

## Instructor/Student Ratios

It was agreed that the maximum instructor/student ratio will be 1/8. It was made quite clear that this ratio can only be used in optimum conditions and that any instructor who abused this ratio did so at his or her own risk, ie. "instructor beware".

The results of this working group will be presented to the main committee where it is expected that it will be accepted as a first draft. This first draft will then be sent out for public comment.

It is expected that it will take up to two before the full process of draft, comment, re-draft, etc. will produce an acceptable code. Therefore we have time to work towards upgrading any area found unacceptable by the AUF.

Lt Col WA Williams is the Chairman of the Technical Committee of the AUF. His address is 46 O'Rourke Street, WEETANGA ACT 2614.

The article below applies to the United Kingdom. Neither course is suitable, unaltered, for Australian conditions where doctors examining sports divers must be able to advise them about diving safety.

## DIVING MEDICAL ADVISORY COMMITTEE

### RECOMMENDATIONS ON THE TRAINING AND REFRESHER TRAINING OF DOCTORS INVOLVED IN THE EXAMINATION OF PROFESSIONAL DIVERS AND IN THE TREATMENT OF DIVING-RELATED ILLNESSES

#### 1. INTRODUCTION

We have been concerned for some time at the lack of positive guidance on the standards to be attained, and maintained by doctors undertaking the examination of professional divers, and the treatment of diving-related illnesses.

The recommendations which follow have been formulated from expert opinion drawn from many doctors who are actively engaged in diving medicine in the UK, Norway and elsewhere.

We would like to express the hope that they will be endorsed by appropriate Government Departments, and as a result, that any training establishment which purports in the future to offer doctors courses in these subjects will be obliged to comply as a minimum with these recommendations. We feel this to be essential in the long-term interests of the diving industry, and particularly of the divers themselves.

Our recommendations as to the content of each course have been arrived at after much thought and discussion, and are therefore firm. We recognise however, that the duration and order in which they appear in each course timetable may have to be adjusted in the light of local circumstances.

#### 2. SCOPE DEFINITION

The recommendations throughout this paper are related to the three categories of doctor involved in one aspect or more of diving medicine. These categories are based on the 1981 EDTC Guidelines, as follows:-

##### A. Examining Medical Doctor For Professional Divers

A doctor trained to conduct medical examinations on professional divers for fitness to dive.

##### B. Diving Emergency Medical Doctors

A doctor trained to work with divers and in particular, to cope with the medical aspects of every kind of diving emergency. He must be fit to go under pressure.

##### C. Specialists

###### i. Specialists in Diving Medicine

A doctor generally recognised in the international diving community as being well experienced in aspects of diving medicine, such as a medical doctor who is consulted on difficult or unusual cases by Examining Medical Doctors for Divers, and by Diving Emergency Medical Doctors, and who has an expert knowledge of diving physiology.

###### ii. Associated Specialists

A specialist in some particular field (other than diving) who has an expert knowledge of the diving aspects of his special subject.

#### 3. INITIAL TRAINING FOR GROUP A - EXAMINING DOCTOR

In our examination of this requirement, we have considered carefully whether to restrict the syllabus to normal office hours, or whether as appertains in at least one UK training establishment, have generally informal evening sessions most days, and thus offer longer tuition time, and additional opportunities for exchange of experience, etc.

So far as this particular course is concerned, we have come down firmly in favour of a 5-day course with tuition hours not exceeding 7 hours per day. In reaching this conclusion, we have taken account of the fact that it would be a mistake to over-estimate the learning capacity of the students on this course, most of whom will be unfamiliar with most aspects of diving medicine and their related commercial importance.

It is clear that since this course is intended for 'examining' doctors, everything on the syllabus must be geared to helping such doctors to acquire as much background knowledge as possible on diving and the diving industry, as well as a basic understanding of diving physics and physiology.

Given the above, together with an appreciation of the inter-relationship between 'normal' medical conditions and the diving environment, it ought to be possible by the end of the course for students to have a much fuller understanding of all these matters. They ought thereby, to be better equipped

thereafter to come to a decision on whether or not a man is fit to dive, which has been based on a sound knowledge of the possible consequences which could follow that decision.

