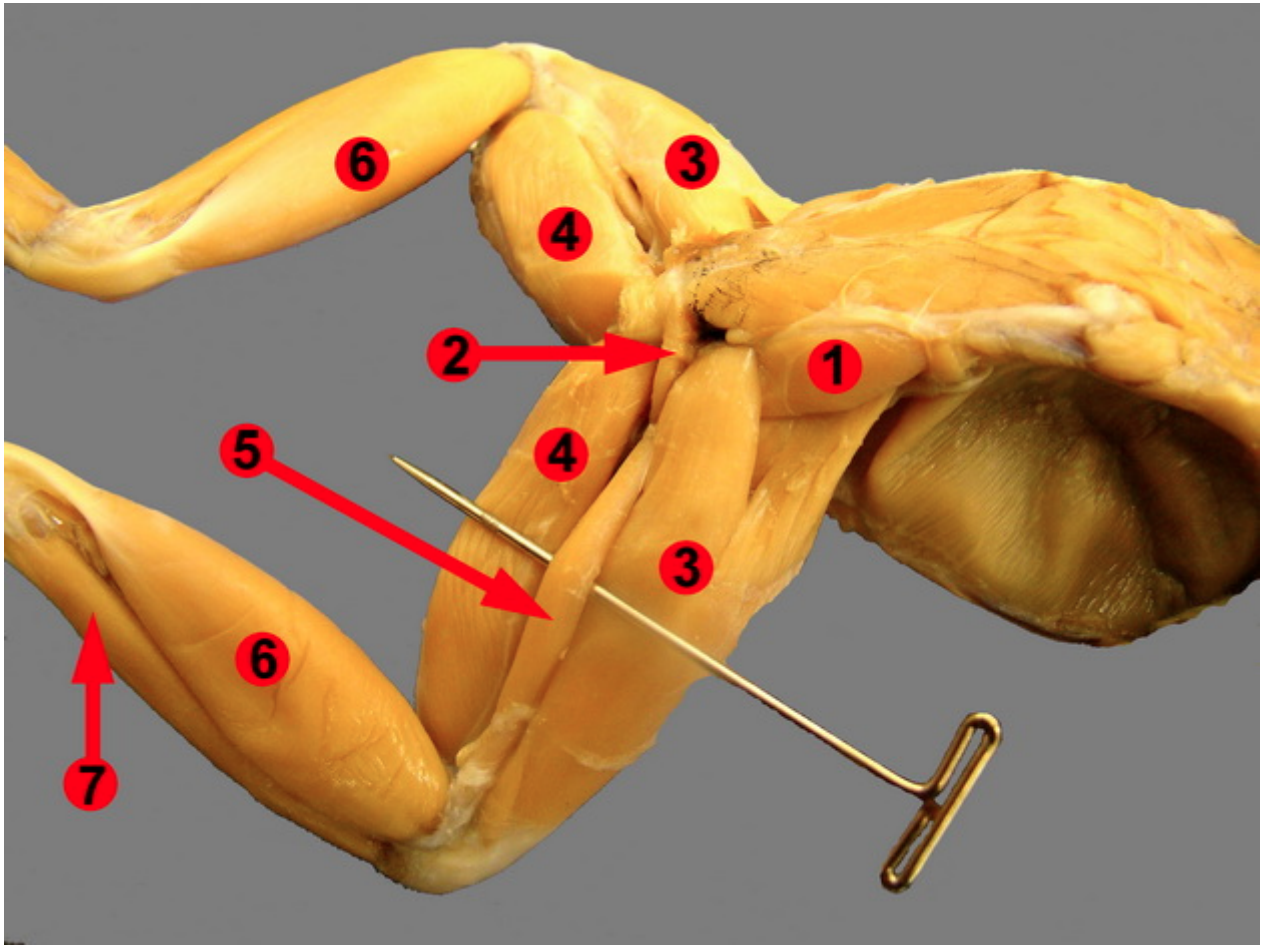
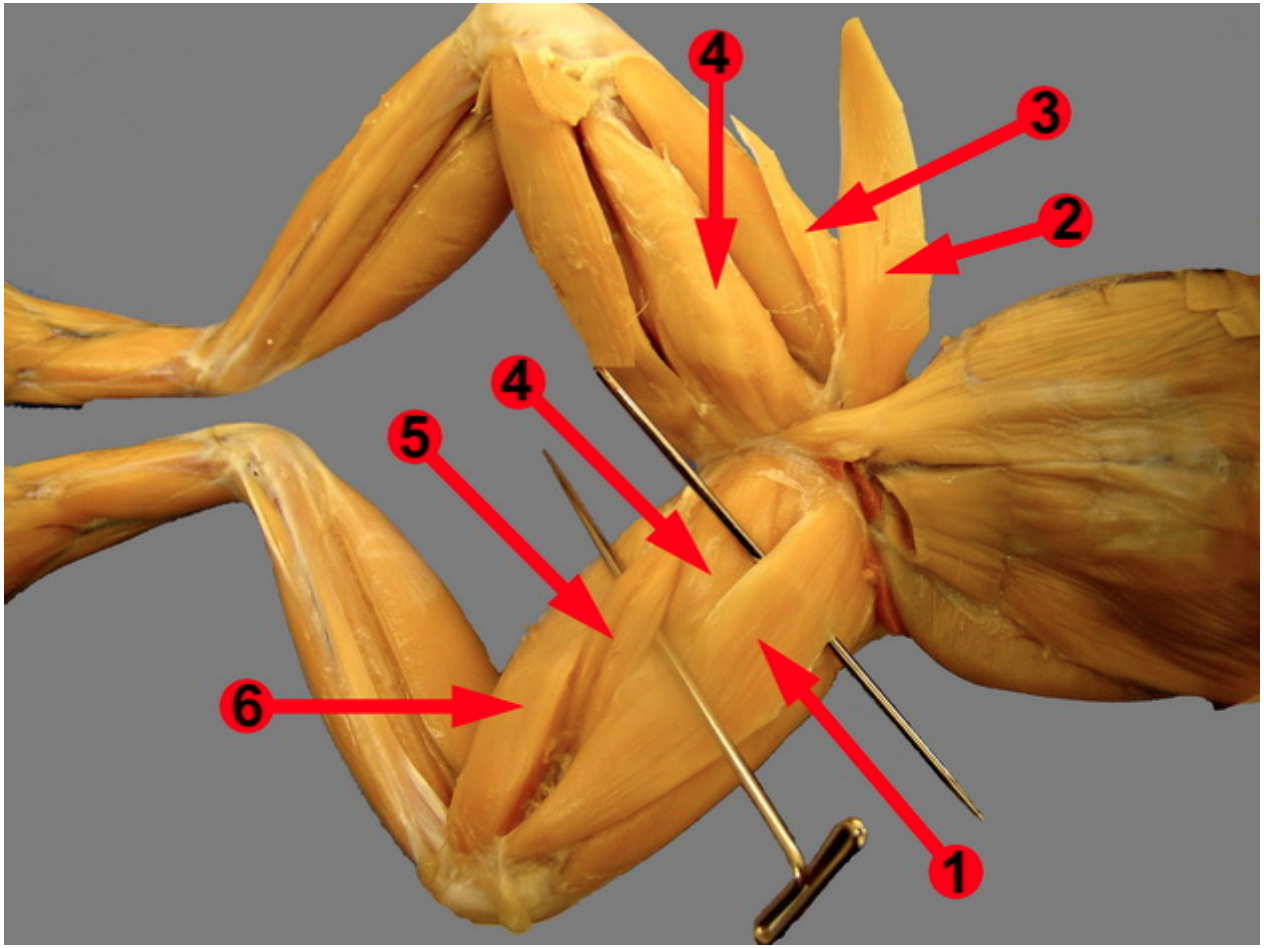
14. Bull frog skeleton (posterior view)

