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# Total knee and joint Replacement

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10<sup>th</sup> Grade Anatomy

ACOS objective 8:2

6-15-13

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## Overview

Students in the 10<sup>th</sup> Grade Anatomy Class will be able to with a minimum of 80% accuracy be able to explain the steps and reasoning behind a total joint replacement. This outcome will be measured with a 1 page narrative paper from the prospective of an orthopedic surgeon.

## Objectives

Teach Students the different parts of the anatomy of the various joints and how current medical technology can modify and change these joints.

- Identification of General muscular skeletal system
- Identification of Ligaments and tendons

## Activities

- Students will be introduced to the anatomy of the joints by use of a laboratory skeleton nick named Henry.
- Students will then read a short handout on the procedure of a knee replacement. Then they will compare and contrast a shoulder replacement.
- Finally students will watch a 5min clinical video of the procedure, and take notes for any differences or questions that they may have.

## Evaluation

Students will write a one-page narrative style paper from the orthopedic surgeons point of view on the surgery with notes. This paper will be graded for grammatical correctness and for form.

## Home Work

For homework students will research the different hospital staff involved in 1 surgical procedure from begging to end. (i.e. environmental, nurses, nutrition, doctors, surgeons, billing, marketing, etc....)

## Materials

Skeleton

Handouts on Knee and Shoulder replacements

Video on the total knee replacement

Projector

Computer

## Background information

The week before this lesson students will be introduced to the various jobs in a surgical procedure such as the nurses, surgical assistants and anesthesiologist.

## Inclusion for special needs

Some students will find it useful to work in small groups and have peer mentors to assist them in writing their papers. Also note handouts of the video surgery will be available on request.