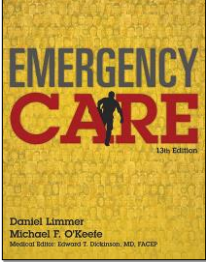


# Emergency Care

THIRTEENTH EDITION



## CHAPTER 2

### The Well-Being of the EMT

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## Maintaining Well-Being

- Maintaining solid personal relationships
- Exercise
- Sleep
- Eating right
- Limiting alcohol and caffeine intake
- Seeing your physician regularly and keeping up to date on vaccines

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## Personal Protective Equipment



When in doubt, wear it!

What's Missing?

Vinyl or non-latex

Always wear personal protective equipment to prevent exposure to contagious diseases.

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## Personal Protective Equipment




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## Personal Protective Equipment

If Tuberculosis is suspected, wear an N-95 or high-efficiency particulate air (HEPA) mask.

Airborne pathogens are spread how?



Eye protection prevents splashing, spattering, or spraying fluids from entering the body.

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## Personal Protective Equipment



Wear a protective mask and face shield when suctioning a patient.

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**TABLE 2-1 Communicable Diseases**

Disease	Mode of Transmission	Incubation
AIDS (acquired immune deficiency syndrome)	HIV-infected blood via intravenous drug use, unprotected sexual contact, blood transfusions, or (rarely) accidental needles/ticks. Mothers also may pass HIV to their unborn children.	Several months or years
Chicken pox (varicella)	Airborne droplets. Can also be spread by contact with open sores.	11 to 21 days
Ebola	Blood and body fluids (e.g., urine, saliva, feces, vomit, sweat, and semen)	2-21 days (most commonly 8-10 days)
German measles (rubella)	Airborne droplets. Mothers may pass the disease to unborn children.	10 to 12 days
Influenza (flu—various strains including swine and avian)	Respiratory droplet.	1 to 7 days
Hepatitis	Blood, stool, or other body fluids, or contaminated objects.	Weeks to months, depending on type
Meningitis, bacterial	Oral and nasal secretions.	2 to 10 days
Mumps	Droplets of saliva or objects contaminated by saliva.	14 to 24 days
Pneumonia, bacterial and viral	Oral and nasal droplets and secretions.	Several days
Staphylococcal skin infections	Direct contact with infected wounds or sores or with contaminated objects.	Several days
Tuberculosis (TB)	Respiratory secretions, airborne or on contaminated objects.	2 to 6 weeks
Whooping cough (pertussis)	Respiratory secretions or airborne droplets.	6 to 20 days

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## Hepatitis B and C

- Infection that causes inflammation of the liver
- Can live on surfaces in dried blood for several days
- Hepatitis B (HBV) deadly; killed hundreds of health care workers each year before vaccine available
- Hepatitis C (no vaccine yet) poses same risk.

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## Tuberculosis (TB)

- Infects lungs
- Highly contagious
- Airborne



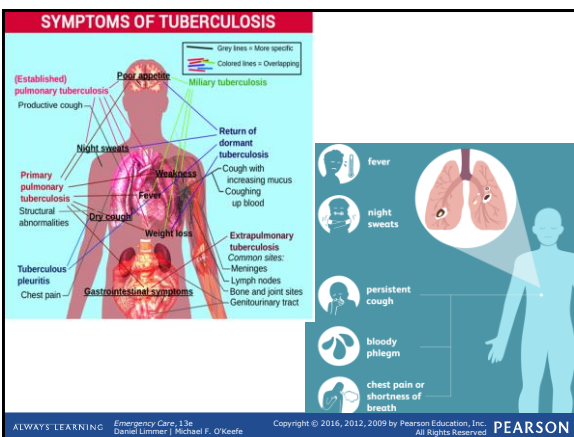
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## Tuberculosis Compliance Mandate

- Caring for or transporting a patient with suspected TB
  - Wear a NIOSH-approved N-95 or HEPA mask when you are:
    - Caring for patients suspected of having TB
    - Close quarters with suspected TB patient
    - High risk procedures (suction and intubation)
- What are the signs/symptoms of TB

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## SYMPTOMS OF TUBERCULOSIS



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## AIDS

- HIV
  - Attacks immune system, leaving patient unable to fight off infection
- AIDS
  - Set of conditions that results when the immune system has been attacked by HIV
- Lower risk for health care workers than hepatitis or TB
- Transmitted - contact with blood

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## Emerging Conditions and Diseases

- Ebola
  - People in the U.S. infected in 2014
  - Hemorrhagic fever
  - Chills, weakness, diarrhea, vomiting, abdominal pain
  - High rate of deaths and lack of definitive treatment

## Emerging Conditions and Diseases

- Severe Acute Respiratory Syndrome (SARS)
  - Spread through respiratory droplets
- Middle Eastern Respiratory Syndrome (MERS)
  - Found primarily on the Arabian Peninsula

