Annual Health and Medical Record

(Valid for 12 calendar months)

Policy on Use of the Annual Health and Medical Record

In order to provide better care for its members and to assist them in better understanding their own physical capabilities, the Boy Scouts of America recommends that everyone who participates in a Scouting event have an annual medical evaluation by a certified and licensed health-care provider—a physician (MD or DO), nurse practitioner, or physician assistant. Providing your medical information on this four-part form will help ensure you meet the minimum standards for participation in various activities. Note that unit leaders must always protect the privacy of unit participants by protecting their medical information.

Parts A and B are to be completed at least annually by participants in all Scouting events. This health history, parental/guardian informed consent and hold harmless/release agreement, and talent release statement is to be completed by the participant and parents/guardians.

Part C is the physical exam that is required for participants in any event that exceeds 72 consecutive hours, for all high-adventure base participants, or when the nature of the activity is strenuous and demanding. Service projects or work weekends may fit this description. Part C is to be completed and signed by a certified and licensed heath-care provider—physician (MD or DO), nurse practitioner, or physician assistant. It is important to note that the height/weight limits must be strictly adhered to when the event will take the unit more than 30 minutes away from an emergency vehicle–accessible roadway, or when the program requires it, such as backpacking trips, high-adventure activities, and conservation projects in remote areas. See the FAQs for when this does not apply.

Part D is required to be reviewed by all participants of a high-adventure program at one of the national high-adventure bases and shared with the examining health-care provider before completing Part C.

- **Philmont Scout Ranch.** Participants and guests for Philmont activities that are conducted with limited access to the backcountry, including most Philmont Training Center conferences and family programs, will not require completion of Part C. However, participants should review Part D to understand potential risks inherent at 6,700 feet in elevation in a dry Southwest environment. Please review specific registration information for the activity or event.
- **Northern Tier National High Adventure Base.**
- **Florida National High Adventure Sea Base.** The PADI medical form is also required if scuba diving at this base.

Risk Factors

Based on the vast experience of the medical community, the BSA has identified the following risk factors that may limit your participation in various outdoor adventures.

- Excessive body weight
- Heart disease
- Hypertension (high blood pressure)
- Diabetes
- Seizures
- Lack of appropriate immunizations
- Asthma
- Allergies/anaphylaxis
- Muscular/skeletal injuries
- Psychiatric/psychological and emotional difficulties

For more information on medical risk factors, visit Scouting Safely on www.scouting.org.

Prescriptions

The taking of prescription medication is the responsibility of the individual taking the medication and/or that individual's parent or guardian. A leader, after obtaining all the necessary information, can agree to accept the responsibility of making sure a youth takes the necessary medication at the appropriate time, but BSA does not mandate or necessarily encourage the leader to do so. Also, if state laws are more limiting, they must be followed.

Frequently Asked Questions (FAQs)

- Philmont Scout Ranch: www.philmontscoutranch.org or 575-376-2281
- Northern Tier National High Adventure Base: www.ntier.org or 218-365-4811
- Florida National High Adventure Sea Base: www.bsaseabase.org or 305-664-5612
- National Scout Jamboree: www.bsajamboree.org

For frequently asked questions about this Annual Health and Medical Record, see Scouting Safely online at http://www.scouting.org/scoutsource/HealthandSafety.aspx. Information about the Health Insurance Portability and Accountability Act (HIPAA) may be found at http://www.hipaa.org.

Annual BSA Health and Medical Record
Part A
GENERAL INFORMATION

High-adventure base participants:
Expedition/crew No.: _____
or staff position: _____

Name _____ Date of birth _____ Age _____ Male ☐ Female ☐

Address _____ Grade completed (youth only) _____

City _____ State _____ Zip _____ Phone No. _____

Unit leader _____ Council name/No. Greater Alabama Council Unit No. Pack 228

Social Security No. (optional; may be required by medical facilities for treatment) _____ Religious preference _____

Health/accident insurance company _____ Policy No. _____

ATTACH A PHOTOCOPY OF BOTH SIDES OF INSURANCE CARD. IF FAMILY HAS NO MEDICAL INSURANCE, STATE "NONE."

In case of emergency, notify:

Name _____ Relationship _____

Address _____

Home phone _____ Business phone _____ Cell phone _____

Alternate contact _____ Alternate's phone _____

HEALTH HISTORY

Are you now, or have you ever been treated for any of the following:

Yes	No	Condition	Explain
		Asthma Last attack: _____	
		Diabetes Last HbA1c: _____	
		Hypertension (high blood pressure)	
		Heart disease (e.g., CHF, CAD, MI)	
		Stroke/TIA	
		Lung/respiratory disease	
		Ear/sinus problems	
		Muscular/skeletal condition	
		Menstrual problems (women only)	
		Psychiatric/psychological and emotional difficulties	
		Behavioral disorders (e.g., ADD, ADHD, Asperger syndrome, autism)	
		Bleeding disorders	
		Fainting spells	
		Thyroid disease	
		Kidney disease	
		Sickle cell disease	
		Seizures Last seizure: _____	
		Sleep disorders (e.g., sleep apnea)	Use CPAP: Yes ☐ No ☐
		Abdominal/digestive problems	
		Surgery	
		Serious injury	
		Other	

Allergies or Reaction to:

Medication _____

Food, Plants, or Insect Bites _____

_____

Immunizations:

The following are recommended by the BSA. **Tetanus immunization is required and must have been received within the last 10 years.** If had disease, put "D" and the year. If immunized, check the box and the year received.

Yes	No	Date
☐	☐	**Tetanus** _____
☐	☐	Pertussis _____
☐	☐	Diphtheria _____
☐	☐	Measles _____
☐	☐	Mumps _____
☐	☐	Rubella _____
☐	☐	Polio _____
☐	☐	Chicken pox _____
☐	☐	Hepatitis A _____
☐	☐	Hepatitis B _____
☐	☐	Influenza _____
☐	☐	Other (i.e., HIB) _____

☐ Exemption to immunizations claimed (form required).

(For more information about immunizations, as well as the immunization exemption form, see Scouting Safely on Scouting.org.)

MEDICATIONS

List all medications currently used. (If additional space is needed, please photocopy this part of the health form.) Inhalers and EpiPen information must be included, even if they are for occasional or emergency use only.

Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____
Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____ _____

Administration of the above medications is approved by (if required by your state): _____/_____
Parent/guardian signature and/or MD/DO, NP, or PA signature

Be sure to bring medications in sufficient quantities and the original containers. Make sure that they are NOT expired, including inhalers and EpiPens. You SHOULD NOT STOP taking any maintenance medication.

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Full name: _____ DOB: _____ Allergies: _____ Emergency contact No.: _____

High-adventure base participants:
Expedition/crew No.: _____
or staff position: _____

Part B

INFORMED CONSENT AND HOLD HARMLESS/RELEASE AGREEMENT

I understand that participation in Scouting activities involves a certain degree of risk and can be physically, mentally, and emotionally demanding. I also understand that participation in these activities is entirely voluntary and requires participants to abide by applicable rules and standards of conduct.

