

# LESSON PLAN

## FDA & YOU - ISSUE 15

### Staph in the News

For Grades 9-12

Adaptable for Grades 6-8

**Note:** This lesson plan is intended to be used as a guide in planning a classroom activity on staph infections. This is a supplement to *FDA & YOU* issue 15, available at <http://www.fda.gov/cdrh/fdaandyou>.

#### This lesson plan meets the following National Health Education Standards:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Analyze the influence of family, peers, culture, media, technology and other factors on health behaviors.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to advocate for personal, family and community health.

#### Goals

The goal of this lesson plan is to improve student's knowledge of skin infections caused by *Staphylococcus aureus* (staph) bacteria by discussing types of skin infections caused by staph bacteria, how they are transmitted, potential treatment, and prevention.

#### Summary

Using either the Internet or publications provided by the teacher, students will find an article relating to skin infections caused by staph bacteria. They will then summarize and analyze the article based on their understanding of information they read in issue 15 of *FDA & YOU*. Three homework activities are included: a fill-in-the blank activity, and two critical thinking activities.

#### Objectives

1. Students will increase their understanding of skin infections caused by staph bacteria.
2. Students will practice written communication skills.
3. Students will analyze a current public health topic and learn about health communication.

#### Time Needed To Complete

Approximately one hour

#### Prerequisites

- Prior to beginning the lesson students should read the article "Get to Know Staph" from *FDA & YOU* issue 15.
- Students should have a basic understanding of the human body.

- Students should have basic reading, writing, and computer skills.

### **Materials**

1. *FDA & YOU* issue 15
2. Overhead transparencies of information contained within the staph infection article of *FDA & You* issue 15. (Created by the instructor)
3. Research materials. Examples include the Internet, newspapers, magazines, and health journals containing articles about staph infections; or photocopies of articles about staph infections.

### **Lesson Procedure**

1. At end of class the day prior to this lesson, conduct an informal classroom discussion about staph and the types of infections staph bacteria can cause.
  - a. Begin by asking what students already know about these types of infections such as how they are spread, the effects on a person with a staph infection, how the infection may be treated, and steps for prevention.
2. For homework, the day prior to the lesson, have students read the article “Get to Know Staph” from *FDA & You* issue 15.
3. Using the overhead transparencies you created, review the facts about skin infections caused by staph. Emphasize the causes, symptoms, and transmittance of these infections. Discuss populations that may be more susceptible, how an infection may be treated, and methods of prevention.
4. Have each student find an article on staph infection using the research materials of your choice. Assign each student to complete the “Staph in the News” worksheet.
5. Allow students about one hour to complete the assignment. If time does not permit completion of the assignment, have students complete their worksheet and short essay for homework. The completed worksheet and short essay should be graded on the clarity of their explanations, comprehension of the information taught, as well as basic grammar and punctuation skills. An optional grading rubric is provided for us if you choose.
6. For homework, have students complete the take-home activities: Test Your Knowledge, Critical Thinking Scenarios, and Critical Thinking Essay. It is not necessary to complete all three, use your discretion.

# Staph in the News

Name: \_\_\_\_\_

Title of reference article: \_\_\_\_\_

**Instructions:** *In late 2007 U.S. media blanketed our TVs and newspapers with reports on a strain of antibiotic-resistant bacterial infection called MRSA, and stories of people who became infected. Using the resources provided, find an article that discusses one of these stories or the MRSA bacteria in general.*

*Use the questions below to help you gather key points from the article and create an outline for a short essay.*

*Once you have completed the outline, write a short essay (3-4 paragraphs) that summarizes and analyzes the information from your article.*

- 1) When was the article written?
- 2) Where is the article from? (List source)
- 3) Is this a credible source? Why?
- 4) What are the symptoms of MRSA as described in your article?
- 5) Does the article say what caused the infection?
- 6) Were there preventive measures taken to avoid spreading the infection?
- 7) Were there preventive measures that could have been taken?



## Test Your Knowledge: Staph Infections

*Instructions: Using the information found in the “Get to Know Staph” article from FDA & YOU issue 15, complete the following statements by filling in the blanks.*

1. Staph infections are a group of infections caused by \_\_\_\_\_  
\_\_\_\_\_ bacteria.
2. There are more than \_\_\_\_\_ different strains of staphylococcus bacteria.
3. \_\_\_\_\_ is a type of bacteria commonly carried on the \_\_\_\_\_ of healthy people without causing any infection.
4. MRSA is usually transmitted by direct \_\_\_\_\_ to \_\_\_\_\_ contact.
5. An infected hair follicle that causes a painful, red-to-purple pus-filled bump on the skin’s surface is called a \_\_\_\_\_.
6. A cluster of boils that form a connected area of infection under the skin and often form on the back of the neck, shoulders, or thighs are called \_\_\_\_\_.
7. \_\_\_\_\_ is an infection of the skin and the fat and tissues underneath that appears as a red, hot, irritated and painful area of skin and is common in the face and lower legs.
8. \_\_\_\_\_ is defined as clusters of small, itchy white pus-filled bumps that form around hair follicles.
9. \_\_\_\_\_ is a contagious skin infection that produces pus-filled blisters or sores on the hand and face that break open in a few days. It is a common skin infection in children.
10. A \_\_\_\_\_ is a red, swollen bump on an eyelid caused by an infected eyelash follicle.
11. If you suspect you have a staph or MRSA infection, you could contact your \_\_\_\_\_.



