

Workings of the Shoulder

By Dr. Derek Conte

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I always enjoyed looking under my car while it's on the lift at the gas station. Looking at the front wheels from underneath and at the struts and springs that attach to them remind me of the shoulder joint with a similar system of distancing, suspension and rotational movement. A truly remarkable thing is the shoulder, which retains great range of motion and flexibility while providing enormous power to do work. The shoulder is made up of: 1) the clavicle (collar bone) or "strut," setting the distance of the shoulder to the midline (the sternum or breastbone), 2) the scapula or blade, which attaches many muscles – the "springs" and, 3) the humeral head or the ball-like upper arm which is wheel-like in its motion. The extraordinary freedom and power the shoulder enjoys is accomplished mainly by the fact that the entire shoulder region and its parts are connected only at one point to the central skeleton, where the clavicle meets the sternum. All the rest of it glides on sheets of muscle up and down, forward and back on the ribcage! This motion is compounded by the great freedom of the shoulder socket itself. Depending on the attachment and orientation of the muscle/muscles being contracted, an almost unlimited number of positions can be achieved. Add to this opposable thumbs and a big brain and you can see why humans have been so effective a tool-making/civilization-building species!

Because of the shoulder's dexterity some structural strength must be sacrificed and so the area is more prone to injury than its counterpart, the hip area. In fact, if the clavicle comes 1/16th of an inch out of its normal position, it changes the height of the shoulder. There can be significant pain, loss of power and, most seriously, greatly increased wear and tear effects of all parts of the shoulder leading to arthritic degeneration. Other problems such as nerve compression frequently occur in the shoulder region as well. Though some problems may seem serious, they may not be. A simple exam by your chiropractor can detect these subtle problems of alignment and provide a starting point for recovery.

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