

DIVING AND DIABETES

Section A. To be completed by the diver

The basis for this project is to try and assess whether diving and diabetes is actually safe. Many people worldwide believe it is not. This study is the only one of its kind gathering these types of data. We appreciate you may have a reluctance to complete some sections of this questionnaire. However we would encourage you to complete each section to the best of your ability. It is vital we have a better understanding of how you dive and any problems you may encounter, which may or may not be related to diabetes. The long-term aim of this study is to provide evidence that divers with diabetes can scuba dive. *All the answers which you provide will be treated in the strictest confidence and no references to any named individuals will occur.*

GENERAL INFORMATION: name and address details IN CAPITAL LETTERS PLEASE

Name of diabetic	
Address of diabetic	
Home phone/fax number	
Work phone/fax number	
Email address	

Medical personnel: name and address details IN CAPITAL LETTERS PLEASE

Name of physician in charge	
Address of physician in charge	
Phone/fax of physician in charge	
Name of general practitioner	
Address of general practitioner	
Phone/fax of general practitioner	
Name of medical referee	
Address of medical referee	
Phone/fax of medical referee	

GENERAL INFORMATION cont. *Please circle or tick each answer as appropriate*

Gender M F	Height (cm)	Affiliation BSAC SAA SSA Other
Date of birth DD / MM / YY	Weight (kg)	Membership Number & branch
Are you new to the sport Yes No If yes go to question 5	Please circle "a" (<i>all the year round</i>) or "b" (<i>only in the summer</i>) for the response below as appropriate: Do you dive: UK a b Abroad a b	

DIVING INFORMATION

1. Year of first dive	4b. If you have been an active diver in the last 12 months please tell us how many dives at each depth range 0 - 10 metres 11 - 20 metres 21 - 30 metres More than 30 metres: Number of dives with a compulsory deco stop:	4c. What bottom mix gas do you mainly use? (circle as appropriate) Air Nitrox Trimix
2. How many dives have you made in your diving career		
3. Date of last dive/...../..... DD MM YY		
4. How many dives have you made in the last 12 months		
4a. What is the maximum depth you have dived in the last 12 months metres		

HEALTH INFORMATION - Please circle or tick each answer as appropriate

5. Have you been admitted to hospital for a diabetic condition in the last 12 months? If yes, please tell us about it on page 5	Yes	No
6. Have you experienced any episodes of hypoglycaemia in the last 12 months and in what circumstances did these occur. If yes please tell us about it on page 5	Yes	No
7. Have you had an annual checkup at the diabetic clinic involving eyes, nervous system, kidneys and glycosylated haemoglobin or fructosamine level	Yes	No
8. What portable glucometer do you use and how often do you calibrate it	Name/Make Calibration	
9. Who undertakes the majority of your diabetic care	Hospital	<input type="checkbox"/>
	GP	<input type="checkbox"/>
10. Do you check blood glucose pre and post dive	Always	<input type="checkbox"/>
	Sometimes	<input type="checkbox"/>
	Never	<input type="checkbox"/>
11. Do you eat or drink as appropriate pre dive	Yes	No
12. Have you had any incidents due to low blood sugar in the last year If yes please explain the circumstances and the outcome on page 5	Yes	No
13. Please give the year when was diabetes first diagnosed and under what circumstance, you can give details on page 5		
14. Do you smoke cigarettes 14a If yes please indicate how many a day	Yes	No
	How many	
15. Do you regularly consume alcohol 15a If yes please indicate you average weekly consumption <i>One unit = half pint of beer, lager or cider, or one measure of spirits or vermouth, or one glass of wine or sherry</i>	Yes	No
	How much	
16. Women only to answer this question. Does the control of your diabetes differ in relation to your menstrual cycle? If yes please tell us how on page 5	Yes	No
17. Do you take fluids before you dive	Yes	No

We recommend you carry the following in your dive kit
 a. Oral glucose tablets or a tube of glucose paste
 b. Emergency intramuscular injection of glucagon
 c. Glucose oxidise sticks together with the necessary glucometer kit and CLEAR instructions for the use of such a kit

18. Do you carry all or any of the above with you to the dive site or on the boat, please indicate by putting a circle round your answer

Always	a	b	c
Sometimes	a	b	c
Never	a	b	c

19. Is there always someone in the dive party who is able to use and administer the glucose tablets and intramuscular injection of glucagon, should this be required

Yes No

20. What do you carry in the form of glucose underwater - please define (eg. Mars Bar, Hypostop)

21. Do you know how to use glucose paste underwater

Yes No

21a If yes when did you last practice

In the last 6 months
 6 to 12 months ago
 More than 12 months ago

21b If you have practiced using glucose paste underwater, how successful was the exercise

Successful
 Not successful

22. Have you or your buddy experienced any problems of any nature during the course of the diving in the last 12 months? If yes please give us details on page 5

Yes No

23. Do you consider that your diabetes has had any adverse effect on you or your buddy's diving during the last 12 months? If yes please give details on page 5

Yes No

24. Do you dive with the same buddy all the time

Yes No

25. How well informed is your buddy (regular or otherwise) about your condition

Very well
 Adequately
 Not well

26. How well informed is your club about your condition

Very well
 Adequately
 Not well

26a. When did you last give a lecture to your club on diabetes

In the last 6 months
 6 to 12 months ago
 More than 12 months ago

Section B. To be completed by the Physician-in-charge

LONG-TERM DIABETIC CONTROL - Please circle or tick each answer as appropriate

1. What is the diabetic's medication regime	
2. When was the medication last changed	In the last 6 months <input type="checkbox"/> 6 to 12 months ago <input type="checkbox"/> More than 12 months ago <input type="checkbox"/>