In case of an emergency involving me or my child, I understand that every effort will be made to contact the individual listed as the emergency contact person. In the event that this person cannot be reached, permission is hereby given to the medical provider selected by the adult leader in charge to secure proper treatment, including hospitalization, anesthesia, surgery, or injections of medication for me or my child. Medical providers are authorized to disclose protected health information to the adult in charge, camp medical staff, camp management, and/or any physician or health care provider involved in providing medical care to the participant. Protected Health Information/Confidential Health Information (PHI/CHI) under the Standards for Privacy of Individually Identifiable Health Information, 45 C.F.R. §§160.103, 164.501, etc. seq., as amended from time to time, includes examination findings, test results, and treatment provided for purposes of medical evaluation of the participant, follow-up and communication with the participant's parents or guardian, and/or determination of the participant's ability to continue in the program activities.

I have carefully considered the risk involved and give consent for myself and/or my child to participate in these activities. I approve the sharing of the information on this form with BSA volunteers and professionals who need to know of medical situations that might require special consideration for the safe conducting of Scouting activities.

I release the Boy Scouts of America, the local council, the activity coordinators, and all employees, volunteers, related parties, or other organizations associated with the activity from any and all claims or liability arising out of this participation.

☐ Without restrictions.
☐ With special considerations or restrictions (list) _____

_____

TALENT RELEASE AGREEMENT

I hereby assign and grant to the local council and the Boy Scouts of America the right and permission to use and publish the photographs/film/videotapes/electronic representations and/or sound recordings made of me or my child at all Scouting activities, and I hereby release the Boy Scouts of America, the local council, the activity coordinators, and all employees, volunteers, related parties, or other organizations associated with the activity from any and all liability from such use and publication.

I hereby authorize the reproduction, sale, copyright, exhibit, broadcast, electronic storage, and/or distribution of said photographs/film/videotapes/electronic representations and/or sound recordings without limitation at the discretion of the Boy Scouts of America, and I specifically waive any right to any compensation I may have for any of the foregoing.

☐ Yes ☐ No

ADULTS AUTHORIZED TO TAKE YOUTH TO AND FROM EVENTS:

You must designate at least one adult. Please include a telephone number.

1. Name _____ Telephone _____
2. Name _____ Telephone _____
3. Name _____ Telephone _____

Adults NOT authorized to take youth to and from events:

1. Name _____
2. Name _____
3. Name _____

I understand that, if any information I/we have provided is found to be inaccurate, it may limit and/or eliminate the opportunity for participation in any event or activity.

If I am participating at Philmont, Philmont Training Center, Northern Tier, or Florida Sea Base: I have also read and understand the risk advisories explained in Part D, *including height and weight requirements and restrictions,* and understand that the participant will not be allowed to participate in applicable high-adventure programs if those requirements are not met. The participant has permission to engage in all high-adventure activities described, except as specifically noted by me or the health-care provider.

Participant's name _____

Participant's signature _____ Date _____

Parent/guardian's signature _____ Date _____
(if participant is under the age of 18)

Second parent/guardian signature _____ Date _____
(if required; for example, CA)

This Annual Health and Medical Record is valid for 12 calendar months.

Part B Full name: _____ DOB: _____

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High-adventure base participants:
Expedition/crew No.: _____
or staff position: _____

Part C

TO THE EXAMINING HEALTH-CARE PROVIDER (Certified and licensed physicians [MD, DO], nurse practitioners, and physician's assistants)

You are being asked to certify that this individual has no contraindication for participation in a Scouting experience. For individuals who will be attending a high-adventure program at one of the national high-adventure bases, please refer to Part D for additional information.

(Part D was made available to me. ❑ Yes ❑ No)

PHYSICAL EXAMINATION

Height (inches) _____ Weight (pounds)_____ Maximum weight for height _____ Meets height/weight limits ☐ Yes ☐ No
Blood pressure _____ Pulse _____ Percent body fat (optional)_____

If you exceed the maximum weight for height as explained on this page and your planned high-adventure activity will take you more than 30 minutes away from an emergency vehicle–accessible roadway, you **will not** be allowed to participate. At the discretion of the medical advisors of the event and/or camp, participation of an individual exceeding the maximum weight for height may be allowed if the body fat percentage measured by the health-care provider is determined to be 20 percent or less for a female or 15 percent or less for a male. (Philmont requires a water-displacement test to be used for this determination.) Please call the event leader and/or camp if you have any questions. Enforcing the height/weight guidelines is strongly encouraged for all other events.

	Normal	Abnormal	Explain Any Abnormalities	Range of Mobility	Normal	Abnormal	Explain Any Abnormalities
Eyes				Knees (both)			
Ears				Ankles (both)			
Nose				Spine			
Throat							
Lungs							
Neurological				**Other**	**Yes**	**No**	
Heart				Contacts			
Abdomen				Dentures			
Genitalia				Braces			
Skin				Inguinal hernia			**Explain**
Emotional adjustment				Medical equipment (i.e., CPAP, oxygen)			
Tuberculosis (TB) skin test (if required by your state for BSA camp staff) ☐ Negative ☐ Positive							

Allergies (to what agent, type of reaction, treatment): _____

Restrictions (if none, so state) _____

EXAMINER'S CERTIFICATION

I certify that I have reviewed the health history and examined this person and find no contraindications for participation in a Scouting experience. This participant (with noted restrictions above)

True False

- ☐ ☐ Meets height/weight requirements
- ☐ ☐ Does not have uncontrolled heart disease, asthma, or hypertension
- ☐ ☐ Has not had an orthopedic injury, musculoskeletal problems, or orthopedic surgery in the last six months or possesses a letter of clearance from their orthopedic surgeon or treating physician
- ☐ ☐ Has no uncontrolled psychiatric disorders
- ☐ ☐ Has had no seizures in the last year
- ☐ ☐ Does not have poorly controlled diabetes
- ☐ ☐ If less than 18 years of age and planning to scuba dive, does not have diabetes, asthma, or seizures

Provider printed name _____
Address _____
City, state, zip _____
Office phone _____
Signature _____
Date _____

Height (inches)	Recommended Weight (lbs)	Allowable Exception	Maximum Acceptance
60	97-138	139-166	166
61	101-143	144-172	172
62	104-148	149-178	178
63	107-152	153-183	183
64	111-157	158-189	189
65	114-162	163-195	195
66	118-167	168-201	201
67	121-172	173-207	207
68	125-178	179-214	214
69	129-185	186-220	220
70	132-188	189-226	226
71	136-194	195-233	233
72	140-199	200-239	239
73	144-205	206-246	246
74	148-210	211-252	252
75	152-216	217-260	260
76	156-222	223-267	267
77	160-228	229-274	274
78	164-234	235-281	281
79 & over	170-240	241-295	295

This table is based on the revised Dietary Guidelines for Americans from the U.S. Dept. of Agriculture and the Dept. of Health & Human Services.

