PELVIC LIGAMENTS

The adult pelvis consists of 4 major pieces, the sacrum, coccyx, and two os coxa.



PELVIC LIGAMENTS - POSTERIOR VIEW

SACROTUBEROUS LIGAMENT

The sacrotuberous ligament is attaches broadly to the lateral aspect of the sacrum from the PSIS to the coccyx. The fibers converge and extend posteriorly to the ischial tuberosity. Fibers of this ligament pass over the ischial tuberosity to become the origin tendon of the biceps femoris.

SACROSPINOUS LIGAMENT

The sacrospinous ligament (small or anterior sacrosciatic ligament) is thin, triangular ligament attached by its apex to the spine of the ischium, and medially, by its broad base, to the lateral margins of the sacrum and coccyx, as it fuses with the sacrotuberous ligament.

Its main function is to prevent posterior rotation of the ilium with respect to the sacrum. Laxity of this ligament along with the sacrotuberous ligament allows posterior rotation to occur.

SACROILIAC LIGAMENT

The sacroiliac ligament has three sections - anterior, interosseous, and posterior.

- The anterior section has mostly oblique fibers. They cross over the joint on the anterior surface near the 3rd sacral segment and seem to prevent anterior slippage.
- The posterior section is located in the deep depression between the ala of the sacrum and the PSIS. It has fibers that run almost laterally to connect the lateral posterior aspect of the upper two segments to the PSIS and the internal iliac crest. Shorter fibers in this area prevent the sacroiliac joint from flaring posteriorly. Longer fibers connect the 3rd and 4th sacral segment to the PSIS. These fibers are blended with the fibers of the thoracolumbar fascia and the lateral sacrotuberous ligament.
- The interosseous portion is the primary structure in this ligament for providing stability to the sacroiliac joint. It lies deep to the posterior section and forms the largest syndesmosis in the body.

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• PELVIC LIGAMENTS - ANTERIOR VIEWS

ILIOLUMBAR LIGAMENT

The iliolumbar ligament primarily connects the crest of the ilium to the transverse of the 5^{th} lumbar and often the transverse of the fourth lumbar. It is part of a large web of connective tissue at the base of the spine. It has two major bands. The posterior band stabilizes L5 to prevent anterior shearing across the sacrum as the weight of the spine presses it down and forward. The anterior band stabilizes L5 and, when attached, L4 from side bending.

This ligament is unique to animals that support their weigh on their caudal limbs. In humans, it develops from fibers of the quadratus lumborum in adolescent years until about the time the os coxa fuses between 18 and 25. It often starts to degenerate at about the same time as the sacroiliac joint fuses in the 40s.