# TO BE COMPLETED

(Information can be typed directly into the fields provided.)

## **Personal Diving History**

(To be completed by applicant-diver)

|  |  |
| --- | --- |
| Name |  |
| Certification Agency |  |
| Certification Number |  |
| Date & Place of SCUBA Certification |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | # of dives in last 12 months |  | Date of last dive |
|  | # of cold water dives |  | Depth of deepest dive |

Approximate # of lifetime dives @ the following depths:

|  |  |
| --- | --- |
|  | 0-30 ft. (0-10M) |
|  | 31-60 ft. (10-20M) |
|  | 61-100 ft. (20-30M) |
|  | 100+ ft. (35M+) |

Please check any pertinent specialty certifications below:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Altitude |  | Night |
|  | Blue water |  | Nitrox |
|  | Cave |  | Saturation |
|  | Closed circuit |  | AAUS scientific diver |
|  | Dive computer |  | Dive accident management |
|  | Decompression |  | EMT |
|  | Dry suit |  | Divemaster |
|  | Ice/polar |  | Rescue diver |
|  | Mixed gas |  | Instructor |

**\*Please attach copies of both sides of all certifications and certificates list above**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signature |  |  | Date |  |  |

## **Equipment Information**

 (To be completed by applicant-diver)

**Dive equipment information:**

All dive equipment must be inspected and serviced regularly per manufacturer instructions. This is generally done on a yearly basis. If your equipment is newly purchased, you do not need to provide proof of service. **Otherwise, please provide proof of service such as a receipt or invoice from within the last 12 months**.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Make** | **Model** | **Year** | **Last Service** | **Serial #** |
| Regulator& 1st Stage |  |  |  |  |  |
| Alt. air source (octopus reg/Air2.) |  |  |  |  |  |
| Dive Computer |  |  |  |  |  |
| Gauges (pressure & depth) |  |  |  |  |  |
| Buoyancy Compensator (BCD) |  |  |  |  |  |
| Wet suit |  |  |  |  |  |
| Dry Suit(if applicable) |  |  |  |  |  |
| Other: |  |  |  |  |  |

## **Individual Release Form**

(To be completed by applicant-diver)

I,     , for my heirs, assigns, executors, and administrators, in consideration of Northeastern University permitting me to use certain facilities and property, real and personal, including boats and other vehicles, for SCUBA diving and related activities at Northeastern University's Nahant property, the Three Seas Program sites, and for other valuable consideration, hereby release and discharge Northeastern University, its corporators, trustees, officers, faculty, students, employees and agents of and from all claims, demands, actions, and causes of action of every nature, including, but not limited to, all losses or expenses (including but not limited to physical injury, loss of property, or death) which may arise and relate in any way to my activities taking place on said Nahant property, the Three Seas Program sites or off shore.

Further, I,     , for my heirs, assigns, executors, and administrators, agree to indemnify and hold Northeastern University, its corporators, trustees, officers, faculty, students, employees and agents harmless from and against any and all liabilities, claims, actions, costs and expenses in any relating to or arising out of my activities on said Nahant property of Northeastern University, the Three Seas Program sites or off shore.

I,     , also warrant to Northeastern University that I take full responsibility for all actions and activities of any person or persons whom I bring onto or cause to be admitted to Northeastern University's Nahant property, the Three Seas Program sites or off shore.

This instrument is executed under seal.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signature |  |  | Date |  |  |
|  |  |  |  |  |  |
| Printed Name |  |

## **Consent and Understanding of Risk**

(To be completed by applicant-diver)

The undersigned and, in the event the undersigned is under eighteen years of age, the undersigned's parents and/or guardians hereby declare:

1. That he/she/they are fully aware of the special dangers and risks inherent in **SCUBA diving**.
2. That the undersigned **has read and is familiar with** the Diving Safety Manual as published by Northeastern University.
3. That being fully informed as to these risks and to the material contained in the Diving Safety Manual, he/she/they consent to participation in SCUBA diving under the auspices of Northeastern University.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dated, this |  | day of |  | , 20 |  |
|  |  |
| Participant Name |  |
|  |  |
| Parent (or guardian) |  |

