

LEARNING AGREEMENT WITH THE DIVE TRIBE LIMITED

Welcome to the **PADI OPEN WATER DIVER** course. We are confident that you will find your dive training both fun and rewarding. To learn and practice important concepts and skills for using life-support equipment underwater, you must invest the time needed to do it. This learning agreement is between you (the student diver) and our instructional staff regarding our mutual responsibilities in this program.

Student Diver Responsibilities

I (student diver) agree to study independently as specified by the instructor. In general, this means that before each practical session, I will:

- Complete the assigned knowledge development portion of the course, including:
 - Read the PADI Open Water Diver Manual sections and complete the Knowledge Reviews at the end of each chapter.
 - Watch the Open Water Diver DVD.
 - Complete and successfully pass the 4 Quizzes and Final Exam.

In addition, I agree to:

- Follow all course procedures as set forth by my instructor.
- Ask questions about anything not understood.
- Be on time and be prepared for each practical session.

If I do not follow the points above, I understand that I may need to reschedule practical sessions and that I'm responsible for any additional costs related to this. In scheduling and determining additional costs, The Dive Tribe Limited agrees to give every reasonable consideration to unforeseen events, such as family emergencies.

Instructor/Staff Responsibilities

The course instructor and staff agree to:

- 1. Start the class as scheduled.
- 2. Provide a positive learning environment.
- 3. Answer your questions to the best of our ability.
- 4. Assist you through any course challenges.
- 5. Provide opportunities for as many knowledge development, confined water dives and open water dives as necessary for you to comfortably master course-performance objectives. The course fee is based on an average, and includes all knowledge development assessments, confined water dives, and open water dives (if you paid to complete open water portion with The Dive Tribe Limited). Because people learn skills at different rates, the course is student-centered and performance-based, not time-based. Additional sessions may be needed for you to comfortably meet course objectives for certification.

Payment

I will make payment in full upon receipt of the PADI Open Water Diver Crew Pack.

