

# 1. Diving Into SCUBA



When you descend beneath the surface of the water, you enter an entirely new and beautiful world. You have opportunities to see incredible life-forms that only a few people ever see. Imagine swimming in a giant aquarium, and you'll get a glimpse of what you can expect to experience in the underwater world.

<b>Open-circuit scuba</b>	<b>Semi-closed-circuit scuba</b>	<b>Closed-circuit scuba</b>
User inhales compressed air	User inhales oxygen and inert gas	User inhales pure oxygen
Exhaled air exhausted into water	Exhaled gases enter closed system	Exhaled gases enter closed system
Air supply duration varies with depth	Carbon dioxide absorbed within system	Carbon dioxide absorbed within system
Components simple	Oxygen added as needed	Oxygen added as needed
Unit easily maintained	Air supply duration unaffected by depth	Depth limit of 25 feet
Affordable	Components sophisticated and complex	Convulsions and death possible
Basic training required for use	Unit requires high maintenance	Components simple
	Expensive	High maintenance
	Highly technical specialty training required	Not available for recreational use
		A predecessor to semi-closed-circuit scuba

An entry-level training course usually consists of a series of academic sessions, pool or confined-water (pool-like conditions in open water) sessions, and open-water training (in actual diving locations). You will learn theory in the classroom, learn skills in controlled conditions, and then apply your skills in an actual diving environment. This logical progression is common for all approved diver training courses.

Scuba diving can be undertaken by anyone over 12 years of age who is in normal health and has a reasonable degree of physical fitness. People younger than this should not participate in scuba diving (even when supervised by adults) because they do not have the mental and emotional maturity to deal with the problems that might arise. Skin diving is a good activity for youngsters if they are well supervised.

You should have a physical examination before you begin your training, especially if it has been more than a year since your last exam. Ask your instructor to recommend a diving physician. Physicians who do not understand the physiology of scuba diving sometimes inappropriately grant approval to people who have medical conditions that place them at great risk in and under the water. Your instructor can likely recommend a physician who understands medical issues related to scuba.



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Figure 1.1 Required scuba diving training equipment.

- Is this training sanctioned by a diver training agency?
- How long has the instructor been teaching scuba diving?
- Which levels of training is the instructor qualified to teach?
- May I speak with the graduates of a recent class?
- Why is this course better than others in the area?
- Are assisting and rescue techniques taught in the course?
- How many instructor-supervised open-water dives are included?

When you qualify as a scuba diver, you assume many responsibilities. You are responsible for your safety, for the safety of those you dive with, for the image of scuba divers, and for the preservation of the diving environment. The diving community encourages divers to accept responsibility for their actions. To be part of the diving community, you need to be a responsible diver. Learn what you should do, then do what you learn.



Diving can be a source of great joy. Many exciting experiences await the trained diver. You need dive credentials to participate in diving activities. You must complete diver training to obtain your C-card and logbook. But diving is not for everyone. You must have normal health, good swimming skills, and reasonable physical fitness. Diving poses risks that a well-trained, wise, and fit diver can minimize. Compare training programs and choose the best education, which may not be the quickest or the least expensive. Remember that you accept a great deal of responsibility when you become a diver. Do not assume that you can transfer the responsibility for a dive accident to someone else. Ultimately, you control your actions underwater. Become a competent, self-reliant diver who adheres to recommended safety practices, and you will discover the joy of diving.

1. What is your primary reason for learning to scuba dive? What do you think you will do while scuba diving after completion of your initial training?
2. Why do beginning recreational divers use open-circuit breathing systems instead of closed-circuit systems?
3. Why should you document your dives in a logbook?
4. What are the advantages of completing a 40-hour scuba diving course rather than a course that is much shorter in duration?

5. Why is a medical examination recommended for those who want to learn scuba diving? What type of doctor is the best choice for a scuba diving medical exam?
6. List three actions you can take to minimize your risk of injury when scuba diving.
7. What are some of the factors that you should consider when selecting a scuba diving course?
8. List three actions you can take to demonstrate that you are a responsible diver.