

ScubaTech Ltd. Customer Record Sheet



VAT # 1515122

Name						
Country		D.O.B.	day	month	year	
Adress						
Adress						
eMail						
Date Arrival		Acomm.				
Date Depart		Room No.		BCD:	Shorty:	Mask/Snorkel:
How did you hear about ScubaTech?		Last dive		Reg:	Long Suit:	Fins:
Qualification		No of dives		Air	Nx	Weight:
Date	Diving / Courses / Snorkelling / Boattrips		Equipment		Remarks	
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Single Dives						US\$
2 Tank Dives						US\$
Equipment						US\$
Course						US\$
Course						US\$
Gases						US\$
Snorkling						US\$
Watersport						US\$
Shop						US\$
Drinks/Extras						US\$
Subtotal						US\$
Tax	10% VAT					US\$
Date of Payment	Deposit	Cash	Credit Card	Total EC\$	Total US\$	
Invoice #				Total - Deposit = To pay US\$		➔

ScubaTech Ltd.



**Liability Release and assumption of risk
For certified divers, divers in training and snorkellers**

1. I acknowledge that I am a certified scuba diver trained in safe diving practices, a diver in training, a snorkeller or passenger (✓ appropriate)
2. I am aware of the risks inherent in this sport and accept these risks.
3. I am in good mental and physical fitness for diving/snorkelling, and I am not under the influence of alcohol, nor am I under the influence of any drugs that are contra indicatory to diving/snorkelling. If I am taking medication, I affirm that I have seen a physician and have approval to dive while under the influence of the medication/drugs.
4. I am aware of the dangers of breath holding while scuba diving and I will not hold the Released Parties and related entities (Such as employees, instructors, certified assistants, boat operators, or diver training agencies) responsible if I am injured doing so.
5. I am aware that I will be diving with a buddy, and it will be our responsibility to plan our dive allowing for our diving limitations and the prevailing water conditions. I will not hold the Released Parties responsible for my failure to safely plan my dive.
6. I will inspect all of my equipment prior to the activity and will notify the Released Parties if any of my equipment is not working properly. I will not hold the Released Parties responsible for my failure to inspect my equipment prior to diving.
I accept responsibility for the return of this equipment in the condition in which it was rented to me. Should I have any cause to damage or loss the equipment I understand that I will be required to pay for the replacement including shipping and local taxes.
I further understand that should I be involved in any accident which arises from misuse of this equipment, I absolve ScubaTech Ltd., its principles, Officers, employees and agents from any liability whatsoever.
I understand that ScubaTech Ltd. is not reliable for loss and damage of private equipment.
7. I acknowledge that I am physically fit to scuba dive/snorkel, and I will not hold the Released Parties responsible if I am injured as a result of heart, lung, ear, or circulatory problems or other illnesses that occur while diving.
8. I understand that even though I follow all of the appropriate dive practices, there is still some risk of my sustaining decompression sickness, embolism, or other hyperbaric injuries, and I expressly assume the risk of said injuries.
9. I expressly assume the risk and accept all responsibility to plan my dive and dive my plan.
10. I understand that scuba diving is a physically strenuous activity and that I will be exerting myself during this diving excursion, and that if I am injured as a result of a heart attack, panic, hyperventilation, etc., that I expressly assume the risk of said injuries and that I will not hold Released Parties responsible for the same.
11. I understand that on this open-water diving trip, I will be at a remote site and that there will not be immediate medical care or hyperbaric care available to me, and I expressly assume the risk of diving in such a remote spot.
12. I release ScubaTech Ltd. and its agents from all Liability whatsoever for personal injury, property damage and wrongful death however caused including but not limited to negligence of the company or its agents.
13. You may pay with US\$, EC\$, VISA- or MASTER-Card.
The exchange rate for EC\$ is 2.75. Credit card payment will be in EC\$.
14. If you are staying at the CALABASH Hotel please consider that we can't charge your dive center bill to your room. You may pay with us in the dive center.

