

MEDICAL FORM FOR PROSPECTIVE RECREATIONAL SCUBA DIVERS

CANDIDATE DETAILS: THIS SECTION TO BE COMPLETED BY CANDIDATE

All information on this form will be kept in strict confidence between you and the examiner. It will not be relayed to a third party without your consent. Diving can usually be undertaken even if you have a chronic infection (e.g. hepatitis B and C, herpes or HIV), however you should inform the medical examiner so that you can be advised how to dive safely.*

It is advisable to inform your instructor of any advise you have been given.

Positive responses to questions do not necessarily disqualify you from diving.

1 Surname	Other Names	2 Date of birth	
3 Address	Telephone (Home)		
4 Sex:		Male	Female
5 Principal Occupation	Telephone (Work)		
6 Do you participate in any regular physical activity?	Yes	No	
7 Description of activity:			
8 Do you smoke?	Yes	No	
9 Do you drink alcohol?	Yes	No	
10 If yes, how many drinks per week?			
11 Are you taking any tablets or medicines or drugs?	Yes	No	
List:			
12 Do you have any allergies?	Yes	No	
Details:			
13 Have you ever had any reactions to medicines or foods?	Yes	No	
Details:			

HAVE YOU EVER HAD OR DO YOU NOW HAVE ANY OF THE FOLLOWING?	Tick Yes or No		Notes on History
	Yes	No	
14 Previous diving medical	_____	_____	
15 Prescription glasses	_____	_____	
16 Contact Lenses	_____	_____	
17 Eye or Visual Problems	_____	_____	
18 Hay fever	_____	_____	
19 Sinusitis	_____	_____	
20 Other nose or throat problem	_____	_____	
21 Dentures / Plates etc.	_____	_____	
22 Recent dental procedures	_____	_____	
23 Deafness or ringing tones in ear(s)	_____	_____	
24 Discharging ears or other infections	_____	_____	
25 Operation on ears	_____	_____	
26 Giddiness or loss of balance	_____	_____	
27 Severe motion sickness	_____	_____	
28 Seasickness medication	_____	_____	
29 Problems when flying in aircraft	_____	_____	
30 Severe or frequent headaches	_____	_____	
31 Migraine	_____	_____	
32 Fainting or blackouts	_____	_____	
33 Convulsions, fits or epilepsy	_____	_____	
34 Unconsciousness	_____	_____	
35 Concussion or head injury	_____	_____	
36 Sleep walking	_____	_____	
37 Severe depression	_____	_____	
38 Claustrophobia	_____	_____	
39 Mental illness	_____	_____	
40 Heart Disease	_____	_____	
41 Abnormal blood test	_____	_____	

42 ECG (Heart tracing)	_____	_____
43 Awareness of your heart beat	_____	_____
44 High blood pressure	_____	_____
45 Rheumatic fever	_____	_____
46 Discomfort in your chest with exertion	_____	_____
47 Short of breath on exertion	_____	_____
48 Bronchitis or pneumonia	_____	_____
49 Pleurisy or severe chest pain	_____	_____
50 Coughing up phlegm or blood	_____	_____
51 Chronic or persistent cough	_____	_____
52 TB (Tuberculosis)	_____	_____
53 Pneumothorax ("Collapsed lung")	_____	_____
54 Frequent chest colds	_____	_____
55 Asthma or wheezing	_____	_____
56 Use a puffer	_____	_____
57 Other chest complaint	_____	_____
58 Operation on chest, heart or lungs	_____	_____
59 Indigestion, peptic ulcer or acid reflux	_____	_____
60 Vomiting blood or passing red or black motions	_____	_____
61 Recurrent vomiting or diarrhoea	_____	_____
62 Jaundice, hepatitis, or liver disease	_____	_____
63 Malaria or other tropical disease	_____	_____
64 Severe loss of weight	_____	_____
65 Hernia or rupture	_____	_____
66 Major joint or back injury	_____	_____
67 Limitation of movement	_____	_____
68 Fractures (broken bones)	_____	_____
69 Paralysis or muscle weakness	_____	_____
70 Kidney or bladder disease	_____	_____
71 Any chronic disease (see note below)	_____	_____
72 Syphilis	_____	_____
73 Diabetes	_____	_____
74 Blood disease or bleeding problem	_____	_____
75 Skin disease	_____	_____
76 Contagious disease	_____	_____
77 Operations	_____	_____
78 In hospital for any reason	_____	_____
79 Life insurance rejected	_____	_____
80 A job or license refused on medical grounds	_____	_____
81 Unable to work for medical reasons	_____	_____
82 An invalid pension	_____	_____
83 Other illness or injury or any other medical conditions	_____	_____
HAVE ANY BLOOD RELATIONS HAD:		
84 Heart disease	_____	_____
85 Asthma or chest disease	_____	_____
FEMALES ONLY		
86 Are you now pregnant or are you planning to be?	_____	_____
87 Do you have any incapacity during periods?	_____	_____
88 Date of most recent chest X-Ray:		
PREVIOUS DIVING EXPERIENCE YES NO		
89 Can you swim?	_____	_____
90 Have you ever had any problem during or after swimming or diving?	_____	_____
91 Have you ever had to be rescued?	_____	_____
92 Do you snorkel-dive regularly?	_____	_____
93 Have you tried SCUBA diving before?	_____	_____
94 Have you had any previous formal SCUBA training? _____ Year trained:		
Approximate number of dives:		
Maximum depth of any dive:		
Longest duration of any dive:		

