Delivering Medical Manikin EMT Skills Content Online
Access to Online Resources

Here are links to access everything we will discuss today and more:

https://www.realityworks.com/access-your-guides-and-curriculum/

https://www.realityworks.com/adultnursingmanikin-downloads/

http://www.realityworks.com/closedfracturetraumamanikin-downloads
Manikin Curricula Available to You

Closed Fracture Trauma Manikin

- Intro to Fracture Management
- Intro to Pressure Injuries
- Intro to Intramuscular Injections
- Intro to Ostomy Care
- Intro to Basic Patient Care - Bathing
- Intro to Range of Motion
Manikin & Skills Trainer
Curricula Available to You

- Introduction to Endotracheal Intubation
- Introduction to Blood Pressure
- Introduction to Bandaging and Wound Care
- Introduction to Epinephrine Administration
- Introduction to Naloxone Administration
- Introduction to Bleeding Control and Shock Management
Access to Online Resources

https://www.realityworks.com/AdvAirwayIntubationSim-downloads/

https://www.realityworks.com/bandagingwoundcaresim-downloads/

https://www.realityworks.com/epinephrinetrainingkit-downloads/

https://www.realityworks.com/naloxonetrainingkit-downloads/

https://www.realityworks.com/rwbloodpressure-downloads/
Lesson Sections

Most lessons are designed for a 45 minute class

• FOCUS – Capture students’ attention

• LEARN – The presentation mode chosen

• SUMMARIZE – Review key points and assess
Module 1: Introduction to Fracture Management
Immobilization and Splinting

Most lessons are designed for a 45 minute class

• FOCUS – Empathy Scenario

• LEARN – Information with slide presentation

• SUMMARIZE – Practice Immobilizing/Splinting and Quiz
Fracture Empathy Scenario

Introduction to Immobilization and Splinting Techniques Lesson 1: Joint and Long Bone (Focus on Empathy)

Skill: Immobilization and Splinting of a closed Radius/Ulna fracture

READ the following:

It's a slow Saturday afternoon when your EMS unit receives a call from dispatch asking you to respond to a possible fractured arm call at a local baseball field. When you arrive on scene, you are directed by a group of people to the dugout where you find an 8-year-old boy crying and holding his right forearm to his chest. You notice obvious deformity and swelling to his Ulna and it is reported that a fastball hit his arm as he tried to catch the ball. There are no other injuries, and his coach informs you that his parents are not at the baseball practice, but he called them at work and they are on their way to your location. You assist your partner with immobilizing his arm and start evaluating your patient. While splinting his arm and providing comfort, his mother arrives and tells you that she does not want you to provide further care and to stop touching her son. You explain what happened and that you are providing care and are trying to make her son as comfortable as you can. His mother tells you that their religion does not allow medical treatment and that you can leave now.

REFLECT on the situation:
How do you think the EMS personnel feel in a situation where medical treatment is refused based on religious beliefs?

How do you think the crowd feels when they see a young boy who is injured and his mother refuses treatment?

What is the best way to handle the situation with the mother?

SHARE your thoughts with a peer when it’s discussion time.

• Save this as an image or PDF document.
• Post it as an assignment in Google Docs or LMS system.
Immobilization and Splinting Lecture and Slide Presentation

forehead and tied behind the head to hold the first bandage in place.

**Slide 9:** These are the requirements that the National Registry of Emergency Medical Technicians lists for their skills assessment. While the definition of joint immobilization recommends immobilizing above and below the joint, the NREMT uses the word bone in their skills test.

**Slide 10:** If you hold your arms at your side with your palms facing up, the ulna is the bone closest to your body and the radius is closest to your thumb. The ulna is larger at the elbow — it forms the "point" of your elbow — and the radius is larger at the wrist. After immobilizing the fracture, place a roll of gauze in the patient’s hand to minimize the movement of their fingers.

**Slide 11:** Tibia fractures vary greatly, depending on the force that causes the break. The pieces of bone may line up correctly (stable fracture) or be out of alignment (displaced fracture).

**Slide 12:** Femur fractures are one of the most painful fractures a patient can have. This injury can cause a patient to go into shock because of the large amount of blood loss (typically 1500-2000 ml).

**Slide 13:** Traction splints are contraindicated if there is a pelvic fracture, knee fracture, a distal femur fracture, ankle or foot fracture, or partial amputation. It is required to have intact bones to support the strap sites. When applying a traction splint, be aware of the patient’s genitalia when resting the saddle against the ischial tuberosity. Do not place the strap directly over the injury, especially with a compound fracture. Do not place the strap directly over the knee, always above and below the knee. When applying traction, 10% of the patient’s body weight is recommended, but it may take up to 15% for proper relief. Use the patient’s pain reduction as a guide.