Printed Name:

Signed

Date

Signature of Parent of Guardian (where applicable)



BOAT TRAVEL AND SCUBA DIVING LIABILITY RELEASE AND ASSUMPTION OF RISK AGREEMENT

Please read carefully and fill in all blanks before signing.

I, _____, hereby affirm that I am a certified scuba diver or a student diver under the control and supervision of a certified scuba instructor, and that I thoroughly understand the hazards of scuba diving including those hazards occurring during boat travel to and from the dive site (hereinafter collectively referred to as "Excursion").

I understand that these inherent risks include, but are not limited to, drowning, air expansion injuries, decompression sickness, embolism, or other hyperbaric injuries that require treatment in a recompression chamber; slipping or falling while on board, being cut or struck by a boat while in the water, injuries occurring while getting on or off a boat, and other perils of the sea; all of which can result in serious injury or death. I understand the Excursion will be conducted at a site that is remote, either by time or distance or both, from a recompression chamber and emergency medical facilities. I still choose to proceed with the Excursion. By signing this Agreement, I certify that I am fully aware of and expressly assume these and all other risks involved in making such a boat trip and scuba dive(s), whether conducted as a recreational dive or part of a diving class.

I understand and agree that neither the divemaster/dive supervisor/instructor; nor the crew or owner of the vessel; nor the vessel itself; nor PADI Americas, Inc., nor its affiliate or subsidiary corporations; nor the owners, officers, employees, agents, contractors or assigns of the above listed individuals and/or entities (hereinafter "Released Parties") may be held liable or responsible in any way for any personal injury, property damage, wrongful death or other damages to me or my family, estate, heirs or assigns that may occur as a result of my participation in this Excursion, or as a result of the negligence of any party, including the Released Parties, whether passive or active.

I affirm I am in good mental and physical fitness to scuba dive. I further state that I am not under the influence of alcohol or any drugs that are contradicted to diving. If I am taking medication, I affirm that I have seen a physician and have approval to dive while under the influence of the medication/drugs. I understand that skin and scuba diving are physically strenuous activities and that I will be exerting myself during this Excursion, and that if I am injured as a result of heart attack, panic, hyperventilation, drowning or any other cause, that I expressly assume the risk of said injuries and that I will not hold the Release Parties responsible for the same.

I am aware that safe dive practices suggest diving with a buddy. Accordingly, it will be our responsibility to plan our dive allowing for our diving limitations and the prevailing water conditions and environment. I will not hold the Released Parties responsible for my failure to safely plan my dive, dive my plan, maintain buddy contact and follow the instructions of the dive supervisor/vessel crew, including the dive briefing.

I affirm it is my responsibility to inspect all of my equipment prior to the Excursion and will notify the Released Parties if any of my equipment is not working properly. I will not hold the Released Parties responsible for my failure to inspect my equipment prior to diving.

I further state that I am of lawful age and legally competent to sign this Agreement, or that I have obtained the written consent of my parent or guardian. I understand the terms herein are contractual and not a mere recital, and that I have signed this Agreement of my own free act and with the knowledge that I hereby agree to waive my legal rights. I further agree that if any provision of this Agreement is found to be unenforceable or invalid, that provision shall be severed from this Agreement. The remainder of this Agreement will then be construed as though the unenforceable provision had never been contained herein.

I understand and agree that I am not only giving up my right to sue the Released Parties but also any rights my heirs, assigns or beneficiaries my have to sue the Release Parties resulting from my death. I further represent that I have the authority to do so and my heirs, assigns and beneficiaries will be estopped from claiming otherwise because of my representations to the Released Parties.

