

FURTHER TESTING REQUIRED. I have encountered a potential contraindication to diving. Additional medical
tests must be performed before a final assessment can be made. See REMARKS.

REJECT. This applicant has medical condition(s) which, in my opinion, clearly would constitute unacceptable
hazards to health and safety in diving

OVER

FURTHER INFORMATION ON DIVING MEDICINE

The Divers Alert Network (DAN), based at Duke University, maintains a hotline staffed by physicians and medics with expertise in diving medicine, and constantly updates a database of operational hyperbaric chamber facilities across the U.S. Their webpage hosts an extensive array of information related to diving health and conditions that may impact safe diving, and allows visitors to email questions directly to DAN medics.

Divers Alert Network
Medical Information Line

www.diversalertnetwork.org
Phone: (919) 684-2948 Ext 222

Mon-Fri, 9 AM to 5 PM EST

SELECTED REFERENCES IN DIVING MEDICINE

Most of these are available from Best Publishing Company, P.O. Box 30100, Flagstaff, AZ 86003-0100, the Divers Alert Network (DAN) or the Undersea and Hyperbaric Medical Association (UHMS), Bethesda, MD.

DIVING MEDICINE, Second Edition, 1990. A. Bove and J. Davis. W.B. Saunders Company, Philadelphia

DIVING AND SUBAQUATIC MEDICINE, Third Edition, 1992. C. Edmonds, C. Lowery and J. Pennefather. Butterworth-Heinemann Ltd. Oxford

MEDICAL EXAMINATION OF SPORT SCUBA DIVERS, 1998. Alfred Bove, M.D.,Ph.D. (ed.). Medical Seminars, Inc. San Antonio, TX

NOAA DIVING MANUAL, NOAA. U.S. Government Printing Office, Washington, D.C.

SCUBA DIVING IN SAFETY AND HEALTH, C.W. Deuker. Madison Publishing Associates, Diving Safety Digest, P.O. Box 2735, Menlo Park, CA 94026

THE PHYSICIAN'S GUIDE TO DIVING MEDICINE, C.W. Shilling, C.B. Carlston and R.A. Mathias. Plenum Press, New York, NY

U.S. NAVY DIVING MANUAL. U.S. Government Printing Office, Washington, D.C.

<http://www.diversalertnetwork.org/medical/articles/index.asp>

Site contains articles on diving medicine from Alert Diver Magazine.

LOCAL/REGIONAL PHYSICIANS FAMILIAR WITH DIVING MEDICINE

Duke Scott, M.D.
1606 Arrowhead Trail
Neptune Beach, FL 32266
Phone: (904) 246-0750

Victor Maquera, MD
1895 Kingsley Ave.
Orange Park, FL 32073
Phone: (904) 276-2220

John Zumrick, MD
1588 Chain Ferry Way
Orange park, FL 32073
jzumrick@worldnet.att.net

John C. Kruse, MD
10105 Courtyards Pl W
Jacksonville, FL 32256
Phone: (904) 645-3060

Indrani A Sheridan
St. Vincent's Hospital
1800 Barrs St.
Jacksonville, FL 32204
Phone: (904)-308-7300

William H. Knibbs, MD
Baptist Medical Center, Hyperbaric Chamber
800 Prudential Dr. Jacksonville, FL 32207
Jacksonville, FL 32207
Phone: (904) 202-1151

Andrea Gabrielli, MD
Shands Medical Center
P.O. Box 100254
Gainesville, FL 32610-025
Phone: (352) 395-0463