We feel that the emphasis must be on a syllabus designed for doctors examining professional divers rather than sports divers, and should include the items appearing under Group a. - Examining Doctors in Appendix E.

A proposed timetable and syllabus appear in detail in Appendices A and E.

#### 4. INITIAL TRAINING - GROUP B - DIVING EMERGENCY DOCTOR

We have carefully considered the question of an appropriate length of time for this course, bearing in mind the pressures and the other demands which will undoubtedly be made on the time of those doctors attending.

We are convinced, however, that there is no way in which justice can be done to the subject matter, or that lasting benefit can accrue to those attending, unless the course lasts for 2 full weeks. Again, we have come down in favour of restricting tuition sessions to not more than 7 hours per day, although some of the sessions could well run on informally into the evening.

Our experience suggests that the revision of background physics and physiology, a pre-requisite to any therapy training; some first-hand experience of the diving environment; familiarisation with the clinical aspects of diving medicine, together with exhaustive discussion and analysis of case histories, all add up to a course of two weeks' minimum duration. We are convinced that a course of shorter duration would be a waste of time and effort.

We recognise the desirability of having a period of practical experience after completing this course, before a doctor could be considered fully qualified to give expert advice in a diving emergency. Although there is no substitute for practical experience, it is difficult to see how this could be built into any course syllabus. We feel that this requirement can best be met by the handling of simulated diving emergencies in the course syllabus proper.

Further, we are convinced that all doctors likely to be pressurised in surface decompression chambers should be examined and certified fit to do so.

A proposed timetable and syllabus for this course appear in Appendices B and E respectively.

#### 5. INITIAL TRAINING - GROUP C (i) AND (ii) SPECIALISTS

There is obviously no specific requirement here, but see paragraphs 8 and 9.

#### 6. REFRESHER TRAINING FOR GROUP (a) - EXAMINING DOCTORS

We feel that it is essential to have different refresher courses for the different groups, and this

paragraph deals only with refresher courses for examining doctors.

One of the principal difficulties about short refresher courses is that if they are too short, students will not feel that it is worthwhile to travel far to attend. On the other hand, making them sufficiently long to meet this requirement, brings the added responsibility of ensuring that all the content is still relevant, and not in any way padding.

We would see about 12 hours as being adequate refresher time for Group (a), and would suggest the following timetable:

Thursday	1030 - 1815 +	Evening session
		including dinner with invited guests.
Friday	0915 - 1500	

The syllabus should include the following:-

- (i) Introductory talk bringing students up-to-date with developments in the field of diving medicals, not therapy.
- (ii) We feel that short refresher courses of this kind can be made much more interesting if all those who are to participate write in about three weeks beforehand with specific problems which they have encountered. Directing staff will examine these in the interim, and the ensuing answering and discussion can almost certainly be of value to all.

We are of the opinion that examining doctors should attend these refresher courses every three years.

A proposed timetable and syllabus appears in detail in Appendix C.

#### 7. REFRESHER TRAINING FOR GROUP B - DIVING EMERGENCY DOCTORS

We are of the opinion that refresher courses for this Group need to be longer than those for Examining Doctors, and our recommendation is for 5 days, with tuition not exceeding 7 hours per day. Again, however, there will be occasions when some of these day-time sessions run on informally into the evening.

We attach great importance on this course to case history discussion, as it would appear to us that this would be particularly beneficial to those attending, experienced as they would be in the subject before coming on the course.

It is our view that diving emergency doctors should attend these refresher courses every three years.

We recommend that every doctor in this category should undergo a practical session in a chamber. We recognise, however, that this may impose practical difficulties at some training establishments. In these circumstances, alternative arrangements for this chamber session should be agreed with the course organiser, prior to the commencement of the course.

A proposed timetable and syllabus for this course appears in detail in Appendix O.

