# Med Dive
# Course Objectives

Med Dive is Dive Rescue International's renowned 16-hour training program for certified divers, surface support personnel, EMS professionals, and other medical professionals involved with dive teams.

Students learn how to recognize and treat hyperbaric injuries. More importantly, graduates of this program will learn how to prevent injuries and safeguard their teammates. This program includes numerous hands-on practical sessions. Successful completion of this program is measured in class participation and an end of program comprehensive test. Med Dive is a prerequisite for all dive trainer programs.

Key training topics and associated objectives include:

### HUMAN FACTORS IN DIVE RELATED ACCIDENTS AND ILLNESSES
- Review and discuss human factors such as individual (and team) reliance, perception, comprehension, and projection, and consequent impacts to public safety diving accidents and illnesses

### GAS LAWS AND THEIR EFFECT ON DIVERS
- Review of gas laws notably Boyle's and Charles'/Gay-Lussac's and their implications on divers

### DIVE RELATED ANATOMY PHYSIOLOGY
- Review of human body anatomy specific to dive related injuries and illnesses

### FITNESS TO DIVE
- Public safety diving is often conducted under intense conditions. Divers must be physically prepared to prevent a tragic outcome. What constitutes fitness to dive is scrutinized.

### NONPULMONARY BAROTRAUMA
- Eye, ear, tooth, sinus squeeze and reverse squeeze

### NEUROLOGICAL INJURIES
- Common warning signs, testing / assessment, and LOC

### PULMONARY OVERINFLATION SYNDROME AND ARTERIAL GAS EMBOLI
- Students will gain an understanding of and treatment for pulmonary overinflation injuries and arterial gas emboli including pneumothorax, hemoptysis, and pneumomediastinum

### DECOMPRESSION ILLNESS
- Students will learn to recognize and treat decompression illness in divers including associated illnesses concerning VGEs, DCI, and DCS. Recompression including USN Treatment Table 6 and expected results are discussed

## SPECIAL PROBLEMS

- Students will discuss shallow water blackout, immersion pulmonary edema, patent foramen ovale, and intrapulmonary arteriovenous anastomosis and their potential dangers to divers

## INERT GAS DISORDERS AND UNIQUE GAS PROBLEMS

- Students will review how oxygen, nitrogen, carbon dioxide, and carbon monoxide effect divers

## RESCUE AND RESUSCITATION OF THE DIVER

- A review of best practices in the rescue and resuscitation of divers

## OXYGEN THERAPY

- Review administration of first aid oxygen

## PREREQUISITES

All students must be a member of a public safety agency, at least 18 years of age, and have current First Aid and CPR training.

# Med Dive Schedule

| DAY 1 | |
|---|---|
| 8:00-8:30 | Registration, Introductions, and Course Overview |
| 8:30-9:30 | Human Factors |
| 9:30-10:30 | Gas Laws |
| 10:30-11:00 | Dive Related Anatomy and Physiology |
| 11:00-12:00 | Fitness to Dive |
| 12:00-12:30 | Nonpulmonary Barotrauma |
| 12:30-1:30 | Lunch |
| 1:30-3:00 | Neurological Examinations |
| 3:00-5:00 | Pulmonary Overinflation Syndrome |

| DAY 2 | |
|---|---|
| 8:00-9:00 | Decompression Illness |
| 9:00-10:00 | Special Problems |
| 10:00-12:00 | Rapid Field Neurological Examination |
| 12:00-1:00 | Lunch |
| 1:00-4:00 | Rescue, Resuscitation, and Oxygen Therapy |
| 4:00-5:00 | Final Exam and Closing |