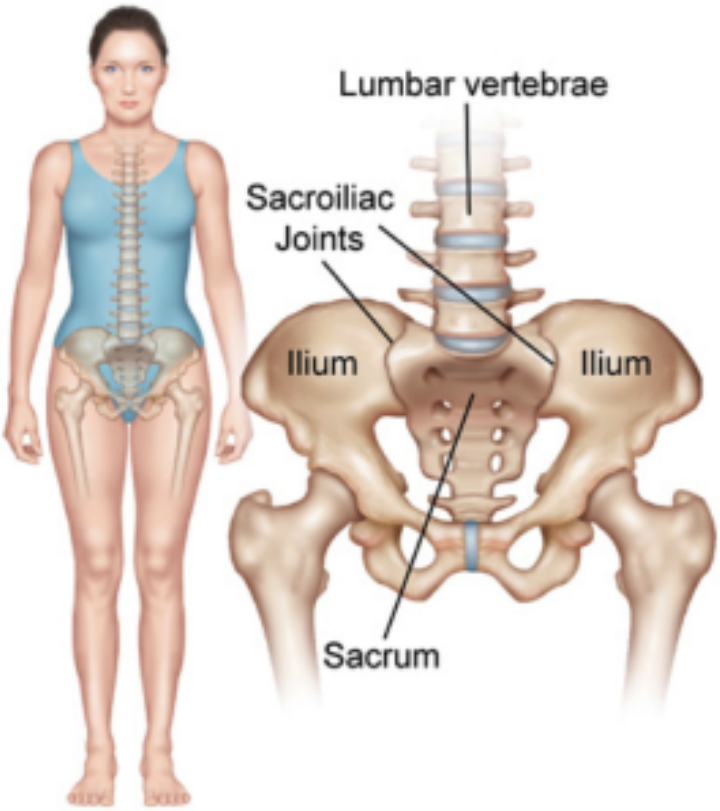
SI Joint Dysfunction

In the first part of the 20th century, sacroiliac (SI) joint syndrome was the most common diagnosis for lumbago (low back pain). Any pain in the low back, buttock, or adjacent leg was usually referred to as SI joint syndrome. Before 1932, SI joint syndrome was a particularly popular diagnosis. There was actually a period referred to as the "Era of the SI Joint."



In the late 1980s, many physicians "rediscovered" the SI joints as a possible source of back pain. Yet even today, SI joint pain is often overlooked. Many physicians have not been trained to consider it. Many are still reluctant to believe a joint that has so little movement can cause back pain.

Learn about SI joint syndrome including:

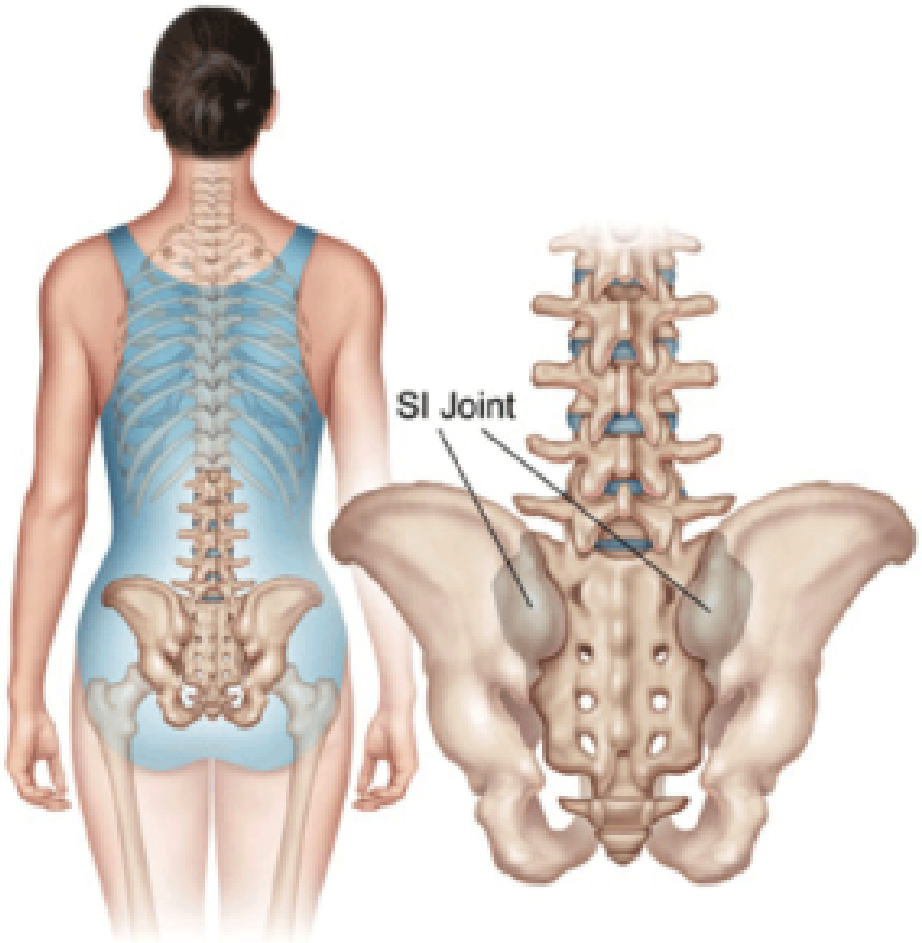
- where the SI joints are located and how they are affected
- what causes the condition
- what symptoms are present
- how a diagnosis is made
- what treatment options are available