DO NOT WRITE IN THIS BOX

REVIEW FOR CAMP OR SPECIAL ACTIVITY
Reviewed by _____ Date _____
Further approval required ❑ Yes ❑ No Reason _____
By _____ Date _____

Part C **Full name:** _____ **DOB:** _____

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Part D

Participation at any of the BSA's high-adventure bases can be physically, mentally, and emotionally demanding. To be better prepared, each participant must complete the following before attending any high-adventure base:

- Fill in parts A and B of the Annual Health and Medical Record.
- Share Part D with the examining health-care provider.
- Have a physical exam by a certified and licensed health care provider/physician (MD, DO), nurse practitioner, or physician assistant, and have part C completed.
- Read the following information, which focuses on specific risks at the high-adventure base you will be attending.

The Trek Experience. Each high-adventure base offers a unique experience that is not risk-free. Knowledgeable staff will instruct all participants in safety measures to be followed. Be prepared to listen to and carefully follow these safety measures and to accept responsibility for the health and safety of yourself and others.

Philmont. Each participant must be able to carry a 35- to 50-pound pack while hiking 5 to 12 miles per day in an isolated mountain wilderness ranging from 6,500 to 12,500 feet in elevation. Summer/autumn climatic conditions include temperatures from 30 to 90 degrees, low humidity (10 to 30 percent), and frequent, sometimes severe, afternoon thunderstorms. Activities include horseback riding, rock climbing and rappelling, challenge events, pole climbing, black powder shooting, 12-gauge trap shooting, .30-06 shooting, trail building, mountain biking, and other activities that have potential for injury.

Winter climatic conditions can range from -20 to 60 degrees. For the Kanik Experience, each person will walk, ski, or snowshoe along snow-covered trails pulling loaded toboggans or sleds for up to 3 miles, or more on a cross-country ski trek. Refer to the Philmont Scout Ranch website for specific information.

Northern Tier. Each person must be able to carry a 50- to 85-pound pack or canoe from a quarter-mile to 2 miles several times a day on rough, swampy, and rocky portages and paddle 10 to 15 miles per day, often against a headwind.

Climatic conditions can range from 30 to 100 degrees in summer/autumn and from -40 to 40 degrees in the winter. For the Okpik Experience, each person will walk, ski, or snowshoe along snow-covered trails or across frozen lakes, pulling loaded toboggans or sleds for up to 3 miles, or more if on a cross-country ski trek. Refer to the Northern Tier website for specific information.

Florida Sea Base. Climatic conditions at Florida Sea Base include temperatures ranging from 50 to 95 degrees, high humidity, heat index reaching to 110 degrees, and frequent, sometimes severe, afternoon thunderstorms. Activities include snorkeling, scuba diving, kayaking, canoeing, sailing, hiking, and other activities that have potential for injury. Refer to the Sea Base website for specific information.

Risk Advisory. All of the high-adventure bases have excellent health and safety records and strive to minimize risks to participants and advisors by emphasizing appropriate safety precautions. Because most participants are prepared, are conscious of risks, and take safety precautions, they do not experience injuries. If you decide to attend Philmont, Northern Tier, or Florida Sea Base, you should be physically fit, have proper clothing and equipment, and be willing to follow instructions, work as a team with your crew, and take responsibility for your own health and safety.

Parents, guardians, and participants in any high-adventure program are advised that journeying to and from these bases can involve exposure to accidents, illness, and/or injury.

High-adventure staff members have been trained in first aid, CPR, and accident prevention and are prepared to assist the adult advisor in recognizing, reacting to, and responding to accidents, injuries, and illnesses as needed. Each crew is required to have at least one member trained in wilderness first aid and CPR. Medical and search-and-rescue services are provided in response to an accident or emergency. **However, response times can be affected by location, terrain, weather, or other emergencies and could be delayed for hours or even days in a wilderness setting.**

Philmont. Participants and guests for Philmont activities that are conducted with limited access to the backcountry, including most Philmont Training Center conferences and family programs, should review Part D to understand potential health risks inherent at 6,700 feet in elevation in a dry Southwest environment.

High elevation; physically demanding high-adventure program in remote mountainous areas; camping while being exposed to occasional severe weather conditions such as lightning, hail, flash floods, and heat; and other potential problems, including injuries from tripping and falling, falls from horses, heat exhaustion, and motor vehicle accidents, can worsen underlying medical conditions. Philmont's trails are steep and rocky. Wild animals such as bears, rattlesnakes, and mountain lions are native and usually present little danger if proper precautions are taken. Please call Philmont (575-376-2281) if you have any questions.

Northern Tier. While participating in Northern Tier's canoeing and camping wilderness areas, life jackets must be worn at all times when on the water. Crew members travel together at all times. Emergency communications via radio, and in more remote locations by satellite phone, are provided by Northern Tier. Radio communication and/or emergency evacuation can be hampered by weather, terrain, distance, equipment malfunction, and other factors, and are not a substitute for taking appropriate precautions and having adequate first-aid knowledge and equipment. Please call Northern Tier (218-365-4811) if you have any questions.

Florida Sea Base. Several activities are offered, including snorkeling, sailing, camping, kayaking, canoeing, swimming, fishing, and scuba diving. Diving is an exciting and demanding activity. When performed correctly, it is very safe. When established safety procedures are not followed, however, there are extreme dangers. All participants will need to learn from the instructor the important safety rules regarding breathing and equalization while scuba diving. Improper use of scuba equipment can result in serious injury, so participants must be instructed to use the equipment safely under direct supervision of a qualified instructor.

To scuba dive safely, participants must not be extremely overweight or in poor physical condition. Diving can be strenuous under certain conditions. Participants' respiratory and circulatory systems must be in good health. All body air spaces must be normal and healthy. A person with heart trouble, a current cold or congestion, epilepsy, asthma, or a severe medical problem, or who is under the influence of alcohol or drugs, should not dive. If taking medication, participants should consult a doctor and the instructor before participation in this program. If there is a question about the advisability of participation, contact the family physician first, then call the Sea Base at 305-664-4173. The Sea Base health supervisor reserves the right to make medical decisions regarding the participation of individual at Sea Base.

Food. Each base offers food appropriate for the experience. If a participant has a problem with the diet described in the participant guide, please contact the high-adventure base you are considering attending.

Medications. Each participant who has a condition requiring medication should bring an appropriate supply for the duration of the trip. Consider bringing duplicate or even triplicate supplies of vital medications. People with allergies that have resulted in severe reactions or anaphylaxis must bring with them an EpiPen that has not expired.

