



DAN HEALTH & FITNESS IN SCUBA DIVING

STUDENTS

GUIDE



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Scuba diving offers opportunities for travel, family fun and friendly interaction with the environment. As divers of all ages and athletic abilities pursue recreational diving, we must consider the fitness level required for scuba.

Although the relatively weightless underwater environment makes diving appear almost effortless, scuba diving does require a measure of strength and stamina.

In this brochure, DAN explains why overall fitness is important to a diver, when you may need to postpone diving based on medical conditions, the need for a physical examination and the impact of medications on diving. In addition, DAN addresses scuba diving safety for individuals with underlying health conditions such as asthma and diabetes, epilepsy and spontaneous pneumothorax.

LEARNING TO SCUBA DIVE

If you're considering learning to dive, keep in mind that not all your diving will be the same — water and weather conditions vary from dive to dive and even from the beginning to the end of some dives.

You may be required to maneuver through strong currents to reach your dive site — or perform a long surface swim at the end of a dive. Divers need to be able to perform unexpected strenuous physical tasks, especially if an emergency occurs. Also, they should not have any health conditions or be taking any medications that may cause problems while diving.

Students learning to dive complete a medical history form before getting into the water, but a physician's examination may not be required. In some cases, students report medical problems that may prevent them from diving or temporarily restrict their involvement in scuba. These students may be allowed to dive once they have been evaluated and receive a physician's consent.

TEMPORARY RESTRICTIONS ON DIVING

Some medical conditions — such as colds, flu, injury or pregnancy — will temporarily restrict diving. Why? With colds or flu, swelling or blockage in the Eustachian tube or sinuses may prevent adequate equalization of these air spaces with the water pressure. Recent injuries to joints and muscles may not only reduce diving ability, but may also be confused with decompression illness. Therefore, it is best to postpone diving until injuries are fully healed. Because little is known about the effects of scuba diving on an unborn child, it is recommended that pregnant women wait until after delivery to dive.

Other medical conditions that restrict the movement of a diver's arms and legs may in turn limit in-water mobility. Additionally, some people may experience pain or discomfort with the physical exertion of scuba diving. These symptoms can mimic the signs of decompression illness after a dive. Lung disease can predispose a diver to gas embolism. Diving requires adequate cardiac function; heart disease can make it medically unsafe to dive. Such health issues require individual evaluation by a physician prior to learning to dive.

PREDIVE PHYSICAL EXAMINATIONS

A student is sent for physician referral when a dive instructor wants more information about that individual's health. The most common reason for referral is that a student has a diagnosed medical condition or is under the care of a physician. The evaluation is simply an assessment of compatibility for scuba with various medical conditions.

If you have questions about your fitness to dive, or if you need evaluation by a diving doctor, DAN can provide you with a list of specialists in your area. Simply call the DAN Dive Safety and Medical Information Line at (919) 684-2948 from 9 a.m. to 5 p.m. Eastern Time.

Other reasons a diving student may be asked to see a doctor include (but are not limited to):

- a history of heart or lung disease;
- an unexplained loss of consciousness, fainting or "blackout";
- a history of nausea or vomiting;
- the use of prescription or non-prescription medications;
- shortness of breath;
- repeated difficulty with clearing air spaces (middle ear and sinuses); and
- the appearance of not being physically fit.

No upper age limit for participation in scuba diving exists, provided a diver is healthy and fit and has no disqualifying medical conditions.

Some divers may be asked by their physician to perform an exercise tolerance test to rule out any cardiovascular (heart) problems — this is appropriate when the diver is older or appears generally out of shape. This test allows a physician to collect information about how well an individual responds to exercise.

DIVING ON MEDICATIONS

Let your dive instructor know if you are taking any medications, whether they're prescribed by your doctor or purchased over the counter. Most medications will have no effect on diving, but some may cause drowsiness or fatigue, which may increase the susceptibility to nitrogen narcosis. Others may affect heart rate. Read the warning labels and precautions before using prescription or over-the-counter drugs, especially if you plan to dive.

The likelihood of an unexpected reaction to medications at depth varies from diver to diver, and even from day to day. If you start a new medication, be sure there are no side effects at the surface before entering the water. (This is especially true of anti-motion sickness medications.) If a medication "may cause drowsiness" or suggests restricting the use of machinery after taking the medication, it may be best to reconsider your plan to dive and wait until you're no longer taking that medication. When you're diving, pay careful attention to any adverse effects you feel may be due to the medication while at depth.

Some medical conditions make diving too risky. Because of the high risk of drowning if a convulsion were to occur underwater, people with epilepsy should not dive. Similarly, people who have had a spontaneous pneumothorax (collapsed lung) should not dive because of the high probability of recurrence.

ASTHMA AND DIABETES

There is concern about the advisability of allowing individuals with asthma or insulin-requiring diabetes mellitus to dive.

Some individuals with a history of asthma are permitted by their physicians to dive — after a careful evaluation. Diabetes and many other medical conditions must be evaluated on a case-by-case basis with an appropriate medical specialist. DAN continues to research the safety of scuba diving for individuals with underlying health problems. Your DAN membership helps support these studies.

ENJOY SCUBA

Scuba diving is an activity that anyone with good health and fitness can enjoy for a lifetime. To get the most out of your lifetime of diving, practice disease and injury prevention and participate in a health maintenance program.

- See your physician for regular checkups in addition to when you're ill;
- Participate in a regular exercise program;
- Be rested and well-nourished before diving;
- Use proper exposure protection and equipment;
- Plan your dive to avoid overexertion.

Most of all, don't hide or downplay any medical condition or health problem. It's better to have an open and frank discussion before a problem arises than to wonder if an injury could have been avoided.

Finally, if you have questions on your own diving fitness, queries about certain medical conditions when diving, how to find a diving doctor in your area or if your physician has any questions, call DAN's Medical Information Line at (919) 684-2948 from 9 a.m. to 5 p.m. Eastern Time.

Join DAN Today!

Call 1-800-446-2671 or apply online at

www.danismybuddy.com

Divers Alert Network:

TEL: (919) 684-2948 Fax: (919) 490-6630