

Orthopaedic Connection

How The Shoulder Works

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Transforming patient information into patient understanding.

There are several articles about the shoulder and its various problems in the Orthopaedic Connection archive. This time, however let's approach it in a somewhat different way.

It would be a good idea for all of you to have a more detailed idea of how this thing works that we call the shoulder. At least I think it would because you then can have a better insight into what can go wrong and what's required to fix the shoulder.

Ready? O.K. let's get started.

Anatomy of the Shoulder

It is complicated, but I'll try to follow Thoreau who often said "simplify, simplify." Bones, tendons, ligaments, muscles, capsule, oh, my.

Bone

There are three. The arm bone or humerus has an almost round ball at the top. The ball fits into a shallow socket that is part of the shoulder blade which is the second bone. The third bone is the collar bone which is kind of a strut to stabilize the shoulder as it rests against the chest.

Muscles

Most of you have heard the term rotator cuff. But what is that?

The rotator cuff is a structure composed of four separate tendons and their muscles which attach the shoulder blade to the ball part of the humerus.

The rotator cuff muscles and tendons act with the large deltoid muscle to enable you to do things over head that require strength.

Bursae

Everyone knows the term bursitis, but few people actually know what a bursa is and where it is, but they know if it is not working right.

A bursa (plural bursae) is a small tissue sac that contains a little fluid. The bursa is a lubricating structure which allows tendons and ligaments to move over each other without friction.

Ligaments

Ligaments are tough fibrous structures that connect bones to each other in and around joints. Shoulder ligaments and capsule are the deepest structures in the shoulder and are responsible for holding the shallow ball and socket together in what is referred to as the shoulder joint or glenohumeral joint which is the medical term. When ligaments are stretched or torn in injury it can lead to shoulder complete or partial dislocation

Nerves

The "brain" for making all of this work is a complicated structure called brachial plexus. All of the nerves that control the shoulder and entire arm come out of the spinal cord and pass to the shoulder structures and on down the arm to the hand.

Wow

This is kind of a lot about the anatomy of the shoulder, but if you don't have some basic knowledge you won't have much understanding of what is to come.

Remember when I said a while back I want you to be as smart as a tree full of owls? See you next week.

My patients put their trust in me and what I do improves the quality of their lives.

Office Website and Gratiot County Herald Archive

Attention! If my loyal readers want to be as smart as a tree full of owls they will fly to www.orthopodsurgeon.com for tons of musculoskeletal information everyone can use.

You get the Office Website and Library, Your Orthopaedic Connection and GCH archive of every article I have written for you.

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

Be well.

Dr. Haverbush