

## *Orthopaedic Connection*

### **The Knee: Inside Story**

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*Transforming patient information into patient understanding.*

Last week we finished the class by describing what structures are in and around the knee joint. It was a description of how the structures are in the normal knee.

What follows is a brief description about what happens to these structures when they are injured. Lastly, a few words about how knee injuries can be prevented.

#### **Bone Bruise**

Until we did a lot of MRIs we didn't even know about this one. Plain x-rays are often completely normal in trying to rule out a fracture. Often when a knee is injured the bone gets edema fluid in it which is very noticeable on MRI. Nothing is broken or torn, but it might be compared to a big black eye. The knee can stay painful and sore for weeks or longer and all you can do is rest and protect it, waiting for it to get better.

#### **Chondromalacia**

There is that 50 cent word again. It means literally, softening or injury to that wonderful substance that covers the surface of the bone inside the joint. Injury can range all the way from a scratch or abrasion of the joint surface to severe damage that causes loss of the complete thickness of the covering causing bone to be exposed.

In the knee it most commonly occurs on the knee cap. Second place is the rounded end of the thigh bone (upper part of the knee joint).

#### **Torn Cartilage (Meniscus)**

Those darn little gristle pieces can get pinched and tear in the joint and cause many symptoms. It happens in young and old alike. A torn cartilage rarely heals on its own and usually needs repairing or partial removal.

#### **Collateral Ligaments**

The medial or inner one is far more often injured than the lateral. They are usually stretched or partly torn and mostly treated by immobilization and crutches.

#### **Cruciate Ligaments**

Anterior is way more often injured than posterior. They lie deep inside the knee. As a rule you injure one, not both. If the ligament is completely torn it makes the knee unstable and hard to control. The knee "goes out" as patients say. Nowadays surgery to repair torn cruciate ligaments is frequently done in people of all ages.

#### **Fractures**

There are a multitude of bone injuries about the knee which also occur. These are beyond the scope of this discussion.

Just know that I have to keep all of these possibilities in mind when I evaluate and treat knee trauma.

You really need to come and have the knee Orthopaedically evaluated so an important injury is not overlooked or missed.

### **Prevention**

1. Number one is to maintain good strength and flexibility in the thigh muscles, quads and hamstrings which protect the knee joint.
2. Warm up before exercising.
3. Wear knee pads in appropriate sports.
4. Don't increase workout intensity too quickly.
5. Proper shoes.
6. Learn proper technique to land, pivot, stop; that is, good coaching.

Thanks for attending class this week. See you next week.

### **Gratiot County Herald Archive and Office Website**

I sincerely hope all of our loyal readers will take advantage of an endless amount of musculoskeletal information. It is easy! Log onto [www.orthopodsurgeon.com](http://www.orthopodsurgeon.com).

It gives access to all Website articles, Your Orthopaedic Connection and every GCH article from most recent to the first. Full text! It covers everything I do in the office and hospital.

Good Health. Good life. All the best to you.

Dr. Haverbush