I, _____, BY THIS INSTRUMENT, AGREE TO EXEMPT AND RELEASE ALL THE ABOVE LISTED ENTITIES AND/OR INDIVIDUALS FROM ALL LIABILITY AND RESPONSIBILITY FOR PERSONAL INJURY, PROPERTY DAMAGE OR WRONGFUL DEATH, HOWEVER CAUSED, INCLUDING BUT NOT LIMITED TO, PRODUCT LIABILITY OR THE NEGLIGENCE OF THE RELEASED PARTIES, WHETHER PASSIVE OR ACTIVE. I HAVE FULLY INFORMED MYSELF AND MY HEIRS OF THE CONTENTS OF THIS LIABILITY RELEASE AND ASSUMPTION OF RISK AGREEMENT BY READING IT BEFORE I SIGNED IT ON BEHALF OF MYSELF AND MY HEIRS.

Participant's Signature

Date (Day/Month/Year)

Signature of Parent or Guardian (where applicable)

Date (Day/Month/Year)

Diver Accident Insurance? NO YES Policy Number _____



ScubaTech Dive Center - Cancellation Policy

Dear guests,

For all your courses, dive excursions, snorkeling- and boat trips, we organize our schedule according to your wishes and exclusively reserve boat space, guides and instructors for you. We might have to turn other guests down in order to guarantee you a comfortable group size, special dive site requests or your course schedule.

Please be advised of our cancellation policy, **prior** to make any bookings!

Courses:

When you're signing up for any course, we'll ask you to pay the entire amount at the time when we're scheduling your course and reserving the instructor and boat space for you.

If, for any reason (e.g. but not limited to: illness, injury, indecision, weather conditions, etc.), you're cancelling your reservation more than 48 hours before, you'll be refunded 50% of the course price, 50% will be held in as a cancellation fee.

If, for any reason (e.g. but not limited to: illness, injury, indecision, weather conditions, etc.), you're cancelling your reservation less than 48 hours before or you do not appear for this appointment, a 100% cancellation fee is applicable.

If you're enrolled in a course and are cancelling a scheduled session more than 48 hours before, you'll be charged 50% of the value of the scheduled session.

If you're enrolled in a course and are cancelling a scheduled session less than 48 hours before or you do not appear for this appointment, you'll be charged 100% of the value of the scheduled session.

Rescheduling will then take place according to Dive Center logistics.

Dive Excursions:

When you're signing up for any dive excursion, we'll ask you to pay the entire amount at the time when we're scheduling your dives and reserving the instructor and boat space for you.

If, for any reason (e.g. but not limited to: illness, injury, weather conditions, ear problems, sea sickness, etc.), you're cancelling your reservation more than 48 hours before, you'll be refunded or credited towards further dives 50% of the scheduled booking; 50% will be held in as a cancellation fee.

If, for any reason (e.g. but not limited to: illness, injury, weather conditions, ear problems, sea sickness, etc.), you're cancelling your reservation less than 48 hours before or you do not appear for this appointment, a 100% cancellation fee is applicable.

Snorkeling Excursions, Boat Trips, Sunset Champagne Cruises & Water Sports:

When you're signing up for a snorkeling excursion, boat trip, sunset champagne cruise or water sports, we'll ask you to pay the entire amount at the time when we're scheduling your excursion and reserving the guide/captain and boat space for you.

If, for any reason (e.g. but not limited to: illness, injury, weather conditions, etc.), you're cancelling your reservation more than 48 hours before, you'll be refunded or credited towards a newly scheduled excursion 50% of the scheduled booking; 50% will be held in as a cancellation fee.

If, for any reason (e.g. but not limited to: illness, injury, weather conditions, etc.), you're cancelling your reservation less than 48 hours before or you do not appear for this appointment, a 100% cancellation fee is applicable.

I have read, understood and agree to the ScubaTech cancellation policy:

Signature: **Date:**

Signature of parent of guardian (where applicable):



General Liability Release and Express Assumption of Risk

18 Elm Street, Topsham, Maine 04086
Phone: (207) 729-4201 Fax: (207) 729-4453

For _____ (specify Course or Specialty) training program under sanction through TDI. Please read carefully, fill in all blanks and initial each paragraph before signing at bottom.

