

1) You design an experiment in which you use Botox to temporarily paralyze muscles one at a time to see what actions those muscles do. You could have just paid attention in class and used your book but you decide to do the experiment anyway.

To prevent a test subject from raising their arm you inject Botox into the _____.

To prevent a test subject from kicking their leg forward, you would disable their _____.

To prevent a test subject from standing on their tippy toes, you would disable their _____.

To prevent a test subject from cupping their hands and holding a bowl of ramen you would disable their _____.

2) A stroke or spinal cord injury may produce over-excitability to stretch in muscles. Patients sensitive to stretch hyper activate their muscles when their joints are extended by a medical practitioner. What anatomical muscle structure is most likely affected to produce this reaction?

3) Consider ankle inversion.

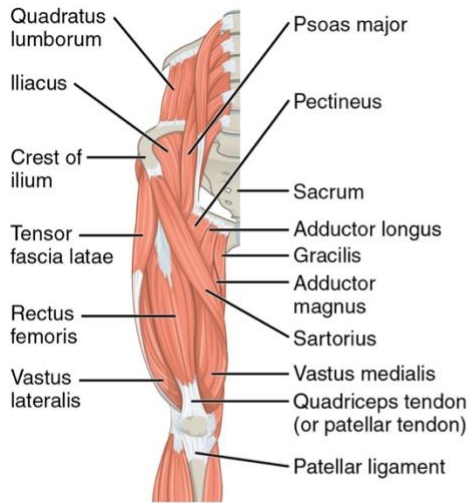
A. Where would the muscles responsible for this motion have to be located, and where would they have to cross the joint? Why?

B. Which muscles are responsible for this joint motion?

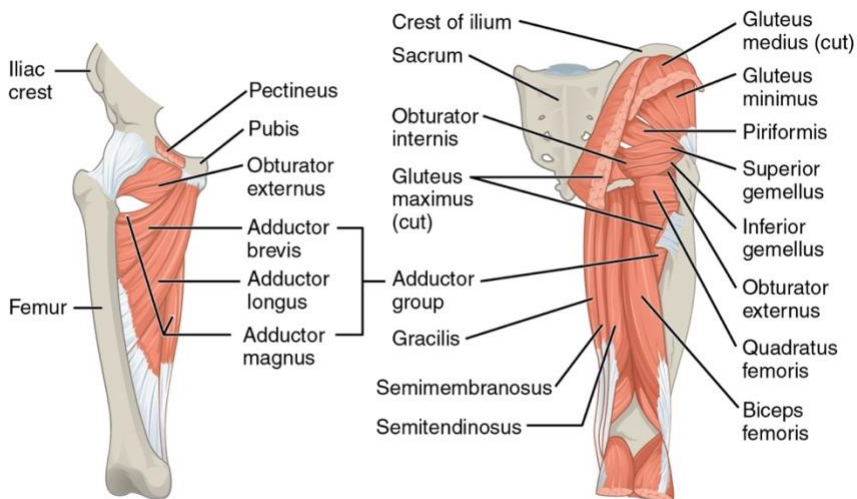
C. Which bones do these muscles attach to (where are the origins and insertions)?

D. When the muscles contract, in which directions do they contract (shorten) and how does this pull the bones to create the appropriate joint motion?

4) Study the diagram below for 60 seconds and then draw from memory all the muscles as best you can. Repeat for each view three times.



Superficial pelvic and thigh muscles of right leg (anterior view)



Deep pelvic and thigh muscles of right leg (anterior view)

Pelvic and thigh muscles of right leg (posterior view)