**For DSO only**

|  |  |
| --- | --- |
| **Date received** |  |
|  |  |
| **Signature NU DSO** |  |
|  |  |
| **Status** |  |
|  |  |
| **Depth limit** |  |
|  |  |
| **Notes** |  |

## **Diving Medical History**

(To be completed by applicant-diver)

*Please submit copies to both the DSO and to your physician*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name |  | Sex |  | Wt. |  | Ht. |  | DOB |  |

**TO THE APPLICANT:**

Scuba diving places considerable physical and mental demands on the diver. Certain medical and physical requirements must be met before beginning a diving or training program. In many instances, your medical history is more important in determining your fitness to dive than the physical exam. Obviously you should provide accurate information or the medical screening process will be compromised.

This form will 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 who must then indicate, in writing, that you have done so and that no health hazard exists.

If 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 intent of this medical history form.

|  |  |  |  |
| --- | --- | --- | --- |
| **Yes** | **No** | **Please indicate if any of the following conditions currently or have ever applied to you** | **Comments** |
|  |  | Cardiovascular |  |
|  |  | Bleeding disorders |  |
|  |  | Heart murmur |  |
|  |  | Large heart |  |
|  |  | High blood pressure |  |
|  |  | Angina (heart pains or pressure in the chest) |  |
|  |  | Heart attack |  |
|  |  | Low blood pressure |  |
|  |  | Recurrent or persistent swelling of the legs |  |
|  |  | Pounding, rapid heartbeat or palpitations |  |
|  |  | Easily fatigued or short of breath |  |
|  |  | Abnormal EKG |  |
|  |  | Varicose veins |  |
|  |  | Ears/Sinuses/Respiratory |  |
|  |  | Motion sickness or sea/air sickness |  |
|  |  | Perforated ear drums |  |
|  |  | Hay fever |  |
|  |  | Frequent sinus trouble drainage from the nose, post-nasal drip, or stuffy nose |  |
|  |  | Frequent earaches |  |
|  |  | Drainage from the ears |  |
|  |  | Difficulty with your ears in airplanes or on mountains |  |
|  |  | Ear surgery |  |
|  |  | Ringing in your ears |  |
|  |  | Frequent dizzy spells |  |
|  |  | Hearing problems |  |
|  |  | Trouble equalizing pressure in your ears |  |
|  |  | Asthma |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Yes** | **No** | **Please indicate if any of the following conditions currently or have ever applied to you** | **Comments** |
|  |  | Wheezing attacks |  |
|  |  | Cough (chronic or recurrent) |  |
|  |  | Frequently raise sputum |  |
|  |  | Pleurisy |  |
|  |  | Collapsed lung (pneumothorax) |  |
|  |  | Lung cysts |  |
|  |  | Pneumonia |  |
|  |  | Tuberculosis |  |
|  |  | Shortness of breath |  |
|  |  | Lung problem or abnormality |  |
|  |  | Spit blood |  |
|  |  | Breathing difficulty after eating particular foods, after exposure to |  |
|  |  | Subject to bronchitis |  |
|  |  | Musculoskeletal |  |
|  |  | Joint problems, dislocations or arthritis |  |
|  |  | Back trouble or back injuries |  |
|  |  | Ruptured or slipped disk |  |
|  |  | Limiting physical handicaps |  |
|  |  | Muscle cramps |  |
|  |  | Amputations |  |
|  |  | Neurological/ Behavioral/ Psychological |  |
|  |  | Convulsions, seizures, or epilepsy |  |
|  |  | Fainting spells or dizziness |  |
|  |  | Head injury causing unconsciousness |  |
|  |  | Paralysis |  |
|  |  | Headaches (frequent and severe) |  |
|  |  | Claustrophobia |  |
|  |  | Mental disorder or nervous breakdown |  |
|  |  | Anxiety spells or hyperventilation |  |
|  |  | Nervous tension or emotional problems |  |
|  |  | Take tranquilizers |  |
|  |  | Drug addiction |  |
|  |  | Alcoholism |  |
|  |  | Reproductive |  |
|  |  | Currently pregnant |  |
|  |  | Menstrual problems |  |
|  |  | Other |  |
|  |  | Diabetes |  |
|  |  | Major surgery |  |
|  |  | Presently being treated by a physician |  |
|  |  | Taking any medication regularly (even non-prescription) |  |
|  |  | Been rejected or restricted from sports |  |
|  |  | Wear dental plates |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Yes** | **No** | **Please indicate if any of the following conditions currently or have ever applied to you** | **Comments** |
|  |  | Wear glasses or contact lenses |  |
|  |  | Rheumatic fever |  |
|  |  | Scarlet fever |  |
|  |  | Have you ever had an adverse reaction to medication? |  |
|  |  | Do you smoke? |  |
|  |  | Have you ever had any other medical problems not listed? If so, please list or describe below. |  |
|  |  | Family/ Medical History |  |
|  |  | Is there a family history of high cholesterol? |  |
|  |  | Is there a family history of heart disease or stroke? |  |
|  |  | Is there a family history of diabetes? |  |
|  |  | Is there a family history of asthma? |  |
|  |  | Date of last tetanus shot and other vaccination records. |  |
|  |  | Diving History |  |
|  |  | Any problem related to diving |  |
|  |  | Subcutaneous emphysema (air under the skin) |  |
|  |  | Air embolism after diving |  |
|  |  | Decompression sickness |  |

