



Thigh and Knee Pain

Simon Vulfsons

Rambam Institute for Pain Medicine



Program for the day

Common causes of thigh and knee pain

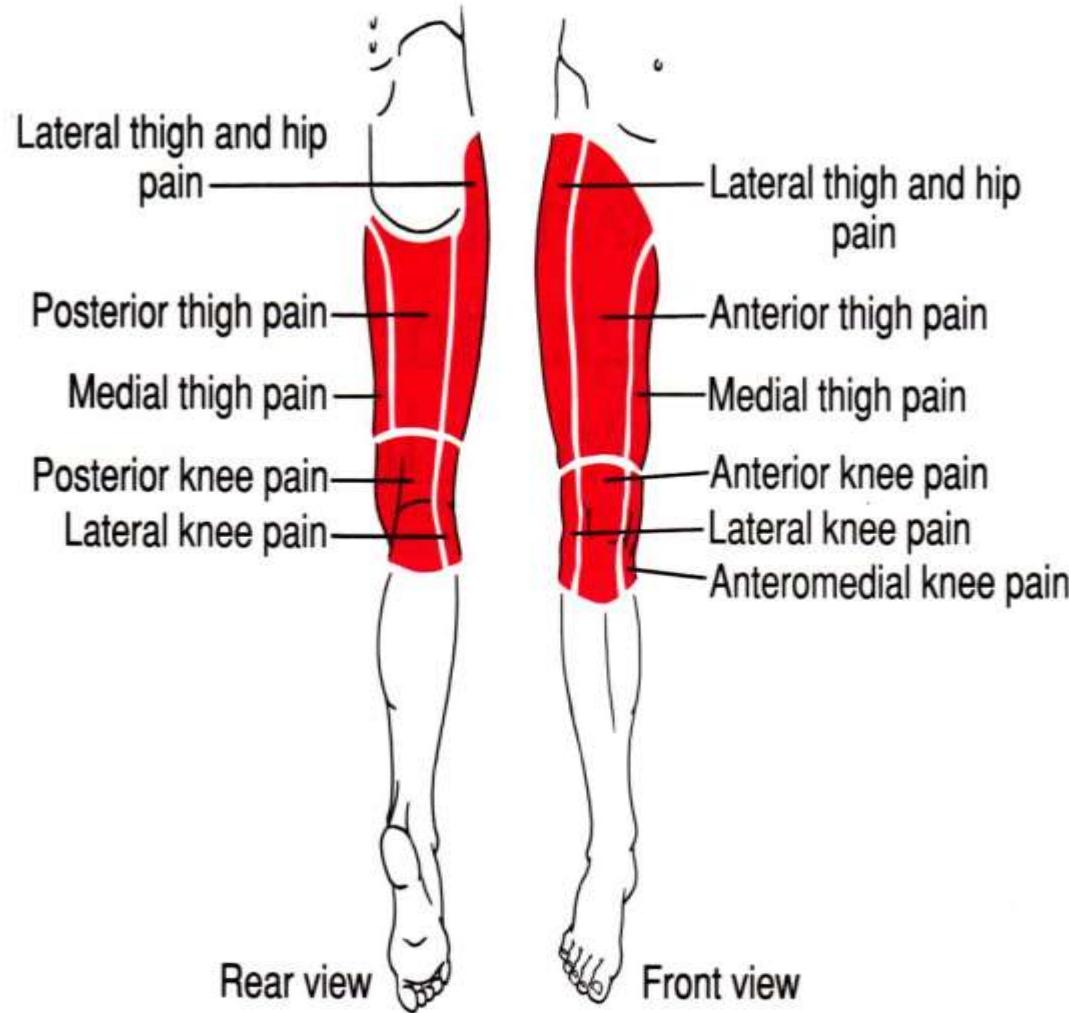
- Quadriceps
- Hamstrings

Knee extensors + Hip Flexor

Thigh extensors +Knee Flexors



Myofascial Pain of the knee and thigh area



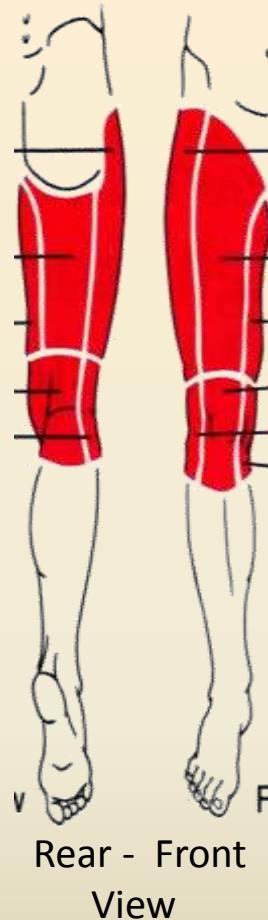
Thigh & Knee Pain

Anterior Knee Pain

Rectus femoris
Vastus medialis
Adductors longus & brevis

Anterior Thigh Pain

Adductors longus & brevis
Iliopsoas
Adductor magnus
Vastus intermedius
Pectineus
Sartorius
Quadratus lumborum
Rectus femoris



Anteromedial Knee Pain

Vastus medialis
Gracilis
Rectus femoris
Sartorius (lower TrP)
Adductors longus & brevis

Lateral Knee Pain

Vastus lateralis

Lateral Thigh and Hip Pain
Gluteus minimus
Vastus lateralis
Piriformis
Quadratus lumborum
Tensor fasciae latae
Vastus intermedius
Gluteus maximus
Rectus femoris

Medial Thigh Pain

Pectineus
Vastus medialis
Gracilis
Adductor magnus
Sartorius

Posterior Knee Pain

Gastrocnemius
Biceps femoris
Popliteus
Semitendinosus/Semimembranosus
Gastrocnemius
Soleus
Plantaris