I certify that the above information is true and complete to the best of my knowledge and I hereby authorise Dr _____ to give medical opinion as to my fitness, or temporary or permanent unfitness to dive to my diving instructor. I also authorise him or her to obtain or supply medical information regarding me to other doctors as may be necessary for medical purposes in my personal interest.

Signed: _____ Date: _____

MEDICAL EXAMINATION: TO BE COMPLETED BY AN REGISTERED MEDICAL PRACTITIONER

1 Height cm	2 Weight kg	3 Vision R6/.....Corr6/ L6 Corr6/	4 Blood Pressure	5 Pulse		
6 Urinalysis Albumen Glucose		7 Respiratory function test Vital capacity FEV Percentage	8 Chest X-ray (if indicated) Date: Place: Result:			
9 Audiometry (air conduction)						
Frequency Hz	500	1000	2000	4000	6000	8000
Loss in dB, (R)						
Loss in dB, (L)						
If abnormal, enter in diver's logbook, on certificate, or both						
Clinical examination/assessment	Normal	Abnormal	Notes abnormalities			
10 Nose, septum, airway						
11 Mouth, throat, teeth, bite						
12 External auditory canal						
13 Tympanic membrane						
14 Middle ear auto-inflation						
15 Neurological - Eye movements - Pupillary reflexes - Limb reflexes - Finger-nose - Sharpened Romberg*						
16 Abdomen						
17 Chest hyperventilation						
18 Cardiac auscultation						
19 Other abnormalities						

Results should be descriptively detailed at right to assist future comparison.

Fit to Dive Yes Advice put on certificate:
 No-Temporary Reasons:
 No-Permanent Reasons:

Name: (print): _____

Signed : _____ Date: ____/____/____

Detach the certificate below and hand to candidate.

Medical benefits refund and/or medical rebate is not permissible, by law, for this examination. Issuing an itemized account, which enables the patient to claim Medicare benefits for diving medical examinations, has been prohibited since 1st February 1984

This is to certify that I have examined on the ____/____/____

Name _____

Address _____

In accordance with the requirement of AS 4005.1 Appendix A, and have found him/her to be:

FIT

PERMANENTLY UNFIT

TEMPORARILY UNFIT

For diving and diving training undertaken using compressed air underwater.

Audiogram Normal / Abnormal

Printed Name: _____ Signed: _____

Address _____

Advice: _____

ADVICE TO THE EXAMINING PHYSICIAN

Issuing an itemized account, which enables the patient to claim Medicare benefits for diving medical examinations, has been prohibited since 1st February 1984.

Diving is a sport carried out in a non-respirable environment using breathing apparatus. Sudden unconsciousness underwater is usually fatal when using SCUBA equipment, as the relaxation of muscle tone accompanying unconsciousness results in the breathing regulator falling from the victim's mouth. The diver's next breath will then be water. This makes any condition which can cause sudden unconsciousness an absolute bar to diving. Such conditions include epilepsy and diabetes where the patient requires insulin.

