

Orthopedics!

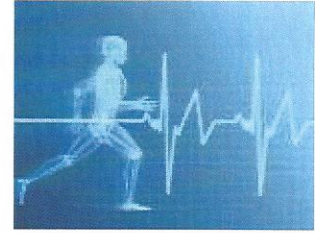
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The Basics



Orthopedics is the study of the musculoskeletal system. Orthopedic doctors specialize in diagnosis and treatment of problems of the musculoskeletal system, which is made up of your body's bones, joints, ligaments, tendons, and muscles. So basically this is the floor where all the injured patients will be whether they may be hip fractured patients or torn ligament patients.

The Most Common

Knee Injuries- To understand knee injuries, first you have to understand the knee. The knee is a joint, which means it sits between the areas where bones connect. It's actually the largest joint in the body. Your knees provide stability and flexibility for your body and allow your legs to bend, swivel, and straighten.



The knee is made up of several body parts like bones, **cartilage**, **muscles**, **ligaments**, and **tendons**, all working as one. So when we talk about a knee injury, it could be stress or damage to any of these parts.

When you are suffering from knee pain you may avoid activities you enjoy and have difficulties getting around to do your daily tasks.

Ligament Tear- An ACL injury, the most common ligament injury, occurs when the knee is locked with the foot planted and the knee is twisted quickly. This type of injury happens when somebody makes a sudden movement like an athlete in a sports match.

Hip Injuries- Hip fractures most commonly occur from a fall or from a direct blow to the side of the hip. Some medical conditions such as osteoporosis, cancer, or stress injuries can weaken the bone and make the hip more susceptible to breaking. In severe cases, it is possible for the hip to break with the patient merely standing on the leg and twisting.

Hip Injuries in Elderly People

It is possible to break a hip at any age, but it's much more likely to happen to the older crowd. Bones get less dense and more brittle as we age, making any fracture more likely as we get older. Hips take quite a beating in the later

years because we're much more likely to fall as we age as well.

The best way to avoid a hip fracture is to take precautions to avoid falling.

Hip Fracture Symptoms- Hip fractures obviously hurt. In some cases, that's the only symptom. Consider the possibility of a hip fracture in any older adult with hip pain after a fall, especially if he or she is unable to move the leg. A more complete list of hip fracture signs and symptoms include:

- Pain
- Inability to move
- The injured leg is shorter than the uninjured leg
- The injured leg is rotated: Depending on the exact type of injury, the injured leg can be rotated either toward or away from the uninjured leg

The Diagnosis

To be able to treat the many injuries in the hospital, there are special tests that have to be taken in order to find the exact origin or cause of the pain the patient may be feeling. In order for the doctors to really know where and what the problem is these tests may have to be taken from the patients. Diagnostic imaging techniques help narrow the chances of further injury or illness and ensure that the diagnosis is accurate. These techniques include X-rays, computed tomography (CT) scans, magnetic resonance imaging (MRI). These imaging tools let your doctor "see" inside your body to get a "picture" of your bones, organs, muscles, tendons, nerves, and cartilage.

Can you guess which test they might include? No? No problem let's review.

X rays- (radiographs) are the most common and widely available diagnostic imaging technique. Even if patients require more sophisticated tests, they will probably get an X-ray first.

The patient will probably be X-rayed from several angles. If they have a fracture in one limb, their doctor may want a comparison X-ray of their uninjured limb. Their X-ray session will probably be finished in about 10 minutes. The images are ready quickly. X-rays may not show as much detail as an image produced using newer, more powerful techniques.



Dressing Change and Infection Control

In order to prevent infection in open wounds or fractures, remember Gel in, Gel out.

You may be present during a dress change, where the old dressing will be removed, the area will be cleaned from any blood or drainage and the new dress will be wrapped with. There may be drainage especially in stapled wounds.

Nurses and staff use gloves when changing dressings and wash their hands constantly. It is imperative that precautions are put in play for the patients' health and everyone around.

Treatment

Before Surgery

Anesthesia for surgery could be either general anesthesia with a breathing tube or spinal anesthesia. In very rare circumstances, where only a few screws are planned for fixation, local anesthesia with heavy sedation can be considered. All patients will receive antibiotics during surgery and for the 24-hours afterward. Appropriate blood tests, chest X-rays, electrocardiograms, and urine samples will be obtained before surgery. Many elderly patients may have undiagnosed urinary tract infections that could lead to an infection of the hip after surgery.

The surgeon's decision as to how to best fix a fracture will be based on the area of the hip that is broken and the surgeon's familiarity with the different systems that are available to manage these injuries.