**Slide 14:** This now carries over into the Review section of the curriculum. I recommend keeping the slide presentation open to refer back to the proper steps that will be needed during the practice and assessment. Using the Training Manikin Kit and the Braces and Splints Kit, have the students demonstrate the following: Immobilization of a Radius/Ulna closed fracture, Immobilization of a Tib/Fib closed fracture, Immobilization of a Jaw injury, Immobilization of a compound Femur fracture using the traction splint, and familiarization of the different braces. After they are completed, they can take the post-test. Once finished with the post-test, you can provide the answers using the answer key.
Immobilization & Splinting Practice

Save the procedures as a PDF or as an image.

Watch a video of the procedure. Long Bone Immobilization (3:57)
https://www.youtube.com/watch?v=u-sCMeghyk0
Immobilization & Splinting
Practice at Home

Gather materials to practice at home.
- Cardboard
- Towels
- Scissors
- Tape
- Gauze (or rags cut into strips)

Practice on family members

https://www.verywellhealth.com/splinting-a-broken-arm-4020293

1 Items You’ll Need

To adequately splint a broken arm, you will need a cardboard splint, towels for padding, bandage scissors, roller gauze, and tape. Other items can be used to immobilize the broken arm. Anything that secures the broken arm and immobiizes it will work.
Immobilization/Splinting Quiz

Introduction to Immobilization and Splinting Techniques Lesson 1: Joint and Long Bone Test

Select the best answer to the following multiple-choice questions:

1. What is another name for an open fracture?
   a. Spiral fracture
   b. Simple fracture
   c. Compound fracture
   d. Greenstick fracture

2. How do you immobilize a fracture or joint injury?
   a. Support directly under the injury
   b. Support the joints only above the injury
   c. Support the joints above and below the injury
   d. Support the joints only below the injury

3. Which is a contraindication when using a traction splint for a Femur fracture?
   a. Hip fracture
   b. Knee fracture
   c. Ankle or foot fracture
   d. All of the above

4. When is it appropriate to push a bone back into place with a compound fracture?
   a. When there is a large amount of blood loss
   b. When your partner tells you to
   c. Never
   d. When it will provide pain relief

5. When do you assess for distal pulses, sensation, and circulatory function?
   a. Before applying a splint
   b. After applying a splint
   c. Never
   d. Both a and b

Save as a PDF or image.
Create an Answer sheet.
Or retype the quiz into a proper Quiz creator with auto-grading.
Module 2: Introduction to Endotracheal Intubation
Endotracheal Intubation

Most lessons are designed for a 45 minute class

- FOCUS – Empathy Scenario
- LEARN – Information with slide presentation
- SUMMARIZE – Practice Endotracheal Intubation and Quiz
Empathy Scenario

Intubation (Focus on Empathy)

READ the following:

It is a Saturday night and your Emergency Medical Service (EMS) unit is dispatched to the location of a stabbing. Dispatch advises you and your partner that the victim has multiple stab wounds. You arrive at the location and there is a large crowd of people pointing you towards the house. You find an unconscious 24-year-old male lying on his back with multiple stab wounds in the torso and abdomen. You ask the crowd to give you room to work and ask for details on what happened. You hear from multiple people that a fight broke out during a party as you remove supplies from your bag. The victim is in respiratory arrest and your partner begins to intubate him. There is a lot of blood and the situation does not look promising. People in the crowd begin to ask questions and some of them are crying. Although you are assisting your partner in providing emergency care to the victim, you also need to reassure the crowd.
Procedure Overview

Post slide presentation and lecture notes

Create research guide

Embed animation links (seen on next slide)
Use Animations

Endotracheal Intubation Animation (2:22)
https://www.youtube.com/watch?v=SBXx9u-k9ts

Intubation and Mechanical Ventilation (5:30)
https://www.youtube.com/watch?v=FtJr7i7ENMY

Endotracheal Intubation: An Animated Teaching Movie (2:21)
https://www.youtube.com/watch?v=psQ8ge4em2M
Intubation Procedure Activity

Scramble the order.

Challenge to put them in correct order.

