



Human Body Systems

Virtual Learning

9-12th PLTW[®] HBS

PLTW[®] 5.1.2 Burn Unit

Part I: Classification of Burns

May 6, 2020



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Lesson: May 6, 2020

Objective/Learning Target:

Students will be able to describe types of skin burns and relate the damage in each type to how overall function of the body will be affected. (*Reference: PLTW[®] 5.1.2 Burn Unit*)



Let's Get Started/Warm Up Activities:

Before we start our lesson today, watch the following videos:

- Watch: [How to Treat Minor Burns](#)
- Watch: [Types of Burns Introduction](#)



Lesson/Activity:

Watch this video: [How To Grade BURNS - 1st, 2nd, 3rd and 4th Degree Burns Explained](#)

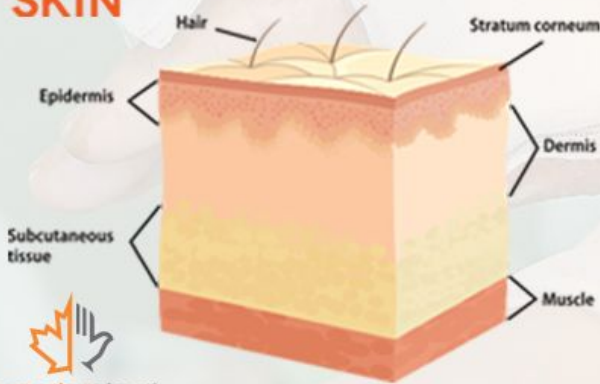
Activity #1: As you watch the video above, take notes over first, second, third and fourth degree burns.

Activity #2: Draw and label these [simple diagrams](#) showing the differences between the four (4) types of burns. Feel free to use colored pencils, markers or crayons (if available) to help illustrate the differences.

VARYING DEGREES OF BURN INJURIES

Normal skin, which has a good balance of moisture, small pores and an even tone, is the goal of most skin care regimens. Most people have normal skin, but to maintain its good condition, it's important to minimize its exposure to the sun.

NORMAL HEALTHY SKIN

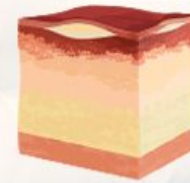


FIRST DEGREE BURN



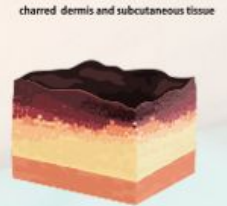
First-degree burns affect only the outer layer of the skin. They cause pain, redness, and swelling.

SECOND DEGREE BURN



Second-degree burns affect both the outer and underlying layer of skin. They cause pain, redness, swelling and blistering. They are also called partial thickness burns.

THIRD DEGREE BURN



Third-degree burns affect the deep layers of skin. They are also called full thickness burns. They cause white or blackened, burned skin. The skin may be numb.



Lesson/Activity continued:

Refer to this website: [What is the Rule of Nines?](#)

Activity #3:

The rule of nines is a triage method doctors and emergency medical providers use to easily calculate the treatment needs for a person who's been burned. Read the article above.

- A. Write a summary about how to use rule of nines calculations to triage emergency cases.
- B. Draw the rule of nines table for an adult on your paper.



Lesson/Activity Answer(s):

Activity #1 & 2 Answer(s):

Click [HERE](#) to view answers.

Activity #3 Answer(s):

Click [HERE](#) to view answers, or see the table on the right.

The rule of nines assigns a percentage that's either nine or a multiple of nine to determine how much body surface area is damaged. For adults, the rule of nines is:

Body part	Percentage
Arm (including the hand)	9 percent each
Anterior trunk (front of the body)	18 percent
Genitalia	1 percent
Head and neck	9 percent
Legs (including the feet)	18 percent each
Posterior trunk (back of the body)	18 percent

If a person's injured due to a burn, a doctor may assess them quickly. For example, if they were burned on each hand and arm as well as the front trunk portion of the body, using the rule of nines, they'd estimate the burned area as 36 percent of a person's body.



Practice:

Practice: In one paragraph of at least 4 to 5 sentences, explain the differences between the types of burns. Write the paragraph so that an 8th grade student would be able to understand/grasp the concept.



Practice Answer(s):

Practice:

Question(s): In one paragraph of at least 4 to 5 sentences, explain the differences between the types of burns. Write the paragraph so that an 8th grade student would be able to understand/grasp the concept.

Answer(s): Click [HERE](#) for additional information about burn types.



Additional Practice and/or Resources:

Learn More:

[HBS Unit 5.1.2 Flashcards](#)

Test your knowledge by clicking on the link above.

[Rule of Nines \(Adults\)](#)

The rule of nines for burns in adults is used to calculate the total body surface area of a patient that has suffered from a burn. Learn more about how to calculate serious burns.

[Little Girl Makes a Recovery After Serious Burn Injury](#)

Zoni's story is truly remarkable and she's not unlike many of the burn patients treated at burn units every day. Watch her remarkable story.