Immunizations. Each participant must have received a tetanus immunization within the last 10 years. Recognition will be given to the rights of those Scouts and Scouters who do not have immunizations because of philosophical, political, or religious beliefs. In such a situation, the *Immunization Exemption Request* form is required.

Recommendations Regarding Chronic Illnesses. Each base requires that this information be shared with the parents or guardians and examining physician of every participant. There are no facilities for extended care or treatment; therefore participants who cannot meet these requirements will be sent home at their expense.

Staff and/or staff physicians reserve the right to deny the participation of any individual on the basis of a physical examination and/or medical history.

Adults or youth who have had any of the following conditions should undergo a thorough evaluation by a physician before considering participation at a BSA high-adventure base.

Cardiac or Cardiovascular Disease, including:

1. Angina (chest pain caused by blocked blood vessels or coming from the heart)
2. Myocardial infarction (heart attack)
3. Heart surgery or heart catheterization (including angioplasty to treat blocked blood vessels, balloon dilation, or stents)
4. Stroke or transient ischemic attacks (TIAs)
5. Claudication (leg pain with exercise, caused by hardening of the arteries)
6. Family history of heart disease or a family member who died unexpectedly before age 50
7. Diabetes
8. Smoking
9. Excessive weight

Youth who have a congenital heart disease or an acquired heart disease such as rheumatic fever, Kawasaki's disease, or mitral valve prolapse should undergo thorough evaluation by a physician before considering participating at a high-adenture base. The physical exertion at any of the high-adventure bases may precipitate either a heart attack or stroke in susceptible persons. Participants with a history of any of the first seven conditions listed above should have a physician-supervised stress test. More extensive testing (e.g., nuclear stress test) is recommended for participants who have coronary heart disease. **Even if the stress test results are normal, the results of testing done at lower elevations, without backpacks, do not guarantee safety**. If the test results are abnormal, the individual is advised not to participate.

Hypertension (High Blood Pressure). The combination of physical, mental, and emotional stress, increased exertion and/or heat, and altitude appears to cause a significant increase in blood pressure in some individuals. Occasionally, hypertension reaches such a level that it is no longer safe to engage in strenuous activity. Hypertension can increase the risk of having a stroke, heart attack, or angina. **Participants should have a normal blood pressure (less than 140/90).** Persons with significant hypertension (greater than 140/90) should be treated and controlled before attending any high-adventure base, and should continue on medications while participating. **The goal of treatment should be to lower the blood pressure to normal.** Participants already on antihypertensive therapy with normal blood pressure should continue on medications. Individuals taking diuretics to treat hypertension are at increased risk for dehydration related to strenuous physical activity and should be careful to maintain good hydration during the trek.

Philmont. Each participant who is 18 years of age or older will have his or her blood pressure checked at Philmont. **Those individuals with a blood pressure consistently greater than 160/100 at Philmont may be kept off the trail until their blood pressure decreases.**

Florida Sea Base. Those taking beta-blocker medication should consider a change of medication before participating in any scuba program.

Insulin-Dependent Diabetes Mellitus. Exercise and the type of food eaten affect insulin requirements. Any individual with insulin-dependent diabetes mellitus should be able to monitor personal blood glucose and to know how to adjust insulin doses based on these factors. The person with diabetes also should know how to give a self-injection. Both the person with diabetes and one other person in the group should be able to recognize indications of excessively high blood sugar (hyperglycemia or diabetic ketoacidosis) and excessively low blood sugar (hypoglycemia). The person with diabetes and one other individual should know the appropriate initial responses for these conditions. An insulin-dependent

person who has been newly diagnosed (within the last six months) or who has undergone a change in delivery system (e.g., insulin pump) in the last six months should not attempt to participate. A person with diabetes who has had frequent hospitalizations for diabetic ketoacidosis or who has had frequent problems with hypoglycemia should not participate until better control of the diabetes has been achieved.

Philmont. It is recommended that the person with diabetes and one other individual carry insulin on the trek (in case of accident) and that a third vial be kept at the Health Lodge for backup. Bring insulin in a small insulated container. Bring enough testing equipment and supplies for the entire trip and trek. Extras are usually needed. If an individual has been hospitalized for diabetes-related illnesses within the past year, the individual must obtain permission to participate by contacting the Philmont Health Lodge at 575-376-2281.

Florida Sea Base. Persons with diabetes who are 18 years of age or older who wish to scuba dive should be assessed by a physician familiar with both hyperbaric issues related to diabetes and medications used for the control and treatment of diabetes. Persons 18 years old or older who are determined to be candidates for scuba diving must submit four hemoglobin A1c (HbA1c) tests, each with HbA1c values less than 7, taken within the previous 12 months. Any test within the past 12 months with an HbA1c value greater than 7 disqualifies a person from scuba diving as part of a BSA activity.

Persons less than 18 years of age with Type 1 diabetes will not be allowed to scuba dive. Persons under the age of 18 who control their diabetes with exercise and diet (no medications) and can provide three sequential hemoglobin tests with HbA1c values less than 6 may be approved to scuba dive.

Seizures (Epilepsy). A seizure disorder or epilepsy does not exclude an individual from participating at a high-adventure base. However, the seizure disorder should be well-controlled by medications. A minimum one year seizure-free period is considered to be adequate control. Exceptions to this guideline may be considered on an individual basis, and will be based on the specific type of seizure and the likely risks to the individual and to other members of the crew.

Florida Sea Base. Any seizure activity within the past five years, regardless of control and/or medication, disqualifies an individual from participation in any scuba program. A person with a history of seizure activity who has been asymptomatic AND medication-free for five years, as evidenced by a physician, will be allowed to dive.

Asthma. Asthma should be well-controlled before participating at any high-adventure base. Well-controlled asthma means: 1) the use of a rescue inhaler (e.g., albuterol) less than once daily; 2) no need for nighttime treatment with a rescue inhaler (e.g., albuterol). Well-controlled asthma may include the use of long-acting bronchodilators, inhaled steroids, or oral medications such as Singulair. You must meet these guidelines in order to participate. You will not be allowed to participate if: 1) you have exercise asthma not prevented by medications; or 2) you have been hospitalized or have gone to the emergency room to treat asthma in the past six months; or 3) you have needed treatment with intravenous, intramuscular, or oral steroids (prednisone) in the past six months. *You must bring an ample supply of your medications* ***and*** *a spare rescue inhaler that are not expired.* At least one other member of the crew should know how to recognize signs of worsening asthma or an asthma attack, and should know how to use the rescue inhaler. ***Any person who has needed treatment for asthma in the past three years must carry a rescue inhaler on the trek.*** **If you do not bring a rescue inhaler, you must buy one before you will be allowed to participate.**

Florida Sea Base. Persons being treated for asthma (including reactive airway disease) are disqualified from BSA scuba programs. Persons with a history of asthma who have been asymptomatic and have not used medications to control asthma for five years or more may be allowed to scuba dive as part of a BSA activity upon submission of evidence from their treating physician. Persons with a history of asthma who have been asymptomatic and have not used medication to control asthma for less than five years may be allowed to scuba dive as part of a BSA activity upon submission of a methacholine challenge test showing the asthma to be resolved.