Student Diver Signature	Date
The Dive Tribe Authorized Signature	Date

PADI Open Water Diver Course Re	ecord and Referral Form	B. Knowledge Development	Course option: RDP Ta	Table □ eRDPML □ Computer only
Student Name	Birth Date	Date Completed Completed	Passed Viewed Op	
	Day/Month/Year	Day / Month / Year KR	Quiz/Exam Water Vid	
Mailing addressCity	Sex L M L F	Sec 1/		#
Country	Zin/Postal Code	Sec 2//		#
CountryPhone Home ()	Business ()	Sec 3//		#
Fax ()	Email	Sec 4/		#
All DADILLO to the second of Second Second of Second Secon		Sec 5//		#
All PADI Instructors who initial this document must complete		OR eLearning Quick Review//		#
PADI Instructor S	ignature	(Note: If all above Knowledge Development sessions ha	ve been completed by one in	structor, only one signature required)
PADI No Dive Center/Resort No				
Phone Home () Fax	()	All Knowledge Development sessions listed abo	ove have been completed	d, Quizzes/Exams passed.
Email		Instructor Signature	#	Date//
PADI Instructor S	ignature			
PADI Instructor Si Dive Center/Resort No	Date	C. Open Water Dives	Ded	to Commisted Instruction##
Phone Home () Fax	Day/Month/Year	Date Completed Instructor** Day / Month / Year Initials PADI	υατ # Day /	te Completed Instructor** / Month / Year Initials PADI #
Email Tax		•	-	
Note: Attach additional sheet for other PADI Instructor information	ation if necessary.	Dive 1/ #		/#
When referring a PADI Scuba Diver/Open Water Diver	•	Dive 2 / #	Dive 4/	/#
 a. Fill in the diver and PADI Instructor information and note b. Attach a copy of the diver's PADI Medical Statement to th c. Advise the diver of the need for a photo for certification of d. Encourage the diver to complete training as soon as poss from the last training section completion date. 	nis form. card processing.	Dive Flexible Skills These skills may be completed during any Open Wat 1. Cramp Removal*	Completed on Dive #	Instructor** Initials PADI#
A Confined Water Dives		2. Snorkel/Regulator Exchange*	Dive #	#
A. Confined Water Dives		3. Inflatable Signal Tube/DSMB Deployment*	Dive #	#
Date Completed Instructor** Day / Month / Year Initials PADI #	Date Completed Instructor** Day / Month / Year Initials PADI#	4. Emergency Weight Drop (or in CW)*	Dive #	#
•	CW 4 / #	5. Surface Swim with Compass6. Tired Diver Tow	Dive # Dive #	# #
CW 2 / #	CW5 / / #	7. Remove/Replace Scuba (surface)	Dive #	#
CW 3 / #		8. Remove/Replace Weights (surface)	Dive #	
	*DSD with all CW Dive 1 skills = Open Water Diver CW Dive 1	9. CESA (Dive 2, 3 or 4)	Dive #	#
Waterskills Assessment		10. UW Compass Navigation (Dive 2, 3 or 4)	Dive #	#
Date Completed Instructor** Day / Month / Year Initials PADI #	Date Completed Instructor**	(Note: If all above Dive Flexible Skills have been comple	ted by one instructor, only on	ne signature is required)
Day / Month / Year Initials PADI #	Day / Month / Year Initials PADI #	All Dive Flexible Skills listed above have been c	ompleted	
200 metre/yard Swim OR 300 metre/yard Mask/Snorkel/Fin Swim	Skin Diving Skills	Instructor Signature		Date / /
//#	/#			
10 Minute Survival Float*	Dry Suit Orientation	Student Statement: I understand the training re	equirements for this cour	se and have successfully completed
//#	#	all certification requirements. I am adequately p those in which I was trained. I realize that addi	prepared to dive in areas	and under conditions similar to
Dive Flexible Skills	(Note: If all Confined Water Dives and Waterskills Assess-	diving activities, in other geographical areas, a	nd after periods of inactiv	vity that exceed six months. Lagree
Equipment Preparation and Care*	ment have been completed by one instructor, only one	to abide by PADI's Standard Safe Diving Practice	es.	,
#	signature required.)	Student Signature	#	/ Date//
Disconnect Low Pressure Inflator Hose*/###	All Confined Water Dives listed above and the Waterskills Assessment have been completed.	All requirements for certification as a PADI Scu	ıba Diver have been met	t (completion of Knowledge Develo
Loose Cylinder Band	Instructor Signature	ment sessions 1, 2, 3 Confined Water Dives 1, 2, with an asterisk *).	, 5 Open water Dives 1, 2	and all dive nexible skills marked
#	PADI #/ Date //	Instructor Signature	#	Date / /
Weight System Removal and Replacement (surface)*	**I certify that this student has satisfactorily com-	instructor signature	π	
#	pleted this skill/section/dive as outlined in the	All requirements for certification as a PADI Ope	en Water Diver have he	en met.
Emergency Weight Drop (or in OW)*/##	PADI Instructor Manual. I am a PADI Instructor renewed in Teaching status for the current year.	Instructor Signature		
	Tonewea in leading status for the current year.	-		

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Important Points for the Diver and Instructor

To the Diver

- Make advance logistical and financial arrangements with a PADI Dive Center, PADI Resort or PADI Instructor to complete your training. Verify that the PADI Instructor(s) who will complete your training is in Teaching status.
- Take this form, along with a copy of your completed PADI Medical Statement and a photograph to the PADI Dive Center, PADI Resort or PADI Instructor completing your training.
- 3. This referral form is valid for one year after the last training module completion date, however you should complete your training as soon as possible.
- 4. Retain this form until you have completed all required training sessions.
- 5. The PADI Instructor(s) continuing your training will preassess your skills and knowledge and review anything that may be unclear.
- 6. Upon completion of all required open water dives, you and the PADI Instructor will complete a Positive Identification Card (PIC) envelope. This envelope must be submitted to PADI along with your photo to obtain a certification card.

NOTE: After certification, you'll want to continue your diving adventures. Visit your initial PADI Dive Center, PADI Resort or PADI Instructor and ask about participating in a Discover Local Diving experience or another PADI Course.