Posterior Thigh Pain

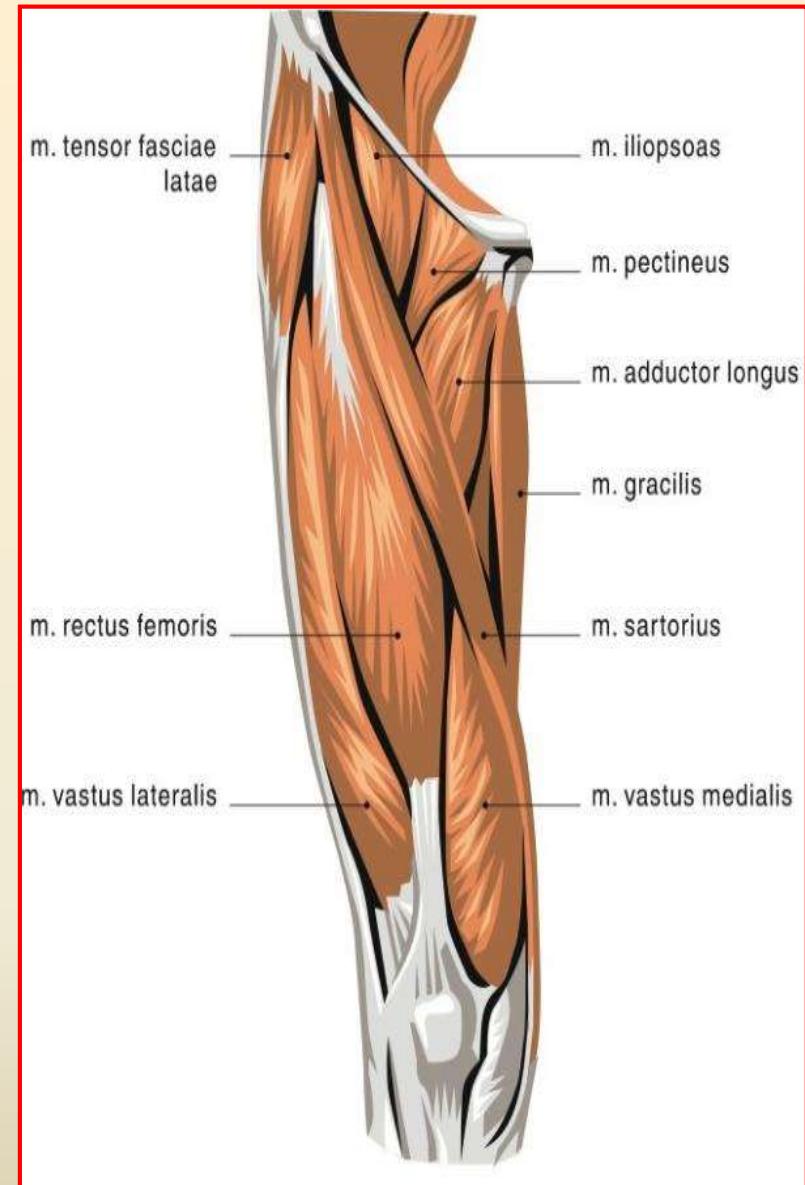
Gluteus minimus
Semitendinosus/Semimembranosus
Biceps femoris
Piriformis
Obturator internus

Thigh Muscles – anterior view



Thigh Muscles

anterior view



Innervations of the Thigh

Anterior compartment from **femoral nerve**

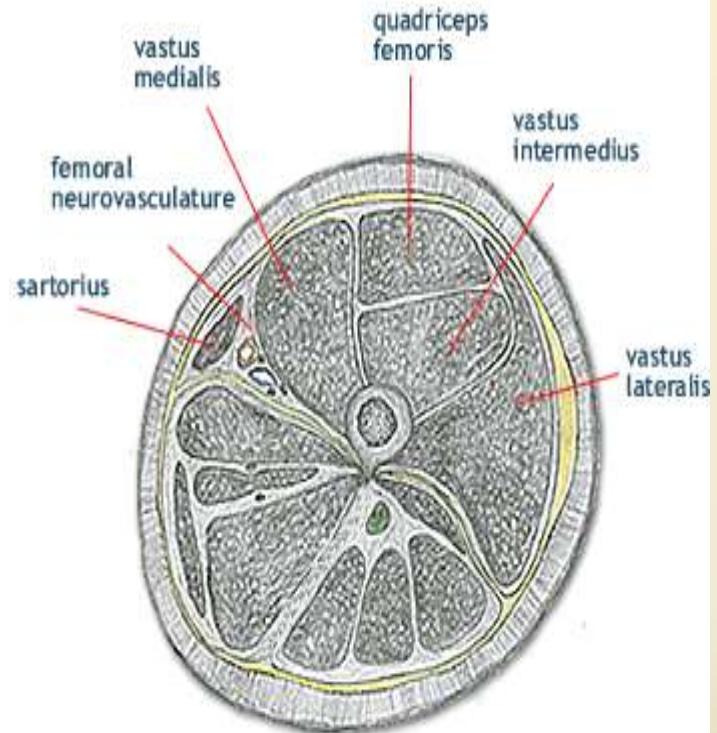
L2,3,4.

Medial compartment from **obturator nerve**

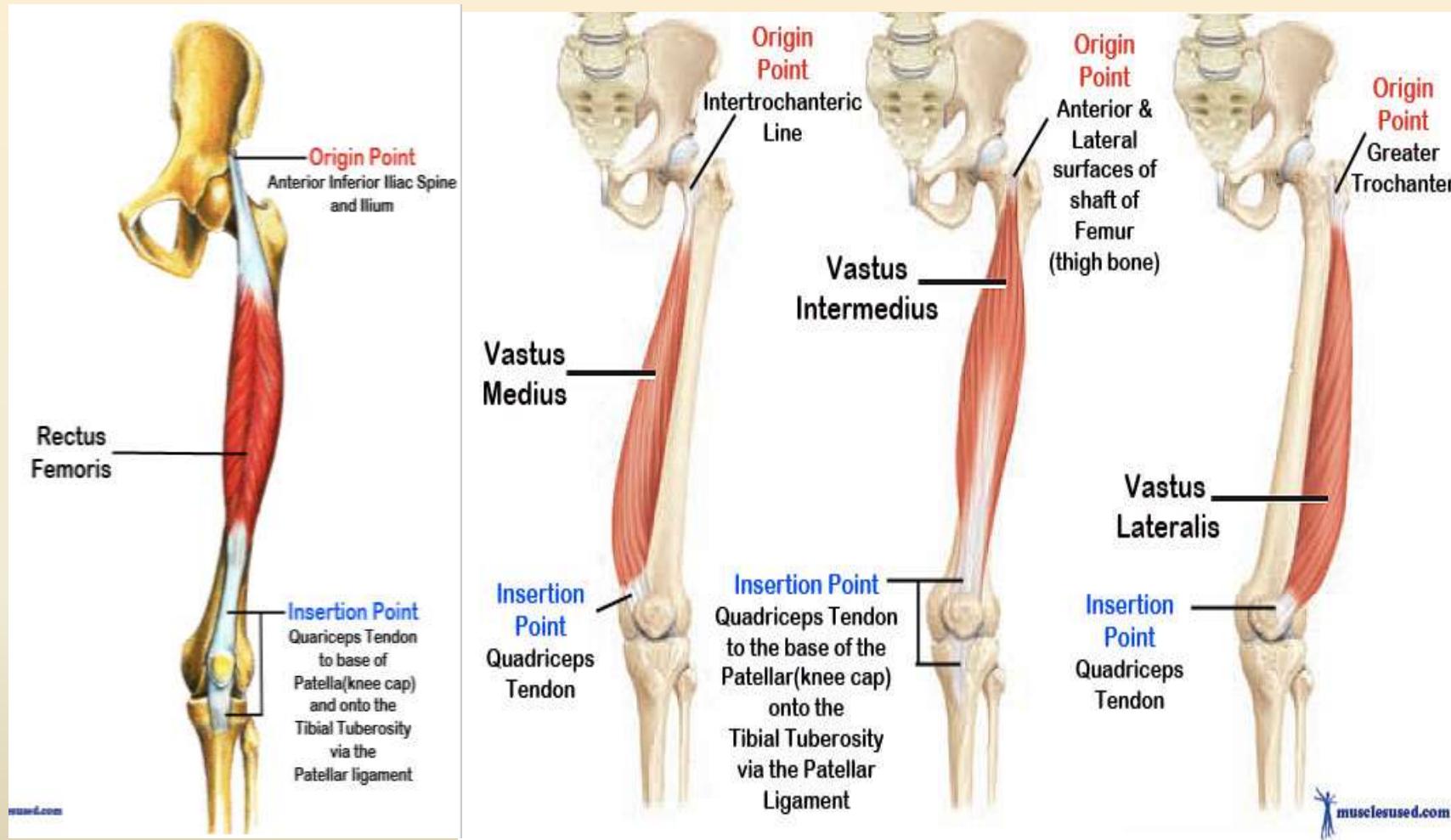
L2,3,4.

Posterior compartment from **sciatic nerve**

L4,5,S1,2,3 (sacral plexus).



Quadriceps Femoris Muscles



Rectus Femoris

ORIGIN

Straight head:
anterior inferior iliac
spine. Reflected head:
ilium above
acetabulum

INSERTION

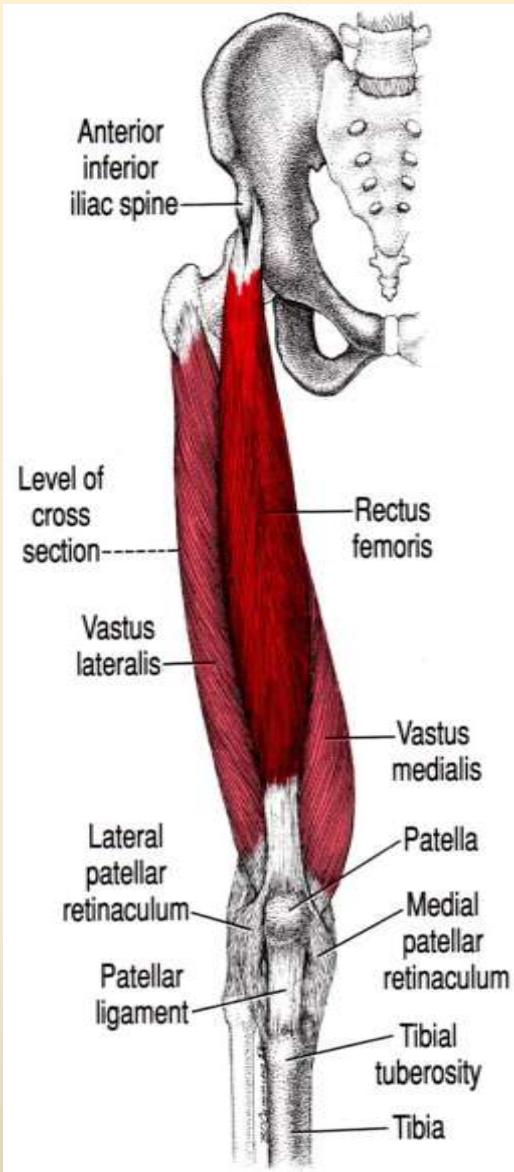
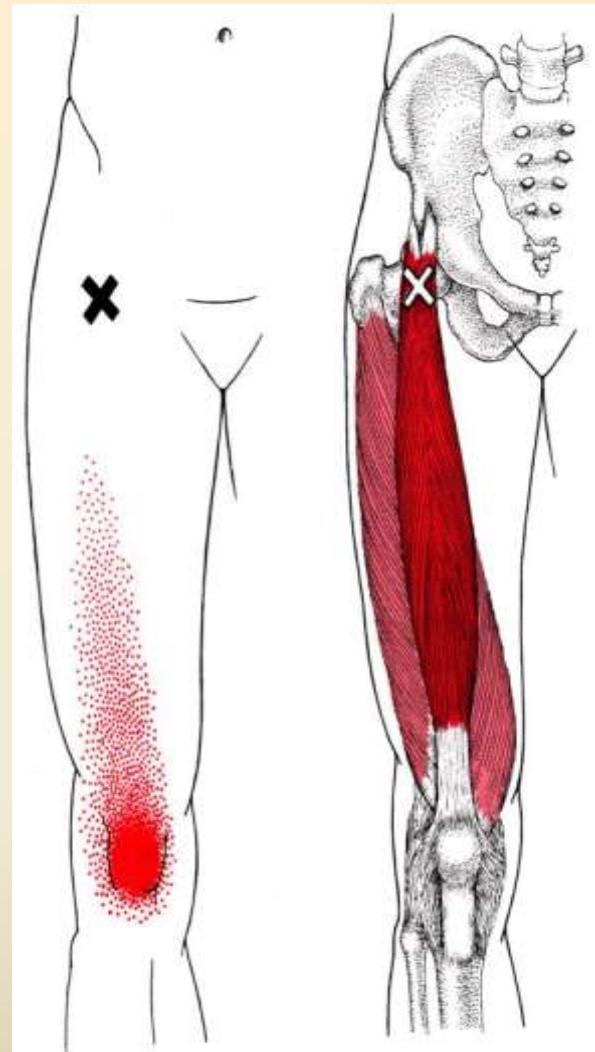
Quadriceps tendon to
patella , via
ligamentum patellae
into tubercle of tibia

ACTION

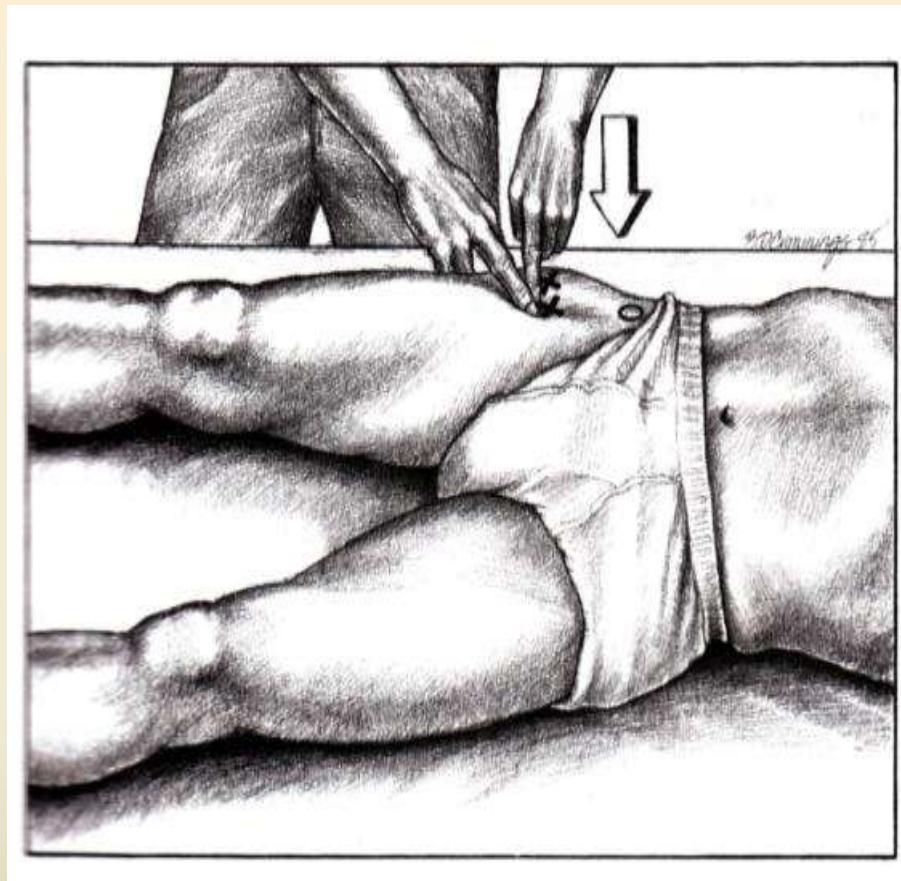
Extends leg at knee.
Flexes thigh at hip

NERVE

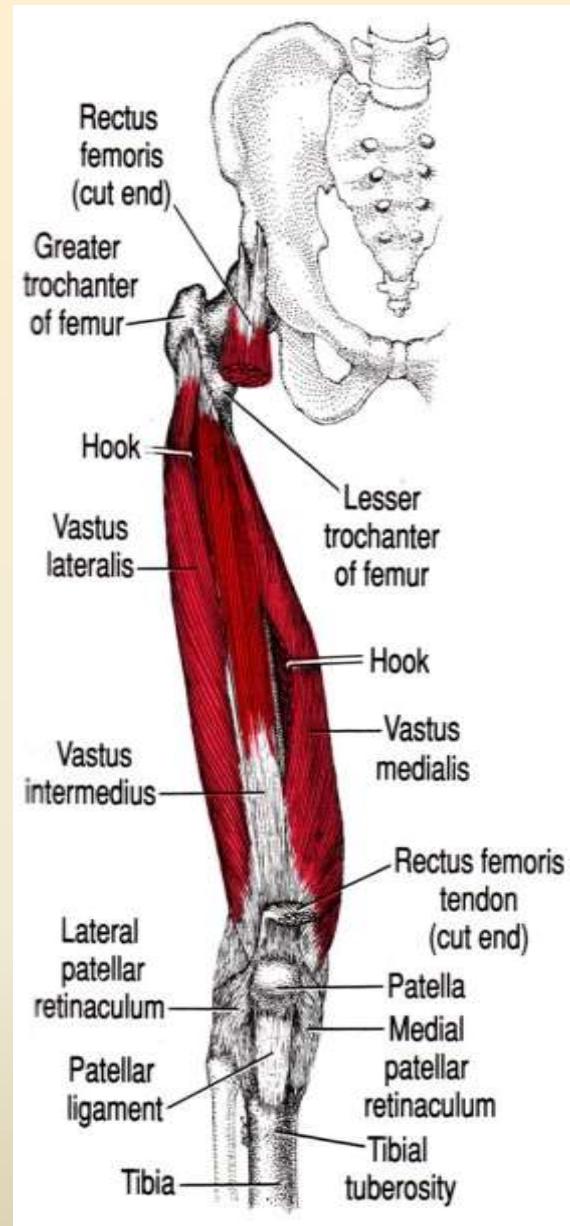
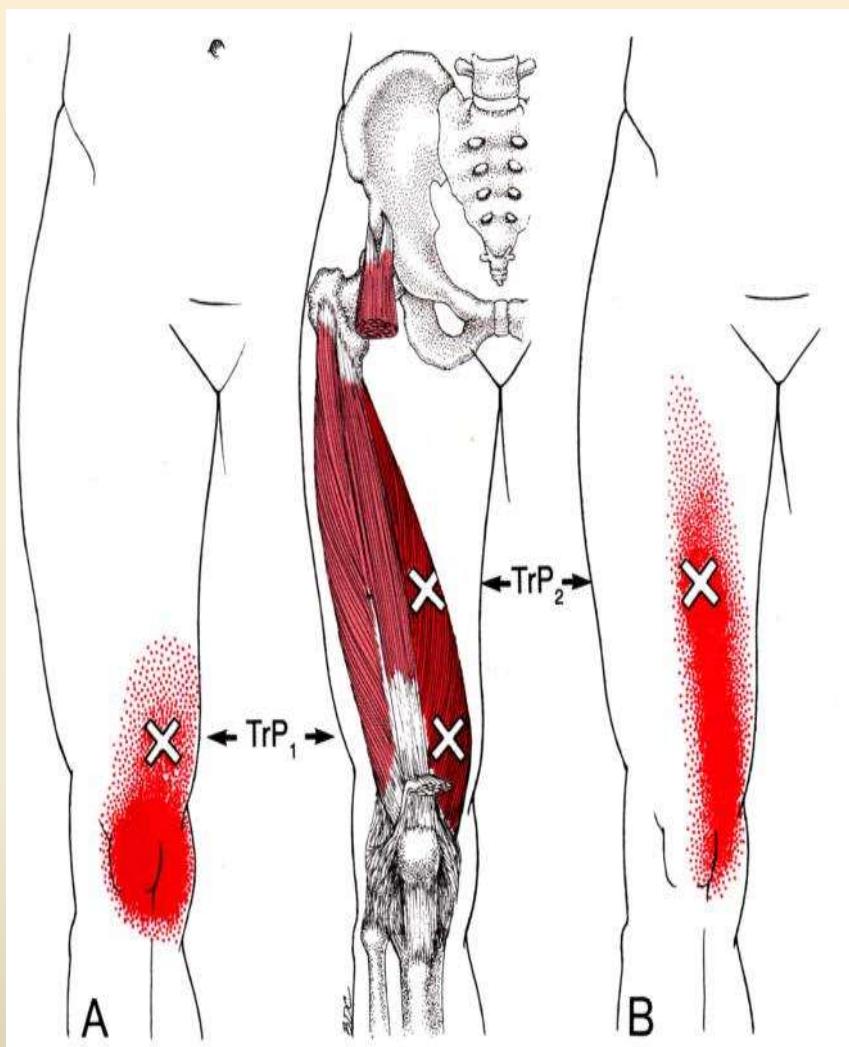
Posterior division of
femoral nerve (L3, 4)



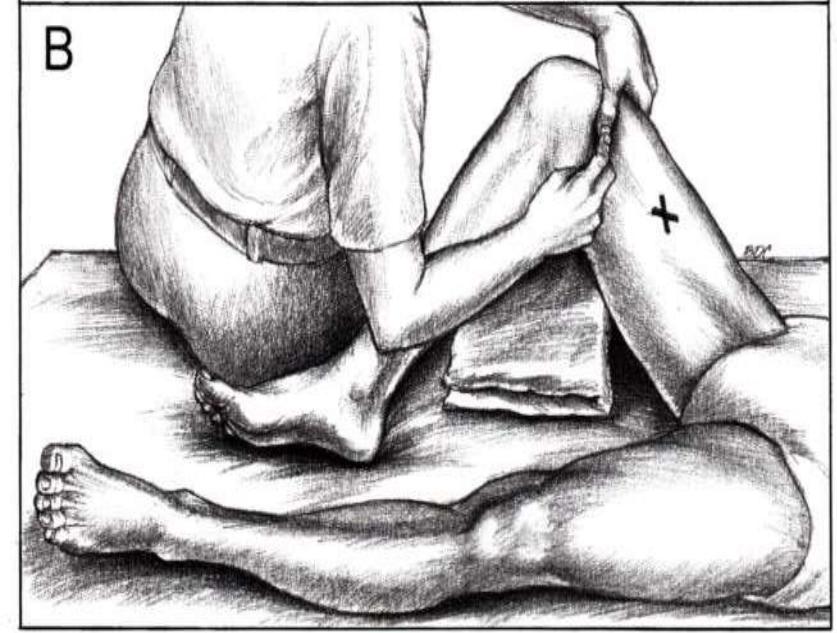
Rectus Femoris TrP palpation



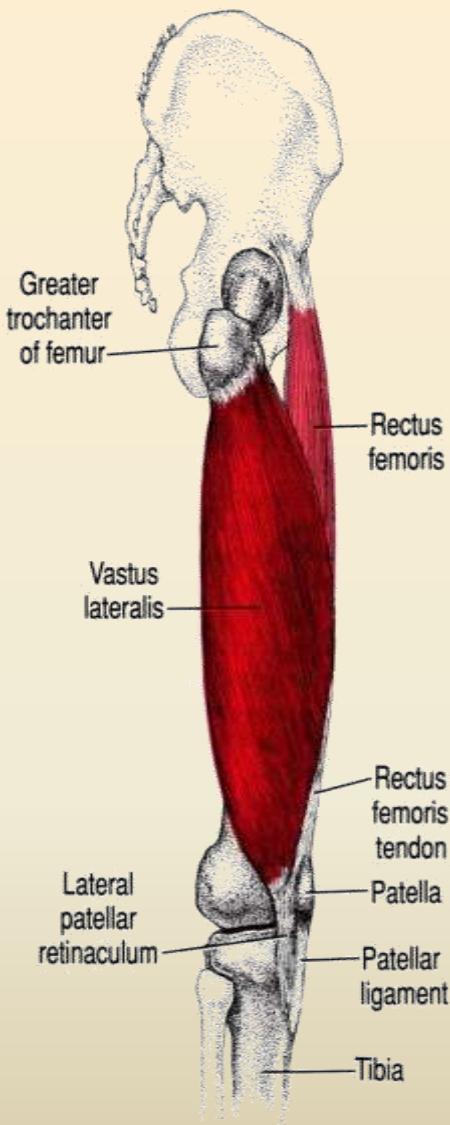
Vastus Medialis



Vastus Medialis TrP palpation



Vastus lateralis



ORIGIN

Upper intertrochanteric line, base of greater trochanter, lateral linea aspera, lateral supracondylar ridge and lateral intermuscular septum

INSERTION

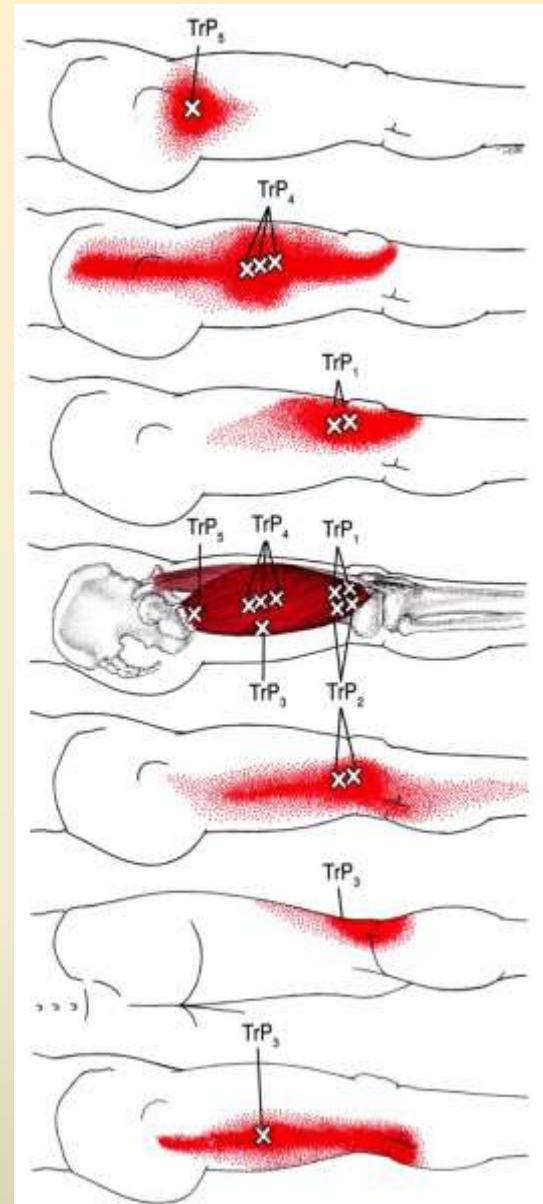
Lateral quadriceps tendon to patella, via ligamentum patellae into tubercle of tibia

ACTION

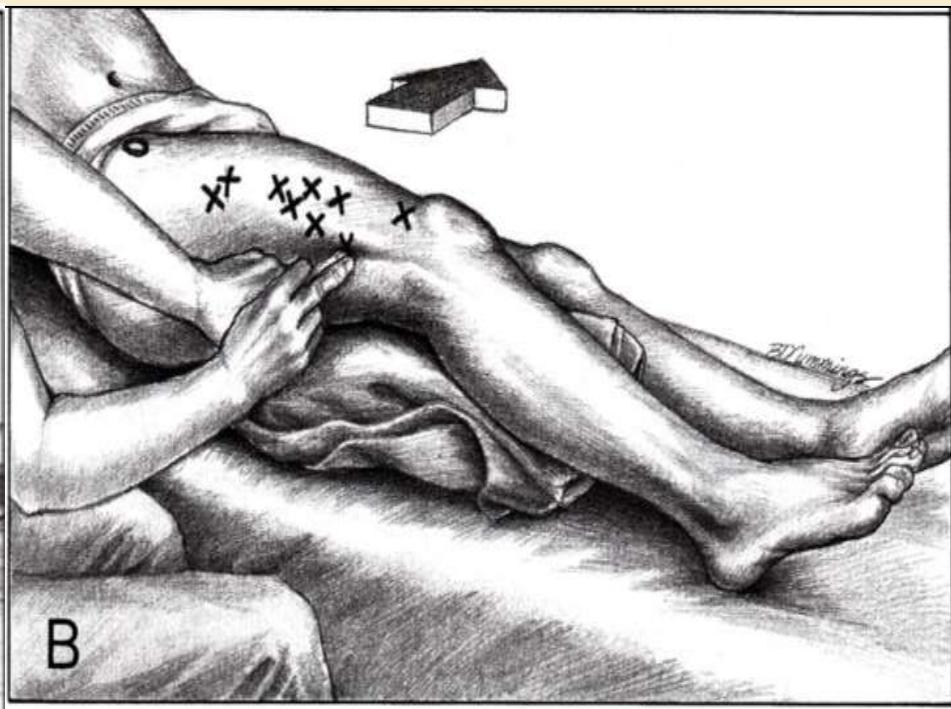
Extends knee

NERVE

Posterior division of femoral nerve (L3,4)



Vastus lateralis TrP palpation

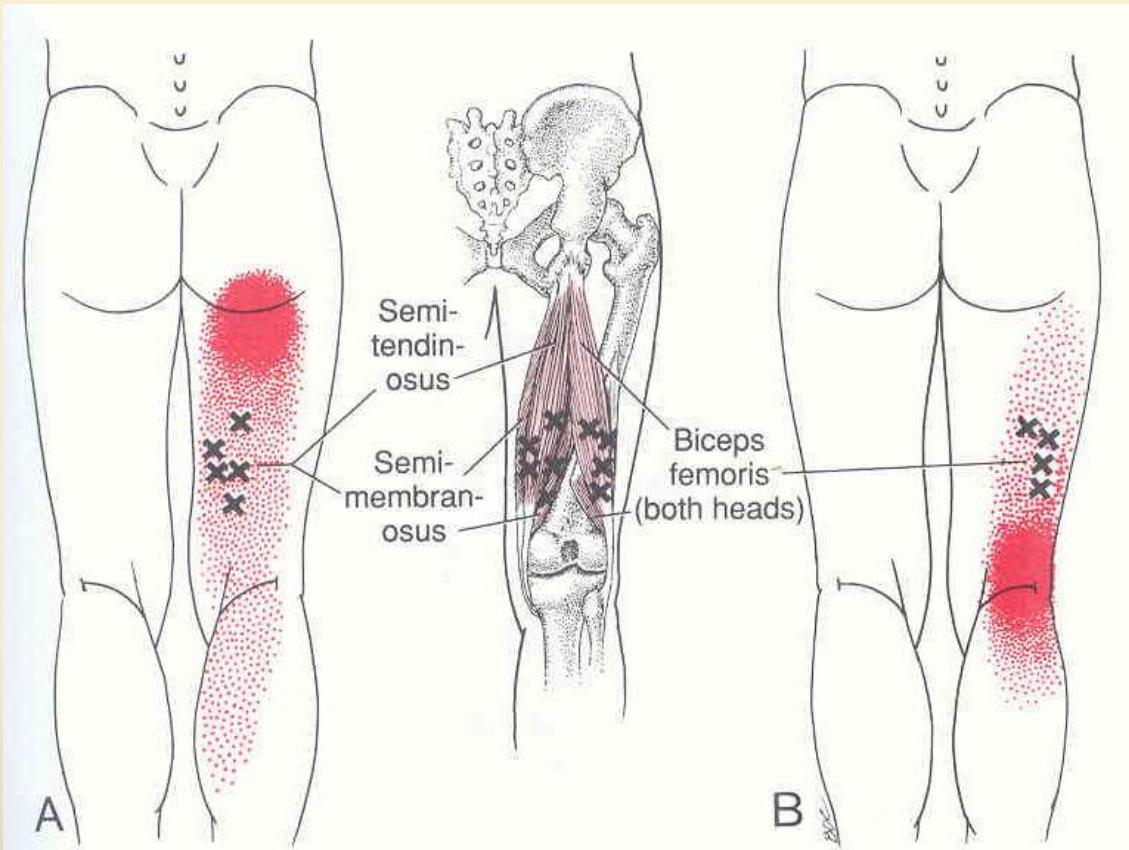


**DON'T PRACTICE
UNTIL YOU GET IT
RIGHT. PRACTICE
UNTIL YOU CAN'T
GET IT WRONG.**

WWW.LIVELIFEHAPPY.COM

Hamstrings Myofascial Pain

Hamstrings Pain



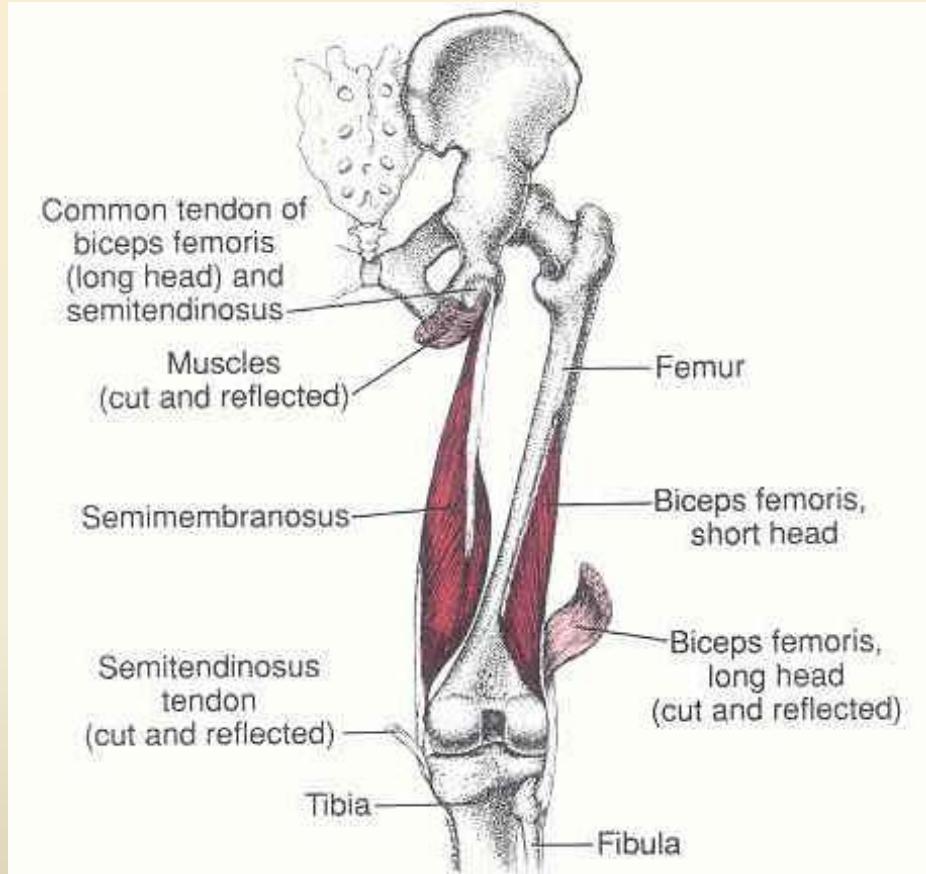
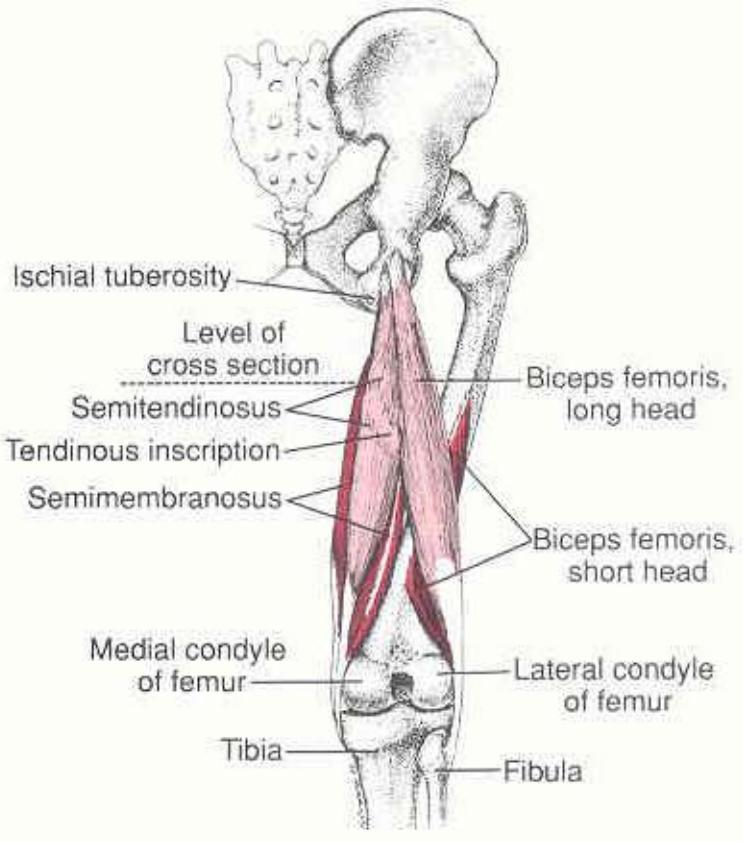
Note:

Biceps Femoris pain felt mainly in posterior knee

Semitendinosus and Semimembranosus pain felt mainly in lower buttocks area

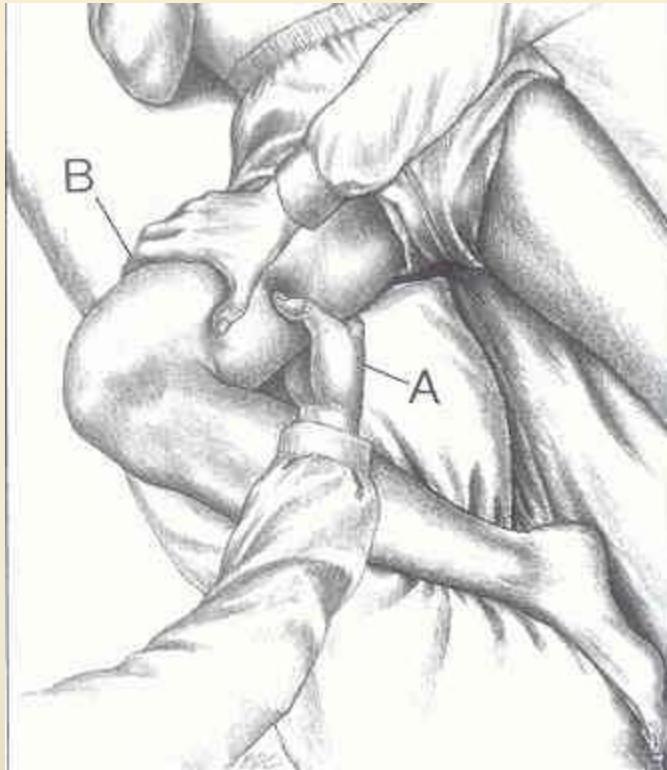
Hamstrings Myofascial Pain

Hamstrings Anatomy



Hamstrings Myofascial Pain

Hamstrings



Semitendinosus and semimembranosus
Medial area

Exam



Biceps Femoris Lateral area

Hamstrings Myofascial Pain

Hamstrings



Self stretch

