

Procedures for Diving Physicals at URI Health Services

1. Make an appointment at URI Health Services; telephone number: 874-4751. URI Health Services is located in the Potter Building on the Kingston Campus. When you call to make the appointment, inform Health Services that the physical exam is for URI's Research Diving Program. At the time of the physical, present to the following forms:
 - a. Diving Medical Exam Overview.
 - b. Medical Evaluation.
 - c. Diving Medical History.

These forms can also be found in the URI Research Diving Manual, appendices 2, 3, and 4.

2. **PAYMENT MUST BE MADE AT THE TIME OF THE EXAM.** Payment can be either by a College Requisition, VISA/MC, check or cash.

URI Diving Medical Exam Overview for the Examining Physician

TO THE EXAMINING PHYSICIAN:

This person, (name) _____, requires a medical examination to assess their fitness for authorization as a scientific diver for the University of Rhode Island. Their 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 of a general nature about diving medicine, you may wish to consult one of the references on the attached list or contact a physician with expertise in diving medicine whose names and phone numbers appear in appendix 6 of the URI Research Diving Manual. Thank you for your assistance.

Mark Gustafson
URI Diving Safety Officer

October 6, 2003

Office Telephone: 401/874-6205

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, judgment, 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 -
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]

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. Superintendent of Documents, 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. Superintendent of Documents, 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.

URI Research Medical Evaluation of FITNESS FOR SCUBA-DIVING REPORT

Name of Applicant (Print or Type)

Date (Mo./Day/Year)

Date of Birth: _____

TO THE PHYSICIAN:

This person is an applicant for training or is presently authorized 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

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
____ Chest X-Ray
____ Spirometry
____ Hematocrit or Hemoglobin
____ Urinalysis
____ Any further tests deemed necessary by the physician

____ Medical History
____ Complete Physical Exam, with emphasis
on neurological and otological components
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____ Urinalysis
____ Any further tests deemed necessary by the
physician

Additional testing for first exam over age 40

____ 12 Lead EKG
____ Assessment of coronary artery disease risk factors
including lipid profile and diabetic screening.

Additional testing for first exam over age 40

____ 12 Lead EKG
____ Assessment of coronary artery disease risk
Factors including lipid profile and diabetic
screening.

NOTE: Exercise stress testing maybe indicated based on risk factor analysis.

RECOMMENDATION:

APPROVAL. I find no medical condition(s), which 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) that, in my opinion, clearly would constitute unacceptable hazards to health and safety in diving.

URI Diving Medical History Form
(To Be Completed by Applicant-Diver)

Name _____ Sex _____ Age _____ Wt. _____ Ht. _____

Sponsor _____ Date ____/____/____
(Dept./Project/Program/School, etc.) (Mo./Day/Yr)

TO THE APPLICANT:

Scuba diving makes considerable demands on your physical and emotional condition. Diving with particular defect amounts to asking for trouble not only for yourself, but to anyone coming to your aid if you get into difficulty in the water. Therefore, it is prudent to meet certain medical and physical requirements before beginning a diving or training program.

Your answers to the questions are more important, in many instances, in determining your fitness than what the physician may see, hear or feel when you are examined. Obviously, you should give accurate information or the medical screening procedure becomes useless.

This form shall be kept confidential. If you believe any question amounts to invasion of your privacy, you may elect to omit an answer, provided that you shall subsequently discuss that matter with your own physician and they must then indicate, in writing, that you have done so and that no health hazard exists.

Should your answers indicate a condition, which might make diving hazardous, you will be asked to review the matter with your physician. In such instances, their written authorization will be required in order for further consideration to be given to your application. If your physician concludes that diving would involve undue risk for you, remember that they're concerned only with your well being and safety. Respect the advice and the intent of this medical history form.

- | | |
|--|--|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 1. Have you ever had epilepsy (seizures)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 2. Do you faint or have blackout spells? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 3. Have you ever been addicted to drugs? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 4. Do you have diabetes? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 5. Do you suffer from motion sickness or sea/air sickness? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 6. Are you prone to claustrophobia? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 7. Have you ever had a nervous breakdown? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 8. Do you have any limiting physical handicaps? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 9. Do you suffer from muscle cramps? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 10. Do you have varicose veins? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 11. Do you have any amputations? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 12. Have you ever had a head injury causing unconsciousness? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 13. Have you experienced any paralysis? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 14. Have you ever had an adverse reaction to medication? |

- Yes No 15. Are you pregnant?
- Yes No 16. Do you suffer from menstrual problems?
- Yes No 17. Do you get anxiety spells or hyperventilation?
- Yes No 18. Do you get frequent sour stomachs, nervous stomachs or vomiting spells?
- Yes No 19. Do you have any bleeding disorders?
- Yes No 20. Is a physician presently treating you?
- Yes No 21. Are you taking any medication regularly (even nonprescription?)
- Yes No 22. Have you ever been rejected or restricted from sports?
- Yes No 23. Do you have frequent and severe headaches?
- Yes No 24. Do you wear dental plates?
- Yes No 25. Do you wear glasses or contact lenses?
- Yes No 26. Have you ever had any problems with alcoholism?
- Yes No 28. Have you ever had any problems relating to diving?
- Yes No 29. Do you suffer from nervous tension or emotional problems?
- Yes No 30. Do you sometimes take tranquilizers?
- Yes No 31. Have you ever had perforated eardrums?
- Yes No 32. Do you have hay fever?
- Yes No 33. Do you have frequent sinus trouble, frequent drainage from the nose, post-nasal drip, or stuffy nose?
- Yes No 34. Do you get frequent earaches?
- Yes No 35. Do you have drainage from the ears?
- Yes No 36. Do you have difficulty with your ears in airplanes or mountains?
- Yes No 37. Have you ever had ear surgery?
- Yes No 38. Do you have ringing in your ears?
- Yes No 39. Do you get frequent dizzy spells?
- Yes No 40. Do you have any hearing problems?
- Yes No 41. Do you have trouble equalizing pressure in your ears?
- Yes No 42. Have you ever had asthma?
- Yes No 43. Have you ever had wheezing attacks?
- Yes No 44. Do you have a chronic or recurrent cough?
- Yes No 45. Do you frequently raise sputum?
- Yes No 46. Have you ever had pleurisy?
- Yes No 47. Have you ever had a collapsed lung (pneumothorax)?
- Yes No 48. Do you have lung cysts?
- Yes No 49. Have you had pneumonia?
- Yes No 50. Have you ever had tuberculosis?
- Yes No 51. Do you get shorter of breath than most people?
- Yes No 52. Have you ever been told that you have a lung problem or abnormality?
- Yes No 53. Do you ever spit blood?
- Yes No 54. Do you ever have breathing difficulty after eating particular foods, after exposure to particular pollens or animals?
- Yes No 55. Are you subject to bronchitis?