To the Referring PADI Instructor(s)

- 1. Fill in the requested information on this form, including the diver's name and address and your contact information. Also, fill in the appropriate areas of training completed before referring the diver.
- 2. Attach a copy of the diver's PADI Medical Statement to this form. Also advise the diver of the need for a photo for certification card processing.
- 3. Give the diver the entire form. If possible, assist the diver in making arrangements with a PADI Dive Center, PADI Resort or PADI Instructor for completing training as additional local requirements may apply. Keep a photocopy for your records.
- 4. Encourage the diver to complete the training as soon as possible. Advise the diver that the form is only valid for one year after the last training module completion date.

To the Receiving PADI Instructor(s)

- 1. Preassess the diver's knowledge and skills. Be certain that the diver is adequately prepared to continue training.
- 2. A diver may be referred between any academic module, confined water dive or between Open Water Dives 1-4.
- 3. Upon completion of each component, initial and date this form in the appropriate area. The diver retains the referral form until the completion of all certification requirements. Retain a photocopy of this form for your records.
- 4. If you conduct Open Water Dive 4, you are the certifying instructor. Complete and submit a PADI Positive Identification Card (PIC) envelope/Online to PADI for processing. Retain a copy of the completed referral form for your records and forward a copy to the original instructor for his records.

OUESTIONS – About how to use the form? Call PADI.

The Scuba Diver Statement

The PADI Scuba Diver rating allows you to gain experience under direct professional supervision. This agreement defines the limitations of your pre-entry level certification and describes the diving practices necessary for your comfort and safety.

, _____, understand that as a PADI Scuba Diver, I should:

- Dive under the direct inwater supervision of a PADI Divemaster, Assistant Instructor or Instructor. Listen carefully to dive briefings and respect the advice of those supervising my dive activities. Adhere to the buddy system on every dive.
- 2. Dive in conditions better than or similar to those in which I was trained. This includes limiting maximum dive depth to 12 metres/40 feet, or receiving additional instruction before diving deeper.
- 3. Maintain a reasonable fitness level for diving and dive within personal limitations. Avoid overexertion while diving and not dive under the influence of alcohol or drugs.
- 4. Obtain air fills and dive equipment only from a reputable source, such as a PADI Dive Center or Resort, to avoid contaminated air. Check that the cylinder used is not marked for enriched air (nitrox).
- Maintain proper buoyancy while diving. Adjust weight for neutral buoyancy at the surface with no air in the BCD and take into account buoyancy changes due to air use during the dive. Establish positive buoyancy by ditching the weight belt and/or inflating the BCD when in distress on the surface.
- 6. Continue dive education to ensure appropriate training and experience before exceeding the limits of the PADI Scuba Diver rating. Review skills under supervision in a controlled environment after periods of diving inactivity.
- 7. Breathe properly for diving. Never breath hold or skip breathe when using compressed air.
- 8. Ascend at a rate of 18 metres/60 feet per minute or slower from every dive and make a safety stop at the end of every dive.
- 9. Use complete, properly fitting, well-maintained and familiar scuba equipment. Consult a dive professional for advice about and orientation to any unfamiliar equipment.
- 10. Know and obey local laws and regulations relevant to recreational diving.
- 11. Understand that I may upgrade to Open Water Diver in order to dive without professional supervision anytime after my Scuba Diver certification date.
- 12. Understand that deviating from safe diving practices will increase the risk of decompression illness, other injury or death and recognize that for safety and well being PADI Scuba Divers should abide by these recommendations and seek additional information or advice before diving in unfamiliar situations.



Non-Agency Disclosure and Acknowledgment Agreement

In European Union and European Free Trade Association countries use alternative form.

Please read carefully and fill in all blanks before signing.

padi.com	I understand and agree that PADI Members ("Members"), including	store/resort
p	and/or any individual PADI Instructors and Divemasters associated with th	
ing, are licensed	l to use various PADI Trademarks and to conduct PADI training, but are not age	nts, employees or franchisees of PAD
Americas, Inc.	or its parent, subsidiary and affiliated corporations ("PADI"). I further underst	tand that Member business activities
	t, and are neither owned nor operated by PADI, and that while PADI establish	
ing programs, it	t is not responsible for, nor does it have the right to control, the operation of	the Members' business activities and
	conduct of PADI programs and supervision of divers by the Members or their	
	ehalf of myself, my heirs and my estate that in the event of an injury or death d	
tate shall seek	to hold PADI liable for the actions, inactions or negligence of	store/resort
and/or the instru	ictors and divemasters associated with the activity.	

