

## MEDICAL FORM FOR PROSPECTIVE RECREATIONAL SCUBA DIVERS

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CANDIDATE DETAILS: THIS SECTION of first four pages TO BE COMPLETED BY CANDIDATE

Please make an appointment for 30 min with our nurse and then 15 min with our doctor. The Nurse will do an eye test, a lung function test and a audiogram (hearing test).

All information is 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 advice you have been given.

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

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

13 Have you ever had any reactions to medicines or foods? Yes No

1 Surname Other Names Date of birth

Details:

Details:

Your name		

### HAVE YOU EVER HAD OR DO YOU NOW HAVE ANY OF THE FOLLOWING?



	NO	YES	DETAIL
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 Desease			
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 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 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:	

If you answered yes to several question
you may need a second appointment.
Your name
Please continue to next page





Your name	<u>ڊ</u>		

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?
Approximate number of dives:
Maximum depth of any dive:
Longest duration of any dive:
Year trained:
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:

Thank you. Please hand this completed form to the receptionist when you arrive. \_



# MEDICAL EXAMINATION: TO BE COMPLETED BY NURSE at a 30 min appointment and then by Doctor at a 15 min appointment

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) hearing test
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

Now you have finished with the Nurse please see the doctor

Name	Clinical examination BY DOCTOR
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 t	o 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 moth 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 call 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 RELATIVE CONTRAINDICATIONS

Conditions causing unconsciousness FEV1/FVC ratio less than 75%

**Epilepsy Poor physical condition** 

Diabetes where the patient requires insulin Previous myocardial infarction

**ENT conditions Pregnancy** 

Inability to auto-inflate the middle ears. Previous middle Further information about medical standards for ear surgery with insertion of prosthesis to replace any of minimum entry-level SCUBA divers is to be the ossicles found in AS 4005.1, available from Standards Australia.

Lung conditions

Asthma

Lung cysts

Previous spontaneous pneumothorax

Obstructive lung disease

Lungs which empty unevenly (X-ray appearance)

Previous thoracotomy

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 call 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.