15. Dorsal muscles of the frog thigh



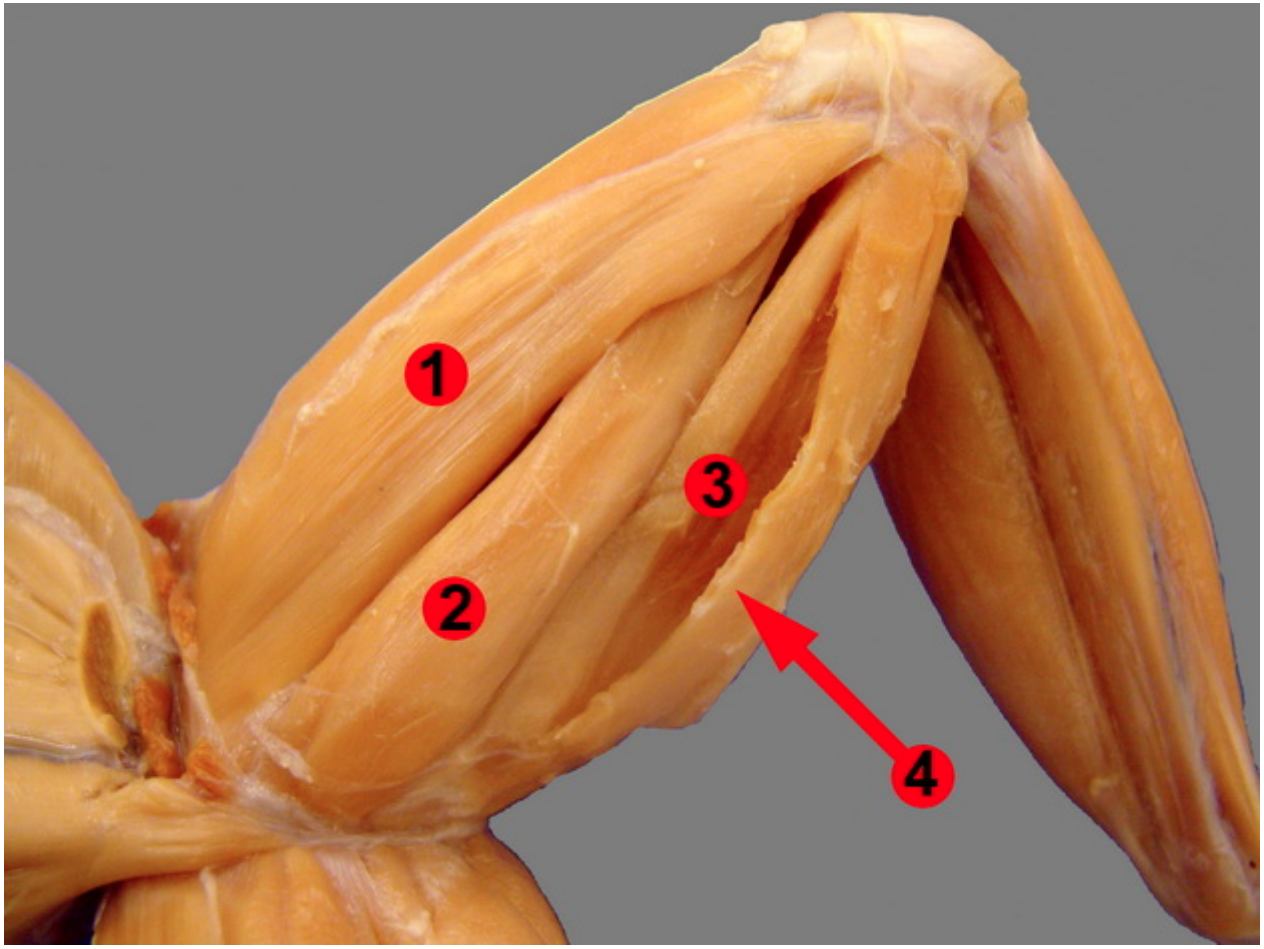
This image shows several of the major muscles on the dorsal surface of the frog thigh. The gluteus muscle (1), which originates on the ilium and inserts on the femur, rotates the thigh. The piriformis (2) is a small muscle located near the opening of the cloaca. The muscle originates on the urostyle, inserts on the femur and functions to extend and rotate the thigh. As the name indicates, the triceps femoris (3) is divided into three parts that originate and insert on different skeletal elements. All function, however, to flex the thigh and extend the shank. The semimembranosus (4), which originates on the ischium and pubis and inserts on the tibiofibula, extends the thigh and flexes the shank. The biceps femoris (5) found between the triceps femoris and semimembranosus originates on the ilium and inserts on the tibiofibula and femur. The biceps femoris extends and adducts the thigh and flexes the shank. Also shown on the image are the two major muscles of dorsal surface of the frog shank, the gastrocnemius (6) and peroneus (7).