Liability Release and Assumption of Risk Agreement

In European Union and European Free Trade Association countries use alternative form.

Please read carefully and fill in all blanks before signing.

I, Participant Name, hereby affirm that I am aware that skin and scuba diving have inherent risks which may result in serious injury or death.

I understand that diving with compressed air involves certain inherent risks; including but not limited to decompression sickness, embolism or other hyperbaric/air expansion injury that require treatment in a recompression chamber. I further understand that the open water diving trips which are necessary for training and for certification may be conducted at a site that is remote, either by time or 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 receive my instruction,

nor PADI Americas, Inc., nor its affiliate and subsidiary corporations, nor any of their respective employees, officers, agents, contractors or assigns (hereinafter referred to as "Released Parties") may be held liable or responsible in any way for any injury, death or other damages to me, my family, estate, heirs or assigns that may occur as a result of my participation in this diving program or as a result of the negligence of any party, including the Released Parties, whether passive or active.

In consideration of being allowed to participate in this course (and optional Adventure Dive), hereinafter referred to as "program," I hereby personally assume all risks of this program, whether foreseen or unforeseen, that may befall me while I am a participant in this program including, but not limited to, the academics, confined water and/or open water activities.

I further release, exempt and hold harmless said program and Released Parties from any claim or lawsuit by me, my family, estate, heirs or assigns, arising out of my enrollment and participation in this program including both claims arising during the program or after I receive my certification.

I also understand that skin diving and scuba diving are physically strenuous activities and that I will be exerting myself during this program, 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 Released Parties responsible for the same.

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 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 may have to sue the Released Parties resulting from my death. I further represent I have the authority to do so and that my heirs, assigns, or beneficiaries will be estopped from claiming otherwise because of my representations to the Released Parties.

I, Participant Name,
BY THIS INSTRUMENT AGREE TO EXEMPT AND RELEASE MY
INSTRUCTORS.

THE FACILITY THROUGH WHICH I RECEIVE MY INSTRUCTION,

PADI AMERICAS, INC., AND ALL RELATED ENTITIES AS DEFINED ABOVE, FROM ALL LIABILITY OR RESPONSIBILITY WHATSOEVER FOR PERSONAL INJURY, PROPERTY DAMAGE OR WRONGFUL DEATH HOWEVER CAUSED, INCLUDING, BUT NOT LIMITED TO, THE NEGLIGENCE OF THE RELEASED PARTIES, WHETHER PASSIVE OR ACTIVE.

I HAVE FULLY INFORMED MYSELF AND MY HEIRS OF THE CONTENTS OF THIS NON-AGENCY DISCLOSURE AND ACKNOWLDGE-MENT AGREEMENT AND LIABILITY RELEASE AND ASSUMPTION OF RISK AGREEMENT BY READING BOTH BEFORE SIGNING BELOW 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)



Standard Safe Diving Practices Statement of Understanding

Please read carefully before signing.

This is a statement in which you are informed of the established safe diving practices for skin and scuba diving. These practices have been compiled for your review and acknowledgement and are intended to increase your comfort and safety in diving. Your signature on this statement is required as proof that you are aware of these safe diving practices. Read and discuss the statement prior to signing it. If you are a minor, this form must also be signed by a parent or quardian.

١,	, understand that as a diver i should.
1.	Maintain good mental and physical fitness for diving. Avoid being under the influence of alcohol or dangerous dr

