

# Essential Medical Training, LLC

*“Providing Quality, Professional Training”*



## EMT REFRESHER COURSE

30 hours of Continuing Education

This course is approved by the Florida Bureau of EMS for continuing education

Course Approval 20-716068

[www.EssentialMedicalTraining.com](http://www.EssentialMedicalTraining.com)

## Table of Contents

Module 1- Introduction .....	1
EMT Health and Safety .....	1
Addictions.....	2
Post-traumatic Stress Disorder (PTSD) .....	4
Legality: Consent .....	5
Resuscitation Issues.....	7
HIPPA Privacy Rules .....	10
Crew Resource Management (CRM).....	12
Ambulance Safety .....	14
Field Triage .....	18
Module 2- Respiratory.....	21
Anatomy of the Airway .....	21
Respirations and Ventilations .....	22
Respiratory Assessment .....	25
Congestive Heart Failure.....	27
Basic Airway Management .....	30
Continuous Positive Airway Pressure (CPAP) .....	34
Module 3- Cardiology .....	36
The Cardiac Cycle .....	37
Module 4- Medical Emergencies .....	38
Allergies and Anaphylaxis .....	38
Diabetes .....	41
Seizures.....	42

Myocardial Infarction.....	45
Module 5- Trauma Emergencies .....	48
Trauma Triage .....	52
The START Systems.....	53
Blast Injuries.....	54
Penetrating Injuries.....	57
Chest Wall Injuries .....	58
Infection Control and Blood Borne Pathogens .....	64
Common Infectious Diseases encountered by Paramedics/EMS Personnel .....	70
Post-Exposure Prophylaxis .....	74
Module 6-Pediatric Emergencies (2-hours) .....	79
General Approach to Pediatric Assessment.....	79
Specific Respiratory Emergencies .....	87
Basic Airway Adjuncts.....	91
Shock Recognition and Management .....	94
Management of Shock.....	96
Pediatric Basic Life Support .....	98
Post-Resuscitation Stabilization.....	104
References .....	109

## Module 1- Introduction

---

### **EMT Health and Safety**

It is important that the paramedic maintains a state of wellness. It is important to learn about safe practices and apply these to your everyday life. This will allow the paramedic to have a long and safe career, avoid injuries and illnesses that can be associated with this field of work. Most paramedic injuries are due to improper lifting that occurs during awkward positions such as at a motor vehicle accident. Those who train to be physically fit reduce their chances of injuries that can force them into early retirement.

Exercise is important to cardiovascular health and muscular strength. These are important health items that can help the paramedic maintain a good state of health and help them perform better on the job. Exercise does not need to consist of intense training but can be intentional exercise that improves the overall health. Exercise will also improve flexibility that will help reduce chances of injuries.

Nutrition is important to maintaining the overall health of the paramedic. Because we live a fast-paced routine when working, fast food has become the quick way of eating while on the go. This can lead to obesity and other medical issues from a poor diet. Creating a good eating routine from the beginning can prevent bad habits from forming that become hard to break later in life. The United States Department of Agriculture Food and Nutrition Services emphasis's that a healthy diet accounts for all foods and beverages.

A healthy eating plan includes:

- A variety of vegetables from all of the subgroups- dark green, red and orange, legumes (beans and peas), starchy, and other

- Fruits, especially whole fruits
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverage
- Grains, at least half of which are whole grains
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

It is recommended that adults consume less than 10 percent of calories per day from added sugars and saturated fats. Sodium intake should be less than 2,300 milligrams per day. This information was updated in the 2015-2020 dietary guidelines. More information can be found at <http://www.fns.usda.gov/>.

## **Addictions**

Individuals who work high-stressed jobs such as EMT's and Paramedics can be at an increased risk for substance abuse. There have been very few studies on substance abuse in the EMS system, but it is becoming an increasing problem. There have been many news media stories on paramedics who have been caught stealing medications from patient's homes while they were there treating them.

There are cases where the EMT or Paramedic has been caught removing drugs such as morphine or fentanyl from a vial and replacing it with water or saline. Another unsuspecting paramedic administers this drug to a patient in which they will not get the desired effects because it is water or saline. This can be dangerous in a life-saving situation.

EMT's or Paramedics who are under the influence of a drug should be removed from service until an investigation and/or treatment is

completed. Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Alcohol is the cause of over 200 diseases and injuries in adults. In 2008, 155 to 250 million people used psychoactive substance world-wide.

Globally, cannabis is the most commonly used drug followed by Amphetamine type stimulants.

Researchers have consistently found that members of the fire service drink more alcohol than the average adult. EMT's and Paramedics who witness traumatic scenes over and over will sometimes use alcohol or drugs as a way to cope with the reoccurring thoughts that play out in their minds.