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APPENDIX AINITIAL TRAINING FOR GROUP A - EXAMINING DOCTORS  
33 HOURS

(The numbers against each session relate to the lectures listed in Appendix E attached)

DAY	0915	1015	1030	1130	1230	1400	1500	1515	1615	1715	1830	1930
	-	-	-	-	-	-	-	-	-	-	-	-
	1015	1030	1130	1230	1400	1500	1515	1615	1715	1815	1930	2130
<b>MON</b>	(i) COFFEE	(ii)	(iii) (half)	LUNCH	(iv) (half)	TEA	(iv)	(v)(a)	(v)(b) (v)(f)	DINNER	—	—
<b>TUE</b>	(v)(e) COFFEE	(vi)	(viii) (half)	LUNCH	(viii) (half)	TEA	(ix)(a)	(ix)(b)	(x)	DINNER	—	—
<b>WED</b>	(xiii) COFFEE	(xiv)	(xiv) (cont)	LUNCH	(xiv) (cont)	TEA	(xiv) (cont)	(xv)	(xviii) (xvi)(c)	DINNER	—	—
<b>THU</b>	(xxiv) COFFEE	(xix)	(xix)	LUNCH	(xxi)	TEA	(xxi) (cont)	(xxi) (cont)	(xxi) (cont)	DINNER	—	—
<b>FRI</b>	(xxii) COFFEE	(xxii)	(xxii)	LUNCH	(xxii)	TEA	(xxv)	—	—	—	—	—

APPENDIX BINITIAL TRAINING FOR GROUP B - DIVING EMERGENCY DOCTORS  
65 HOURS

(The numbers against each session relate to the lectures listed in Appendix E attached)

DAY	0915	1015	1030	1130	1230	1400	1500	1515	1615	1715	1830	1930
	-	-	-	-	-	-	-	-	-	-	-	-
	1015	1030	1130	1230	1400	1500	1515	1615	1715	1815	1930	2130
<b>MON</b>	INTRO + (i)	COFFEE (cont)	(iii)(d)	(iii)(d)	LUNCH	(ii)	TEA	(iv)	(iv) (cont)	(iv) (cont)	DINNER	—
<b>TUE</b>	(v) COFFEE	(v) (cont)	(v) (cont)	LUNCH	(v) (cont)	TEA	(vi)	(vii)	(vii) (cont)	DINNER	—	—
<b>WED</b>	(viii) COFFEE	(viii) (cont)	(viii) (cont)	LUNCH	(viii) (cont)	TEA	(viii) (cont)	(xv)	(xv) (cont)	DINNER	—	—
<b>THU</b>	(xi) COFFEE	(xi) (cont)	(ix)	LUNCH	(xviii)	TEA	(xx)	(xx) (cont)	(xii) (xiii)	DINNER	—	—
<b>FRI</b>	(xxiv) COFFEE	(x)	(x) (cont)	LUNCH	Review of the week	TEA	—	—	—	—	—	—

**WEEKEND BREAK**

<b>MON</b>	(xvii) COFFEE	(xvii) (cont)	(xvi)	LUNCH	(xvi) (cont)	TEA	(xxii)	(xxii) (cont)	(xxii) (cont)	DINNER	—	—
<b>TUE</b>	(xxii) COFFEE	(xxii) (cont)	(xxii) (cont)	LUNCH	(xxii) (cont)	TEA	(xxii) (cont)	(xxii) (cont)	(xxii) (cont)	DINNER	(xxii) (cont)	—
<b>WED</b>	(xxvi) COFFEE	(xxvi) (cont)	(xxvi) (cont)	LUNCH	(xxvi) (cont)	TEA	(xxvi) (cont)	(xxvi) (cont)	(xxvi) (cont)	DINNER	—	—
<b>THU</b>	(xxvi) COFFEE	(xxvi) (cont)	(xxvi) (cont)	LUNCH	(xxvi) (cont)	TEA	(xxvi) (cont)	(xxvi) (cont)	(xxvi) (cont)	DINNER	(xxiii) (1/2 hr only)	—
<b>FRI</b>	(xxii) COFFEE	(xxii)	(xxii)	LUNCH	(xxv)	TEA	—	—	—	—	—	—

APPENDIX CREFRESHER TRAINING FOR GROUP A - EXAMINING DOCTORS

12 HOURS

DAY	0915	1015	1030	1130	1230	1400	1500	1515	1615	1715	1830	1930
	1015	1030	1130	1230	1400	1500	1515	1615	1715	1815	1930	2130
<b>THU</b>	—	COFFEE	(1)	(7)	LUNCH	(8)	TEA	(2)	(3)	(4)	DINNER	(11)
<b>FRI</b>	(5)	COFFEE	(9)	(10)	LUNCH	(6)	—	—	—	—	—	—