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## Emerging Conditions and Diseases

- Avian flu
  - Found in poultry; can affect humans
  - Not easily transmissible from human to human
- Influenza
  - Around for hundreds of years
  - 1918 pandemic killed between 30 and 50 million people around the world

## Occupational Exposure to Bloodborne Pathogens

- Infection exposure control plan
- Adequate education and training
- Hepatitis B vaccination and TB testing
- Influenza vaccine
- Personal protective equipment
- Housekeeping
- Post-exposure evaluation and follow-up

<https://www.cdc.gov/vaccines/adults/rec-vac/hcw.html>

## Ryan White CARE Act

### INFECTIOUS DISEASE EXPOSURE PROCEDURE



## Emotion and Stress

## Physiologic Aspects of Stress

- Recognizing signs of stress and developing strategies to deal with stress are very important
- First stage
  - Alarm reaction (fight-or-flight)
- Second stage
  - Stage of resistance (coping)
- Third stage
  - Exhaustion (loss of ability to resist or adapt to the stressor)

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## Acute Stress Reaction

- Often linked to catastrophe
- Occurs in EMTs and patients
- Signs and symptoms develop soon after incident.
- Physical, cognitive, emotional, and behavioral symptoms
- Normal reactions to extraordinary situation
- May require professional intervention

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## Delayed Stress Reaction

- Posttraumatic stress disorder (PTSD)
- Signs and symptoms not evident until long after incident.
- Delay makes dealing with reaction much harder.
  - Patient may not recognize what is causing problem.
- Requires intervention by mental health professional

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## Cumulative Stress Reaction

- Results from years of sustained low-level stressors
- Vague anxiety, progressing to boredom and apathy – emotional exhaustion
- Physical complaints, loss of emotional control, irritability, depression
- May present as severe withdrawal or suicidal thoughts requiring long-term psychological intervention

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## Causes of Stress

- Multiple-casualty incidents (MCI)
- Calls involving infants or children
- Severe injuries
- Abuse and neglect
- Death of a coworker

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## Signs and Symptoms of Stress

- Eustress
  - Positive form of stress that helps people work under pressure and respond effectively
- Distress
  - Negative stress causing immediate and long-term problems with health and well-being

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## Signs and Symptoms of Stress

- Irritability
- Inability to concentrate
- Changes in daily activities
- Anxiety
- Indecisiveness
- Guilt
- Isolation
- Loss of interest in work

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## Dealing with Stress

- Lifestyle changes
- Critical Incident Stress Management
- CISD
- Understanding Emotional Stages
  - Denial or "Not me."
  - Anger or "Why me?"
  - Bargaining or "OK, but first let me..."
  - Depression or "OK, but I haven't..."
  - Acceptance or "OK, I'm not afraid."

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## Dealing with Stress

- Understanding reactions to death and dying
  - Recognize the patient's needs.
  - Be tolerant of angry reactions from the patient or family members.
  - Listen empathetically.
  - Do not falsely reassure.
  - Offer as much comfort as you realistically can.

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## Scene Safety

- EMS not usually a dangerous profession
- Being aware of potential dangers is always a priority.
- Determining scene safety will be the most important decision on any call.



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## Hazardous Material Incidents

- Primary rule is to maintain a safe distance from the source of the hazardous material.
- Placards
  - Ensure that your emergency vehicle is equipped with binoculars.
  - Correspond with coded colors and identification numbers that are listed in the *Emergency Response Guidebook*

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## Hazardous Material Incidents

- Roles
  - Recognize potential problems.
  - Take actions for personal safety and the safety of others.
  - Notify a trained hazardous material response team.
- Do not treat patients until after they have undergone decontamination.

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## Terrorist Incidents

- May be small or large in scale
- May include chemical agents, biochemical agents, radiation, and/or explosive devices

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## Rescue Operations

- Rescuing or disentangling victims from fires, auto collisions, explosions, electrocutions, and more
- Evaluate each situation and ensure that appropriate assistance is requested early in the call.
  - Never perform acts that you are not properly trained to do.

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## Violence

- Observe
  - Survey scene on approach.
  - Do not announce arrival.
    - Turn off lights and siren.
  - Drive few feet past residence so you can see front and sides.

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## Violence

- Plan – Is it safe to enter?
  - Wear safe clothing
  - Prepare your equipment so it is not cumbersome
  - Carry a portable radio whenever possible
  - Decide on safety roles



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## Violence

- Observe
  - Signs of Violence
  - Crime scenes
  - Alcohol or drug use
  - Weapons
  - Emotional Family members
  - Bystanders
  - Perpetrators
  - Pets

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## React to Danger

- Three Rs
  - Retreat
  - Radio
  - Reevaluate
- Do not reenter a scene until it has been secured by police.



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**Questions?**