Allergy or Anaphylaxis. *Persons who have had an* ***anaphylactic reaction*** *from any cause must contact the high-adventure base before arrival.* If you are allowed to participate, *you will be required to have appropriate treatment with you.* You and at least one other member of your crew must know how to give the treatment. If you do not bring appropriate treatment with you, you will be required to buy it before you will be allowed to participate.

Recent Musculoskeletal Injuries and Orthopedic Surgery. Every participant will put a great deal of strain on feet, ankles, and knees due to negotiating steep, rocky trails with a backpack; paddling and portaging heavy gear over irregular terrain; or climbing into and out of a boat. Therefore, individuals with significant musculoskeletal problems (including back problems) or orthopedic surgery/injuries within the last 6 months must have a letter of clearance from their orthopedic surgeon or treating physician to be considered for approval to participate. Permission is not guaranteed. A person with a cast on any extremity may participate only if approved by the high-adventure base. **Ingrown toenails are a common problem and must be treated 30 days prior to arrival.**

Psychological and Emotional Difficulties. A psychological disorder does not necessarily exclude an individual from participation. *Parents and advisers should be aware that no high-adventure experience is designed to assist participants in overcoming psychological or emotional problems. Experience demonstrates that these problems frequently become magnified, not lessened, when a participant is subjected to the physical and mental challenges of a remote wilderness setting.* Any condition should be well-controlled without the services of a mental health practitioner. **Under no circumstance should medication be stopped immediately prior to participation, and medication should be continued throughout the entire high-adventure experience.** Participants requiring medication must bring an appropriate supply for the duration of the trip.

Weight Limits. Weight limit guidelines are used because overweight individuals are at a greater risk for heart disease, high blood pressure, stroke, altitude illness, sleep problems, and injury. Those who fall within the limits are more likely to have an enjoyable trek and avoid incurring health risks.

Philmont. Each participant in a Philmont trek must not exceed the maximum acceptable limit in the weight chart shown below. The right-hand column shows the maximum acceptable weight for a person's height in order to participate in a Philmont trek.

Participants 21 years and older who exceed the maximum acceptable weight limit for their height at the Philmont medical recheck WILL NOT be permitted to backpack or hike at Philmont. They will be sent home. For example, a person 70 inches tall cannot weigh more than 226 pounds. All heights and weights will be measured in stocking feet.

For participants under 21 years of age who exceed the maximum acceptable weight for height, the Philmont physicians will use their best professional judgment in determining participation in a Philmont trek. Philmont will consider up to 20 pounds over the maximum acceptable as stated on the chart; however **exceptions are not made automatically, and discussion in advance with Philmont is required regarding any exception to the weight limit for persons under 21 years of age.** Philmont's telephone number is 575-376-2281.

Under no circumstances will any individual weighing more than 295 pounds be permitted to participate in backcountry programs. This requirement is necessary due to rescue equipment restrictions and for the safety of search-and-rescue personnel.

The maximum weight for any participant in a Cavalcade Trek and for horse rides is 200 pounds.

Participants and guests in Philmont activities, including most Philmont Training Center conference and family programs, who *will* participate in limited backcountry access during their visit must not exceed the maximum acceptable limit in the weight chart.

Northern Tier. Each participant in a Northern Tier expedition should not exceed the maximum acceptable weight for height in the table shown on the Annual Health and Medical Record form. Those who fall within the recommended weight limits are much more likely to have an enjoyable trek and avoid incurring injuries and health risks. Extra weight puts strain on the back, joints, and feet. The portage trails can be very muddy, slippery, and rocky, and present a potential for tripping and falling. We also strongly recommend that no participant be less than 100 pounds in weight. Extremely small participants will have a very difficult time carrying canoes and heavy packs.

Canoes' loads are another important reason to limit participant weight. Northern Tier assigns three people to a canoe. The total participant load per canoe must not exceed 600 pounds, or an average of 200 pounds per participant. Northern Tier does not permit individuals exceeding 295 pounds to participate in high-adventure programs.

Florida Sea Base. Any participant or advisor who exceeds the maximum weight limits on the weight chart may want to reconsider participation in a Sea Base high-adventure program. Anyone who exceeds these limits is at extreme risk for health problems. Participants who fall within the guidelines are more likely to have an enjoyable program and avoid incurring health risks. The absolute weight limit for our programs is 295 pounds.

Height (inches)	Recommended Weight (lbs)	Allowable Exception	Maximum Acceptance
60	97-138	139-166	166
61	101-143	144-172	172
62	104-148	149-178	178
63	107-152	153-183	183
64	111-157	158-189	189
65	114-162	163-195	195
66	118-167	168-201	201
67	121-172	173-207	207
68	125-178	179-214	214
69	129-185	186-220	220

Height (inches)	Recommended Weight (lbs)	Allowable Exception	Maximum Acceptance
70	132-188	189-226	226
71	136-194	195-233	233
72	140-199	200-239	239
73	144-205	206-246	246
74	148-210	211-252	252
75	152-216	217-260	260
76	156-222	223-267	267
77	160-228	229-274	274
78	164-234	235-281	281
79 & over	170-240	241-295	295

This table is based on the revised Dietary Guidelines for Americans from the U.S. Dept. of Agriculture and the Dept. of Health & Human Services.

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R·S·T·C
Recreational Scuba Training Council

UNDERSEA & HYPERBARIC MEDICAL SOCIETY

MEDICAL STATEMENT

Participant Record (Confidential Information)

Please read carefully before signing.

This is a statement in which you are informed of some potential risks involved in scuba diving and of the conduct required of you during the scuba training program. Your signature on this statement is required for you to participate in the scuba training program offered

by_____and
Instructor

_____located in the
Facility

city of_____, state/province of _____.

Read this statement prior to signing it. You must complete this Medical Statement, which includes the medical questionnaire section, to enroll in the scuba training program. If you are a minor, you must have this Statement signed by a parent or guardian.

Diving is an exciting and demanding activity. When performed correctly, applying correct techniques, it is relatively safe. When established safety procedures are not followed, however, there are increased risks.

To scuba dive safely, you should not be extremely overweight or out of condition. Diving can be strenuous under certain conditions. Your respiratory and circulatory systems must be in good health. All body air spaces must be normal and healthy. A person with coronary disease, a current cold or congestion, epilepsy, a severe medical problem or who is under the influence of alcohol or drugs should not dive. If you have asthma, heart disease, other chronic medical conditions or you are taking medications on a regular basis, you should consult your doctor and the instructor before participating in this program, and on a regular basis thereafter upon completion. You will also learn from the instructor the important safety rules regarding breathing and equalization while scuba diving. Improper use of scuba equipment can result in serious injury. You must be thoroughly instructed in its use under direct supervision of a qualified instructor to use it safely.