KEY

1. Introductory Talk, bringing students up-to-date, by ? Diving Specialist/Diving Emergency Doctor?
- 2.)
- 3.) Role-playing syndicate sessions on problems sent in earlier by students, but also mainly directing staff pre-set exercises.
- 4.)
5. Debrief on (2), (3) and (4).
6. Self-assessment examination.
7. Case histories on problems arising from medical examinations, plus revision session on standards of fitness.
8. Revision lecture on the Physics of Diving and the Physics of Gases.
9. Revision lecture on Safety - psychology, selection, drugs, alcohol, diet, fatigue and training.
10. Revision lecture on Diving Related Medical Conditions - The Sick Diver and The Injured Diver.
11. Evening session/Dinner with invited guests and guest speaker from HSE?/operators/diving contractors/local doctor.

APPENDIX DREFRESHER TRAINING FOR GROUP B - DIVING EMERGENCY DOCTORS

32 HOURS

DAY	0915	1015	1030	1130	1230	1400	1500	1515	1615	1715	1830	1930
	1015	1030	1130	1230	1400	1500	1515	1615	1715	1815	1930	2130
<b>MON</b>	(1)	COFFEE	(2)	(3)	LUNCH	(4)	TEA	(5)	(6)	(7)	DINNER	—
<b>TUE</b>	(8)	COFFEE	(9)	(10)	LUNCH	(11)	TEA	(12)	(13)	(14)	DINNER	—
<b>WED</b>	(15)	COFFEE	(16)	(17)	LUNCH	(18)	TEA	(19)	(20)	(21)	DINNER	(34)
<b>THU</b>	(22)	COFFEE	(23)	(24)	LUNCH	(25)	TEA	(26)	(27)	(28)	DINNER	(33)
<b>FRI</b>	(29)	COFFEE	(30)	(31)	LUNCH	(32)	TEA	—	—	—	—	—

KEY

1. Introduction and General Review of recent clinical and technological development.
- 2.-7. Revision periods on Physics of Diving, Physics of Gases, Physiology of Diving, etc.
- 8.-14. Case histories/Syndicate Work.
- 15.-21. Practical Diving Instruction, including Chamber Dive to 50 metres on air.

- 22.-28. Case histories/Syndicate Work (cont'd).
- 29.-31. It would be unwise to be too specific about allocating subject matters to these periods. As any course progresses, weaknesses become apparent and extra time is needed. This is particularly relevant on refresher courses. These periods, on the last morning of the course have been left to the discretion of Directing Staff for this reason.
32. Self-assessment examination.
33. This would seem to be very suitable for an end-of-course semi-formal dinner, with an appropriate guest speaker, either speaking at the dinner, or at an evening session thereafter. Local diving doctors should also be invited to the dinner.
34. Optional evening session on cardio-pulmonary resuscitation, putting up drips, etc.

APPENDIX E

	Group A Examining Doctor	Group B Diving Emergency Doctor
	<u>Hours</u>	<u>Hours</u>
(i) <u>Types and History of Diving</u> (General, breathhold, scuba, surface supplied, bounce, saturation, excursion)	1	1/2 (review)
(ii) <u>Diving Systems and Equipment</u> (theory), including Dive Planning and Safety Procedures	1	1
(iii) <u>Physics of Diving</u>	1	
(a) Pressure		
(b) Partial pressure		
(c) Effects of change of pressure on gas-containing spaces (including sinus, teeth, chest)		
(d) Review of diving physics		2
(iv) <u>Gases</u>	2	3
(a) Air, nitrogen, narcosis		
(b) Oxygen and HBO		
(c) Carbon dioxide, carbon monoxide, helium		
(d) Gas laws, partial pressure calculations		
(v) <u>Physiology of Diving</u>		
(a) Respiration, including gas density and resistance (immersion effects, respiratory and circulatory), correlated with known medical disorders of lungs, airways, etc	1	1/2
(b) HPNS	1/2	1/2
(c) Thermal balance - heat and cold		1/2
(d) Diet and metabolism		1/2
(e) The ear in diving	1	1
(f) Vision	1/2	
(g) Immersion, drowning and near-drowning		1
(vi) <u>Decompression Theory and Tables</u> Haldane and modern	1	1
(vii) <u>Immediate Evaluation of the Diving Casualty</u>		2
(viii) <u>Decompression Sickness</u>		
(a) Diagnosis (presentation and monitoring)	1/2	1
(b) Therapy	1/2	1
(c) DCS including inner ear and CNS	1/2	1
(d) Barotrauma, including diagnosis and treatment of pulmonary barotrauma and arterial gas embolism)	1/2	1
(e) Treatment tables		1
(ix) <u>Diving Related Medical Conditions</u>		
(a) The sick diver	1	1
(b) The injured diver	1	1