## Critical Thinking Scenarios

### Staph Infections

**Instructions:** Write a response to each scenario based on your knowledge of staph infections.

1. Sara and her soccer teammates are changing into their uniforms for a game. Sara mentions to her friend Jill that she wishes she had had time to shave her legs earlier. Jill offers Sara the use of her razor. Sara notices the razor appears to have been used. Should Sara use the razor, why or why not?
2. Marcus is working out in the gym's weight room with a group of friends. His friend Seth has just finished using the chest press machine and offers it to Marcus. What should Marcus do to help protect himself from bacteria that may be on the chest press machine?
3. Mai accidentally cut her hand during marching band practice. How should she care for the wound to help prevent getting or transmitting staph or other bacterial infections?
4. On a Saturday afternoon Juan decides to go for a run. As he heads home, Juan considers stopping at a friend's house to play video games. Should Juan stay in his sweaty running clothes when he plays video games, why or why not?
5. Frankie and his sister Jennifer share a bathroom. Frankie, who has a cut on his leg from baseball practice, takes a shower and hangs his towel up to dry. Two hours later Jennifer uses the same towel to dry her hands. Should Jennifer have used Frankie's towel, why or why not?



## Critical Thinking Essay

### How the Media Shapes the Way We Think

**Instructions:** *There were many reports about staph infections, especially MRSA, in the news in 2007. What effect do you think the media has had on people's perception of MRSA and other staph infections? Has the news affected your behavior or feelings toward people who have staph infections? Do you think they have had an effect on other people's behavior? Use the space below to write a three to four paragraph essay in response to these questions.*

## Test Your Knowledge: Staph Infections

1. Staphylococcus Bacteria
2. 30
3. Staph, Skin
4. Skin, Skin
5. Boils
6. Carbuncles
7. Cellulitis
8. Folliculitis
9. Impetigo
10. Stye
11. Healthcare Provider

## Critical Thinking Scenarios

### Staph Infections

**Instructions:** Write a response to each scenario based on your knowledge of staph infections.

1. Sara and her soccer teammates are changing into their uniforms for a game. Sara mentions to her friend Jill that she wishes she had had time to shave her legs earlier. Jill offers Sara the use of her razor. Sara notices the razor appears to have been used. Should Sara use the razor, why or why not?

**A: Sara should not use the razor. To avoid getting/spreading staph infection you should not share personal items, such as towels and razors.**

2. Marcus is working out in the gym's weight room with a group of friends. His friend Seth has just finished using the chest press machine and offers it to Marcus. What should Marcus do to help protect himself from bacteria that may be on the chest press machine?

**A: Before using the chest press machine, Marcus should wipe the equipment with a clean towel.**

3. Mai accidentally cut her hand during marching band practice. How should she care for the wound to help prevent getting or transmitting staph or other bacterial infections?

**A: Mai should clean the cut then keep it covered with a clean, dry bandage until it has healed.**

4. On a Saturday afternoon Juan decides to go for a run. As he heads home, Juan considers stopping at a friend's house to play video games. Should Juan stay in his sweaty running clothes when he plays video games, why or why not?

**A: Juan should not stay in his sweaty clothes because staph infection can be transferred by sweat.**

5. Frankie and his sister Jennifer share a bathroom. Frankie, who has a cut on his leg from baseball practice, takes a shower and hangs his towel up to dry. Two hours later Jennifer uses the same towel to dry her hands. Should Jennifer have used Frankie's towel, why or why not?

**A: Jennifer should not have used Frankie's towel. She should have used a different one. To avoid getting staph infections you should not share personal items, such as towels.**



## Critical Thinking Essay

### How the Media Shapes the Way We Think

**Instructions:** *There were many reports about staph infections, especially MRSA, in the news in 2007. What effect do you think the media has had on people's perception of MRSA and other staph infections? Has the news affected your behavior or feelings toward people who have staph infections? Do you think they have had an effect on other people's behavior? Use the space below to write a three to four paragraph essay in response to these questions*

**This activity should be graded on the clarity of explanation, comprehension of the information taught, and analysis of the media's effect on perception of staph infections, as well as basic grammar and punctuation skills.**



# Staph in the News

- 1 = Poor
- 2 = Below Average
- 3 = Average
- 4 = Above Average
- 5 = Outstanding

Article was relevant to the topic	1	2	3	4	5
“Science in the News” worksheet was used	1	2	3	4	5
Article summary included the most important pieces of information	1	2	3	4	5
Analysis of article demonstrated an understanding of the information	1	2	3	4	5
Proper grammar and mechanics were used	1	2	3	4	5
Comments:					
Final Grade: _____					