Surgery- Once the diagnosis of the hip fracture has been made, the patient's overall health and medical condition will be evaluated. In very rare cases, the patient may be so ill that surgery would not be recommended. In these cases, the patient's overall comfort and level of pain must be weighed against the risks of anesthesia and surgery.

Most surgeons agree that patients do better if they are operated on fairly quickly. It is, however, important to insure patients' safety and maximize their overall medical health before surgery. This may mean taking time to do cardiac and other diagnostic studies.



Rehab – life after hospitalization

Patients may be discharged from the hospital to their home or find that a stay in a rehabilitation facility is necessary to assist them in regaining their ability to walk.

Patients may be encouraged to get out of bed on the day following surgery with the assistance of a physical therapist. The amount of weight that is allowed to be placed on the injured leg will be determined by the surgeon and is

generally a function of the type of fracture and repair (fixation).

The physical therapist will work with the patient to help regain strength and the ability to walk. This process may take up to three months.

Medical Care

Occasionally, a blood transfusion may be required after surgery, but longer term antibiotics are generally not necessary.

Most patients will be placed on medicine to thin their blood to reduce the chances of developing blood clots for up to 6 weeks. These medicines may be in the form of pills or injections. Elastic compression stockings or inflatable compression boots may also be used.

Follow Up Care

During the appointments that take place after surgery, the surgeon will want to check the wound, remove sutures, follow the healing process using X-rays, and prescribe additional physical therapy, if necessary.

Following hip fracture surgery, most patients will regain much, if not all, of the mobility and independence they had before the injury.



Sports Medicine



Hip Injuries in Athletes

Even though the most common cases in the hospital will be elderly hip injuries the orthopedic section may also include common hip injuries due to athletic reason. If you've felt pain in your hips during or after running, you're in good company. In fact, hip pain is one of the most common complaints of athletes. Hip pain is most often caused by inflammation within tendons or soft tissues.

Common hip-related problems include:

- Muscle strains, including groin pulls and hamstring strains
- Trochanteric bursitis, which causes inflammation of the bursa – or soft tissue – over the hip joint
- Tendonitis, which affects the tendons around the hip joint

Who works in the orthopedic floor?

Among the many people you may follow or see in the orthopedic floor they may include these:

Physical therapists- orthopedic patients typically have deficiencies and weaknesses which could be eliminated or at least alleviated via particular targeted workouts and only a specialized physical therapist can show the patient and teach him/her the appropriate workouts designed to restore and enhance functions or, at least minimize the problems. Furthermore, orthopedic physical therapy workers, as well, know about surgery, surgical procedures, the aims of remedies, and the anatomy from

the muscular and skeletal methods. As a result they are able to adapt and adjust their knowledge within the efforts to treat the patient.

Doctors of Orthopedics- the Doctor's will be visiting patients in this floor and checking their progress. They diagnose and order exams depending on the gravity of the patients fracture or whatever may be the cause for their hospitalization.

Nurses- Nurses are the ones in charge of the patients care. Many times Nurses may have between 4 to 6 patients in one day. They take vital signs, administer medication, and take full time care of the patients. They are the closest ones to the patients. There are Charge Nurses head of the nurse staff and the ones who you may most likely encounter, Registered Nurses.

Patient Care Assistants- Also referred to as PCA's, are personnel who assist the nurses. You may see PCA's taking vital signs, walking patients, or making the beds and aiding the patients to the restroom.

Although this is the most common staff seen in the hospital you must remember that many patients are not only in the hospital or are treated for the orthopedic related injury. Many patients are of the older generation and therefore have other underlying conditions. So even if a patient is in the orthopedic they can be visited by other doctors such as Neurologists. In this case, an older patient may be suffering of a bad hip fracture and have *Alzheimer's and be in need of the neurologist for stability.

*Alzheimer's- a disease of the brain that causes problems with memory, thinking and behavior.

By reading and completing this packet you are fully responsible to know all the information and be ready for you rotation, do not forget to ask a lot of questions!!! 😊

Resources

[http://firstaid.about.com/od/breaksandspains/a/09 Hip Fractures.htm](http://firstaid.about.com/od/breaksandspains/a/09_Hip_Fractures.htm)

<http://orthopedics.about.com/od/orthopedicsinformation/f/orthopedics.htm>

<http://orthoinfo.aaos.org/topic.cfm?topic=a00188>

<http://www.mendmyknee.com/knee-and-patella-injuries/knee-injury-pain.php>

http://kidshealth.org/teen/safety/first_aid/knee_injuries.html

<http://orthoinfo.aaos.org/topic.cfm?topic=A00392>