	Group A Examining Doctor	Group B Diving Emergency Doctor
	<u>Hours</u>	<u>Hours</u>
(x) <u>Use of Drugs including Adjuvant Therapy</u> (see also (xv))	1	2
(xi) <u>Management of the Patient at Pressure</u> Anaesthesia, use of ventilators in chambers, coincidental illness and injury		1
(xii) <u>Dangerous Marine Life</u>		1/2
(xiii) <u>Aseptic Bone Necrosis</u> (and any other long-term alleged effects)	1	1/2
(xiv) <u>Standards of Fitness</u>	4	
(a) The examination, including emphasis on pre-disposing factors, residual symptoms of signs which might during routine examination		
(b) Evaluation of examination		
(c) Conditions restricting or preventing diving activity		
(xv) <u>Safety</u>	1	2
Psychology, selection, drugs of abuse, alcohol, diet, obesity, fatigue training		
(xvi) <u>Diving Accidents</u>		2
(a) The pathology of diving accidents		
(b) Accident investigation		
(c) Litigation vis-a-vis the medical profession	1/2	
(xvii) <u>Organisation of a Diving Emergency Service</u>		2
(a) Communications		
(b) Training		
(xviii) <u>Design and Acceptance Criteria</u> for personal diving equipment, such as underwater breathing apparatus	1/2	1
(xix) <u>Current legislation</u> , Government and other authoritative recommendations, etc., as they affect the Examining Doctor, with particular reference to those countries in which he may work	2	
(xx) <u>Current legislation</u> , Government and other authoritative recommendations, etc., as they affect the Diving Emergency Doctor, with particular reference to those countries in which he may work		2
(xxi) <u>Visit to a Chamber/Diving Vessel</u>	4	
(xxii) <u>Case Histories/Syndicate Work</u>	4	15
(xxiii) <u>Relevance of Current Research Trends</u>		1/2
(xxiv) <u>Sports Diving/Women in Diving</u>	1	1
(xxv) <u>Self-assessment examination</u>	1	1
(xxvi) <u>Practical Diving Instruction</u> , including chamber dive to 50 metres on air		14
TOTALS	33	65

## NEW FAUI DIVING MEDICAL FORM

Name: \_\_\_\_\_ Dive School: \_\_\_\_\_

**MEDICAL EXAMINATION OF PROSPECTIVE SCUBA DIVERS****Advice to the Examining Physician**

Issuing an itemised account (so enabling the patient to claim medicare benefits) for diving medicals is prohibited by paragraph 25 (page 1b-4) of Section 1, Part B of the Notes for the Guidance of Medical Practitioners in the Health Benefits Schedule Book, dated 1st February, 1984.

Diving is a sport carried on in a non-respirable environment, the sea, 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 diabetics on insulin.

A further problem with the water environment is that pressure increases very rapidly with descent — one atmosphere extra pressure for every 10m 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 ambient. 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 equalize 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 Manoeuvre) will reveal ingress of air to the middle ear by movement of the drum. The Eustachian tube opening in the naso pharynx is normally closed. Swallowing opens the ostium. Therefore, a combination of a Valsalva and swallowing during the manoeuvre 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 a Valsalva manoeuvre. **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 in diving. These are related to decreasing ambient pressure, i.e. the ascent phase of the dive.