I, _____, hereby affirm that I have been advised and thoroughly informed of the inherent hazards of scuba diving activities.

_____ Further, I understand that diving with compressed air, oxygen enriched air (nitrox), oxygen, or trimix supplied by standard open circuit scuba, semi-closed or fully closed circuit rebreathers involves certain inherent risks including decompression sickness, embolism, oxygen toxicity, inert gas narcosis, marine life injuries or other barotrauma/hyperbaric injuries can occur that require treatment in a recompression chamber. I further understand that the open water diving trips, which are necessary for training and certification, may be conducted at a site that is remote, either by time of distance or both, from such a recompression chamber. I still choose to proceed with such instructional dives in spite of the possible absence of a recompression chamber in proximity to the dive site.

_____ I understand and agree that neither my instructor(s) _____, the facility through which I received my instruction, _____, International Training and Technical Diving International, nor the officers, directors, shareholders, affiliated companies, employees, agents, or assigns of the above listed entities and/or individuals, nor the authors of any materials including texts and tables expressly used for training and certification (hereinafter referred to as "Released Parties") may be held liable or responsible in any way for any injury, death, or other damages to me or my family, heirs, or assigns that may occur as a result of my participation in this diving class or as a result of the negligence of any party, including the Released Parties, whether passive or active.

_____ In consideration of being allowed to enroll in this course, I hereby personally assume all risks in connection with said course, for any harm, injury, or damage that may befall me while I am enrolled as a student of this course, including all risks connected therewith, whether foreseen or unforeseen.

_____ I further agree to save, defend, indemnify, and hold harmless said course and Released Parties from any claim or lawsuit by me, anyone purporting to act on my behalf, my family, estate, heirs or assigns, arising directly or indirectly out of my enrollment and participation in this course including both claims arising during the course or after I receive my certification even if such claims may be groundless, false or fraudulent.

_____ I also understand that diving activities are physically strenuous and that I will be exerting myself during this diving course, and that if I am injured as a result of heart attack, panic, hyperventilation, oxygen toxicity, inert gas narcosis, drowning, etc. that I expressly assume the risk of said injuries and that I will not hold the above listed individuals or companies responsible for the same, and I agree to defend, indemnify, and hold harmless said course and Released Parties for any such injuries incurred by me.

_____ I understand that these activities may place me deeper than I am able to safely execute a free (without breathing gas) ascent from.

_____ I understand that I may be required to furnish my own equipment and that I am responsible for its operating condition and maintenance.

_____ I further state that I am of lawful age and legally competent to sign this liability release, or that I have acquired the written consent of my parent or guardian.

_____ I further state that I am already a qualified and certified scuba diver from the following training agencies: _____ and that I hold training to the level of _____. I am aware of the required certification level and/or experience necessary and recommended to enroll in this diving course and I stipulate I meet those requirements for prior certification or equivalent experience. I have been a certified diver since _____ and have been diving for _____ years for a total of _____ dives to a maximum depth of _____ ft.

_____ I understand that the terms herein are contractual and not a mere recital, and that I have signed this document of my own free act. Further that I understand and agree that, in the event that one or more of the provisions of this agreement, for any reason, is held by a court of competent jurisdiction to be invalid or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this agreement shall be construed as if such invalid, illegal or unenforceable provision or provisions had never been contained herein.