Complete short quiz.
Module 3: Introduction to Blood Pressure
Blood Pressure

- **FOCUS** – Empathy Scenario and Review of Arterial Anatomy
- **LEARN** – Information with slide presentation
- **SUMMARIZE** – Practice taking blood pressure and Quiz

Lesson Overview

In this lesson, we will focus on the measurement of blood pressure and the meaning of the results according to the American Heart Association.

**Pre-Lesson Knowledge**
- Cardiovascular anatomy
- Blood flow through the heart

**Lesson Objectives**
After completing this lesson, participants will be able to:
- Define key terms associated with equipment and blood pressure
- Demonstrate how to explain the procedure to a patient
- Perform how to measure cuff size

**Lesson at a Glance**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Materials</th>
<th>Preparation</th>
<th>Approximate Duration</th>
</tr>
</thead>
</table>
| **FOCUS** - Part 1 | - Introduction to Blood Pressure
- Types of Sphygmomanometers
- Introduction to Blood Pressure (Pulse oximetry participant) | 1. Explain the need for Blood Pressure Monitoring
2. Demonstrate how to measure cuff size
3. Provide instructions for participants
| 30 minutes |
| **FOCUS** - Part 2 | - Introduction to Blood Pressure
- Types of Sphygmomanometers
- Introduction to Blood Pressure (Pulse oximetry participant) | 1. Explain the need for Blood Pressure Monitoring
2. Demonstrate how to measure cuff size
3. Provide instructions for participants
| 30 minutes |
| **LEARN** | - Introduction to Blood Pressure
- Types of Sphygmomanometers | 1. Review information on Blood Pressure
2. Review information on Pulse Oximetry
| 15 minutes |
| **SUMMARIZE** | - Introduction to Blood Pressure Check Off
- Types of Sphygmomanometers | 1. Review information on Blood Pressure Check Off
2. Review information on Pulse Oximetry
| 15 minutes |

Instructor Note: For Focus and Summarize activities, the instructor may choose to have students complete both or one of the two activities. Focus activities may also be completed prior to class. Instructor demonstration is encouraged.
Blood Pressure Intro Activities

https://www.youtube.com/watch?v=2ufqUOpm8O0
Blood Pressure Information

Blood Pressure Measurement (5:16)
https://www.youtube.com/watch?v=UGOoeqSo_ws
Blood Pressure Practice

Allow students to check out blood pressure simulators

Create a Blood Pressure Lab Kit to include a blood pressure cuff and stethoscope

Students buy their own
More Blood Pressure Resources

Online self test
https://opentextbc.ca/vitalsign/chapter/441/

Korotkoff sounds audio file
(must listen with headphones)
https://www.youtube.com/watch?v=5gn8cbY9rkc
Module 4: Introduction to Bandaging and Wound Care
Bandaging and Wound Care

- **FOCUS** – Empathy Scenario and Anatomy – Review Layers of the Skin
- **LEARN** – Information with slide presentation
- **SUMMARIZE** – Practice on dressing changes and wound care procedures and Quiz
Intro Activities

Introduction to Wound Care Scenario
(Focus on Empathy)

READ the following scenario:

Ms. Johnson is a pleasant 82-year-old female who was just admitted to the hospital due to a wound on her coccyx area. She lives alone in a house she has had for 55 years. Her husband passed last year and the only company she has is her beloved cat named Lucy. Due to past medical conditions, she has difficulty moving. She spends most of her time in bed watching television or knitting. She states her “bottom has been sore for a long time” and she props herself up with pillows. Lately, the pain has increased and she noticed bloody sheets where she had been laying. She just wants someone to bandage it so she can get back home.

The health care provider has diagnosed her with a stage III pressure injury - a deep crater with full thickness skin loss and moderate drainage. Treatment will take several weeks. Due to the severity of her disability, the provider feels she should not return home and be admitted to a long-term care facility. The provider asks you to discuss this new living arrangement with Ms. Johnson.

1. What is the diagnosis?
2. What is the epidermis?
3. What does subcutaneous tissue refer to?
Bandaging and Wound Care Info

- Common bandaging techniques
  - Circular
  - Figure 8
  - Spiral Wrap
  - Recurrent
  - Reverse Spiral
  - Amputation

Definitions
- Bandage: a strip of fabric used especially to cover, dress, and bind up wounds
- Dressing: material (such as ointment or gauze) applied to cover a lesion or wound

Dressings vs. Bandages
- Dressing: designed to be in direct contact with a wound
- Bandage: used most often to hold a dressing in place

