

Virtual Surgery
<http://edheads.org/>

1. What are prosthetics? _____
2. Name two: _____
3. Give two examples of how lasers are used in the medical field:

4. What are some common tools used in home improvements that are similar to those used in the medical field?

5. What effect does the petroleum industry have in the medical field? _____

Computer Activity: Knee Surgery

1. Which knee needs surgery? Right / Left
2. What functions should these drugs perform? Check all three that apply
 - Analgesic to kill pain
 - Paralytic agent to keep the patient from moving
 - Amnestic to make the patient forget the surgery
 - Anti inflammatory to prevent the leg from swelling
 - Relaxant to make the patient happy
3. Why do you think knee surgery involves so many drapes?
 - To keep the patient warm in the frigid OR
 - To protect the patient's new prosthetic from hared to treat infections
 - To protect the OR staff from infections
 - It's a hospital fashion trend
4. What purpose do you think the perpendicular lines serve?
 - To help align the knee
 - To indicate which knee needs surgery
 - To increase sterility around the knew
 - To make it easier to match up the skin when closing the incision
5. Why do you think the two tibial components are inserted separately instead of as one unit?
 - For cosmetic reasons
 - The parts are only sold separately
 - They're easier to insert one at a time
 - The plastic spacer can be replaced when it wears out without replacing the metal part
6. Why do you think so many steps are taken to insure proper alignment?
 - Faulty alignment can produce many complications for the patient
 - So the knee doesn't bend backwards
 - To provide time for questions in COSI's surgical suit programs
 - So the knee doesn't get infected
7. What is the major difference between these two methods of closing the incision?
 - Strength of closure
 - Level of sterility
 - Sutures cause less scarring for cosmetic purposes
 - Staples set off airport security
8. What kind of forces do you think the new knee will need to withstand?
 - The weight of the body with every step
 - 2x the weight of the body with every step
 - 3x the weight of the body with every step
 - 5x the weight of the body with every step