Please 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.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signature |  |  | Date |  |  |

## **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 Northeastern University. Their answers on the Diving Medical History Form (provided by applicant) may indicate potential health or safety risks as noted.

Your evaluation is requested on the attached “Medical Evaluation of Fitness for SCUBA Diving” form. If you have questions about diving medicine, you may wish to consult one of the references on the attached list 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 Northeastern University standards and thank you for your assistance.

**Andrea Jerabek, Northeastern University Diving Safety Officer**Northeastern University Marine Science Center
430 Nahant Rd, Nahant, MA 01908
P: 617.373.2068, F: 781.581.6076, E: a.jerabek@northeastern.edu

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. Recent deaths in the scientific diving community have been attributed to cardiovascular disease. Please consult the following list of conditions that usually restrict candidates from diving.

**Conditions that may disqualify candidates from diving:** (Adapted from Bove, 1998: bracketed numbers are pages in Bove)

1. Abnormalities of the tympani membrane, such as perforation, presence of a monomeric membrane, or inability to auto-inflate 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 seizure1 [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 disease2 [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. Asthma3 [42-44]
24. Chronic pulmonary disease, including radiographic evidence of pulmonary blebs, bullae, or cysts [45,46]
25. Diabetes mellitus [46-47]
26. Pregnancy1 [56]

1Many diving physicians consider these conditions to be absolute contraindications to diving 2“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>

3“Are asthmatics fit to dive?” Elliott, D. H., ed. 1996. Undersea & Hyperbaric Medical Society: Kensington, MD.

**Selected references in diving medicine**

Most available from:

* Best Publishing Company, P.O. Box 30100, Flagstaff, AZ
* Divers Alert Network (DAN), 6 West Colony Place, Durham, NC
* Undersea & Hyperbaric Medical Association (UHMS), Bethesda, MD

Alert Diver Magazine: Articles on diving medicine

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

Bove, A., ed. (1998). *Medical Examination of Sport Scuba*. Seminars, Inc.: San Antonio, TX.

Bove, A. and Davis, J. (1997). Diving Medicine, Third Edition. Saunders Company: Philadelphia.

Edmonds, C., Lowery, C., and Pennefather, J. (1993). *Diving and Subaquatic Medicine*, Third Edition.

 Butterworth-Heinemann Ltd.: Oxford.

Elliott, D. H., ed. (1996). *Are Asthmatics Fit to Dive?* Undersea and Hyperbaric Medical Society:

 Kensington, MD.

