HealthStream Regulatory Script

**Electrical Safety**
*Release Date: August 2009*
*HLC Version: 603*

- Lesson 1: Introduction
- Lesson 2: Basics of Electricity
- Lesson 3: Electric Shock Hazards
- Lesson 4: Reporting Hazards and Preventing Accidents
Lesson 1: Introduction

Welcome to the introductory lesson on electrical safety. This lesson gives the course rationale, goals, and outline.

As your partner, HealthStream strives to provide its customers with excellence in regulatory learning solutions. As new guidelines are continually issued by regulatory agencies, we work to update courses, as needed, in a timely manner. Since responsibility for complying with new guidelines remains with your organization, HealthStream encourages you to routinely check all relevant regulatory agencies directly for the latest updates for clinical/organizational guidelines.

If you have concerns about any aspect of the safety or quality of patient care in your organization, be aware that you may report these concerns directly to The Joint Commission.
Most equipment in the healthcare setting is electric. For example, ECG machines, bedside monitors, anesthesia machines, ventilators, and incubators all run on electricity.

Patients and staff are often in contact with these devices. Therefore, electric shock is always a risk in the healthcare setting.

This course will teach you:
- The basics of electricity
- How and why electric shock occurs
- How to identify and report electrical hazards
- How to prevent electrical accidents

FLASH ANIMATION: 1002.SWF/FLA
Course Goals

<table>
<thead>
<tr>
<th>After completing this course, you should be able to:</th>
<th>NO IMAGE</th>
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<tbody>
<tr>
<td>• Review the basics of electricity</td>
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<tr>
<td>• Explain how electric shock occurs</td>
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<tr>
<td>• List potential electrical injuries</td>
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<tr>
<td>• List factors affecting the likelihood and severity of electric shock and injury</td>
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<tr>
<td>• Identify what to do if you spot an electric hazard</td>
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<tr>
<td>• List what to look for during an equipment check</td>
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<tr>
<td>• List what to do before performing maintenance on an electric device</td>
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<tr>
<td>• List safety guidelines for power cords and outlets</td>
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<tr>
<td>• List best practices for protecting patients from electric shock</td>
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<tr>
<td>• Explain how the Joint Commission expects facilities to prepare for electrical power loss</td>
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</tbody>
</table>

Page 3 of 4
Lesson 1 gave the course rationale and goals.
Lesson 2 will describe the basics of electricity.
Lesson 3 will discuss electric shock hazards.
Lesson 4 will describe methods of reporting hazards and preventing accidents.
Lesson 2: Basics of Electricity

Welcome to the lesson on the basics of electricity.

After completing this lesson, you should be able to:

- Define electricity
- Define conductor and provide examples of conductors
- Define insulator and provide examples of insulators
- Describe how electricity flows in a circuit
- Detail how a person can become part of a circuit
Electricity is the flow of electric power or energy.

Electricity occurs in nature. For example, lightning is an example of static electricity.

Electricity can also be made and sent over long distances.

Electricity requires:
- A conductor
- A closed circuit
A **conductor** is any material that can transmit electricity.

There are many examples of conductors. The ground, or earth, is a conductor. Metals such as aluminum, silver, gold, and iron also make good conductors.

Other examples of conductors are:
- Moist body tissues
- Body fluids
- Water

Electric current flows readily through all of these conductors.
Some materials block the flow of electric current. These materials are insulators.

Examples of insulators include:
- Rubber
- Plastic
- Glass
- Cloth
- Wood

Insulators can force electricity to take a more difficult path.

For example, insulation on a power cord forces electricity to flow through a piece of equipment. This is a difficult path because electricity must do work to power the equipment.
Electricity always travels in a loop. This loop starts and ends with the source of the electricity.

Another name for a loop of electric current is a circuit [glossary].

The graphic on the right shows how electricity travels in a loop and returns to its source.

Follow the circuit on the graphic:
- Electricity moves over wires from the power company to your house or building.
- When you plug in a piece of equipment, electricity flows from the outlet to the equipment and then back to the outlet. Notice that this is also a circuit!
- From the building, electricity eventually travels to the ground through a ground wire.
- The circuit is complete when the electricity returns to the power plant. The power plant has a large rod in the earth to “pick-up” electricity from the ground.
Anything that conducts electricity can become part of a circuit. This includes YOU.

Electric shock happens when YOU become part of a circuit.

