Old-Time Operations

Ancient people drilled teeth and skulls to stay healthy.

If you think going to the dentist is scary now, imagine what it must have been like 9,000 years ago!

Archaeologists (scientists who study the remains of ancient human cultures) dug up bones that old from a graveyard in Pakistan. They found 11 teeth with holes drilled into them, even though ancient people didn't have metal tools. Instead, Stone Age dentists used stone drills to make holes in the teeth.

The scientists who found the teeth think the holes were drilled to remove decay (rotten parts). They say that the patients may have had fillings in the holes and that the fillings probably fell out when the teeth were buried.

Shocking Surgeries

L. Bondioli (Rome) & R. Macchiarelli (Poitiers)

A hole was drilled into this tooth 9,000 years ago.

This discovery is the oldest proof of dentistry in ancient civilizations. But people have practiced many kinds of medicine for thousands of years.

The oldest-known surgery is trepanation. The operation involves drilling a hole into a
person's skull! It's not always clear why this operation was performed, but it may have helped some people survive accidents. When a person hurts his or her head, the skull sometimes fills up with fluid. Drilling a hole allows the fluid to drain so the brain can heal.

Egyptians are famous for mummifying dead bodies, but they performed operations on living patients too. Scientists discovered the mummy of a woman who had lost a toe when she was alive. She had a wooden toe sewn to her foot and scientists believe she used it for years before she died.

Ancient Indians also performed surgery. They completed the first known nose job thousands of years ago. At the time, criminals were punished by having their noses cut off. Luckily for them, doctors designed a way to make new noses-from the skin of the people's foreheads!

Today people have more tricks and tools than ever to keep them alive. Doctors have been practicing their work for thousands of years.

Making Medical History

Check out this time line of important "firsts" in the history of modern medicine.

1670
Anton von Leeuwenhoek designed a microscope and viewed human blood cells.

1796
Edward Jenner invented a vaccination for a deadly disease called smallpox.

1829
A doctor in England transferred blood (a transfusion) from one person to another.

1860s
Doctors discovered that many diseases are caused by germs, so they began washing their hands and equipment.

1895
A German physicist discovered X-rays.

1899
Chemists began selling aspirin, a medicine made from a chemical in the bark of a willow tree.
1928
Alexander Fleming discovered penicillin, the first **antibiotic** (a medicine that kills bacteria).

1954
A doctor in Boston completed the first organ transplant, transferring a kidney from one identical twin to another.

1972
The CAT scan machine was patented. Doctors use CAT scans to take detailed 3-D pictures of the inside of the body.

1982
Doctors saved a man named Barney Clark by giving him an artificial heart. Clark survived with the heart for 112 days.
Old-Time Operations - Sequence Questions

Name: ___________________________________ Date: _______________

1. Which was invented first?
   A. microscope
   B. aspirin
   C. artificial heart
   D. smallpox vaccination

2. X-rays are used to see inside the body, similar to which later invention?
   A. the microscope
   B. the transfusion
   C. the CAT scan
   D. the vaccination

3. Scientists did not realize that ancient civilizations practiced dentistry, until after archaeologists
   A. noticed altered teeth in the remains of buried bodies.
   B. figured out how to do dentistry with stone tools.
   C. found out what the ancients knew about tooth decay.
   D. read about dental care by ancient doctors.

4. The oldest known surgery was performed on
   A. a toe
   B. a kidney
   C. a skull
   D. a nose

5. What happened after doctors discovered that many diseases are caused by germs?