Anatomy, Causes, and Symptoms

Like any other joints, there is articular cartilage on both sides of the SI joint surfaces. But unlike most
other joints, the SI joints are covered by two different kinds of cartilage. The articular surfaces have both hyaline (glassy, slick) and fibrocartilage (spongy) surfaces that rub against each other. The joints also have many large ridges (bumps) and depressions (dips in the surface that fit together like a puzzle).

The SI joints are also unique in that they are not designed for much motion. It is common for the SI joint to become stiff and actually “lock” as people age. The SI joint only moves about two to four millimeters during weight bearing and forward flexion. This small amount of motion occurring in the joint is described as a “gliding” type of motion. Due to the small amount of movement and the complexity, finding out about the SI joints’ motion is very difficult during a physical exam.

The SI joints are viscoelastic joints, meaning that the major movement comes from giving or stretching. This motion is quite different than the hinge motion of the knee or the ball and socket motion of the hip. The main function of the SI joints is to provide shock absorption for the spine through stretching in various directions. The SI joints may also provide a “self-locking” mechanism that helps you to walk. The joints lock on one side as weight is transferred from one leg to the other.



Causes

Many problems can lead to degenerative arthritis of the SI joints. It is often hard to determine exactly what caused the wear and tear to the joints. One of the most common causes of problems at the SI joint is an injury. The injury can come from a direct fall on the buttocks, a motor vehicle accident, or even a blow to the side of your pelvis. The force from these injuries can strain the ligaments around the joint. Ligaments are the tough bands of connective tissue that hold joints together. Tearing of these ligaments can lead to too much motion in the joint. The excessive motion can eventually lead to wear and tear of the joint and pain from degenerative arthritis. Injuries can also cause direct injury of the articular cartilage lining the joint. This too, over time will lead to degenerative arthritis in the joint.

Pain can also be caused by an abnormality of the sacrum bone. The sacrum bone is actually a very specialized set of vertebrae. When your body is undergoing development in the womb, several vertebrae fuse together to form the sacrum. In some people the bones that make up the sacrum never fuse together. In these cases, two or more of the vertebra that should fuse together remain separated. This creates an odd situation where the SI joint is malformed and a false joint occurs (sometimes called a “transitional syndrome”). This abnormality can be seen on X-rays. People who have this syndrome seem to have more problems with their SI joints, as well as back pain that appearsto come from that area.

Women are at risk for developing SI joint problems later in life due to childbirth. Female hormones are released during pregnancy that allow the connective tissues in the body to relax. The relaxation is necessary so that during delivery, the female pelvis can stretch enough to allow birth. This stretching results in changes to the SI joints, making them hypermobile (extra or overly mobile). Over a period of years these changes can eventually lead to wear-and-tear arthritis. During pregnancy, the SI joints can cause discomfort both from the effects of the hormones that loosen them and from the stress of carrying a growing baby in the pelvis. The more pregnancies a woman has, the higher her chances of SI joint problems.

Symptoms

Symptoms of SI joint syndrome are often difficult to distinguish from other types of low back pain. In most cases, there is a confusing pattern of back and pelvic pain that mimic each other, making diagnosis of SI joint syndrome very difficult. The most common symptoms include

- low back pain
- buttock pain
- thigh pain
- difficulty sitting in one place for too long due to pain
- pain with changing positions
- pain with weight bearing on one leg
- pain or difficulty lifting one leg when putting clothes on

Treatment

Physical Therapy

Patients commonly receive physical therapy treatment for SI joint problems. A well-rounded rehabilitation program assists in calming pain and inflammation, improving your mobility and strength, and helping you do your daily activities with greater ease and ability.

Treatment choices depend on whether the SI joint is stiff or loose. A stiff or “locked” joint responds best to mobilization, a form of stretching used to improve joint movement. Along with hands-on techniques used by the therapist, mobilization includes specific exercises to improve SI joint mobility. For conditions where the joint is too loose, such as arthritis or SI ligament injuries, stabilization treatments are chosen to hold the joint in correct alignment. Stabilization exercises involve posture and muscle training.

Therapy sessions may be scheduled two to three times each week for up to six weeks.

The goals of physical therapy are to help you:

learn ways to control symptoms and manage your condition
learn correct posture and body movements to reduce SI joint strain
obtain optimal movement and alignment of the SI joint

Sacroiliac Belt

A sacroiliac belt may be issued to help stabilize a loose and painful SI joint. The belt wraps around the hips to squeeze and hold the SI joints together. This supports and stabilizes the pelvis and the SI joints. Learn more about back and neck braces.
Pain during pregnancy may not go away after delivery of the baby. See the “Women’s Health” section for more information on this.