Let’s consider an example on the next screen.
Suppose you are holding a power cord in one hand, and touching a metal chair with the other hand. The insulation on the power cord is damaged.

What will happen and why?

You are a conductor. The metal chair is a conductor. The ground is a conductor. You are part of a path to the ground. The path you are part of is shorter and easier than the one intended.

Electricity will flow from the damaged cord, to YOU, to the chair, to the ground. From the ground, electricity returns to the power plant. This completes its circuit.

Meanwhile, you may have serious electric burns or other injuries. Even death is possible.
<table>
<thead>
<tr>
<th>Review</th>
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<tbody>
<tr>
<td><strong>FLASH INTERACTION: 2007.SWF/FLA</strong></td>
</tr>
<tr>
<td>Which of these is most likely to be a conductor of electricity?</td>
</tr>
<tr>
<td>Image of Rubber shoes</td>
</tr>
<tr>
<td>Image of puddle of water</td>
</tr>
<tr>
<td>Image of wooden horse</td>
</tr>
<tr>
<td>Correct:</td>
</tr>
<tr>
<td>(Puddle of water on the floor)</td>
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<tr>
<td>Point 8 of 9</td>
</tr>
</tbody>
</table>
Summary

You have completed the introductory lesson on the basics of electricity.

Remember:
- Electric current moves easily through conductors. Conductors include metals, water, and the moist tissues of the human body.
- Insulators block the flow of electricity. Examples of insulators include rubber, wood, and plastic.
- Electricity always returns to its source. It does this by traveling in a circuit.
- Electric shock happens when a person becomes part of an electric circuit.
## Introduction & Objectives

Welcome to the lesson on electric shock hazards.

After completing this lesson, you should be able to:

- Explain how electric shock occurs
- List potential electrical injuries
- List factors affecting the likelihood and severity of electric shock and injury

### Flash Animation: 3001.SWF/FLA

![Flash Animation](3001.SWF/FLA)
**Warning Signs**

Do you pay attention to warning signs of electrical hazards?

Many people think, “It could never happen to me.” But thousands of electrical accidents do happen each year.

Electrical accidents often cause injuries, fires, and death.

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**Heed Warnings**

![Image: 3002.GIF](image)
Electrical safety requires the cooperation of all personnel and departments in your facility. All personnel must know the warnings signs of electrical hazards. This can help keep staff and patients safe.

**Risk Factors**
- Faulty electrical equipment or wiring
- Damaged receptacles or connectors
- Unsafe work practices
<table>
<thead>
<tr>
<th>Electric Shock: How</th>
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<tbody>
<tr>
<td>Remember: Electric shock happens when a person becomes part of a circuit.</td>
</tr>
<tr>
<td>This can happen if a person touches:</td>
</tr>
<tr>
<td>• A damaged electric device</td>
</tr>
<tr>
<td>• An electrified object</td>
</tr>
</tbody>
</table>

**Point 4 of 13** 

*IMAGE: 3004.GIF*
Electric Shock: Why

Remember: Electricity prefers to take the easiest path to return to its source.

Think about it:
- Electric current flows easily through moist body tissues.
- Inside a piece of equipment, electricity is slowed down by having to do work.

Therefore, electricity would much rather travel through a person than a piece of equipment!

Electric shock happens when a person becomes a shortcut for electricity that is meant to return to its source after powering a piece of equipment.
Electric Shock: Potential Injuries

Electric shock can cause:
- Burns
- Muscle spasms
- Abnormal heartbeats
- Stopping of breathing
- Electrocution [link to glossary]

Knowing CPR can help save the life of an electric shock victim!
Potential for Injury (1)

Several factors can increase the risk of injury when a person is shocked.

The first factor has to do with whether the person is a good or bad conductor.

Remember: Moist body tissues are conductors. This makes people conductors.

But some people are better conductors than others.

For example, babies and children are usually better conductors than adults. Electricity flows through babies and children EXTREMELY easily. Therefore, babies and children are more likely to be injured if they are shocked.
There are many other factors that can make a person a better conductor. These factors include:

- Wet clothes
- High humidity
- Sweating
- Being barefooted
- Standing in a puddle of water
- Having breaks in the skin (e.g. a wound, incision, or catheter insertion site)

All of these factors increase the risk of injury if the person is shocked.
<table>
<thead>
<tr>
<th>Potential for Injury (3)</th>
</tr>
</thead>
</table>

On the other hand, insulators make a person a bad conductor.

