

Muscular Anatomy and Effects of Positional Release on the Pelvic Girdle  
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The pelvic girdle is a bony structure that serves many functions. It is made up of two hip bones or os coxae, which are composed of the ilium, ischium, pubis, and acetabular bones. The girdle shape encircles and protects the organs contained within the pelvis. It connects the hind limbs to the back by using a multitude of ligaments and muscles. The muscles also help to support the dog's movement, and therefore, require an abundance of blood supply and nerve innervations. The muscles covering the pelvis are easily manipulated, and the positional release method is highly effective yet very gentle. To understand the effects of positional release on the pelvic girdle more easily, it is important to comprehend how far the ligaments, fascia, and muscles reach within the body and how positional release works.

There are five major ligaments that attach to the pelvis: The ventral sacroiliac ligament runs between the ilium and sacrum, the dorsal sacroiliac ligament runs from the iliac spine to the sacrum, the sacrotuberous ligament runs from the sacrum to the ischial tuberosity, the transverse acetabular ligament is connected to the acetabulum, and the ligament of the head of the femur runs to the acetabular fossa and blends with the transverse acetabular ligament (Hermanson, de Lahunta, & Evans 2020). These ligaments help to keep the pelvis attached to the sacrum and femurs.

The thoracolumbar fascia covers an exceptionally large area of the body. It begins at the thoracic and lumbar vertebrae, fuses with itself at the linea alba, spreads to the sternum and costal cartilages, and attaches to the ilium; This fascia also gives rise to the latissimus dorsi, the internal abdominal oblique, external abdominal oblique, the serratus dorsalis caudalis, splenius and serratus dorsalis cranialis, and the transverse abdominis (Hermanson et al, 2020). This fascia that attaches to the ilium, can affect the back, the abdominals, breathing, and even the neck by attaching to the deep cervical fascia.

There are over 20 muscles that arise from or near the pelvic girdle. There are five superficial muscles that are easily palpable and most relevant to the massage practitioner.

Muscle	Origin	Insertion	Action
Thoracic and lumbar longissimus dorsi	Caudal portion of the iliac crest	Thoracic and lumbar transverse process	Lateral flexion and extension of the spinal column
Superficial and medial gluteal	Ilium and lateral portion of the sacrum	Greater trochanter	Extends the hip and abducts the thigh
Biceps femoris	Ischial tuberosity	Point of the hock	Extension of the hip, stifle, and tarsal joint
Semitendinosus	Ischial tuberosity	Medial surface of the tibia and the tuber calcanei	Extension of the tarsal and hip, flexion of stifle
Semimembranosus	Ischial tuberosity	Medial epicondyle of the femur and medial head of the tibia.	Assists in extension of the hip and stifle

(Zidonis & Snow 2018)

Nerve innervations for these muscles include the dorsal branches of the thoracic and lumbar nerves, gluteus caudalis, gluteus cranialis, ischiadicus, and ramus muscularis proximalis of the of the nerve tibialis (Hermanson et al, 2020). All blood supply for the pelvic girdle stems from the aorta.



Left photo: Back is extended, hips extended, stifles extended, tarsals extended. Right photo: Back and abdominals relaxed, hips flexed, stifles flexed, and tarsals flexed. Both photos: Heavy breathing.

Positional release helps the dog to create a slight course correction in patterns of thinking and moving; the method assists the dog to unwind from physical, emotional, and behavioral holding patterns (*PetMassage for Dogs, Foundational Workshop Manual, 2020*). To use positional release, ground yourself and place both hands on the body of the dog. The hand closer to his or her body is gently holding the area of the dog, the other hand is doing more of the “work”. Gather the earth’s chi and envision a ball of energy between both hands. Feel for your working hand to be pulled in a direction, and very slightly move in that direction. This movement should not be easily seen or noticed. When you feel a release, follow the movement. Then feel for the follow through and move into that position. It is important to understand that this movement does not just affect the tissue between where your two hands are located. Within 24 hours, the movement will circulate throughout the entire body of the dog.

A canine massage practitioner should not claim to heal or treat any specific disease. If the dog chooses to unwind with the help of positional release, the effects may be noticed in the slightest of ways. The dog may have a muscle twitch during the follow on, a signal that a release was stimulated. The practitioner may experience a pain in an area of their body that suddenly goes away. The muscles in the hips may change from being firm and rigid to soft and flexible as they relax. A limp while the dog is walking may not be as noticeable. The dog’s digestive tract may have been stimulated to excrete a buildup of gas. The dog may be more likely to return to old patterns of behavior such as going up stairs or jumping onto the couch or bed. Remember that positional release can affect emotional and behavioral holding patterns as well, relaxation or playfulness after the massage may be another effect.

#### References

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- Zidonis, N., Snow, A. (2018). *Canine acupoint energetics & landmark anatomy*. Castle Pines, Colorado: Tallgrass publishers, LLC.