Gibbons R. J., et al. (1997). 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). *Journal of the American College of Cardiology*, 30:260-311.

 <http://www.acc.org/clinical/guidelines/exercise/exercise.pdf>

Grundy, et al. (1999). “Assessment of cardiovascular risk by use of multiple-risk-factor assessment

 equations.” AHA/ACC Scientific Statement. <http://www.acc.org/clinical/consensus/risk/risk1999.pdf>

NOAA. Diving Manual. 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.

**Recommended physicians with expertise in diving medicine**

Divers Alert Network (DAN), [http://www.diversalertnetwork.org,](http://www.diversalertnetwork.org/) can provide assistance

Non-emergency medical questions: 800.446.2671 or 919.684.2948, M-F, 8:30am-5:00pm (EST)

## **Medical Evaluation of Fitness for Scuba Diving**

(To be completed by examining physician)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name |  |  | Date |  |  |

**To the examining physician:**

Scientific divers require periodic scuba diving medical examinations to assess their fitness to engage in diving with self- contained underwater breathing apparatus (scuba). Their answers on the Diving Medical History Form may indicate potential health or safety risks as noted. Scuba diving is an activity that puts unusual stress on the individual in several ways. Your evaluation is requested on this Medical Evaluation form. 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 (see references, following page). An absolute requirement is the ability of the lungs, middle ears and sinuses to equalize pressure. Any condition that risks the loss of consciousness should disqualify the applicant. Please proceed in accordance with the AAUS Medical Standards (Sec. 6.00). If you have questions about diving medicine, please consult with the Undersea Hyperbaric Medical Society or Divers Alert Network.

**TESTS: THE FOLLOWING TESTS ARE REQUIRED:**

**DURING ALL INITIAL AND PERIODIC RE-EXAMS (UNDER AGE 40):**

* + - Medical history
		- Complete physical exam, with emphasis on neurological and ontological components
		- Urinalysis
		- Any further tests deemed necessary by the physician

**ADDITIONAL TESTS DURING FIRST EXAM OVER AGE 40 AND PERIODIC RE-EXAMS (OVER AGE 40):**

* + - Chest x-ray (Required only during first exam over age 40)
		- Resting EKG
		- Assessment of coronary artery disease using Multiple-Risk-Factor Assessment1 (age, lipid profile, blood pressure, diabetic screening, smoking)

Note: Exercise stress testing may be indicated based on Multiple-Risk-Factor Assessment2

**PHYSICIAN’S STATEMENT:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | 01 Diver **IS** medically qualified to dive for: |  | 2 years (over age 60) |
|  |  |  | 3 years (age 40-59) |
|  |  |  | 5 years (under age 40) |
|  |  |  |  |  |
|  | 02 Diver **IS NOT** medically qualified to dive: |  | Permanently |  | Temporarily |
|  |  |  |  |  |

I have evaluated the abovementioned individual according to the American Academy of Underwater Sciences medical standards and required tests for scientific diving (Sec. 6.00 and Appendix 1) and, in my opinion, find no medical conditions that may be disqualifying for participation in scuba diving. I have discussed with the patient any medical condition(s) that would not disqualify him/her from diving but which may seriously compromise subsequent health. The patient understands the nature of the hazards and the risks involved in diving with these conditions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signature (MD or DO) |  |  | Date |  |  |

|  |  |
| --- | --- |
| Name (print or type) |  |
| Address |  |  |
| Telephone |  |  |
| Email |  |  |

Physician familiarity with applicant is:

|  |  |  |
| --- | --- | --- |
|  | With this exam only |  |
|  | Regular physician for \_\_\_\_ years |  |
|  | Other (describe): |  |

|  |  |
| --- | --- |
| My familiarity with diving medicine is: |  |

 **MEDICAL EVALUATION OF FITNESS FOR SCUBA DIVING**

**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 Northeastern University Diving Safety Officer and Diving Control Board or their designee at Marine Science Center, 430 Nahant Road, Nahant, MA 01908.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signature |  |  | 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>