- Maintain good mental and physical fitness for diving. Avoid being under the influence of alcohol or dangerous drugs
 when diving. Keep proficient in diving skills, striving to increase them through continuing education and reviewing
 them in controlled conditions after a period of diving inactivity, and refer to my course materials to stay current and
 refresh myself on important information.
- 2. Be familiar with my dive sites. If not, obtain a formal diving orientation from a knowledgeable, local source. If diving conditions are worse than those in which I am experienced, postpone diving or select an alternate site with better conditions. Engage only in diving activities consistent with my training and experience. Do not engage in cave or technical diving unless specifically trained to do so.
- 3. Use complete, well-maintained, reliable equipment with which I am familiar; and inspect it for correct fit and function prior to each dive. Have a buoyancy control device, low-pressure buoyancy control inflation system, submersible pressure gauge and alternate air source and dive planning/monitoring device (dive computer, RDP/dive tables—whichever you are trained to use) when scuba diving. Deny use of my equipment to uncertified divers.
- 4. Listen carefully to dive briefings and directions and respect the advice of those supervising my diving activities. Recognize that additional training is recommended for participation in specialty diving activities, in other geographic areas and after periods of inactivity that exceed six months.
- 5. Adhere to the buddy system throughout every dive. Plan dives including communications, procedures for reuniting in case of separation and emergency procedures with my buddy.
- 6. Be proficient in dive planning (dive computer or dive table use). Make all dives no decompression dives and allow a margin of safety. Have a means to monitor depth and time underwater. Limit maximum depth to my level of training and experience. Ascend at a rate of not more than 18 metres/60 feet per minute. Be a SAFE diver Slowly Ascend From Every dive. Make a safety stop as an added precaution, usually at 5 metres/15 feet for three minutes or longer.
- 7. Maintain proper buoyancy. Adjust weighting at the surface for neutral buoyancy with no air in my buoyancy control device. Maintain neutral buoyancy while underwater. Be buoyant for surface swimming and resting. Have weights clear for easy removal, and establish buoyancy when in distress while diving. Carry at least one surface signaling device (such as signal tube, whistle, mirror).
- 8. Breathe properly for diving. Never breath-hold or skip-breathe when breathing compressed air, and avoid excessive hyperventilation when breath-hold diving. Avoid overexertion while in and underwater and dive within my limitations.
- 9. Use a boat, float or other surface support station, whenever feasible.
- 10. Know and obey local dive laws and regulations, including fish and game and dive flag laws.

I understand the importance and purposes of these established practices. I recognize they are for my own safety and well-being, and that failure to adhere to them can place me in jeopardy when diving.

Participant's Signature	Date (Day/Month/Year)
Signature of Parent or Guardian (where applicable)	Date (Day/Month/Year)



following?

• currently smoke a pipe, cigars or cigarettes

· have a family history of heart attack or stroke · are currently receiving medical care

· diabetes mellitus, even if controlled by diet alone Have you ever had or do you currently have...

Frequent or severe attacks of hayfever or allergy?

Frequent colds, sinusitis or bronchitis?

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

Behavioral health, mental or psychological problems (Panic attack, fear of

Epilepsy, seizures, convulsions or take medications to prevent them? Recurring complicated migraine headaches or take medications to pre-

Frequent or severe suffering from motion sickness (seasick, carsick,

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

have a high cholesterol level

· high blood pressure

Any form of lung disease? Pneumothorax (collapsed lung)? Other chest disease or chest surgery?

closed or open spaces)?

vent them?





MEDICAL STATEMENT

Participant Record (Confidential Information)

increased risks.

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

scuba training program. Your signature on this statement is required for you to participate in the scuba training program offered SOLOMON BAKSH / BERNARD SOO HON by	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
THE DIVE TRIBE LIMITEDlocated in the	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 tak-
DIEGO MARTIN 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	ing 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.	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.
Could you be pregnant, or are you attempting to become pregnant?	Dysentery or dehydration requiring medical intervention?
Are you presently taking prescription medications? (with the exception of	Any dive accidents or decompression sickness?
birth control or anti-malarial) Are you over 45 years of age and can answer YES to one or more of the	Inability to perform moderate exercise (example: walk 1.6 km/one mile within 12 mins.)?

established safety procedures are not followed, however, there are

Guidel	ines for Recreational Scuba Diver's Physical Examination to take to your ian.
	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

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

years?

STUDENT

Please print legibly. Name Mailing Address _____ State/Province/Region _____ Country ___ Zip/Postal Code Home Phone (Business Phone (FAX Email Name and address of your family physician Clinic/Hospital Physician ____ Date of last physical examination _____ Clinic/Hospital_____ Name of examiner Address _ Email ____ Phone (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 Physician_____ Clinic/Hospital_____ Address _____ Email _____ Phone (

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. [See "Guidelines for Recreational Diving with Diabetes" at www/wrstc.com and www.diversalertnetwork.org.]

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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