If you have any additional questions regarding this Medical Statement or the Medical Questionnaire section, review them with your instructor before signing.

Divers Medical Questionnaire

To the Participant:

The purpose of this Medical Questionnaire is to find out if you should be examined by your doctor before participating in recreational diver training. A positive response to a question does not necessarily disqualify you from diving. A positive response means that there is a preexisting condition that may affect your safety while diving and you must seek the advice of your physician prior to engaging in dive activities.

_____ Could you be pregnant, or are you attempting to become pregnant?

_____ Are you presently taking prescription medications? (with the exception of birth control or anti-malarial)

_____ Are you over 45 years of age and can answer YES to one or more of the following?
- currently smoke a pipe, cigars or cigarettes
- have a high cholesterol level
- have a family history of heart attack or stroke
- are currently receiving medical care
- high blood pressure
- diabetes mellitus, even if controlled by diet alone

Have you ever had or do you currently have...

_____ Asthma, or wheezing with breathing, or wheezing with exercise?

_____ Frequent or severe attacks of hayfever or allergy?

_____ Frequent colds, sinusitis or bronchitis?

_____ Any form of lung disease?

_____ Pneumothorax (collapsed lung)?

_____ Other chest disease or chest surgery?

_____ Behavioral health, mental or psychological problems (Panic attack, fear of closed or open spaces)?

_____ Epilepsy, seizures, convulsions or take medications to prevent them?

_____ Recurring complicated migraine headaches or take medications to prevent them?

_____ Blackouts or fainting (full/partial loss of consciousness)?

_____ Frequent or severe suffering from motion sickness (seasick, carsick, etc.)?

Please answer the following questions on your past or present medical history with a **YES** or **NO**. If you are not sure, answer **YES**. If any of these items apply to you, we must request that you consult with a physician prior to participating in scuba diving. Your instructor will supply you with an RSTC Medical Statement and Guidelines for Recreational Scuba Diver's Physical Examination to take to your physician.

_____ Dysentery or dehydration requiring medical intervention?

_____ Any dive accidents or decompression sickness?

_____ Inability to perform moderate exercise (example: walk 1.6 km/one mile within 12 mins.)?

_____ Head injury with loss of consciousness in the past five years?

_____ Recurrent back problems?

_____ Back or spinal surgery?

_____ Diabetes?

_____ Back, arm or leg problems following surgery, injury or fracture?

_____ High blood pressure or take medicine to control blood pressure?

_____ Heart disease?

_____ Heart attack?

_____ Angina, heart surgery or blood vessel surgery?

_____ Sinus surgery?

_____ Ear disease or surgery, hearing loss or problems with balance?

_____ Recurrent ear problems?

_____ Bleeding or other blood disorders?

_____ Hernia?

_____ Ulcers or ulcer surgery ?

_____ A colostomy or ileostomy?

_____ Recreational drug use or treatment for, or alcoholism in the past five years?

The information I have provided about my medical history is accurate to the best of my knowledge. ***I agree to accept responsibility for omissions regarding my failure to disclose any existing or past health condition.***

_____	_____	_____	_____
Signature	Date	Signature of Parent or Guardian	Date

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STUDENT

Please print legibly.

Name _____ Birth Date _____ Age _____
First Initial Last Day/Month/Year

Mailing Address _____

City _____ State/Province/Region _____

Country _____ Zip/Postal Code _____

Home Phone ( ) _____ Business Phone ( ) _____

Email _____ FAX _____

Name and address of your family physician

Physician _____ Clinic/Hospital _____

Address _____

Date of last physical examination _____

Name of examiner _____ Clinic/Hospital _____

Address _____

Phone ( ) _____ Email _____

Were you ever required to have a physical for diving? ☐ Yes ☐ No If so, when? _____

PHYSICIAN

This person applying for training or is presently certified to engage in scuba (self-contained underwater breathing apparatus) diving. Your opinion of the applicant's medical fitness for scuba diving is requested. There are guidelines attached for your information and reference.

Physician's Impression

☐ I find no medical conditions that I consider incompatible with diving.

☐ I am unable to recommend this individual for diving.

Remarks _____

_____

_____

_____ Date _____
Physician's Signature or Legal Representative of Medical Practitioner Day/Month/Year

Physician _____ Clinic/Hospital _____

Address _____

Phone ( ) _____ Email _____

Guidelines for Recreational Scuba Diver's Physical Examination

Instructions to the Physician:

Recreational **SCUBA** (Self-Contained Underwater Breathing Apparatus) can provide recreational divers with an enjoyable sport safer than many other activities. The risk of diving is increased by certain physical conditions, which the relationship to diving may not be readily obvious. Thus, it is important to screen divers for such conditions.

The **RECREATIONAL SCUBA DIVER'S PHYSICAL EXAMINATION** focuses on conditions that may put a diver at increased risk for decompression sickness, pulmonary overinflation syndrome with subsequent arterial gas embolization and other conditions such as loss of consciousness, which could lead to drowning. Additionally, the diver must be able to withstand some degree of cold stress, the physiological effects of immersion and the optical effects of water and have sufficient physical and mental reserves to deal with possible emergencies.

The history, review of systems and physical examination should include as a minimum the points listed below. The list of conditions that might adversely affect the diver is not all-inclusive, but contains the most commonly encountered medical problems. The brief introductions should serve as an alert to the nature of the risk posed by each medical problem.

The potential diver and his or her physician must weigh the pleasures to be had by diving against an increased risk of death or injury due to the individual's medical condition. As with any recreational activity, there are no data for diving enabling the calculation of an accurate mathematical probability of injury. Experience and physiological principles only permit a qualitative assessment of relative risk.

For the purposes of this document, **Severe Risk** implies that an individual is believed to be at substantially elevated risk of decompression sickness, pulmonary or otic barotrauma or altered consciousness with subsequent drowning, compared with the general population. The consultants involved in drafting this document would generally discourage a student with such medical problems from diving. **Relative Risk** refers to a moderate increase in risk, which in some instances may be acceptable. To make a decision as to whether diving is contraindicated for this category of medical problems, physicians must base their judgement on an assessment of the individual patient. Some medical problems which may preclude diving are **temporary** in nature or responsive to treatment, allowing the student to dive safely after they have resolved.

Diagnostic studies and specialty consultations should be obtained as indicated to determine the diver's status. A list of references is included to aid in clarifying issues that arise. Physicians and other medical professionals of the Divers Alert Network (DAN) associated with Duke University Health System are available for consultation by phone +1 919 684 2948 during normal business hours. For emergency calls, 24 hours 7 days a week, call +1 919 684 8111 or +1 919 684 4DAN (collect). Related organizations exist in other parts of the world – DAN Europe in Italy +39 039 605 7858, DAN S.E.A.P. in Australia +61 3 9886 9166 and Divers Emergency Service (DES) in Australia +61 8 8212 9242, DAN Japan +81 33590 6501 and DAN Southern Africa +27 11 242 0380. There are also a number of informative websites offering similar advice.

