# PADI Administrative dokumenter til videre uddannelse

Dansk/Danish

## RISIKO- OG ANSVARSERKLÆRING

Læs dokumentet omhyggeligt og udfyld de tomme felter, inden du skriver under.

Denne erklæring informerer om risikoen ved snorkling og scubadyking. Erklæringen skal samtidig vise, at du er indforstået med at deltage i dykkerkurset på dit eget ansvar. Din underskrift på erklæringen er nødvendig som bevis på, at du har modtaget og gennemlæst dette dokument. Det er vigtigt, at du læser indholdet af denne erklæring, før du skriver under. Hvis der er noget i erklæringen, du ikke forstår, så spørg din instruktør. Hvis du er mindreårig, skal denne formular også underskrives af forældre eller værge.

### ADVARSEL

Snorkling og scuba-dykning indebærer en potentiel risiko, der kan føre til alvorlige skader eller død.

Dykning med komprimeret luft indebærer risici. Der kan opstå trykfaldssyge, emboli eller andre trykfaldsskader, som kræver behandling i trykkammer. Dykning i åbent vand, hvilket er nødvendigt i forbindelse med kurser og inden certificering, kan finde sted på lokaliteter, der ligger langt fra et trykkammer, enten i tid, afstand eller begge. Snorkling og scuba-dykning er fysisk krævende aktiviteter og du kommer til at anstrenge dig under dette dykkekursus. Du skal derfor sandfærdigt og grundigt informere instruktøren(e) og dykkercenteret, der tilbyder dette kursus, om din helbredshistorie. Jeg bekræfter, at det er mit ansvar at informere min instruktør om alle og enhver ændring af mine medicinske forhold til enhver tid under deltagelse i dykkerkurser.

### INFORMATION OM DIT ANSVAR

Det kræves, at du følger de anvisninger, retningslinjer og krav som instruktøren(e), Rune Ree Riis, samt dykkercenteret, som tilbyder dette kursus, Samsø Efterskole, PADI Nordic AB, eller International PADI, Inc., stiller til dig som elev på kurset. Hvis du ignorerer dette, eller udviser uagtsomhed, kan det føre til skade eller dødsfald.

Jeg accepterer indholdet i denne erklæring, og jeg har læst alle vilkårene, før jeg har skrevet under.

| Deltagers underskrift | Dato (Dag/Måned/år) |
|---|---|
| Underskrift fra forældre/værge (om nødvendigt) | Dato (Dag/Måned/år) |

## HELBREDSERKLÆRING – Fortrolige oplysninger

**Gennemlæs dette grundigt før du underskriver.**

Dette er en erklæring, hvori du oplyses om nogle potentielle risici ved dykning og den adfærd, der kræves af dig i forbindelse med den aktivitet, du nu skal deltage i. Du skal underskrive denne erklæring for at kunne deltage på kurset eller aktiviteten.

Gennemlæs dette nøje, før du underskriver. Du skal udfylde denne helbredserklæring, der indeholder din helbredshistorie, inden du kan deltage i dykkeaktiviteter. Derudover er det vigtigt, at du straks informerer din instruktør, hvis dit helbred ændrer sig på noget tidspunkt under det scuba-program, du deltager i Hvis du er mindreårig, skal denne erklæring også underskrives af dine forældre eller værge

Dykning er en spændende og krævende aktivitet. Dykning er relativ sikker, når den udføres korrekt og de korrekte teknikker anvendes. Når de etablerede sikkerhedsprocedurer ikke følges, så stiger risikoen.

For at kunne dykke sikkert, må du ikke være overvægtig eller være i dårlig form. Dykning kan være meget anstrengende under visse forhold. Dit åndedræts- og cirkulationssystem skal være sundt.

R·S·T·C Recreational Scuba Training Council

Undersea & Hyperbaric Medical Society

Alle kroppens hulrum skal være normale og sunde. En person med hjerteproblemer, forkølelse, forstoppelse, epilepsi, astma, et alvorligt medicinsk problem, eller som er under indflydelse af alkohol eller narkotika, må ikke dykke.

Hvis du tager medicin, skal du kontakte din læge og din instruktør før du deltager på denne aktivitet eller dette kursus. Hvis du fortsætter med at tage medicin, bør du regelmæssigt gå til lægen, hvis du er aktiv dykker. Du vil af din instruktør lære de vigtige sikkerhedsregler, som gælder for vejrtrækning og trykudligning under dykning. Forkert anvendelse af dykkerudstyr kan føre til alvorlige skader. Du skal instrueres grundigt i brugen af dykkerudstyr under direkte opsyn af en kvalificeret instruktør, så du kan lære at anvende det rigtigt.

Har du yderligere spørgsmål angående denne erklæring eller din helbredshistorie, kan du spørge din instruktør eller din læge, før du underskriver.