For example, rubber-soled shoes make it difficult for electric current to pass through a person’s feet directly into the ground. A person wearing rubber-soled shoes may no longer be such an easy path for electricity to take! This person is less likely to be injured if he or she is exposed to electricity.

**Shoes with rubber soles hinder the flow of electricity.**
The path of the current also affects the severity of injury when a person is shocked.

For example, suppose a nurse accidentally touches a live wire with one hand, and a set of metal shelves with the other hand. Electric current will always take the shortcut. Electricity will flow from the wire, across the nurse’s chest, to the shelves, to the ground. From the ground, the current returns to the power plant. This completes the circuit.

Now, think about what happened to the nurse. The current passed directly across her heart.

Current across the heart is very likely to cause the heart to stop beating normally.

Current through other areas of the body is less likely to affect the heart in a life-threatening way.
### True or False:
Electric shock can be startling. However, shock can cause no long-term damage.

<table>
<thead>
<tr>
<th>a. True</th>
<th>b. False</th>
</tr>
</thead>
</table>

#### TRUE/FALSE INTERACTION

**Correct Answer: B**

[FEEDBACK FOR A: Incorrect. Electric shock can cause burns, muscle spasms, abnormal heartbeats, stopping of breathing, and electrocution.]

[FEEDBACK FOR B: Correct. Electric shock can cause burns, muscle spasms, abnormal heartbeats, stopping of breathing, and electrocution.]
Electric shock happens when a person’s body becomes part of a circuit.

a. True
b. False

**TRUE/FALSE INTERACTION**

[CORRECT ANSWER: A]

[FEEDBACK FOR A: Correct. Electric shock happens when current flows through the body. This occurs whenever the body becomes part of a shortcut for electricity to complete a circuit.]

[FEEDBACK FOR B: Incorrect. Electric shock happens when current flows through the body. This occurs whenever the body becomes part of a shortcut for electricity to complete a circuit.]
Summary

You have completed the lesson on electric shock hazards.

Remember:
- Electric shock happens when the body becomes part of a circuit.
- Electric shock can cause burns, muscle spasms, abnormal heartbeats, stopping of breathing, and death.
- When a person is shocked, injury is more likely if:
  - Humidity is high.
  - The person is sweating or wearing wet clothes.
  - The person has bare feet.
  - The person is standing in a puddle of water.
  - The person has breaks in their skin.
- Wearing rubber-soled shoes decreases the risk of electric shock.
- Current across the heart is likely to cause the heart to stop beating normally. Current through other areas of the body may cause burns or muscle spasms. However, it is less likely to affect the heart in a life-threatening way.
Lesson 4: Reporting Hazards and Preventing Accidents

4001

Introduction & Objectives

Welcome to the lesson on reporting hazards and preventing accidents.

After completing this lesson, you should be able to:

- Identify what to do if you spot an electric hazard
- List what to look for during an equipment check
- List what to do before performing maintenance on an electric device
- List safety guidelines for power cords and outlets
- List best practices for protecting patients from electric shock

FLASH ANIMATION: 4001.SWF/FLA
Preventing Accidents

To help prevent electrical accidents in your facility, follow best practices for:

- Reporting hazards
- Using electrical equipment
- Equipment inspection and testing
- Equipment maintenance and repair
- Power cords and outlets
- Circuit boxes

Let’s take a closer look at best practices in each category.

Best Practices for Preventing Electrical Accidents:
1. Report hazards.
2. Use equipment properly.
3. Inspect and test equipment regularly.
4. Use lockout/tagout procedures for equipment maintenance.
5. Use power cords and outlets properly.
6. Avoid overloading circuits.
Reporting Hazards

All employees should be on the lookout for electric hazards. Hazardous equipment should be removed from service right away. Equipment is hazardous if it:

- Does not work correctly
- Shows signs of damage
- Gets too hot when it is used
- Smells like it is burning when it is used
- Shocks staff or patients

Follow facility procedures for turning in hazardous equipment to be repaired.

You may need to contact the equipment maintenance department. You may need to fill out a work order. Check with your supervisor to find out exactly what to do.

Best Practices for Preventing Electrical Accidents:
1. **Report hazards.**
2. Use equipment properly.
3. Inspect and test equipment regularly.
4. Use lockout/tagout procedures for equipment maintenance.
5. Use power cords and outlets properly.
6. Avoid overloading circuits.
Using Electrical Equipment

Before using electrical equipment:
- Learn how to use the equipment properly.
- Check the equipment for damage and wear. Do not use damaged equipment. Turn it in to be repaired.