16. Ventral muscles of the frog thigh 1



This image shows the major muscles of the ventral surface of the frog thigh. The sartorius (1) is a long, strap-shaped muscle that covers the anterior surface of the thigh. It originates on the pubis, inserts on the tibiofibula and acts to flex the thigh and shank. The sartorius (2) of the right leg is shown with its distal end cut and deflected to make it more visible. The adductor longus (3), which originates on the pubis and inserts on the femur, is a thin, strap-shaped muscle beneath the sartorius. Note: This muscle of the right leg has also been cut at its distal end and deflected to make it more visible. As the name implies, the adductor longus functions to adduct the thigh. The adductor magnus (4), which also adducts the thigh, is a large muscle seen as a triangle near the groin when the sartorius is in place. The muscle originates on the ischium and pubis and inserts on the femur. The semitendinosus (5) is a deep muscle with two heads that lies under and between the gracilis major and adductor magnus. The muscle originates on the ischium, inserts on the tibiofibula. The semitendinosus extends and adducts the thigh and flexes the knee. The gracilis major (6) is a large muscle that partly covers adductor magnus. It originates on the pubis, inserts on the tibiofibula and acts to extend the thigh and flex the shank.

17. Ventral muscles of the frog thigh 2

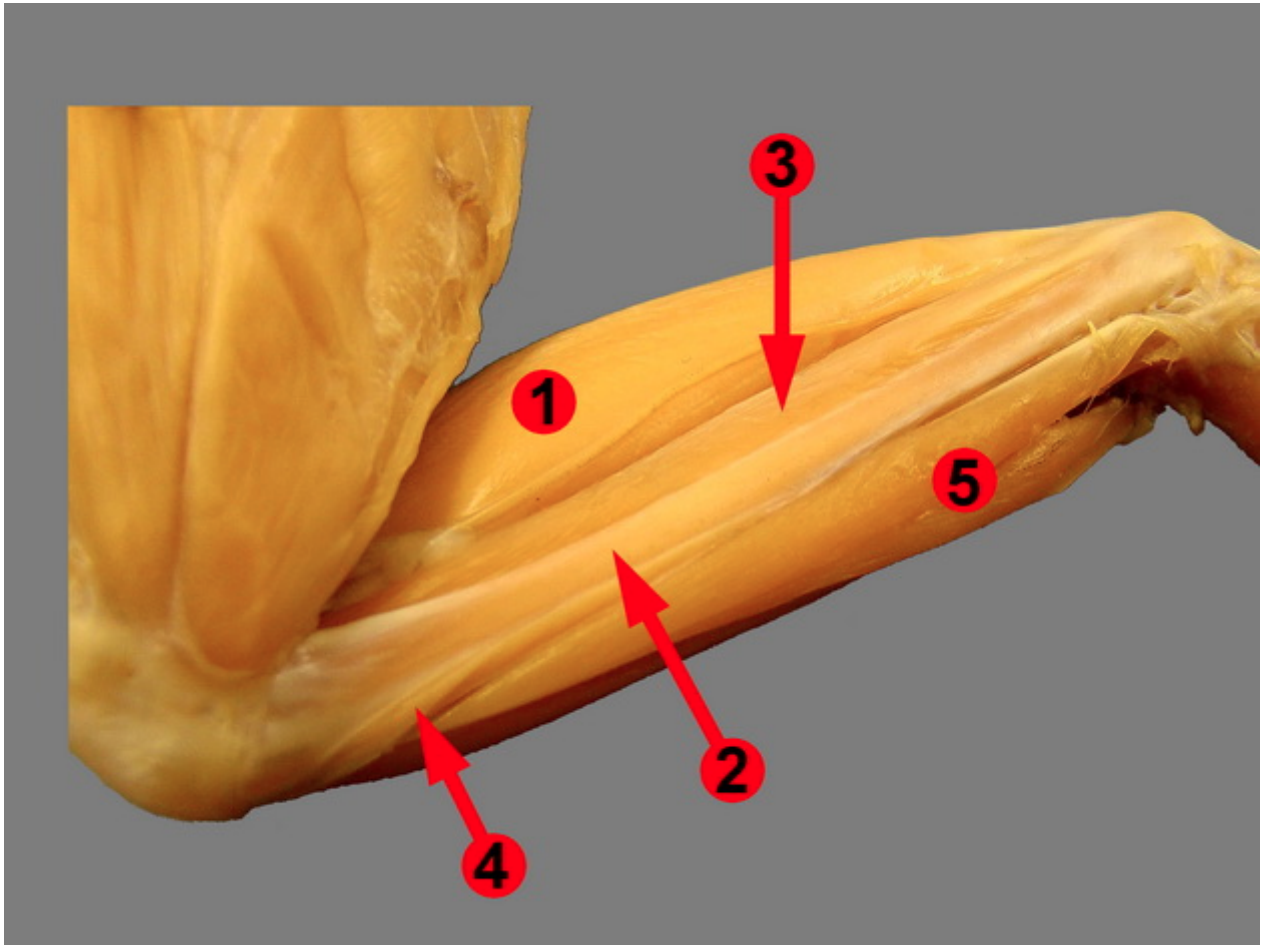