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. The chest wall is elastic, but after a certain expansion the stretching of the lungs results in tears of the lung substance. Air can then enter the pulmonary venous drainage, pass through the left heart and be carried to the brain as air emboli. Unconsciousness and death can result. Thus any condition preventing normal emptying of the lungs is an **absolute bar to diving.**

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. It is in order to detect expiratory airway obstruction that a Vitalograph (or similar) test is required. Experience in the navies of the world with submarine escape training of many thousands, has shown that a disproportionate number of those suffering burst lungs have FEV<sub>1</sub>/VC 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. People with a FEV<sub>1</sub>/VC ratio below 75% cannot be considered fit for diving.

A normal FEV<sub>1</sub>/VC % 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:

- (a) the effects can wear off underwater,
- (b) the combined effects of pressure and broncho-dilatory drugs are uncertain.

It is hoped that the foregoing makes this list of absolute and relative contraindications to diving logical and comprehensible:

**ABSOLUTE CONTRAINDICATIONS**

Conditions causing unconsciousness  
Epilepsy  
Diabetics on insulin

**LUNG CONDITIONS**

Asthma  
Lung cysts  
Previous spontaneous pneumothorax  
Obstructive lung disease  
Lungs which empty unevenly (X-ray appearance)  
Previous Thoracotomy

**ENT CONDITIONS**

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

**RELATIVE CONTRAINDICATIONS**

FEV<sub>1</sub>/VC ratio less than 75%  
Poor physical condition  
Previous myocardial infarction  
Pregnancy.

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.

**RECOMMENDED READING:**

EDMONDS, C., LOWRY, C. and PENNEFATHER, J.  
Diving and subaquatic Medicine. 2nd Edition, 1981. Revised 1983.  
Diving Medical Centre, Sydney.

The South Pacific Underwater Medicine Society exists:

- (a) to promote and facilitate the study of all aspects of underwater and hyperbaric medicine;
- (b) to provide information on underwater and hyperbaric medicine.

Enquiries should be addressed to

The Secretary, SPUMS,  
C/- 80 Wellington Parade,  
EAST MELBOURNE,  
VICTORIA. 3002.



# SCUBA DIVING MEDICAL FORM FOR SPORTS DIVERS

ENQUIRIES:  
P.A.U.I.  
P.O. BOX 246  
TUART HILL  
WESTERN AUSTRALIA 6060

MEDICAL HISTORY — TO BE FILLED IN BY CANDIDATE

SURNAME	OTHER NAMES		DATE OF BIRTH
ADDRESS	SINGLE <input type="checkbox"/> MARRIED <input type="checkbox"/>	SEX: MALE <input type="checkbox"/> FEMALE <input type="checkbox"/>	DIVORCED <input type="checkbox"/>
NEXT OF KIN:	PHONE	ADDRESS:	
PRINCIPAL OCCUPATION	NAME OF CONDITION:		
HAVE YOU ANY DISEASE OR DISABILITY AT PRESENT?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	TYPE OF DRUG:
ARE YOU TAKING ANY TABLETS, MEDICINES OR OTHER DRUGS?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	DESCRIBE
DO YOU PARTICIPATE IN ANY SPORT OR LEISURE ACTIVITY?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	HOW WOULD YOU RATE YOUR FITNESS?
	<input type="checkbox"/> POOR	<input type="checkbox"/> FAIR	<input type="checkbox"/> GOOD
			<input type="checkbox"/> EXCELLENT

HAVE YOU EVER SUFFERED FROM OR DO YOU NOW SUFFER FROM ANY OF THE FOLLOWING:

MEDICAL HISTORY	NO	YES
1. Do you wear any glasses or contact lenses.		
2. Eye or visual problems.		
3. Hay fever.		
4. Sinusitis.		
5. Any other nose or throat trouble.		
6. Deafness or ringing noises in ear.		
7. Discharging ears or other infection.		
8. Operations on ears.		
9. Giddiness or loss of balance.		
10. Motion sickness (car, plane, sea).		
11. Have you any disability when lying in aircraft?		
12. Dentures.		
13. Dental procedures (within the last month).		
14. Severe headaches or migraine.		
15. Fainting, blackouts, fits or epilepsy.		
16. Unconsciousness.		
17. Concussion or head injury.		
18. Sleep walking or frequent nightmares.		
19. Severe depression.		
20. Claustrophobia.		
21. Any other mental illness.		
22. Any heart disease.		
23. High blood pressure.		
24. Rheumatic fever.		
25. Swollen or painful joints.		
26. Abnormal shortness of breath.		
27. Bronchitis or pneumonia.		
28. Pleurisy or severe chest pains.		
29. Coughing up blood.		
30. T.B. (Consumption).		
31. Chronic or persistent cough.		
32. Pneumothorax (collapsed lung).		
33. Asthma or wheezing.		
34. Any other chest complaint or chest injury or operation on chest, lungs or heart.		
35. Kidney or bladder disease.		
36. Diabetes.		
37. Indigestion or peptic ulcer.		
38. Vomiting blood or rectal bleeding.		
39. Recurrent vomiting or diarrhoea.		

NOTES ON HISTORY (PHYSICIAN'S USE ONLY)

MEDICAL HISTORY (Continued)

	NO	YES
40. Jaundice or hepatitis.		
41. Malaria or other tropical disease.		
42. Venereal disease.		
43. Severe loss of weight.		
44. Hernia or rupture.		
45. Haemorrhoids (piles).		
46. Any skin disease.		
47. Any reaction to drugs or medicines.		
48. Any other allergies.		
49. Any major joint or back injury.		
50. Any fractures (broken bones).		
51. Any paralysis or muscular weakness.		
52. Have you had any operations?		
53. Have you been in hospital or mental institution for any reason?		
54. Have you ever been rejected for insurance?		
55. Have you been unable to work for medical reasons?		
56. Have you ever been on a pension?		
57. Have you ever lived with a person with T.B.?		
58. Has any member of your family had T.B.?		
59. Attempted suicide or had mental illness? or		
60. Had fits or epilepsy?		
61. Do you smoke?		
62. Approximate number of cigarettes a day.		
63. Do you drink alcohol?		
64. Approximate daily consumption.		
65. Have you any other illness or injury not mentioned in this list?		
FEMALES ONLY		
66. Are you now pregnant?		
67. Have you any incapacity during or before periods?		

DIVING MEDICAL HISTORY — TO BE COMPLETED BY THE PROSPECTIVE DIVER

1. Approx. date of first snorkel dive.
2. Approx. date of first compressed air (scuba) dive.
3. Approx. number of compressed air dives since.
4. Greatest depth of any dive.
5. Longest duration of any dive.

HAVE YOU EVER SUFFERED, OR DO YOU NOW SUFFER FROM ANY OF THE FOLLOWING DISORDERS RELATED TO DIVING?

	NO	YES
6. Severe ear squeeze.		
7. Rupture of eardrum.		
8. Deafness.		
9. Giddiness or dizziness.		
10. Severe sinus squeeze.		
11. Severe lung squeeze.		
12. Ruptured lung (burst lung).		
13. Emphysema.		
14. Pneumothorax.		
15. Air embolism.		
16. Nitrogen narcosis.		
17. Decompression sickness (bends).		
18. Near drowning.		
19. Severe marine animal injury.		
20. Oxygen toxicity.		
21. Carbon dioxide toxicity.		
22. Carbon monoxide toxicity.		
23. Dysbaric osteonecrosis (bones).		
24. Any other diving incidents.		

SIGNED \_\_\_\_\_

I CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DATE: \_\_\_\_\_

MEDICAL EXAMINATION TO BE COMPLETED BY MEDICAL PRACTITIONER

1. Physique Good Average Poor	2. Height ins cm	3. Weight lbs kg	4. Vision R 6/ L 6/ Corr 6/ Corr 6/	5. Urinalysis Albumen Glucose																								
6. Chest X-ray (full plate)	7. Respiratory Function Test Vital Capacity FEV 10 Percentage		HEMATINICS																									
Date Place Result																												
8. Audiometry																												
Air	Loss in db (R)	Loss in db (L)	Loss in db (R)	Loss in db (L)																								
Bone	Loss in db (R)	Loss in db (L)	Loss in db (R)	Loss in db (L)																								
<table border="1"> <thead> <tr> <th rowspan="2">Frequency Hz</th> <th colspan="2">Normal</th> <th colspan="2">Abnormal</th> </tr> <tr> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> </tr> </thead> <tbody> <tr> <td>4000</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6000</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8000</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Frequency Hz	Normal		Abnormal		250	500	1000	2000	4000					6000					8000				
Frequency Hz	Normal		Abnormal																									
	250	500	1000	2000																								
4000																												
6000																												
8000																												