NEUROLOGICAL

Neurological abnormalities affecting a diver's ability to perform exercise should be assessed according to the degree of compromise. Some diving physicians feel that conditions in which there can be a waxing and waning of neurological symptoms and signs, such as migraine or demyelinating disease, contraindicate diving because an exacerbation or attack of the preexisting disease (e.g.: a migraine with aura) may be difficult to distinguish from neurological decompression sickness. A history of head injury resulting in unconsciousness should be evaluated for risk of seizure.

Relative Risk Conditions

- **Complicated Migraine Headaches whose symptoms or severity impair motor or cognitive function, neurologic manifestations**
- **History of Head Injury with sequelae other than seizure**
- **Herniated Nucleus Pulposus**
- **Intracranial Tumor or Aneurysm**
- **Peripheral Neuropathy**
- **Multiple Sclerosis**
- **Trigeminal Neuralgia**
- **History of spinal cord or brain injury**

Temporary Risk Condition

History of cerebral gas embolism without residual where pulmonary air trapping has been excluded and for which there is a satisfactory explanation and some reason to believe that the probability of recurrence is low.

Severe Risk Conditions

Any abnormalities where there is a significant probability of unconsciousness, hence putting the diver at increased risk of drowning. Divers with spinal cord or brain abnormalities where perfusion is impaired may be at increased risk of decompression sickness.

Some conditions are as follows:

- **History of seizures other than childhood febrile seizures**
- **History of Transient Ischemic Attack (TIA) or Cerebrovascular Accident (CVA)**
- **History of Serious (Central Nervous System, Cerebral or Inner Ear) Decompression Sickness with residual deficits**

CARDIOVASCULAR SYSTEMS

Relative Risk Conditions

The diagnoses listed below potentially render the diver unable to meet the exertional performance requirements likely to be encountered in recreational diving. These conditions may lead the diver to experience cardiac ischemia and its consequences. Formalized stress testing is encouraged if there is any doubt regarding physical performance capability. The suggested minimum criteria for stress testing in such cases is at least 13 METS.* Failure to meet the exercise criteria would be of significant concern. Conditioning and retesting may make later qualification possible. Immersion in water causes a redistribution of blood from the periphery into the central compartment, an effect that is greatest in cold water. The marked increase in cardiac preload during immersion can precipitate pulmonary edema in patients with impaired left ventricular function or significant valvular disease. The effects of immersion can mostly be gauged by an assessment of the diver's performance while swimming on the surface. A large proportion of scuba diving deaths in North America are due to coronary artery disease. Before being approved to scuba dive, individuals older than 40 years are recommended to undergo risk assessment for coronary artery disease. Formal exercise testing may be needed to assess the risk.

* METS is a term used to describe the metabolic cost. The MET at rest is one, two METS is two times the resting level, three METS is three times the resting level, and so on. The resting energy cost (net oxygen requirement) is thus standardized. (Exercise Physiology; Clark, Prentice Hall, 1975.)

Relative Risk Conditions

- **History of Coronary Artery Bypass Grafting (CABG)**
- **Percutaneous Balloon Angioplasty (PCTA) or Coronary Artery Disease (CAD)**
- **History of Myocardial Infarction**
- **Congestive Heart Failure**
- **Hypertension**
- **History of dysrythmias requiring medication for suppression**
- **Valvular Regurgitation**

Pacemakers

The pathologic process that necessitated should be addressed regarding the diver's fitness to dive. In those instances where the problem necessitating pacing does not preclude diving, will the diver be able to meet the performance criteria?

*** NOTE: Pacemakers must be certified by the manufacturer as able to withstand the pressure changes involved in recreational diving.**

Severe Risks

Venous emboli, commonly produced during decompression, may cross major intracardiac right-to-left shunts and enter the cerebral or spinal cord circulations causing neurological decompression illness. Hypertrophic cardiomyopathy and valvular stenosis may lead to the sudden onset of unconsciousness during exercise.

PULMONARY

Any process or lesion that impedes airflow from the lungs places the diver at risk for pulmonary overinflation with alveolar rupture and the possibility of cerebral air embolization. Many interstitial diseases predispose to spontaneous pneumothorax: Asthma (reactive airway disease), Chronic Obstructive Pulmonary Disease (COPD), cystic or cavitating lung diseases may all cause air trapping. The 1996 Undersea and Hyperbaric Medical Society (UHMS) consensus on diving and asthma indicates that for the risk of pulmonary barotrauma and decompression illness to be acceptably low, the asthmatic diver should be asymptomatic and have normal spirometry before and after an exercise test. Inhalation challenge tests (e.g.: using histamine, hypertonic saline or methacholine) are not sufficiently standardized to be interpreted in the context of scuba diving.

A pneumothorax that occurs or reoccurs while diving may be catastrophic. As the diver ascends, air trapped in the cavity expands and could produce a tension pneumothorax.

In addition to the risk of pulmonary barotrauma, respiratory disease due to either structural disorders of the lung or chest wall or neuromuscular disease may impair exercise performance. Structural disorders of the chest or abdominal wall (e.g.: prune belly), or neuromuscular disorders, may impair cough, which could be life threatening if water is aspirated. Respiratory limitation due to disease is compounded by the combined effects of immersion (causing a restrictive deficit) and the increase in gas density, which increases in proportion to the ambient pressure (causing increased airway resistance). Formal exercise testing may be helpful.

Relative Risk Conditions

- **History of Asthma or Reactive Airway Disease (RAD)***
- **History of Exercise Induced Bronchospasm (EIB)***
- **History of solid, cystic or cavitating lesion***
- **Pneumothorax secondary to:**
  - **-Thoracic Surgery**
  - **-Trauma or Pleural Penetration***
  - **-Previous Overinflation Injury***
- **Obesity**
- **History of Immersion Pulmonary Edema Restrictive Disease***
- **Interstitial lung disease: May increase the risk of pneumothorax**

* Spirometry should be normal before and after exercise

Active Reactive Airway Disease, Active Asthma, Exercise Induced Bronchospasm, Chronic Obstructive Pulmonary Disease or history of same with abnormal PFTs or a positive exercise challenge are concerns for diving.

Severe Risk Conditions

- **History of spontaneous pneumothorax.** Individuals who have experienced spontaneous pneumothorax should avoid diving, even after a surgical procedure designed to prevent recurrence (such as pleurodesis). Surgical procedures either do not correct the underlying lung abnormality (e.g.: pleurodesis, apical pleurectomy) or may not totally correct it (e.g.: resection of blebs or bullae).
- **Impaired exercise performance due to respiratory disease.**

GASTROINTESTINAL

Temporary Risks

As with other organ systems and disease states, a process which chronically debilitates the diver may impair exercise performance. Additionally, dive activities may take place in areas remote from medical care. The possibility of acute recurrences of disability or lethal symptoms must be considered.

