



Emergency Oxygen for Scuba Diving Injuries

Scene Safety Assessment

- S** Stop.
- A** Assess scene.
- F** Find oxygen unit, first aid kit and AED, and take to injured person.
- E** Exposure protection.

Initial Assessment

- Assess responsiveness and normal breathing
 - Tap the individual's collar bone and loudly ask **"Are you OK?"**
 - State your name and desire to help.
- If the individual responds, have him remain in the position found.
- If unresponsive but breathing normally, place in recovery position
- If not breathing normally, begin CPR.
 - Shout for help or send a specific person to call EMS.

Steps to Initiate Oxygen Delivery

- Turn the unit on with one full turn.
- Check the pressure gauge on the tank to assure cylinder is full.
- Ask the injured diver for permission to assist:
 - "This is oxygen. It may help you feel better. May I help you?"
 - If the diver is unresponsive, permission is assumed.

Breathing Diver – Demand Valve

- Constant flow setting should be in the OFF position.
- Place an oronasal mask on the demand valve.
- Take a breath from the oronasal mask and exhale away from the mask.
- Place the mask over the injured diver's mouth and nose.
- Adjust the elastic strap to assure a snug fit.
 - Check for leaks.
 - Instruct the injured diver to hold the mask.
- Instruct the injured diver to breathe normally from the mask.

Breathing Diver – Non-Rebreather Mask

- Stretch oxygen tubing to remove kinks.
- Attach tubing to constant flow outlet.
- Set constant flow control at 10-15 lpm.
- Prime mask reservoir bag.
- Place mask over injured diver's mouth and nose.
- Adjust nose clip and elastic strap to ensure a (snug) seal.
- Adjust flow up or down to meet the needs of the injured diver.
 - If reservoir bag deflates completely, increase flow.
 - If flow has been increased to maximum lpm and bag still deflates, switch to demand valve.

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Non-Breathing Diver – Bag Valve Mask (BVM)

First rescuer begins CPR.

Second rescuer prepares oxygen equipment, maintains airway and seal then monitors oxygen supply.

- Stretch tubing to remove kinks.
- Connect tubing to constant flow outlet.
- Set constant flow to 15 lpm; allow reservoir bag to fill.
- Position mask over injured diver's mouth and nose.
- Open airway using head tilt-chin lift, lifting jaw into mask and creating seal.
- **First rescuer** ventilates injured diver by gently squeezing the bag about one-third of volume causing chest to rise.
 - Deliver two ventilations for 1 second each.
 - Watch for chest to rise then fall between ventilations.
- Continue CPR cycles of 30:2.

If oxygen supply runs out, continue to ventilate using room air.

Non-Breathing Diver – Manually Triggered Ventilator (MTV)

First rescuer begins CPR.

Second rescuer prepares oxygen equipment, maintains airway and seal then monitors oxygen supply.

- Check MTV safety valve to ensure proper function.
 - Press resuscitation button, block outlet – flow should stop.
 - Do not use if it does not function properly.
- Connect oronasal resuscitation mask to MTV.
- Position mask over injured diver's mouth and nose, adjust elastic strap to assure snug fit.
- Open airway using head tilt-chin lift, lifting jaw into mask and creating seal.
- **First rescuer** ventilates injured diver by pressing resuscitation button.
 - Deliver 2 ventilations for 1 second each.
 - Watch for chest to rise then fall between ventilations.
- Continue CPR cycles of 30:2.

If oxygen supply runs out, switch to another ventilation method.

General Guidelines

- Monitor oxygen supply.
- Monitor injured diver for changes in level of consciousness and signs of circulation.
- Never leave injured diver alone.
- Activate emergency assistance plan if not already initiated.