<p>3. Have any episodes of hypoglycaemia occurred in the last year and in what circumstances did these occur?</p> <p>If yes please indicate when, and tell us about it on page 5</p>	<p>Yes No</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p>
<p>4. Has the diabetic been hospitalized within the last year for any condition relating to diabetes?</p> <p>If yes please indicate the date and tell us about it on a separate piece of paper</p>	<p>Yes No</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p>
<p>5. What is the current %HbA_{1c} or fructosmine level and please give the normal range for your readings.</p> <p>5a. When was the test performed</p>	<p> % Normal %</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p> <p>More than 12 months ago <input type="checkbox"/></p>
<p>6. Is microalbuminuria present</p> <p>6a. When was the test performed.</p>	<p>Yes No</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p> <p>More than 12 months ago <input type="checkbox"/></p>
<p>7. What degree of retinopathy is present</p> <p>7a. When was this last checked</p> <p>7b. Has this person ever had laser treatment to the eyes</p>	<p>None Mild background Proliferative</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p> <p>More than 12 months ago <input type="checkbox"/></p> <p>Yes No</p>
<p>8. Is any degree of sensory or autonomic neuropathy present (a check for the latter may be made by looking for R-R variation in the ECG as a Valsalva manoeuvre is performed; if there is no variation then a degree of autonomic neuropathy may be present.</p> <p>8a. When was this last checked</p>	<p>Yes No</p> <p>In the last 6 months <input type="checkbox"/></p> <p>6 to 12 months ago <input type="checkbox"/></p> <p>More than 12 months ago <input type="checkbox"/></p>
<p>9. Is any degree of coronary, vascular or microvascular disease present</p>	<p>Yes No</p>
<p>10. Do you consider this person's level of diabetic control to be satisfactory</p>	<p>Yes No</p>
<p>11. Do you consider that this person is mentally and physically fit to undertake a sport that involves a degree of stress and exertion</p>	<p>Yes No</p>

NOTES TO THE PHYSICIAN-IN-CHARGE

Question 6 "Is microalbuminuria present?" "When was the test performed?" It is recommended this test be performed or the application may be rejected. References given on page 5 illustrate the cost-effectiveness of this screening test.

Question 9 "Is any degree of coronary, vascular or microvascular disease present?" If possible an exercise ECG is recommended for diabetic divers over the age of 50.

PLEASE BE KIND ENOUGH TO COMPLETE PAGE 5 – THANK YOU
Your cooperation in completing this form is greatly appreciated by the
UK Sport Diving Medical Committee

Please ensure you obtain all the required signatures – Thank you

Signature of the physician in charge	Name (print)
Date	Hospital/practice stamp
Signature of the medical referee	Name (print)
Date	
The diabetics signature	Name (print)
Signature of Branch DO	Name (print)

References

1. Viberti GC, Jarrett RJ, & Mahmud U, "Microalbuminuria as a predictor of clinical nephropathy in insulin-dependent diabetes mellitus", *Lancet* **1(1982)1430-2**
2. Mogensen CE, "Microalbuminuria predicts clinical proteinuria and early mortality in maturity onset diabetes", *N. Eng. J. Med* **310(1984)356-60**
3. Jarrett RJ, Viberti GC, Argyropoulos A, et al. "Microalbuminuria predicts mortality in non insulin-dependent diabetics", *Diabetic Med* **1(1984)17-19**
4. Microalbuminuria Collaborative Study Group "Risk factors for the development of microalbuminuria in insulin dependent diabetic patients: a cohort study", *Brit. Med. J.* **306(1993)1235-9**
5. Bakris GL, "Microalbuminuria: what is it? Why is it important? What should be done about it?" *J. Clin. Hypertension* **3(2001)99-102**

INSTRUCTIONS TO THE DIABETIC DIVER

Please also complete the general health diving questionnaire (UK Sport Diver Medical Form) attached to this questionnaire – you complete section A and your Dr completes section B.

1. Please allow adequate time before you require your medical certification renewal for signatures to be obtained and for Dr. Edge to reply to you.
2. Answer all the questions in section A to the best of your ability by writing answers clearly or circling or ticking the appropriate responses.
3. Take this whole form to your physician in charge for him/her to complete and sign section B.
4. Obtain the signatures of your diving medical referee (see point 6) and also your Branch DO (if you dive in a club in which the Diving Officer is responsible for the diving undertaken).
5. Send the whole form back to Dr Chris Edge, The Stone Barn, Gravel Lane, Drayton, Nr Abingdon, Oxon. OX14 4HY, United Kingdom..
6. If you have any queries, then **either** telephone your nearest diving medical referee (telephone BSAC HQ on 0151 350 6200 for a list or point your web browser at www.bsac.org and follow the hyperlinks) **or** contact Dr. Chris. Edge on tel. 01235 529888, fax 08700 525414, email cjedge@diver.demon.co.uk.

In due course Dr Edge or Dr Bryson will send you **section C** that you should then give to your Branch diving officer. This becomes part of your Certificate of Fitness to Dive.

SPACE FOR FURTHER DETAIL AS REQUIRED