This image shows a close-up view of some of the major muscles of the ventral surface of the frog thigh seen on the previous page. Note again the sartorius (1) muscle that covers the anterior surface of the thigh, the adductor magnus (2) and gracilis major (3). Not seen on the previous page is the gracilis minor (4), a thin, strap-shaped muscle that covers the posterior margin of the thigh. This muscle has the same origin, insertion and action as the larger gracilis major, that is, it originates on the pubis, inserts on the tibiofibula and acts to extend the thigh and flex the shank.

18. Dorsal muscles of the frog shank

This image shows two of the major muscles found on the frog shank. The large gastrocnemius (1), the calf muscle that is located on the medial surface of the shank, originates on the femur, inserts on the Achilles tendon and flexes the shank and foot. The peroneus (2), which is located lateral to the gastrocnemius, also originates on the femur but inserts on the distal end of the tibiofibula. The peroneus extends the shank and foot.

19. Ventral muscles of the frog shank



This image shows a ventral view of some of the other major muscles of the frog shank. Once again note the large gastrocnemius (1) that covers much of the posterior surface of the shank. Between the gastrocnemius and the tibiofibula (2) is the tibialis posticus (3), a small muscle tightly attached to the posterior surface of the tibiofibula. This muscle originates on the tibiofibula, inserts on the tarsal bones and flexes the foot. The extensor cruris (4) is a short muscle found tightly attached to the upper two thirds of the tibiofibula. It originates on the femur, inserts on the tibiofibula and extends the shank. The tibialis anticus longus (5) is a small muscle with two bellies that lies anterior to the tibiofibula. It originates on the femur and inserts on the tarsal bones. The tibialis anticus longus lifts the foot and flexes the ankle.