

# DAN Training & Education

Dive safety begins with me.



The first step in being prepared to handle a diving emergency is education. DAN's hands-on courses actively teach divers about fundamental safety principles to take immediate action and care for an injured diver.



## Advanced Oxygen First Aid for Scuba Diving Injuries

This module, Advanced Oxygen First Aid for Scuba Diving Injuries, is an advanced-level programme that provides additional training for those individuals who have successfully completed the DAN Oxygen First Aid for Scuba Diving Injuries course within the past year (12 months). It is designed to train DAN oxygen providers to use the MTV-100 or a bag valve mask (BVM) while providing care for a non-breathing injured diver and activating the local emergency medical services (EMS) and/or arranging for evacuation to the nearest available medical facility.

Rescue breathing with supplemental oxygen delivers upwards of 50% inspired oxygen when performed correctly. However, using an MTV-100 or bag valve mask with oxygen can deliver nearly 100% inspired oxygen to a non-breathing injured diver.

When supplemental oxygen is not available, a bag valve mask can deliver 21% oxygen as compared to 16% with rescue breathing without supplemental oxygen. The MTV-100 does not work without an oxygen supply.

This is not a stand-alone programme. It is intended to train current DAN oxygen providers to administer oxygen using advanced-level skills.

## Objectives

The DAN Advanced Oxygen First Aid for Scuba Diving Injuries ("DAN Advanced Oxygen Provider") programme is designed to:

- Demonstrate how to assemble and prepare the manually triggered ventilator (MTV) and BVM.

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- State the benefits of using the manually triggered ventilator (MTV) and BVM for a non-breathing diver.
- Demonstrate how to provide Oxygen First Aid with the MTV resuscitator on a breathing and non-breathing diver.
- Demonstrate how to provide Oxygen First Aid with the BVM to a non-breathing diver.

## Recommended minimum hours of training:

Knowledge development (lecture) = one hour

Skills development (practice) hours = two hours

This module should be taught as a three-hour programme as outlined in this manual. The time needed to teach the course varies and depends on many factors including the number of students and their ability to process the educational components of the programme. Instructors who want to include subjects or training beyond the course requirements may do so only before or following the course. Any additional training must not be required for completion of course requirements.

## Required Curriculum Subject Areas

The instructor must ensure participants are familiar with each of the following:

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## Knowledge Development

- O<sub>2</sub> resuscitation systems (MTV and BVM)
- Providing advanced oxygen first aid
- Recommendations for advanced oxygen providers and equipment use

The instructor must ensure each course participant can successfully perform the following:

## Skills Development

- CPR Review
- Resuscitation with an MTV
- Resuscitation with a BVM

## Learning Objectives

- Inspect the MTV and/or bag valve mask and determine readiness for use.
- Outline the circumstances for using the MTV and/or BVM.
- List the directions for ventilations with the MTV and/or BVM.
- List the potential problems associated with the use of the MTV and or BVM.
- List the considerations for effective ventilations with the MTV and/or BVM.
- Describe the characteristics of effective ventilation using the MTV and/or BVM.

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- Explain the steps to follow for cleaning, disinfecting and maintenance of the MTV and/or BVM.
- Disassemble and reassemble the MTV and/or BVM.
- Demonstrate the correct technique for testing the MTV and/or BVM prior to using it.
- Demonstrate the correct technique for using the MTV 100 and/or BVM to resuscitate non-breathing divers (during training this will be done on a mannequin).
- Demonstrate the correct technique for using the MTV 100 to provide oxygen to breathing divers.

The nature and scope of this course is limited to training oxygen providers to provide first aid, using the MTV and/or BVM for non-breathing injured divers. This course does not provide complete training for cardiopulmonary resuscitation (CPR) or advanced airway management skills. Course participants must complete the DAN Advanced Oxygen First Aid for Scuba Diving Injuries examination with a minimum passing score of 80%. The instructor will review the examination with each participant to ensure mastery of the material.