



Teaching Surgical Procedures

By

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Surgical procedures are one of the hardest subject areas to teach. Students struggle with the anatomy & physiology; teachers struggle with how in depth to teach each procedure.

The didactic portion is usually the hardest to teach. Most teachers will need to use a combination of several teaching tools. Some lecturing will be necessary to give the student introductory information and guidance. While lecturing, use anatomical models of the organs. If your program does not have these, see if you can borrow them from the biology department for an hour or two. PowerPoint presentations work good for teaching surgical procedures. You can import photos and line drawings from several Internet sources into your presentation. Some good web sites for include, www.mama.com, www.google.com, www.dogpile.com, and www.vesalius.com.

Videos are another great teaching tool. Start with your clinical sites and advisory committee. They may be willing to donate their old or extra videos. Surgeons may even have videos of past procedures they performed. The basic procedures stay the same. Students get a real-life look at the anatomy. An excellent source of videos is *Films for the Humanities and Sciences*. You can find them at www.films.com, or at 800-257-5126. Another web site that is developing some good video clips is www.laparoscopy.com.

Hands-on demonstration while talking about a procedure is also necessary. When teaching about gastrointestinal surgery or reconstructive surgery, use a felt board and physically move the anatomy around on the board to show how it is resected and reconstructed. This will help the visual learners see exactly how the tissue is manipulated.

There are some excellent cable television channels that air programs on surgical procedures. You may be able to obtain copies of a particular program. In some instances, you can actually log onto the Internet and link into programs to watch the video in real-time. These are good programs, but they are unpredictable. You will need to allow some flexibility in your schedule. The Discovery channel also shows good presentations.

Most of the hands on experiences will need to come from the clinical setting. If you are fortunate enough to have clinical sites that can work with your syllabus, try to get your students assigned to cases relevant to what they are studying in class. This is very difficult, but some sites will work with you.

There are a few things you can do in the laboratory. Students can practice setting up back tables and Mayo stands for each procedure. They can practice draping for each procedure. The students can also practice performing a mock procedure. For example, breast biopsy surgery can be demonstrated in the lab setting. The instructor or several students can make a breast with a lump and practice excising the lump. Some good mediums to use for the breast tissue are thick, concentrated oatmeal or thick Jell-O. You can use grapes or corn for the lumps.

When teaching cesarean section, you can use a mannequin that interchanges to become a pregnant lady. If you are at a school with a nursing program, they should have one you can borrow for a few hours. Students can practice draping the patient and receiving the baby.

Surgical simulators work great for teaching surgical procedures. Students get to see the anatomy and can practice performing the procedure themselves. You can find

simulators that have models for cholecystectomy, appendectomy, and hysterectomy, just to name a few. Two good sources for simulators include: Delletec at www.delletec.com and Limbs & Things at www.limbsandthings.com.

If you can combine all of these teaching strategies into your lesson plans you will be successful at reaching a greater audience. Since you will have a variety of learning styles in your class, these techniques should reach most of them. It is important to not get into the groove of using a particular style of teaching for the entire semester. Give the students a variety. One chapter might be more videos and the next chapter might be more lab or simulators. Keep the students interested.