Do not use electrical equipment:
- If liquid has been spilled on the equipment
- If the floor is wet and you are standing in the wet area
- If your hands are wet

Finally:
- Do not stack anything on or behind electrical equipment.
- Turn equipment off before plugging it in or unplugging it.

Best Practices for Preventing Electrical Accidents:
1. Report hazards.
2. Use equipment properly.
3. Inspect and test equipment regularly.
4. Use lockout/tagout procedures for equipment maintenance.
5. Use power cords and outlets properly.
6. Avoid overloading circuits.
### Equipment Inspection and Testing

All medical equipment should be inspected and tested regularly. Your facility should have schedules and procedures for this.

Inspection procedures should include at least the following:

- Check the device’s power cord for fraying, splicing, and wear
- Check the device’s casing for cracks, holes, and other damage
- Check to make sure all device covers are in place
- Check all circuit interlocks (if applicable)

Equipment brought in by patients also should be inspected before use. Items such as radios and razors should be battery-operated whenever possible.

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### Best Practices for Preventing Electrical Accidents:

1. Report hazards.
2. Use equipment properly.
3. **Inspect and test equipment regularly.**
4. Use lockout/tagout procedures for equipment maintenance.
5. Use power cords and outlets properly.
6. Avoid overloading circuits.
Before equipment is inspected, serviced, or repaired, it must be removed from its power source.

Many devices can simply be unplugged.

Other devices must be removed from power by using a procedure known as lockout/tagout.

For more information on lockout/tagout, see the course Control of Hazardous Energy: Lockout/Tagout.
**Power Cords and Outlets**

Best practices for power cords and outlets include:
- Do not use outlets or cords with exposed wiring. Report damaged outlets or cords to your supervisor or a repairperson.
- Outlets that get too hot may not be wired safely. Unplug cords from the outlet. Report the problem.
- Do not bend, stretch, or kink power cords.
- Do not jerk cords from outlets. Pull on the plug to remove a cord from an outlet.
- Do not staple, tack, or nail power cords to walls or floors. This could damage the insulation and expose bare wires. Use tape, if necessary.
- Do not rest equipment on power cords.
- Use only power cords with three-prong plugs. Never use adapters, two-prong plugs, or broken three-prong plugs.

Extension cords are usually not allowed in patient care areas. Check with your supervisor.

**Best Practices for Preventing Electrical Accidents:**
1. Report hazards.
2. Use equipment properly.
3. Inspect and test equipment regularly.
4. Use lockout/tagout procedures for equipment maintenance.
5. **Use power cords and outlets properly.**
6. Avoid overloading circuits.
Circuit Breaker Boxes

Remember: Electricity travels in a circuit. The overall circuit starts and ends with the power plant.

Within your facility, there are smaller circuits that branch off from the main circuit. Each of these starts and ends with a circuit breaker in a breaker box.

Overloading one of these circuits can be extremely dangerous. Never overload a circuit.

To keep from overloading a circuit:
• Install equipment systems according to the manufacturer’s instructions
• Follow national and local electric codes when installing equipment systems

Each breaker should be clearly labeled with the names of the equipment on that circuit. This makes it easy to see if a circuit is overloaded. Clear labeling also makes it easy to turn off the right circuit, right away, in an emergency.

Breaker boxes should be accessible at all times.

Best Practices for Preventing Electrical Accidents:
1. Report hazards.
2. Use equipment properly.
3. Inspect and test equipment regularly.
4. Use lockout/tagout procedures for equipment maintenance.
5. Use power cords and outlets properly.

6. Avoid overloading circuits.
Patients come into contact with many electric devices in the healthcare setting. Examples include:

- Adjustable beds
- Nurse call systems
- Lamps
- Treatment devices

This puts patients at risk of electric shock and injury.

To help protect patients:

- Place electric equipment at a distance from patients, whenever possible.
- Make sure the floors in patient areas stay dry.
- If possible, do not touch patients and electric equipment at the same time.
Electrical Power Failure

Even though electricity can cause patient injury, it is essential for patient care. Many patients depend on electrical devices for survival. For example,

- Electricity powers ventilators
- Electricity powers refrigerators in which blood and medicines are kept

Loss of power can compromise patient care and put patients at risk.