IT IS THE INTENTION OF _____ BY THIS INSTRUMENT TO EXEMPT AND RELEASE MY INSTRUCTORS, _____ (AND OTHERS, _____), THE FACILITY THROUGH WHICH I RECEIVED MY INSTRUCTION _____, THE TRAINING AGENCY _____ AND INTERNATIONAL TRAINING INC. AND TECHNICAL DIVING INTERNATIONAL, AND ALL OTHER RELATED ENTITIES AND RELEASED PARTIES AS DEFINED ABOVE, FROM ALL LIABILITY OR RESPONSIBILITY WHATSOEVER FOR PERSONAL INJURY, PROPERTY DAMAGE OR WRONGFUL DEATH HOWEVER CAUSED, OR ARISING OUT OF, DIRECTLY OR INDIRECTLY, INCLUDING, BUT NOT LIMITED TO, THE NEGLIGENCE OF THE RELEASED PARTIES, WHETHER PASSIVE OR ACTIVE. I HAVE FULLY INFORMED MYSELF OF THE CONTENTS OF THIS LIABILITY RELEASE AND EXPRESS ASSUMPTION OF RISK BY READING IT BEFORE SIGNING IT ON BEHALF OF MYSELF AND MY HEIRS.

This document is required for all courses and Specialties taught under sanction by Technical Diving International. No alterations, changes, omissions or revisions may be made.

Signature of Student/Participant / Date

Signatures of Parents or Guardians / Date
(where applicable)

Witness / Date



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
Dive Center

city of _____ and state of _____.

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

Diving is an exciting and demanding activity. When performed correctly, applying correct techniques, it is very safe.

When established safety procedures are not followed, however, there are dangers.

To scuba dive safely, you must 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 heart trouble, a current cold or congestion, epilepsy, asthma, a severe medical problem or who is under the influence of alcohol or drugs should not dive. If taking medication, consult your doctor and the instructor before participation in this program. You will also 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. 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 History section, review them with your instructor before signing.

Medical History 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 dive training. A positive response to a question does not necessarily disqualify you from diving. A positive response means that there is a pre-existing condition that may affect your safety while diving and you must seek the advice of your physician.

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 those items apply to you, we must request that you consult with a physician prior to participating in scuba diving. (Your physician will need to review the instructions that accompany this form, then sign and return it to you.)

_____ Could you be pregnant?

Are you *over 45 years of age* and *have one or more of the following*:

- _____ • A high cholesterol level?
- _____ • A family history of heart attacks or strokes?

Have you ever had or do you currently have:

- _____ Asthma, or wheezing with breathing, or wheezing with exercise?
- _____ Frequent or severe attacks of hay fever or allergy?
- _____ Frequent colds, sinusitis or bronchitis?
- _____ Any form of lung disease?
- _____ Pneumothorax (collapsed lung)?
- _____ History of chest surgery?
- _____ Claustrophobia or agoraphobia (fear of closed or open spaces)?
- _____ Behavioral health problems?
- _____ Epilepsy, seizures, convulsions or take medications to prevent them?
- _____ Recurring migraine headaches or take medications to prevent them?
- _____ History of blackouts or fainting (full/partial loss of consciousness)?
- _____ History of diving accidents or decompression sickness?

- _____ History of recurrent back problems?
- _____ History of back surgery?
- _____ History of diabetes?
- _____ History of back, arm or leg problems following surgery, injury or fracture?
- _____ Inability to perform moderate exercise (example: walk one mile within 12 minutes)?
- _____ History of any heart disease?
- _____ History of heart attacks?
- _____ Angina or heart surgery or blood vessel surgery?
- _____ History of ear or sinus surgery?
- _____ History of ear disease, hearing loss or problems with balance?
- _____ History of problems equalizing (popping) ears with airplane or mountain travel?
- _____ History of bleeding or other bleeding disorders?
- _____ History of any type of hernia?
- _____ History of ulcers of ulcer surgery?
- _____ History of colostomy?
- _____ History of drug or alcohol abuse?
- _____ Any other current medical condition that you feel could contradict participation in an active demanding sport such as scuba diving?

The information I have provided about my medical history is accurate to the best of my knowledge.

Signature Date Signatures of parents or guardians where applicable Date

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 _____

Physician's Signature or Legal Representative of Medical Practitioner Date _____
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 dysrhythmias 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 epiglottic 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 prosthodontic devices
- History of mid-face fracture
- Unhealed oral surgery sites
- History of head and/or neck therapeutic radiation
- History of temporomandibular 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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