A further problem with the water environment is that pressure increases very rapidly with descent, i.e. by one atmosphere of extra pressure for every 10 m of depth in the sea. The use of breathing apparatus, providing gas at ambient pressure, prevents problems of pressure-volume imbalance in the lungs during descent. However, the middle ears and sinuses will develop problems on descent unless the pressure in these spaces equals the ambient pressure. There is no way of establishing the patency of sinus ostia by clinical examination. However, patency of the Eustachian tubes, and so the ability to equalise the middle ear pressures, can be established easily. Observation of the tympanic membrane while the patient holds his or her nose, shuts the mouth and blows, (Valsalva maneuver) will reveal ingress of air to the middle ear by movement of the drum. The Eustachian tube opening in the nasopharynx is normally closed. Swallowing opens the ostium. Therefore a combination of Valsalva and swallowing during the maneuver will give the best chance for air to travel up the Eustachian tube. Another way of opening the Eustachian tube is to protrude the jaw and wriggle it from side to side while performing the Valsalva maneuver. Failure to auto-inflate a middle ear is an absolute bar to diving until the person can auto-inflate.

A further set of pressure related problems also occur during ascent when the ambient pressure is decreasing. If an air-filled space cannot vent when the surrounding pressure is reduced, two things can happen. A space with elastic sides can expand but if the space has rigid walls, the pressure in the space remaining at the original pressure becomes higher than ambient pressure. The chest wall is elastic, but after a certain expansion the stretching of the lungs results in tearing of the lung substance. Air can then enter the pulmonary venous drainage, pass through the left portion of the heart and be carried to the brain as air embolism. Unconsciousness and death can result. Thus, any condition preventing normal emptying of the lungs is an absolute bar to diving.

Asthma, lung cysts, bullae, and other areas that empty slowly or not at all are an absolute bar to breathing air under pressure. These conditions are best detected by taking an X-ray of the chest in full inspiration and another in full expiration. Asthma is another such condition. To detect expiratory airway obstruction, a Vitalograph (or similar) test is required. Experience in the navies of the world, with submarine escape training of many thousands, has that a disproportionate number of those suffering burst lungs have FEV1/FVC ratios of below 75%. Such people do not need to hold their breath on ascent to damage their lungs; all they have to do is rise too rapidly. A FEV1/FVC ratio below 75% may be an exclusion from diving and should be further investigated.

A normal FEV1/FVC ratio but clinical signs of bronchospasm, especially on forced, deep, rapid ventilation is an indication of unfitness to dive. Treatment with drugs is not suitable as the effects can wear off underwater and the combined effects of pressure and bronchodilator drugs are uncertain. It is hoped that the foregoing makes the following list of absolute and relative contraindications to diving logical and comprehensible:

ABSOLUTE CONTRAINDICATIONS

Conditions causing unconsciousness

Epilepsy

Diabetes where the patient requires insulin

ENT conditions

Inability to auto-inflate the middle ears. Previous middle ear surgery with insertion of prosthesis to replace any of the ossicles

Lung conditions

Asthma

Lung cysts

Previous spontaneous pneumothorax

Obstructive lung disease

Lungs which empty unevenly (X-ray appearance)

Previous thoracotomy

RELATIVE CONTRAINDICATIONS

FEV1/FVC ratio less than 75%

Poor physical condition

Previous myocardial infarction

Pregnancy

Further information about medical standards for minimum entry-level SCUBA divers is to be found in AS 4005.1, available from Standards Australia.

If in doubt about a candidate's fitness, it is safer for the candidate to be classed as unfit than fit to dive.

Difficult decisions should be referred to a doctor experienced in diving medicine. These are to be found in each State. The South Pacific Underwater Medical Society maintains a list of its members with training in diving medicine. Enquiries should be addressed to the Secretary of SPUMS, C/- Australian College of Occupational Medicine, PO Box 2090, St Kilda West, Victoria, 3182, Australia. URGENT specialist advice can be obtained from the hyperbaric units in each State, the RAN School of Underwater Medicine, HMAS Penguin, Balmoral, N.S.W. 2091, Phone: (02) 9960 0444, and the Diving Emergency Service, C/- Hyperbaric Medical Unit, Royal Adelaide Hospital, Phone: (1800) 088 200.

Recommended reading: The Sports Diving Medical Parker, J., 1996. Melbourne: JL Publications. DIVING and SUBAQUATIC MEDICINE Edmonds, C., and Pennefather, J., 3rd Edition, 1992. Butterworth-Heinemann.