The Joint Commission requires your healthcare facility to:

- Assess the risk for electrical power failure
- Plan for the loss of electrical power
- Test the entire emergency power supply system
- Plan for periods of emergency power loss

Point 10 of 13
Which of the following statements is true?

a. It is okay to use electric equipment when your hands are wet, as long as you are wearing rubber-soled shoes.
b. It is okay to unplug equipment without turning it off, as long as you jerk the cord from the outlet.
c. It is okay to use damaged equipment, as long as you report that it is damaged.
d. **It is okay to attach power cords to walls or floors, as long as you use tape, and not staples, tacks, or nails.**

MULTIPLE CHOICE INTERACTION

[CORRECT ANSWER: D]

[FEEDBACK FOR A: Incorrect. Rubber-soled shoes can help protect against electric shock. Even so, never use electric equipment when your hands are wet. The correct answer is D.]

[FEEDBACK FOR B: Incorrect. Always turn equipment off before plugging it in or unplugging it. Never jerk cords from outlets. Pull on the plug to remove a cord from an outlet. The correct answer is D.]

[FEEDBACK FOR C: Incorrect. Report damaged equipment, remove it from service, and turn it in for repair. Never use damaged equipment. The correct answer is D.]

[FEEDBACK FOR D: Correct!]
Patients come into contact with many electric devices in the healthcare setting. This puts patients at risk of electric shock and injury. Certain best practices can help protect patients. What are these practices?

- Type your thoughts in the box below. Then click Submit to compare your answer to ours.

[FEEDBACK: Did you remember the following practices?

To help protect patients:
- Place electric equipment at a distance from patients, whenever possible.
- Make sure the floors in patient areas stay dry.
- If possible, do not touch patients and electric equipment at the same time.
Summary

You have completed the lesson on reporting hazards and preventing accidents.

Remember:
- Most electrical accidents are preventable.
- Report hazards promptly.
- Use equipment properly.
- Inspect and test equipment regularly.
- Use lockout/tagout procedures for equipment maintenance.
- Use power cords and outlets properly.
- Do not overload circuits.
- Protect patients from electric shock hazards.
### Course Glossary

<table>
<thead>
<tr>
<th>#</th>
<th>Term</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adapter</td>
<td>A connector that makes it possible to plug a three-pronged plug into a two-pronged outlet.</td>
</tr>
<tr>
<td>2.</td>
<td>Conductor</td>
<td>Material capable of transmitting electricity; easily allows for flow of electrons; has low resistance.</td>
</tr>
<tr>
<td>3.</td>
<td>Insulator</td>
<td>Material that blocks the flow of electricity; does not easily allow for flow of electrons; has high resistance.</td>
</tr>
<tr>
<td>4.</td>
<td>Electrical ground</td>
<td>Object with a physical electrical connection to the earth, and, therefore, having a voltage of 0.</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Electrocution</td>
<td>Death as a result of electrical shock.</td>
</tr>
<tr>
<td>7.</td>
<td>Circuit</td>
<td>The complete path of an electric current.</td>
</tr>
</tbody>
</table>
1. What is a conductor?
   a. A closed circuit
   b. Static electricity
   c. A material that can transmit electricity
   d. Materials such as rubber, glass, and wood

Correct: C
Rationale: A conductor is any material that can transmit electricity.

2. What is the cause of electric shock?
   a. Wearing latex gloves
   b. Becoming part of a circuit
   c. Wearing rubber-soled shoes
   d. Becoming part of an insulated unit

Correct: B
Rationale: Electric shock happens when a person becomes part of an electric circuit.

3. What is a potential injury from electric shock?
   a. Burns
   b. Bruising
   c. Bone fracture
   d. Puncture wound

Correct: A
Rationale: Electric shock can cause severe burns.

4. Which factor increases the risk of injury if a person is shocked?
   a. Old age
   b. Sweating
   c. Dry clothes
   d. Low humidity

Correct: B
Rationale: Sweating makes a person a better conductor, which increases the risk of injury if electric shock happens.

5. What should you do if you spot an electric hazard?
   a. Ignore the hazard
   b. Report the hazard
   c. Mark the hazard with red tape
   d. Fix the hazard with insulated tape

Correct: B
Rationale: Report all electric hazards right away.

6. You are inspecting a piece of electric equipment. Which of the following is a HAZARD that you should look for?
   a. Intact casing
   b. Device covers in place
   c. Fraying of the power cord
   d. Up-to-date maintenance records

Correct: C
Rationale: When inspecting a piece of electric equipment, check the power cord for fraying, splicing, and wear.