There are treatment programs available, specifically for first responders, which help them break their addiction to alcohol and drugs. These treatment programs also guide them to understanding how to deal with these post-traumatic events. Some of the most common warning signs for substance abuse are:

- Physical or psychological craving of the substance on a regular basis
- Unsuccessful attempts to decrease or stop substance use
- Need to increase the use in order to achieve the same effect
- Unusual activity to obtain the substance such as stealing or lying
- Making the substance a priority over work or family
- Significant amount of time allotted to using or recovering from a substance

- Failure to meet obligations at home or work
- Mood swings
- Hiding the use of a substance

## **Post-traumatic Stress Disorder (PTSD)**

This disorder is caused by exposure to a traumatic event. This disorder has previously been categorized as an anxiety disorder, but it has now been re-categorized under a trauma-and-stress-related disorder. This disorder is often associated with military personnel returning from war and the devastation they are exposed to but recently this disorder has been seen in first responders.

Every day paramedics are faced with high-stressed calls that can include traumatic events like fatality fires, car crashes, shootings, and other traumatic events. Without proper education, preventative measures, and psychological guidance, first responders can internalize these trauma events which can manifest into PTSD.

Symptoms can include:

- Flashbacks, nightmares, and recurring thoughts
- Emotional numbness
- Worry, guilt, anger, or hopelessness
- Loss of interest in previous pleasures
- Anxiety or being on the edge
- Sleep issues
- Substance abuse

## **Legality: Consent**

### **Abandonment**

**Abandonment**- is the discontinuation of care without another healthcare provider assuming care of the patient with the same or greater level of training. Once you begin caring for a patient, you cannot discontinue without reason. If another healthcare provider is going to assume care of your patient, they must have an equal or greater level of training than you.

Physically leaving your patient can be grounds for abandonment. Abandonment is the unilateral termination of healthcare provider/patient relationship when additional medical care is still needed. Abandonment can also be when a provider fails to respond to a call for help.

If a provider left a patient because the patient had a weapon, this would not be a case of abandonment because the provider was not able to continue providing care because of his/her safety. In this type of situation, the EMT or Paramedic should escape to a safe environment as quickly as possible.

### **Assault and Battery**

A provider who does not receive consent from the patient prior to treatment could be charged with assault and battery. Assault is the unlawful act of threatening a person and placing them in a state of fear. An example would be if a patient refused an IV but the paramedic held up an IV catheter as if he was going to use it on the patient. Assault may not result in physical touch or harm, but it is the act of threatening.

Battery is the physical touching of a patient without their prior consent. An example would be the paramedic actually starting the IV on the patient without their consent to do so.

---

*Paramedics can be sued for assault and battery in both civil and criminal courts.*

---

## **False Imprisonment**

If a paramedic was to transport a patient against their consent, this would be a case of false imprisonment. Paramedics must obtain the appropriate consent prior to transporting a patient. A patient must be mentally competent in order to provide that consent. A paramedic who transports a patient against their will must have proper justification. An example would be a psychiatric patient or a patient who was possibly going to harm themselves. It is important to have law enforcement on scene to assist with these types of legal issues.

Paramedics who fail to obtain the appropriate consent prior to treatment could be charged with assault and battery. **Assault-** is the threat of carrying out an action whether successful or not. A paramedic who threatens to start an IV without the consent of the patient could be charged with assault if the patient refuses the IV.

Even if that paramedic did not touch the patient, the threat of being able to carry out the action is enough to charge the paramedic with assault. Paramedics charged with assault can be tried criminally and face jail time including a fine. They can also be sued civilly in court for mental distress that the victim endured.

If the EMT or paramedic actually touches the patient, they could be charged with battery. **Battery-** is the actual touching of a person without their consent. A paramedic who actually starts an IV on a patient who refuses any medical treatment could be charged with battery. EMT's and Paramedics can be held criminally and civilly liable for these charges.

---

*Assault- is the threat of carrying out an unwanted action*

*Battery- is the actual touching of a patient against their consent*

---

## **Resuscitation Issues**

### **Advanced Directives**

Advanced directive is a written document that provides a detailed plan of the patient's wishes on future medical treatment should they become unconscious or unable to make informed decisions.

There are several types of advanced directives but some of the common are: Do Not Resuscitate (DNR), organ donor, power of attorney, and living wills. Many of these directives are governed by state laws that provide details on these requests. Some states do not allow paramedics to recognize certain advanced directives in the field. It is important that paramedics understand their state law and local protocol in advance.

### **Living Wills**

A living will is a legal document that allows a person to choose specific medical treatments that they will receive in advance. These wishes are written in detail should the need arise and the patient is not able to make decisions. Often paramedics are not able to honor living wills in the field, so it is important to know your state law and local protocols.

### **Do Not Resuscitate (DNR) Orders**

DNR order is a legal document that allows healthcare providers to withhold life-saving resuscitation efforts in the event that a person's heart and respiratory functions stop. This choice is usually made by the patient

in advance. In the State of Florida, the Florida Administrative Code (FAC) governs the DNR orders FAC 64J-2.018. The FAC requires that EMT's and Paramedics honor the DNR order provided the form is printed on yellow paper and is signed by the patient's physician.

Prior to honoring the DNR, EMT's and paramedics must identify the patient of the DNR order with state recognized identification device such as a driver's license. A DNR order can be revoked at any time by one of the following: patient, patient's healthcare surrogate, proxy or court appointed guardian or person acting pursuant to durable power of attorney.