

Better Golf (and Less Injuries) with a Balanced Body

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Why golf is so difficult and why all the injuries?

Having a consistent golf swing with good form is a difficult task because of the complexity of its biomechanics. There are a few aspects of the golf swing that are helpful to understand. First, the spine is subject to a very rapid and complex loading pattern. In less than 1.5 seconds, the spine and extremities are taken to their end ranges of motion, making the extensibility of soft tissues dictate the path of the swing. Lacking flexibility in the mid-back and hips may cause the lumbar spine to bend and rotate in ways that increase spinal stress. The golf swing also involves a combination of non-functional movement patterns and rotational movements around multiple axes. Since these are not typical motions, i.e. the head moves opposite the body through most of the swing, there are different neuromuscular firing patterns that must occur.

Spine Range of Motion and Control: Optimal spinal mobility at all levels is critical since limitations at one area will increase compressional forces on another. This is particularly important during the end ranges of the swing when control of thoracic extension and rotation need to be maximal. The pelvis should also stay relatively neutral throughout the swing to allow the body to rotate around a neutral spine axis. Note that the pelvis stays neutral despite changes in hip position and its directional orientation throughout the swing.