7. What should be done before inspecting a piece of electric equipment?
   a. Plug the device into a wall outlet
   b. Load the device with potential energy
   c. Disconnect the device from its power source
   d. Convert all mechanical energy to thermal energy

Correct: C
Rationale: Before equipment is inspected, serviced, or repaired, it must be removed from its power source.

8. What is a best practice for using power cords?
   a. Using power cords with exposed wiring
   b. Using power cords with three-prong plugs
   c. Stretching power cords to reach the outlet
   d. Stapling power cords to floors to prevent slipping

Correct: B
Rationale: Use only power cords with three-prong plugs. Never use adapters, two-prong plugs, or broken three-prong plugs.
9. What is a best practice for protecting patients from electric shock and injury?
   a. Keeping patients dehydrated
   b. Keeping floors in patient areas dry
   c. Placing electric equipment close to patients
   d. Touching patients and electric equipment at the same time

   Correct: B
   Rationale: To help protect patients, keep floors in patient areas dry.

10. The Joint Commission expects healthcare facilities to prepare for power loss. Which of the following is a Joint Commission requirement?
   a. Minimize the use of electric devices
   b. Assess the risk for electrical power failure
   c. Have battery-powered backups for all key equipment
   d. Document the number of kilowatt-hours of power used each day

   Correct: B
   Rationale: The Joint Commission requires healthcare facilities to assess the risk for electrical power failure.
1. What is the name for a loop of electric current?
   a. Outlet
   b. Circuit
   c. Insulator
   d. Conductor

Correct: B
Rationale: Electricity always travels in a loop. This loop is called a circuit.

2. In which case will electric shock happen?
   a. A person touches a wooden table.
   b. A person touches an insulated power cord.
   c. A person becomes part of an electric circuit.
   d. A person stays inside during a thunderstorm.

Correct: C
Rationale: Electric shock happens when a person becomes part of an electric circuit.

3. What is a potential injury from electric shock?
   a. Ulcers
   b. Stroke
   c. Abnormal heartbeats
   d. Deep vein thrombosis

Correct: C
Rationale: Electric shock can cause abnormal heartbeats.

4. Which factor increases the risk of severe injury if a person is shocked?
   a. Standing on a dry surface
   b. Wearing rubber-soled shoes
   c. Current passing through one leg
   d. Current passing across the chest

Correct: D
Rationale: Current passing across the chest is more likely to have a strong affect on heart function, which increases the risk of severe injury.

5. If a piece of equipment shocks a patient, the incident should be reported, and the equipment should be removed from service immediately.
   a. True
   b. False

Correct: A
Rationale: This statement is true.

6. Which of the following is a key component of inspecting a piece of electric equipment?
   a. Check the weight of the device
   b. Check the device brand, make, and model
   c. Check the device length, width, and height
   d. Check the casing for cracks, holes, and damage

Correct: D
Rationale: When inspecting a piece of electric equipment, check the casing for cracks, holes, and other damage.

7. What procedure should be used prior to inspecting a piece of electric equipment that is hard-wired to its power source?
   a. Lockout/tagout
   b. Circuit overload
   c. Power-in/power-out
   d. Standard Precautions

Correct: Prior to inspection, devices that cannot be unplugged must be isolated from their energy source using lockout/tagout.

8. What is a best practice for using power cords?
   a. Bending or kinking power cords
   b. Resting equipment on power cords
   c. Reporting damaged cords promptly
   d. Using power cords with two-prong plugs

Correct: C
Rationale: Do not use damaged power cords. Report damaged cords to your supervisor or a repairperson.

9. What is a best practice for protecting patients from electric shock and injury?
   a. Using damaged electric devices
   b. Removing the casing from electric devices
   c. Placing electric devices at a distance from patients
   d. Banning electric devices from the healthcare setting
Correct: C
Rationale: Whenever possible, electric equipment should be placed at a distance from patients.

10. The Joint Commission expects healthcare facilities to prepare for power loss. Which of the following is a Joint Commission requirement?
   a. Test the emergency power supply system
   b. Have flashlights available in strategic locations
   c. Keep candles and matches in all patient rooms
   d. Use battery-operated equipment whenever possible

Correct: A
Rationale: The Joint Commission requires healthcare facilities to test their emergency power supply system.