CLINICAL EXAMINATION

NOTES ON ABNORMALITIES

- 9. Head, scalp, face and neck
- 10. Nose, septum, airway
- 11. Sinuses
- 12. Mouth, throat, teeth, speech
- 13. Ears general
- 14. Tympanic membrane
- 15. Eustachian tube function
- 16. Pupillary reflexes
- 17. Eye movements
- 18. Visual fields
- 19. Abdomen and G.I. tract
- 20. Endocrine system
- 21. Lymphatic system
- 22. Posture and gait
- 23. Spine
- 24. Upper limbs
- 25. Lower limbs
- 26. Cranial nerves
- 27. Reflexes
- 28. Sensation
- 29. Cerebellar functions
- 30. Emotional stability, phobia
- 31. Mental capacity
- 32. Identifying marks
- 33. Chest, lung fields
- 34. Cardiac auscultation
- 35. Vascular system
- 36. Ophthalmoscopy
- 37. Step test
- 38. ECG at rest (if indicated)
- 39. ECG after exercise (if indicated)
- 40. Blood pressure
- 41. Pulse rate/min
- 42. Sharpened Horthorn score
- 43. Other abnormalities

FITNESS TO SCUBA DIVE

Yes

Temporarily unfit

Reason.....

Signature of physician..... Date.....

Name of physician.....

Address of physician.....

Postcode.....

Telephone.....

Permanently unfit

Reason.....

Where possible please sign the "Green" FAUI Record of Diving Qualifications Book, page 2 and also the FAUI Diving Logbook, page 2

Medical Benefits Refund and/or Medical Rebate is not permissible, by law, for this examination. (Article 24 applies). Issue of any Item Number which allows the candidate to claim such benefit, will result in the physician being guilty of medical fraud

Continued from page 109

8. REFRESHER TRAINING FOR GROUP C(i) - SPECIALISTS IN DIVING MEDICINE

What refresher training can be considered necessary for an internationally acknowledged expert in diving medicine?

Surely this can only be accomplished by postgraduate study, by attendance at international diving medicine symposia, and by a continuing regular involvement in diving medical therapy.

Failure to maintain any of these three criteria, but particularly the latter, would undoubtedly in due course mean the fall of a star from the firmament, albeit perhaps only as far as the Heavside Layer.

9. REFRESHER TRAINING FOR GROUP C(ii) - ASSOCIATED SPECIALISTS

We do not consider that we are qualified to make recommendations for refresher training for specialists in these other areas.

The address of the Diving Medical Advisory Committee is 28/30 Little Russell Street, London WC1A 2HN, England.

The above form, produced by the Federation of Australian Underwater Instructors (FAUI), is a welcome step forward. For some years FAUI instructors have been giving their pupils copies of medical history and examination forms from the Standards Association of Australia AS 2299-1979 Underwater Air Breathing Operations. These forms were of little help to doctors who knew nothing of diving medicine.

The new form includes, on the first page, Advice to the Examining Physician, a short synopsis of the major contradictions to diving and why they are dangerous. This synopsis was first offered to FAUI by Dr John Knight in 1980. The other pages, based on AS 2299, include questions about exercise taken and fitness, which were recommended in the SPUMS Journal (Vol 14 No 4: 6-15) in 1984.

We congratulate FAUI on their initiative in producing the new form, which will help non-diving doctors in their attempts to assess their patients. It is encouraging to find an instructor body publishing such an informative and comprehensive Form, which even includes two mentions of the fact that diving medicals are not rebateable.

The address of the Federation of Australian Underwater Instructors (FAUI) is PO Box 246, TUART HILL WA 6060.