Temporary Risk Conditions

- **Peptic Ulcer Disease associated with pyloric obstruction or severe reflux**
- **Unrepaired hernias of the abdominal wall large enough to contain bowel within the hernia sac could incarcerate.**

Relative Risk Conditions

- **Inflammatory Bowel Disease**
- **Functional Bowel Disorders**

Severe Risks

Altered anatomical relationships secondary to surgery or malformations that lead to gas trapping may cause serious problems. Gas trapped in a hollow viscous expands as the divers surfaces and can lead to rupture or, in the case of the upper GI tract, emesis. Emesis underwater may lead to drowning.

Severe Risk Conditions

- **Gastric outlet obstruction of a degree sufficient to produce recurrent vomiting**
- **Chronic or recurrent small bowel obstruction**
- **Severe gastroesophageal reflux**
- **Achalasia**
- **Paraesophageal Hernia**

ORTHOPAEDIC

Relative impairment of mobility, particularly in a boat or ashore with equipment weighing up to 18 kgs/40 pounds must be assessed. Orthopaedic conditions of a degree sufficient to impair exercise performance may increase the risk.

Relative Risk Conditions

- **Amputation**
- **Scoliosis must also assess impact on respiratory function and exercise performance.**
- **Aseptic Necrosis possible risk of progression due to effects of decompression (evaluate the underlying medical**

cause of decompression may accelerate/escalate the progression).

Temporary Risk Conditions

- **Back pain**

HEMATOLOGICAL

Abnormalities resulting in altered rheological properties may theoretically increase the risk of decompression sickness. Bleeding disorders could worsen the effects of otic or sinus barotrauma, and exacerbate the injury associated with inner ear or spinal cord decompression sickness. Spontaneous bleeding into the joints (e.g.: in hemophilia) may be difficult to distinguish from decompression illness.

Relative Risk Conditions

- **Sickle Cell Disease**
- **Polycythemia Vera**
- **Leukemia**
- **Hemophilia/Impaired Coagulation**

METABOLIC AND ENDOCRINOLOGICAL

With the exception of diabetes mellitus, states of altered hormonal or metabolic function should be assessed according to their impact on the individual's ability to tolerate the moderate exercise requirement and environmental stress of sport diving. Obesity may predispose the individual to decompression sickness, can impair exercise tolerance and is a risk factor for coronary artery disease.

Relative Risk Conditions

- **Hormonal Excess or Deficiency**
- **Obesity**
- **Renal Insufficiency**

Severe Risk Conditions

The potentially rapid change in level of consciousness associated with hypoglycemia in diabetics on insulin therapy or certain oral hypoglycemic medications can result in drowning. Diving is therefore generally contraindicated, unless associated with a specialized program that addresses these issues.

Pregnancy: The effect of venous emboli formed during decompression on the fetus has not been thoroughly investigated. Diving is therefore not recommended during any stage of pregnancy or for women actively seeking to become pregnant.

BEHAVIORAL HEALTH

Behavioral: The diver's mental capacity and emotional make-up are important to safe diving. The student diver must have sufficient learning abilities to grasp information presented to him by his instructors, be able to safely plan and execute his own dives and react to changes around him in the underwater environment. The student's motivation to learn and his ability to deal with potentially dangerous situations are also crucial to safe scuba diving.

Relative Risk Conditions

- **Developmental delay**
- **History of drug or alcohol abuse**
- **History of previous psychotic episodes**
- **Use of psychotropic medications**

Severe Risk Conditions

- **Inappropriate motivation to dive – solely to please spouse, partner or family member, to prove oneself in the face of personal fears**
- **Claustrophobia and agoraphobia**
- **Active psychosis**
- **History of untreated panic disorder**
- **Drug or alcohol abuse**

OTOLARYNGOLOGICAL

Equalisation of pressure must take place during ascent and descent between ambient water pressure and the external auditory canal, middle ear and paranasal sinuses. Failure of this to occur results at least in pain and in the worst case rupture of the occluded space with disabling and possible lethal consequences.

The inner ear is fluid filled and therefore noncompressible. The flexible interfaces between the middle and inner ear, the round and oval windows are, however, subject to pressure changes. Previously ruptured but healed round or oval window membranes are at increased risk of rupture due to failure to equalise pressure or due to marked overpressurisation during vigorous or explosive Valsalva manoeuvres.

The larynx and pharynx must be free of an obstruction to airflow. The laryngeal and epiglotic structure must function normally to prevent aspiration.

Mandibular and maxillary function must be capable of allowing the patient to hold a scuba mouthpiece. Individuals who have had mid-face fractures may be prone to barotrauma and rupture of the air filled cavities involved.

Relative Risk Conditions

- **Recurrent otitis externa**
- **Significant obstruction of external auditory canal**
- **History of significant cold injury to pinna**
- **Eustachian tube dysfunction**
- **Recurrent otitis media or sinusitis**
- **History of TM perforation**
- **History of tympanoplasty**
- **History of mastoidectomy**
- **Significant conductive or sensorineural hearing impairment**
- **Facial nerve paralysis not associated with barotrauma**
- **Full prosthedontic devices**
- **History of mid-face fracture**
- **Unhealed oral surgery sites**
- **History of head and/or neck therapeutic radiation**
- **History of temperomandibular joint dysfunction**
- **History of round window rupture**

Severe Risk Conditions

- **Monomeric TM**
- **Open TM perforation**
- **Tube myringotomy**
- **History of stapedectomy**
- **History of ossicular chain surgery**
- **History of inner ear surgery**
- **Facial nerve paralysis secondary to barotrauma**
- **Inner ear disease other than presbycusis**
- **Uncorrected upper airway obstruction**
- **Laryngectomy or status post partial laryngectomy**
- **Tracheostomy**
- **Uncorrected laryngocele**
- **History of vestibular decompression sickness**

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11. Divers Alert Network (DAN) United States, 6 West Colony Place, Durham, NC www.DiversAlertNetwork.org
12. Divers Alert Network Europe, P.O. Box 64026 Roseto, Italy, telephone non-emergency line: weekdays office hours +39-085-893-0333, emergency line 24 hours: +39-039-605-7858
13. Divers Alert Network S.E.A.P., P. O. Box 384, Ashburton, Australia, telephone 61-3-9886-9166
14. Divers Emergency Service, Australia, www.rah.sa.gov.au/hyperbaric, telephone 61-8-8212-9242
15. South Pacific Underwater Medicine Society (SPUMS), P.O. Box 190, Red Hill South, Victoria, Australia, www.spums.org.au
16. European Underwater and Baromedical Society, www.eubs.org

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