DIVING MEDICAL EXAM OVERVIEW FOR THE EXAMINING PHYSICIAN

TO THE EXAMINING PHYSICIAN:			
This person,, requires a medical	examination to assess their fitness for		
certification as a Scientific Diver for the University of Sou	th Florida or the Florida Institute of		
Oceanography. Their answers on the Diving Medical History	ory 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 l	ist or contact one of the physicians		
with expertise in diving medicine whose names and phone	numbers appear on an attached list.		
Please contact the undersigned Diving Safety Officer if you have any questions or concerns			
about diving medicine or the University of South Florida or the Florida Institute of			
Oceanography standards. Thank you for your assistance.			
Ben Meister			
Diving Safety Officer	Date		
4202 E. Fowler Ave. PED-214; Tampa, Florida 33620	813-396-9223		
Mailing Address	Phone Number		

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: 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 disease¹. [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. Asthma². [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.

- ACC/AHA Guidelines for Exercise Testing. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Exercise Testing). Gibbons RJ, et al. 1997. Journal of the American College of Cardiology. 30:260-311. http://www.acc.org/clinical/guidelines/exercise/exercise.pdf
- Alert Diver Magazine; Articles on diving medicine http://www.diversalertnetwork.org/medical/articles/index.asp
- "Are Asthmatics Fit to Dive?" Elliott DH, ed. 1996 Undersea and Hyperbaric Medical Society, Kensington, MD.
- "Assessment of Cardiovascular Risk by Use of Multiple-Risk-Factor Assessment Equations."
 Grundy et. al. 1999. AHA/ACC Scientific Statement.
 http://www.acc.org/clinical/consensus/risk/risk1999.pdf
- DIVING MEDICINE, Third Edition, 1997. A. Bove and J. Davis. W.B. Saunders Company, Philadelphia
- DIVING AND SUBAQUATIC MEDICINE, Third Edition, 1994. 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.
- U.S. NAVY DIVING MANUAL. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

¹ "Assessment of Cardiovascular Risk by Use of Multiple-Risk-Factor Assessment Equations." Grundy et. al. 1999. AHA/ACC Scientific Statement. http://www.acc.org/clinical/consensus/risk/risk1999.pdf

² "Are Asthmatics Fit to Dive? " Elliott DH, ed. 1996 Undersea and Hyperbaric Medical Society, Kensington, MD.

MEDICAL EVALUATION OF FITNESS FOR SCUBA DIVING REPORT

Name of Applicant (Print or Type)	Date of Medical Evaluation (M/D/Y)
To The Examining Physician: Scientific divers require per fitness to engage in diving with self-contained underwater by Medical History Form may indicate potential health or safe unusual stress on the individual in several ways. Your evaluate opinion on the applicant's medical fitness is requested. Scubar of cardiovascular and respiratory disease (see references, for the lungs, middle ears and sinuses to equalize pressure. And disqualify the applicant. Please proceed in accordance with questions about diving medicine, please consult with the Network.	reathing apparatus (scuba). Their answers on the Diving ety risks as noted. Scuba diving is an activity that puts tion is requested on this Medical Evaluation form. Your a diving requires heavy exertion. The diver must be free llowing page). An absolute requirement is the ability of ty condition that risks the loss of consciousness should the AAUS Medical Standards (Sec. 6.00). If you have
TESTS: THE FOLLOWING TESTS ARE $\underline{\textbf{REQUIRED}}$:	
DURING ALL INITIAL AND PERIODIC RE-EXAMS	(UNDER AGE 40):
Medical historyComplete physical exam, with emphasis on neurolo	ogical and otological components
Urinalysis	_
 Any further tests deemed necessary by the physicia ADDITIONAL TESTS DURING FIRST EXAM OVER 	
AGE 40):	
 Chest x-ray (Required only during first exam over a Resting EKG 	age 40)
Assessment of coronary artery disease using Multip	
(age, lipid profile, blood pressure, diabetic screening Note: Exercise stress testing may be indicated base	
	d on widitiple-Kisk-Pactor Assessment
PHYSICIAN'S STATEMENT:	
01 Diver <u>IS</u> medically qualified to dive for:	2 years (over age 60) 3 years (age 40-59)
	5 years (age 40-57) 5 years (under age 40)
02 Diver <u>IS NOT</u> medically qualified to dive:	Permanently Temporarily.
I have evaluated the abovementioned individual according to	
standards and required tests for scientific diving (Sec. 6.00 conditions that may be disqualifying for participation in scul	
condition(s) that would not disqualify him/her from diving b	
The patient understands the nature of the hazards and the risk	
N	fD or DO
Signature	Date
Name (Print or Type)	
Address	
Telephone Number E-Mail	Address
My familiarity with applicant is:This exam only	Regular physician for years
My familiarity with diving medicine is:	