(se næste side)

# Helbredshistorie

## Til deltageren:

Formålet med disse helbredsmæssige spørgsmål, er at klarlægge om du skal undersøges af din læge, inden du deltager på denne aktivitet eller dette kursus. Et positivt svar på ét eller flere af spørgsmålene, betyder ikke nødvendigvis, at du ikke kan dykke. Et positivt svar betyder, at der måske er en helbredsmæssig tilstand, der kan påvirke. sikkerheden under dykningen, og at du derfor SKAL søge råd hos din læge.

Besvar venligst følgende spørgsmål med JA eller NEJ. Hvis du er i tvivl, er svaret JA. Hvis nogle af disse omstændigheder er gældende for dig, beder vi dig kontakte din læge, før du deltager i denne aktivitet/ dykning. Din instruktør vil give dig et skema med en komplet vejledning, som lægen kan benytte.

- Kunne du være gravid eller planlægger du graviditet?
- Tager du regelmæssigt receptpligtigt medicin eller anden medicin (p-piller undtaget)?
- Er du over 45 år og gælder noget af følgende:
  - Ryger, cigar eller cigaretter?
  - Har et højt kolesteroltal?
  - Har haft hjerteanfald eller anfald i familien
  - Modtager medicinsk behandling
  - Har for højt blodtryk
  - Har Diabetes Mellitus, selvom det kontrolleres af diet

### Har du eller har du tidligere haft....

- Astma, vejrtrækningsproblemer, (pibende vejrtrækning) når du motioner?
- Hyppige eller kraftige angreb af høfeber eller allergi?
- Hyppige forkølelser, bihuleproblemer eller bronkitis?
- Nogen form for lungesygdom?
- Pneumothorax (sammenklappede lunger)?
- Andre sygdomme i brystet eller operation i brystkassen
- Adfærdsmæssige, mentale eller psykologiske problemer (panikanfald eller angst for lukkede eller åbne rum/pladser)?
- Epilepsi, krampeanfald, krampetrækninger eller tager medicin for det?
- Periodisk migræne eller tager medicin for det?
- Tidligere haft besvimelser eller "black out" (helt eller delvist mistet bevidstheden)?
- Lider ofte eller kraftigt af transportsyge (køre- eller søsyge)?
- Dysenteri eller dehydrering, som kræver medicinsk behandling?
- Dykkersyge eller trykfaldssyge?
- Svært ved at udføre moderate motionsøvelser (gå 1600 meter på under 12 minutter)?
- Hovedskade eller mistet bevidstheden i løbet af de sidste 5 år?
- Vedvarende rygproblemer?
- Gennemgået rygoperation?
- Diabetes (sukkersyge)?
- Problemer med arme, ben eller nakke/ryg efter ulykke eller brud?
- Højt blodtryk eller tager medicin for at kontrollere det?
- Hjertesygdom?
- Hjerteanfald?
- Angina/hjerteoperation eller operation i blodkar?
- Bihuleoperation?
- Øresygdom eller -operation, mistet hørelse eller balanceproblemer?
- Hyppige problemer med ørene?
- Blødninger eller andre blodsygdomme?
- Brok?
- Mavesår eller operation for samme?
- Kolostomi eller ileostomi?
- Misbrug af lægemidler, narkotika eller alkohol?

**De oplysninger, jeg har givet, er efter min fulde overbevisning korrekte, sådan som jeg kender situationen. Jeg bekræfter, at det er mit ansvar at informere min instruktør om alle og enhver ændring af mine medicinske forhold til enhver tid under deltagelse i dykkerkurser. Jeg er bekendt med, at jeg må tage det fulde ansvar for at udelade oplysninger om åbenbare eksisterende eller tidligere medicinske forhold.**

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# PADIS REGLER FOR SIKKER DYKNING

## Læs venligst grundigt, inden du skriver under.

Denne erklæring informerer dig om de gældende sikkerhedsregler for fritidsdykning. Reglerne svarer til dem, du vil få gennemgået på kurset, og de er udarbejdet for at gøre dine dyk mere behagelige og sikre. Din underskrift på erklæringen er påkrævet for at sikre, at du er informeret om disse regler. Læs reglerne grundigt og spørg din instruktør, hvis du er i tvivl om noget. Er du mindreårig, skal erklæringen også underskrives af forælder eller værge.

Jeg _____ forstår, at jeg som fritidsdykker:

1. Bør have et godt fysisk og psykisk helbred for at dykke. Jeg skal undgå at være under påvirkning af alkohol eller medicin, når jeg dykker. Jeg vil vedligeholde mine færdigheder som fritidsdykker, samt tilstræbe videreudvikling af mine færdigheder ved fortsat uddannelse. Jeg vil repetere færdighederne under kontrollerede forhold efter perioder uden dykning og jeg vil genopfriske min viden ved at gennemgå mine kursusmaterialer.
2. Jeg bør være fortrolig med dykkeforholdene, eller skaffe mig kendskab til dem ved at opsøge lokal viden. Hvis forholdene er vanskeligere end dem, jeg har erfaring med, vil jeg enten udsætte dykningen, eller finde et andet og mere egnet dykkested. Jeg vil kun deltage i dykkeaktiviteter, der står i forhold til min uddannelse og erfaring, og jeg vil ikke deltage i huledykning eller teknisk dykning uden at være uddannet til det.
3. Jeg vil benytte komplet og vedligeholdt udstyr, som jeg er fortrolig med. Jeg vil kontrollere udstyrets stand og funktion før hvert dyk. Jeg vil ikke udlåne mit udstyr til dykkere, der ikke er certificerede.
4. Jeg vil lytte til og følge den orientering, der gives af dem, som leder mine dykkeaktiviteter. Jeg forstår, at yderligere uddannelse er nødvendig for at deltage i specielle dykkeaktiviteter, dykning i andre geografiske områder, og efter perioder uden dykning, hvis de er længere end seks måneder.
5. Jeg vil følge makkersystemet på alle dyk. Jeg planlægger dykket med min makker, inkl. kommunikation, procedurer ved makkerseparation og nødprocedurer.
6. Jeg vedligeholder mine færdigheder (med dykkecomputer eller tabel). Jeg vil kun lave ikke-dekompressionsdyk med en god sikkerhedsmargen til grænserne. Jeg vil have et værktøj til at holde styr på tid og dybde under vandet og begrænse dybden i forhold til min uddannelse og erfaring. Stig ikke hurtigere op end 18 meter/60 fod pr. minut. Være en SAFE-dykker – Slowly Ascend From Every dive. Lav et sikkerhedsstop, som regel på 5 meter/15 fod i tre minutter eller længere.
7. Jeg vil opretholde god opdriftskontrol og altid justere blymængden i overfladen, så jeg er neutral med tom afbalanceringsvest. Jeg vil tilstræbe neutral opdrift under vandet og have positiv opdrift i overfladen under hvile eller svømning. Jeg vil sikre, at vægtsystemet kan fjernes i en nødsituation og altid skaffe positiv opdrift, hvis sådan en situation opstår. Jeg vil altid medbringe mindst én signalanordning (som fx signalbøje, fløjte eller spejl).
8. Jeg vil ånde dybt og roligt under dykket og aldrig holde vejret eller "spare" på luften, når jeg ånder komprimeret luft. Jeg vil undgå hyperventilation ved fridykning. Jeg vil ikke overanstrenge mig under vandet og altid dykke inden for mine begrænsninger.
9. Jeg benytter en flåde, bøje, båd eller anden støtte i overfladen, så vidt det er muligt.
10. Jeg følger lokale dykkeregler og -love, fangstregler, kulturmindelove og bestemmelser for brug af dykkeflag.

Jeg har læst erklæringen, samt fået svar på de spørgsmål, jeg havde. Jeg forstår vigtigheden af og hensigterne med disse regler. Jeg er klar over, at reglerne er udformet for min sikkerhed og fornøjelse. Ved ikke at følge PADIs regler for sikker dykning, kan jeg risikere at komme i farlige situationer.

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Underskrift fra forældre/værge (om nødvendigt) _____ Dato (Dag/Måned/år) _____

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# DELTAGEREN

**Skriv venligst med BLOKBOGSTAVER**

Navn (For-, mellem- og efternavn): Fødselsdato: Alder:

Adresse:

Postnummer: Sted:

Land: e-post:

Telefon privat: Telefon arbejde: Faxnummer:

**Navn og adresse på egen læge**

Læge: Klinik/Hospital:

Adresse: Telefon:

Dato for sidste lægeundersøgelse: Lægens navn:

Klinik/Hospital:

Adresse: Telefon:

Er du tidligere blevet helbredsundersøgt i forbindelse med dykning? ☐ Ja ☐ Nej Hvis ja, hvornår?

# LÆGE

Denne person ønsker at deltage på dykkerkursus eller er certificeret dykker med SCUBA (apparatdykning). Du bedes venligst vurdere, om denne person er helbredsmæssigt egnet til dykning med luftflaske efter vedlagte retningslinier "RSTC Guidelines for Recreational Scuba Diver's Physical Examination".
*This person is an applicant for training or is presently certifi ed to engage in scuba (self contained underwater breathing apparatus) diving. Your opinion of the applicant's medical fitness for scuba diving is requested. Please review the enclosed RSTC (Recreational Scuba Training Council) Guidelines for Recreational Scuba Diver's Physical Examination*

## Lægens vurdering. Physician's impression

☐ Jeg finder ingen medicinske hindinger for, at denne person kan deltage i rekreativ scubadykning.
*I find no medical conditions that I consider incompatible with diving.*

☐ Jeg fraråder, at denne person deltager i rekreativ scubadykning.
*I am unable to recommend this individual for diving.*

Jeg har læst "RSTC Guidelines for Recreational Scuba Diver's Physical Examination".
*I have reviewed Guidelines for Recreational Scuba Diver's Physical Examination*

Lægens underskrift. *Physician's signature:* Dato *Date:*

Læge *Physician:* Klinik/Hospital *Clinic:*

Adresse *Address:*

Telefon *Phone:* Epost *E-mail:*

# 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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