BI 199 APWT Discussion 7

I. ***Attendance & Announcements*** **Remember poster topic & outline w/references due by this afternoon! Next several weeks we meet here! Next Thursday upper extremity bones activity + 1st Year Programs.**

II. ***Lower Extremity Multi- vs. Single-joint Exercises***

A. Multi-joint Front squat/squat, leg press, lunge

B. Single-joint Leg extension, leg curl, calf raise (*NB:*)

III. ***Open Discussion***

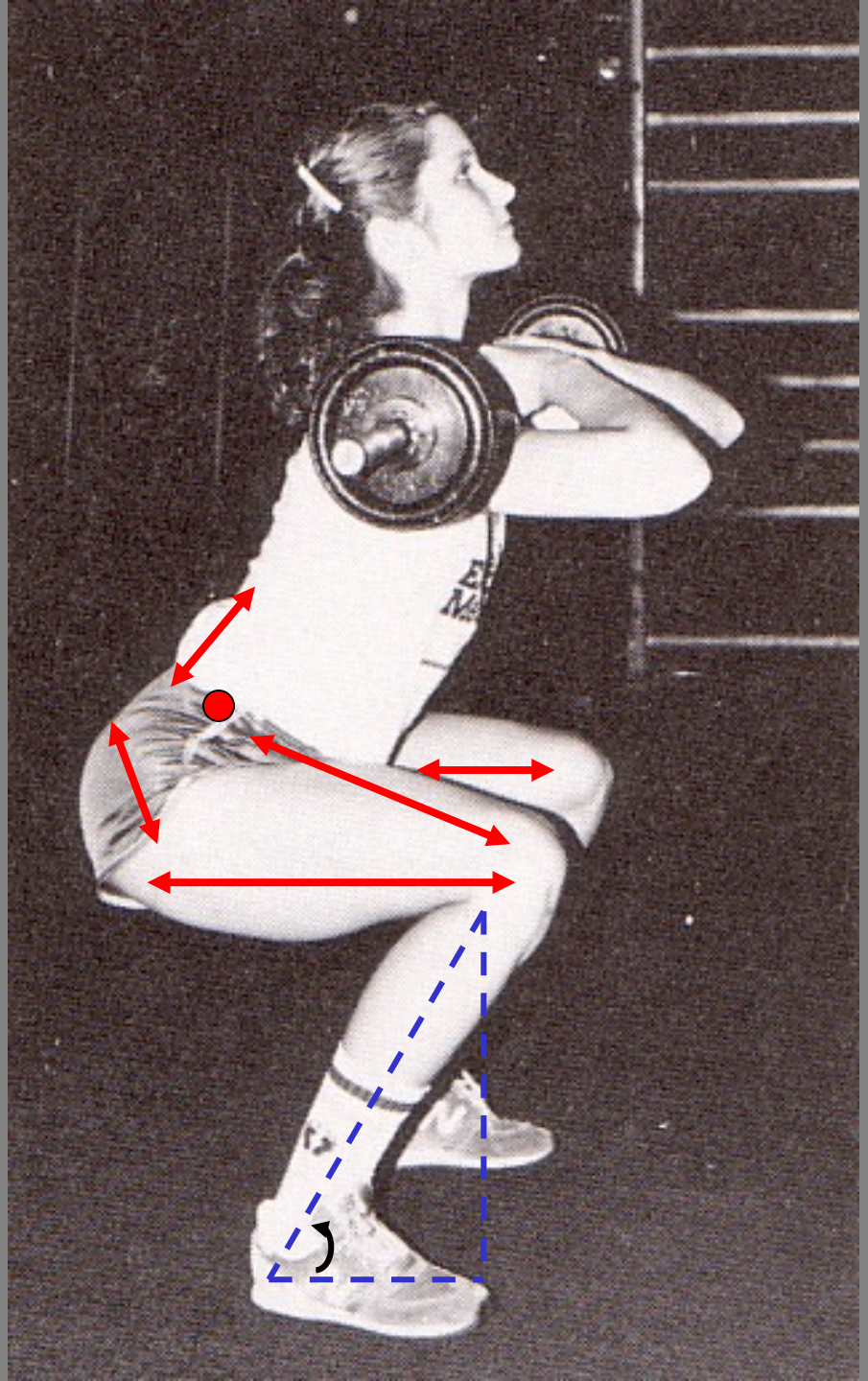
SOURCES: VPL, Francis & Martin, McMinn & Hutchings, Panksy +…

Squat!

Lower Body!

COG to periphery!

Front Squat



Hip

Thigh front

back

inside

Lower back

Gluteal group

Quadriceps

Hamstrings

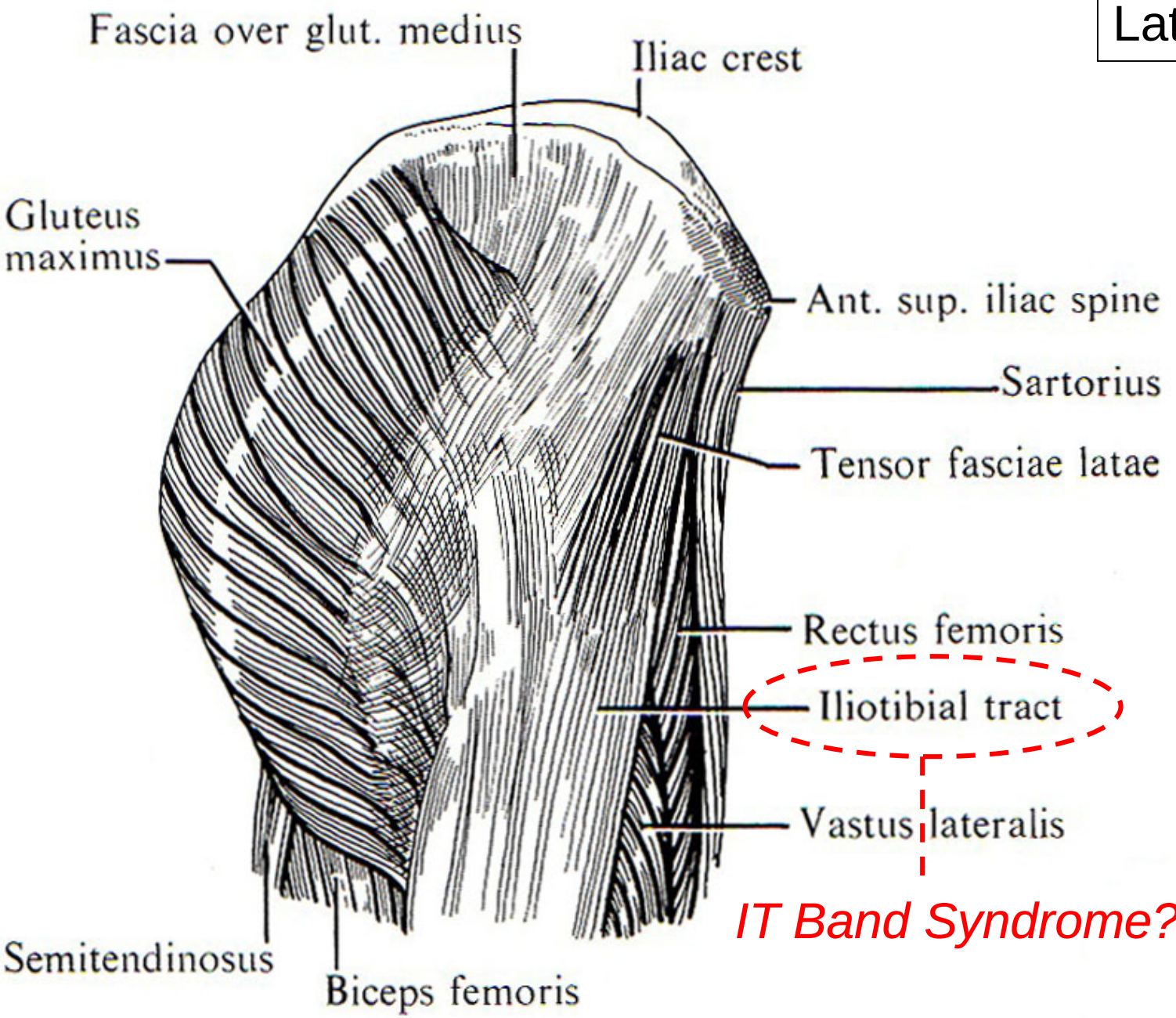
Adductors

Erector spinae

Sprinters rely upon explosive hip & thigh strength emanating from the Center of Gravity!

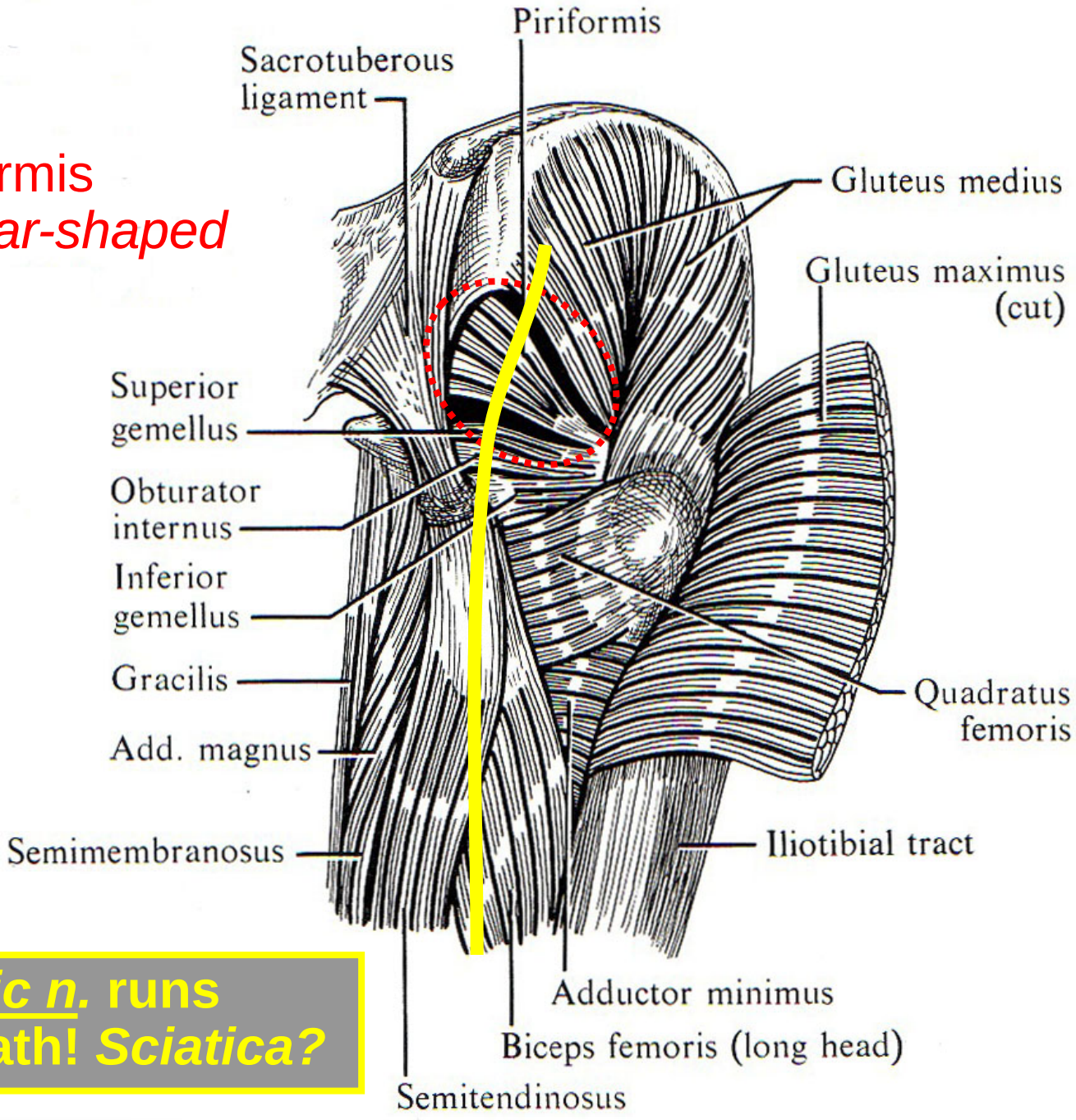
L Sherwood

R hip
Lateral



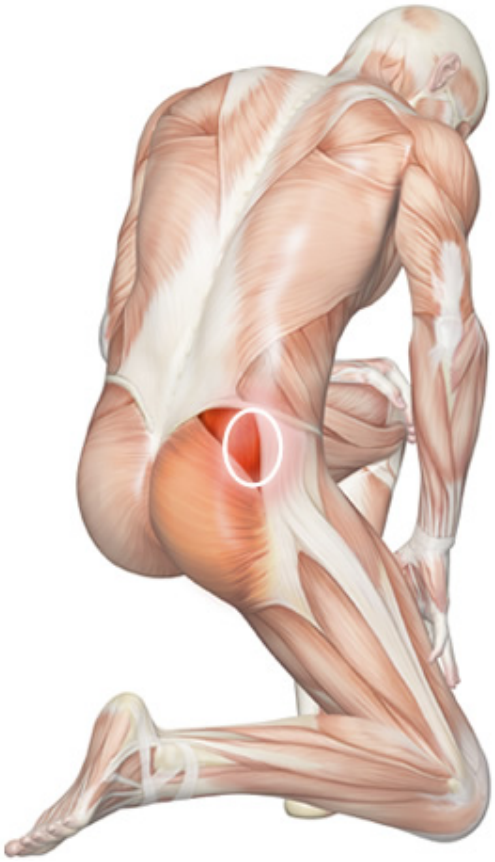
R hip
Posterior

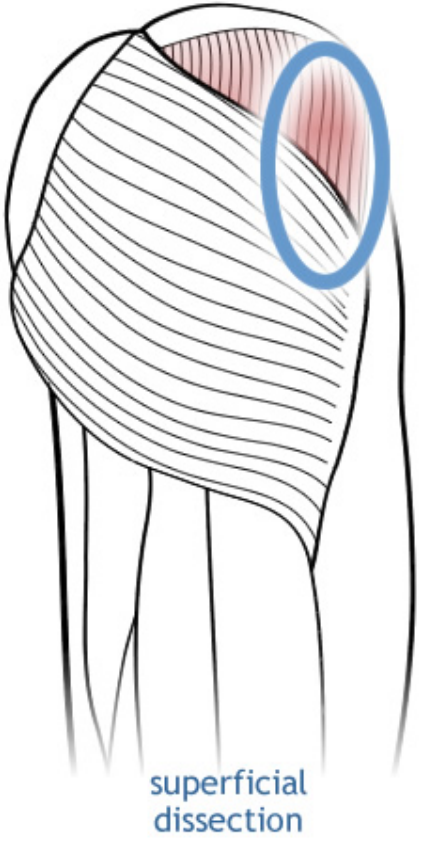
Piriformis
L. pear-shaped

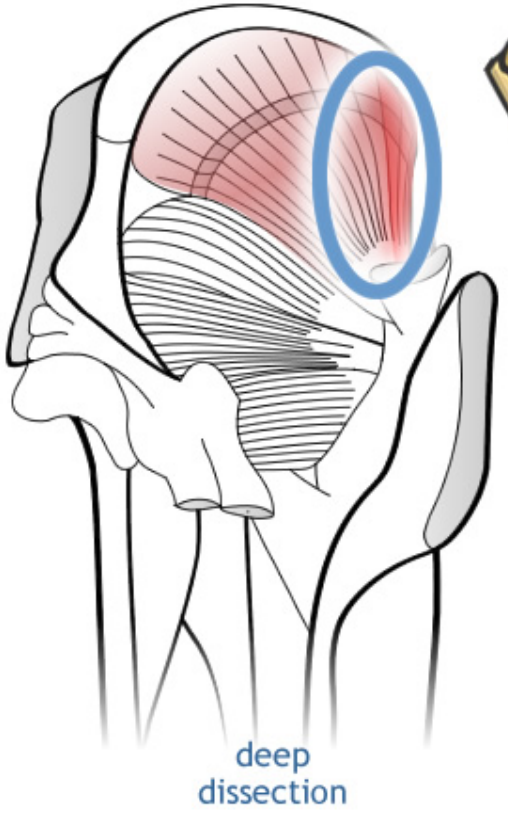


Sciatic n.* runs beneath! *Sciatica?

Deeper Gluteal Muscles Look Like Pizza Slices!!
Superficial to Deep: *Maximus, Medius, Minimus!*





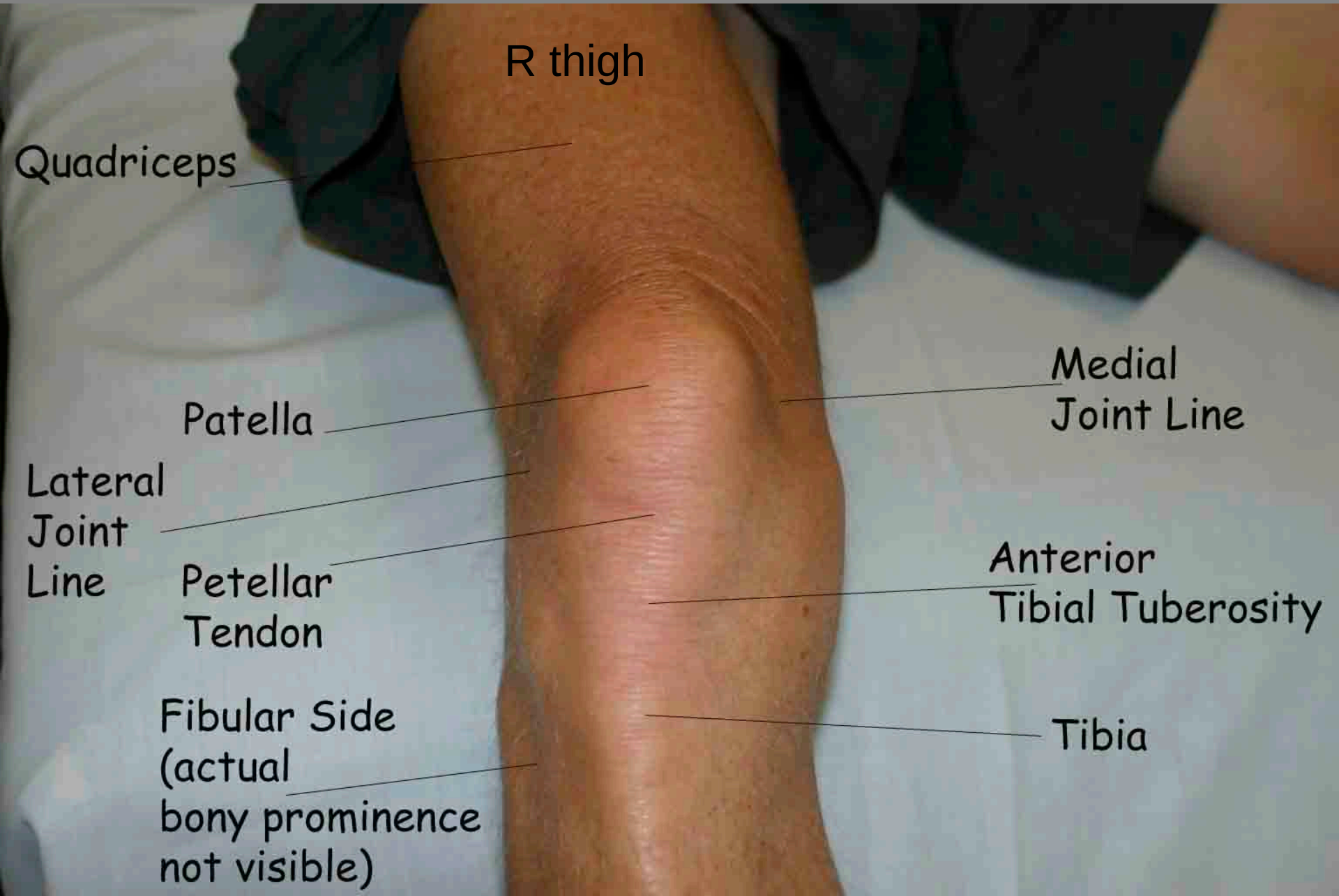


The gluteus medius and minimus muscles look like slices of pizza!

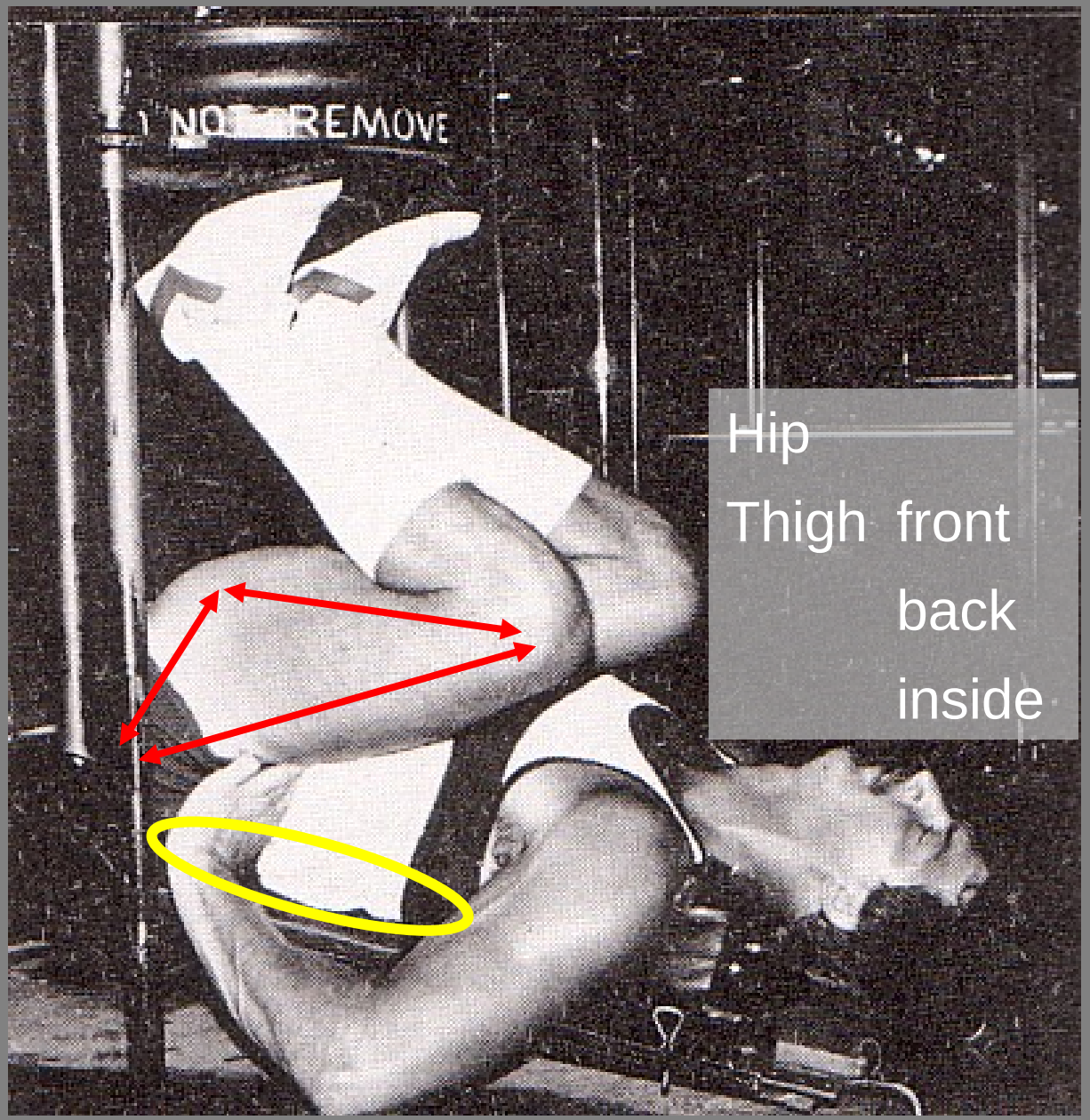
http://www.anatomyexpert.com/structure_detail/5715/

Image Source: http://saveyourself.ca/articles/spot-06-gluteus-medius.php

Knee Surface Anatomy – UC San Diego Clinical Medicine



Leg Press



Hip		Gluteal group
Thigh	front	Quadriceps
	back	Hamstrings
	inside	Adductors

- Lower back

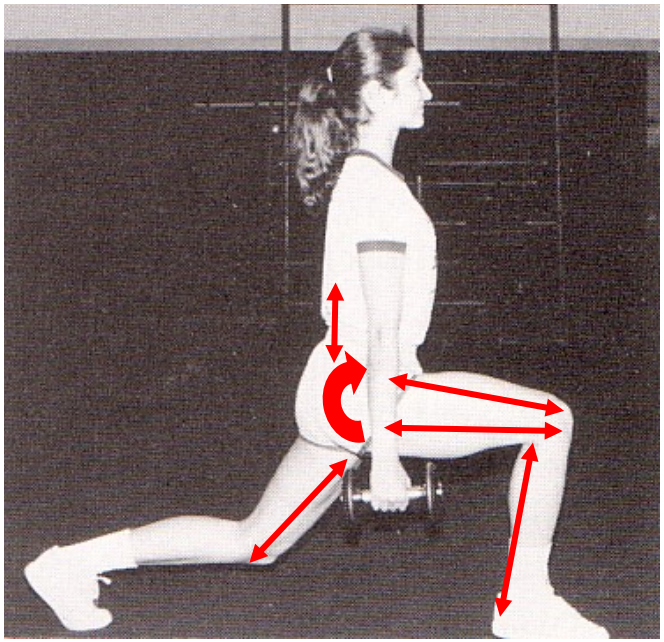
Lunge

1

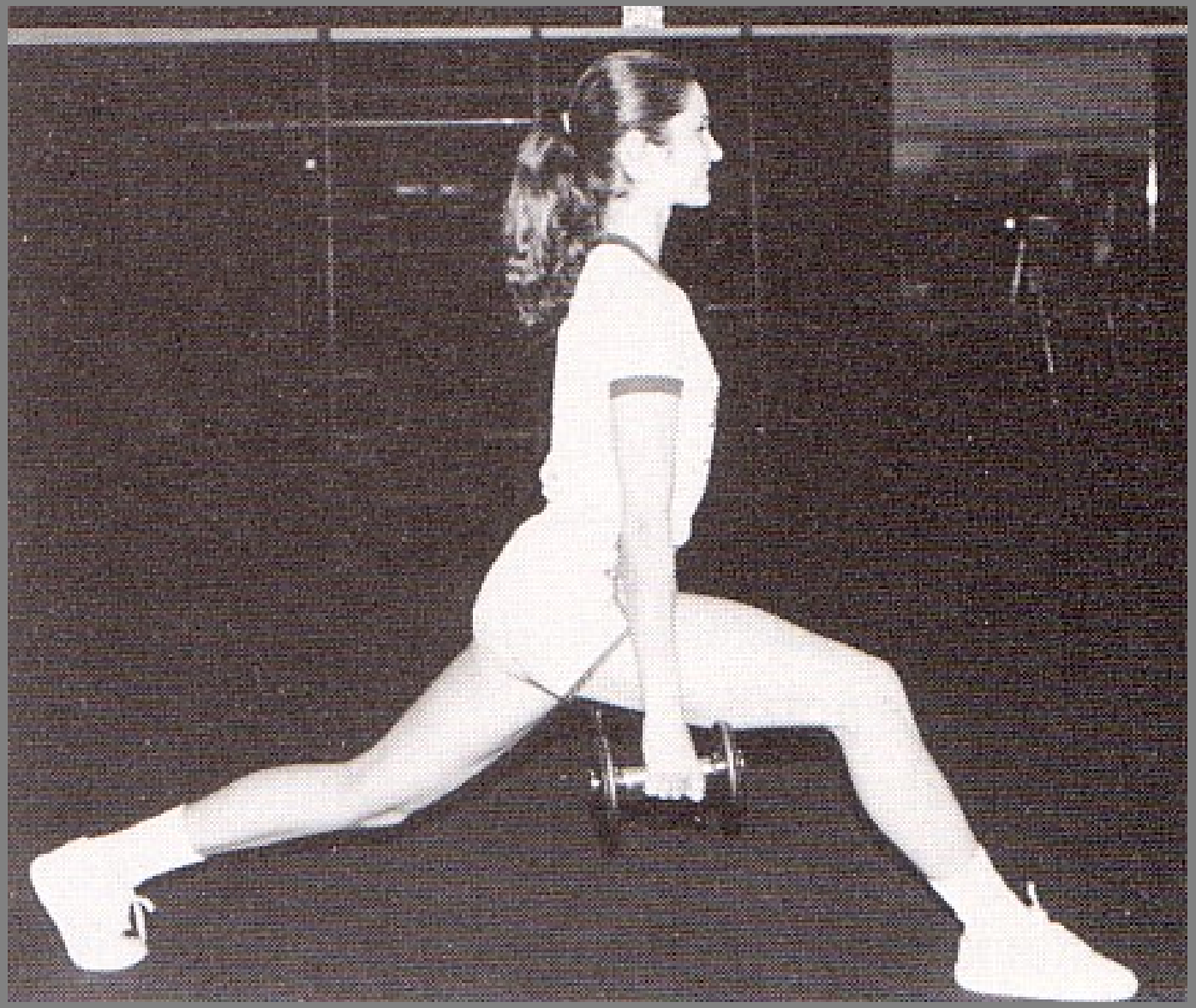
2

3

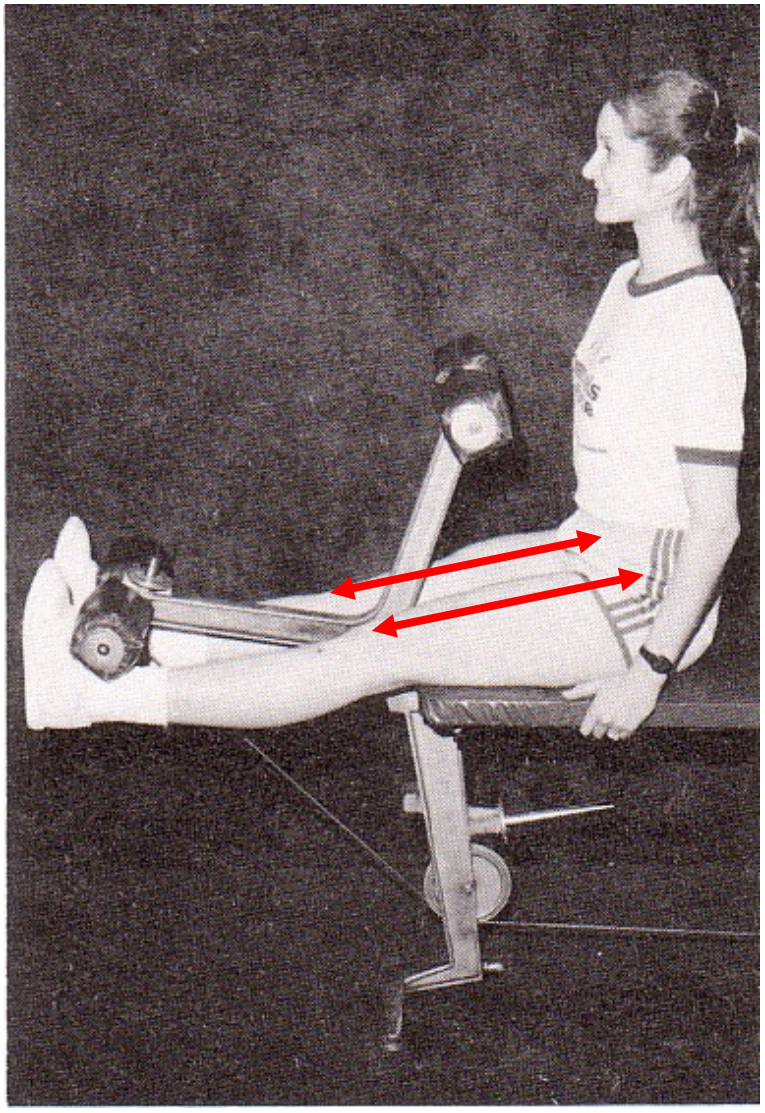
4



Avoid Overstriding!

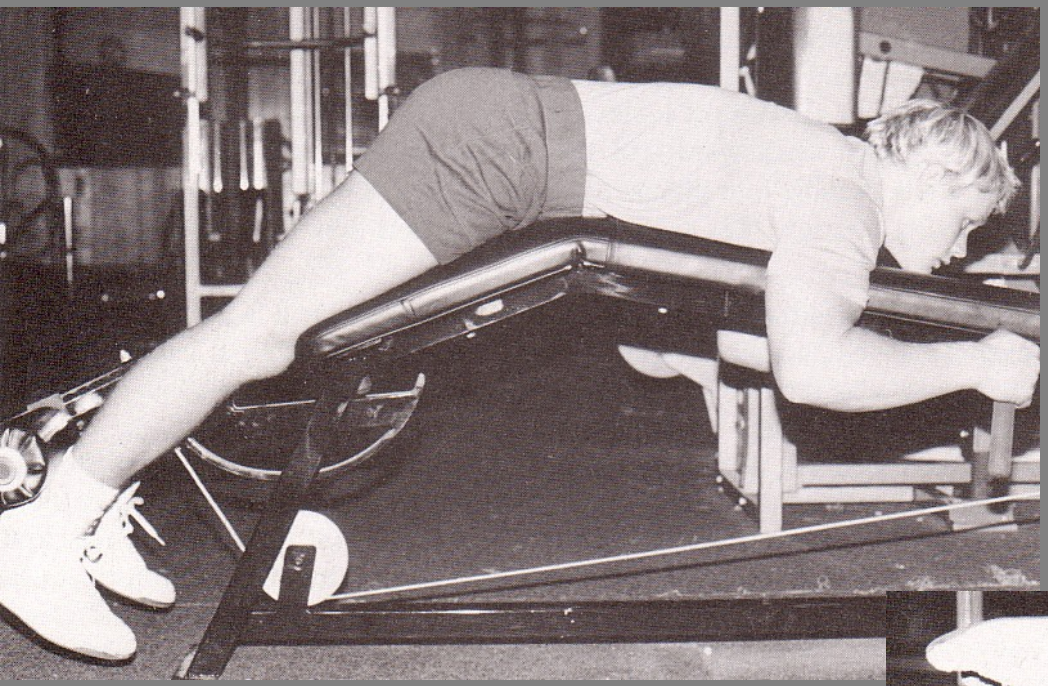


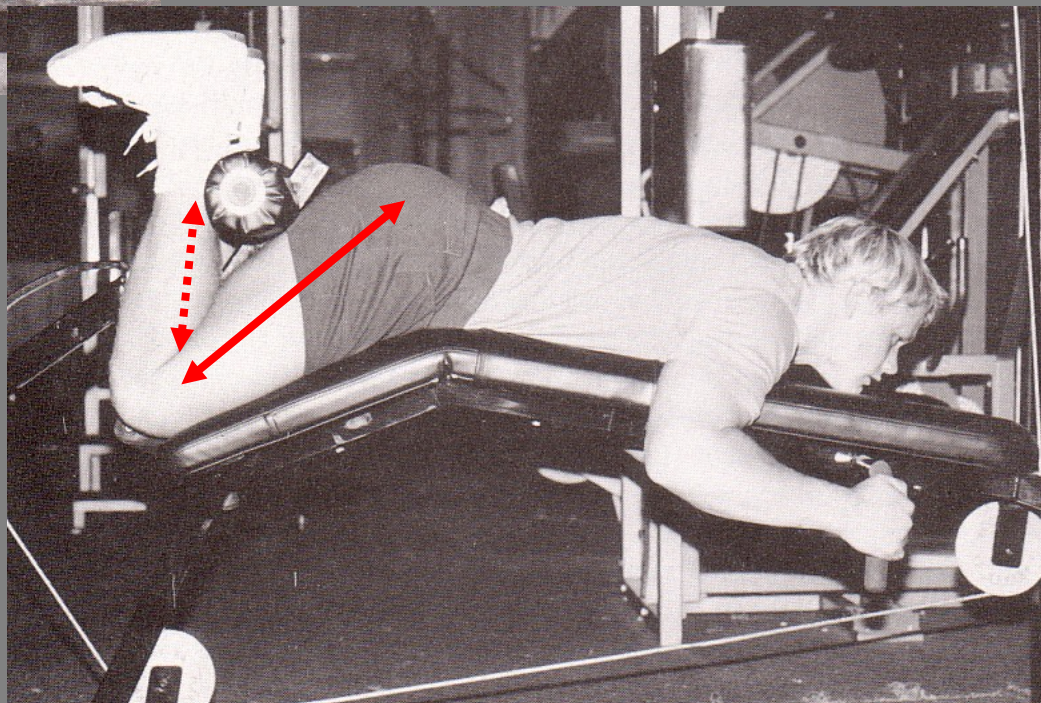
Leg Extension



Front of thigh = quadriceps

Leg Curl





Posterior thigh = hamstring group

Calf = gastrocnemius (minor involvement)

Donkey Calf Raise – Straight Knee → Gastrocnemius

FROM

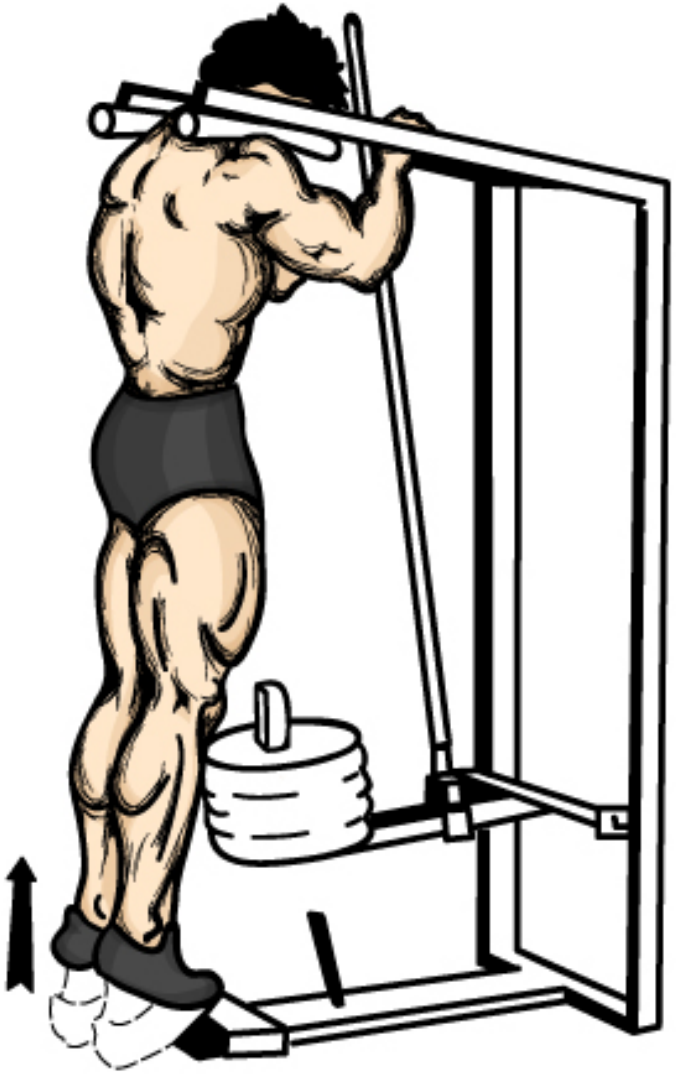
@ Top full contraction

@ Bottom full stretch

Franco Columbo

Former Governor of California! Arnold Schwarzenegger

Technique Analyses of Internet Pictures



Knees straight → 1^0 gastrocnemius

Technique Analyses (continued)

More of thigh less of knee directly under pad.

Knees bent → 1^0 soleus

Discussion

+ Q?