AAUS MEDICAL EVALUATION OF FITNESS FOR SCUBA DIVING REPORT APPLICANT'S RELEASE OF MEDICAL INFORMATION FORM

Name of Applicant (Print or Type)	
I authorize the release of this information	and all medical information subsequently acquired in association with my
diving to the	Diving Safety Officer and Diving Control Board or their
designee at (place)	on (date)
Signature of Applicant	
Date	

REFERENCES

¹ Grundy, S.M., Pasternak, R., Greenland, P., Smith, S., and Fuster, V. 1999. Assessment of Cardiovascular Risk by Use of Multiple-Risk-Factor Assessment Equations. AHA/ACC Scientific Statement. *Journal of the American College of Cardiology*, 34: 1348-1359. http://content.onlinejacc.org/cgi/content/short/34/4/1348

USF SCIENTIFIC DIVING MEDICAL HISTORY FORM

(To Be Completed By Applicant-Diver)

Name	Sex	Age	Wt Ht
Sponsor(Dept./Project/Program/School, etc.)		_ Date	// (Mo/Day/Yr)

TO THE APPLICANT:

Scuba diving makes considerable demands on you, both physically and mentally. Diving with certain medical conditions may be asking for trouble not only for yourself, but also 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 as important, in determining your fitness as your physical examination. 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 are concerned only with your well-being and safety. Please respect the advice and the intent of this medical history form.

	Have you ever had or do you presently have any of the following?	Yes	No	Comments
1.	Trouble with your ears, including ruptured eardrum, difficulty clearing			
	your ears, or surgery.			
2.	Trouble with dizziness.			
3.	Eye surgery.			
4.	Depression, anxiety, claustrophobia, etc.			
5.	Substance abuse, including alcohol.			
6.	Loss of consciousness.			
7.	Epilepsy or other seizures, convulsions, or fits.			
8.	Stroke or a fixed neurological deficit.			
9.	Recurring neurologic disorders, including transient ischemic attacks.			
10.	Aneurysms or bleeding in the brain.			
11.	Decompression sickness or embolism.			
12.	Head injury.			
13.	Disorders of the blood, or easy bleeding.			
14.	Heart disease, diabetes, high cholesterol.			
15.	Anatomical heart abnormalities including patent foramen ovale, valve problems, etc.			

16.	Heart rhythm problems.			
17	N. 10 1			
17.	Need for a pacemaker.			
18.	Difficulty with exercise.			
19.	High blood pressure.			
20.	Collapsed lung.			
21.	Asthma.			
22.	Other lung disease.			
23.	Diabetes mellitus.			
24.	Pregnancy.			
25	Surgery If yes explain below.			
26.	Hospitalizations. If yes explain below.			
27.	Do you take any medications? If yes list below.			
28.	Do you have any allergies to medications, foods, and environmentals? If			
	yes explain below.			
29.	Do you smoke?			
30.	Do you drink alcoholic beverages?			
31.	Is there a family history of high cholesterol?			
32.	Is there a family history of heart disease or stroke?			
33.	Is there a family history of diabetes?			
34.	Is there a family history of asthma?			
Pleas	se explain any "yes" answers to the above questions.			
I certify that the above answers and information represent an accurate and complete description of my medical history.				
Signa	ature Date			