Other Uses of Bandages
- In addition to holding dressings in place
  - Apply extra pressure to help stem bleedings when used with dressings
  - Immobilize a part and hold things like splints in place
  - Support an injured area
Bandaging Videos for EMTs

• Bandaging an Amputation (4:41)  
  https://www.youtube.com/watch?v=qWCJFW7K9WY&list=PLApmYDrZS-SzgSXJ3mUPhqhLRi_s3DIBg

• How to Apply a Pressure Bandage (2:34)  
  https://www.youtube.com/watch?v=uA-vHanFv1o
Practice Dressing Changes and Wound Care

• Three types of procedures to practice:
  • Dry Sterile Dressing - https://www.youtube.com/watch?v=ttmZqvYSAtc
  • Changing a Wound Dressing - https://www.youtube.com/watch?v=RtpRuXnIfXQ
  • Caring for a Wound with a Drain https://www.youtube.com/watch?v=4SoKHIwW-_Q
Module 5: Introduction to Epinephrine Administration
Epinephrine Administration

• FOCUS – Empathy Scenario and Pre-Test

• LEARN – Information with slide presentation

• SUMMARIZE – Practice epinephrine administration and quiz
Epinephrine Administration Resources

- Scenario
- Pre-Test/Post-Test
- Slide presentation and lecture notes
- Step-by-step procedures

Videos:
How to Use an Epi-Pen (2:02)
https://www.youtube.com/watch?v=zT5knrcfKug
How to Administer Epinephrine from a Vial or Ampule (3:25)
https://www.youtube.com/watch?v=uhlAHYmQ9q8
Module 6: Introduction to Naloxone Administration
Naloxone Administration

- FOCUS – Empathy Scenario and Pre-Test
- LEARN – Information with slide presentation
- SUMMARIZE – Practice Naloxone administration and quiz
Naloxone Administration
Resources

- Scenario
- Pre-Test/Post-Test
- Slide presentation and lecture notes
- Step-by-step procedures

Videos:
Naloxone Training Video – Intranasal Naloxone (3:08)
https://www.youtube.com/watch?v=BHNeluT728
Naloxone Training Video – Injectable Naloxone (3:07)
https://www.youtube.com/watch?v=_ojGrGcHyGc
Module 7: Introduction to Bleeding Control and Shock Management
Bleeding Control and Shock Management

- **FOCUS** – Empathy Scenario and Pre-Test
- **LEARN** – Information with slide presentation
- **SUMMARIZE** – Practice managing shock and applying different dressings, and quiz
Shock Management Resources

- Realityworks Lesson Resources: Scenario, Pre-Test/Post-Test, Slide presentation and lecture notes, Step-by-step procedures

  - Includes a LOT of written information, two videos and a self-quiz

  - Short video on information for passing this portion of the certification test
Bleeding Control & Shock Management (4:42)
https://www.youtube.com/watch?v=vcl5kxAuEe8

Bleeding Control Shock Management (1:44)
https://www.youtube.com/watch?v=7T0pzonahFQ

NREMT Bleeding And Shock Management Skill) With Explanation (6:27)
https://www.youtube.com/watch?v=_m1erwhRgGM
Bleeding Control & Shock Management Resources

Use free Apps like Stop the Bleed!

Free lesson or course online resources

Prepare for the EMT Test
This has 9 different videos on a variety of bleeding and shock issues
More EMT Training Resources
Use Apps!

EMT Pocket Prep
National EMT Exam Practice
Pocket Prep, Inc.

Screenshots

EMT Study Lite
Stephen Peppers  Medical

Everyone

Install

EMTrainer
Hals  Medical

Everyone

Install

Medical Manikin Skills Training Online
Online Education and Simulations

Simulation Providers: Simtics – one week free trial

https://www.simtics.com/shop/clinical/basic-life-support/

It’s $9.50 per month

Modules to consider for EMT skills:
- Basic Life Support
- EKG
- Vital Signs
- IM Injections
EMT Resources

Online EMS training videos on many topics

FREE

https://www.ems1.com/videos/originals/

Edpuzzle.com
Search for, create your own, import videos – add questions, edit etc
EMT Scenarios

Free written scenarios to use:
http://iremsc.org/instructor/EMS%20Instructor%20Downloads/Scenarios.pdf
NREMT sample scenarios
More scenarios...
Now What?

To see our classroom resources, go to www.Realityworks.com

10% off promotion going on right now for all health science products

https://www.realityworks.com/save-10percent-on-all-healthscience-products/
For more information please contact Realityworks, Inc. through email at information@realityworks.com or call toll free at 800.830.1416