



The Future of Oral Health (High School)

This experiment demonstrates an oral health problem and looks to science to find ways to improve oral health. It meets the National Science Education Standard E—Understandings About Science and Technology and the National Science Education Standard G—Science as a Human Endeavor.

Materials

- Tissues or cotton balls
- Clock
- Computer with internet access or books, journals, and articles about oral health advances
- Beaker with water to demonstrate saliva production (at least 600mL)

Procedure

1. Show students 600mL of water and explain that this is the amount of saliva the human body produces daily. Have a discussion of saliva's uses. Explain that today the class will conduct an experiment to see what happens when a person produces less than optimal amounts of saliva.
2. Give each student two tissues or a few cotton balls to put in their mouths and leave them there for a few minutes. Have the students start and stop at the same time. Make sure they leave the tissues/cotton balls in their mouths for 1-2 minutes.
3. Have a class discussion about what happened to their mouths. Discuss the problem of dry mouth as a common condition in adults. Introduce Sjögren's Syndrome to the class. Ask students if they know of other types of oral diseases. Write responses on whiteboard.
4. Let students work in small groups to research an oral health disease (topics may include Sjögren's Syndrome, periodontal disease, and oral cancer). Make sure students find out the following information: symptoms of disease, causes of disease, and treatments.
5. Students will write a report about the oral disease they selected. They will present their findings to the class. Students may create PowerPoint presentations or visuals, time permitting.
6. After all reports are given, discuss ways to prevent some of these diseases. Have students think about how scientific advancements may cure some of these diseases.

Definition

- Sjögren's Syndrome is an autoimmune disease in which the body's immune system mistakenly attacks its own moisture-producing glands. Sjögren's is one of the most prevalent autoimmune disorders, striking as many as 4 million Americans. Sjögren's Syndrome affects patients with a wide range of varying symptoms from mild inconvenience to debilitating conditions that affect quality of life.



The Dr. Samuel D. Harris
**NATIONAL
MUSEUM of
DENTISTRY**

31 S. Greene Street, Baltimore, MD 21201
www.smile-experience.org



© 2009 The Dr. Samuel D. Harris
National Museum of Dentistry