- Yes No 56. Have you ever had subcutaneous emphysema (air under the skin)?
- Yes No 57. Have you ever had an air embolism after diving?
- Yes No 58. Have you ever had rheumatic fever?
- Yes No 59. Have you ever had scarlet fever?
- Yes No 60. Have you ever been told you have a murmur?
- Yes No 61. Have you ever been told you have a large heart?
- Yes No 62. Have you ever had high blood pressure?
- Yes No 63. Have you ever had angina (heart pains or pressure in the chest)?
- Yes No 64. Did you ever have a heart attack?
- Yes No 65. Do you ever have low blood pressure?
- Yes No 66. Do you have recurrent or persistent swelling of the legs?
- Yes No 67. Have you ever had pounding, rapid heartbeat or palpitations?
- Yes No 68. Have you ever had dizziness or fainting spells?
- Yes No 69. Do you get fatigued or short of breath easily?
- Yes No 70. Have you been told you had an abnormal EKG?
- Yes No 71. Do you suffer from joint problems, dislocations or arthritis?
- Yes No 72. Have you ever had back trouble or back injuries?
- Yes No 73. Have you ever had a ruptured or slipped disk?
- Yes No 74. Do you smoke?
- Yes No 75. Have you ever had any other medical problems not listed?

If so please describe below:

**UNIVERSITY OF RHODE ISLAND
DR. PAULINE B. WOOD HEALTH SERVICES
RESEARCH DIVING PHYSICAL EXAMINATION
Effective January 2003**

Initial examination under age 40:

* Medical History	
* Complete Physical Exam, emphasis on neurological and otological components	\$160.
* Chest X-ray	77.
* Spirometry	130.
* Hematocrit or Hemoglobin	(\$11./\$11.)
* Urinalysis	25.
* Any further tests deemed necessary by the physician.	

Periodic re-examination under age 40 (every 5 years)

* Medical History	
* Complete Physical Exam, emphasis on neurological and otological components	\$110.
* Hematocrit or Hemoglobin	(\$11./\$11.)
* Urinalysis	25.
* Any further tests deemed necessary by the physician	

Initial exam over age 40:

* Medical History	
* Complete Physical Exam, emphasis on neurological and otological components	\$160.
* Assessment of coronary artery disease risk factors incl. lipid profile and diabetic screening	20.#
* Resting EKG	42.
* Chest X-ray	77.
* Spirometry	130.
* Urinalysis	25.
* Hematocrit or Hemoglobin	(\$11./\$11.)
* Any further tests deemed necessary by the physician	
* Exercise stress testing may be indicated based on risk factor analysis	

Periodic re-examination over age 40 (every 3 years); over age 60(every two years):

* Medical History	
* Complete Physical Exam, emphasis on neurological and otological components	\$110.00
* Assessment of coronary artery disease risk factors incl. lipid profile and diabetic screening	20.
* Resting EKG	42.00
* Urinalysis	25.00
* Hematocrit or Hemoglobin	(\$11./\$11.)
* Any further tests deemed necessary by the physician	
* Exercise stress testing may be indicated based on risk factor analysis	

#is General Chemistry

URI RESEARCH DIVING PROGRAM Diver Application Form

Name:.....

URI Class or year of graduation:..... URI Staff or URI Faculty

Home phone:.....

Campus phone:.....

E-mail.....

Home Address: Campus Address:

.....

.....

.....

SCUBA Certification(s) and year completed:.....

How many dives have you logged in the past year?

Authorization type: Initial/Temporary/Re-Authorization

For Office Use

Ø	Date	Items:
		SCUBA Certification
		Physical Examination
		Oxygen First-Aid Certification
		CPR Certification
		First-Aid Certification
		Logged 5 Open Water Dives
		Written Examination
		Acknowledgment of URI Research Diving Manual
		Open Water Evaluation
		Equipment Inspection (every 12 months)

The applicant is granted a 30-foot depth authorization. Authorization to a depth of 60-feet will be granted after successful completion of section 4.00 of the URI Research Diving Manual. The applicant must comply with the standards as contained in the URI Research Diving Manual.

file:dive/doc/diver application

URI Research Diving Manual Acknowledgement of Diving Manual

My signature on this page certifies that I have read the URI Research Diving Manual. I have discussed with the URI Diving Officer all aspects of the material that confused me and I now have an understanding of the standards as contained in the URI Research Diving Manual and will comply with them.

For applicants to be authorized as a URI Research Diver please sign below and return this page to the URI Diving Officer. The manual is for your reference.

Signature:

Date: