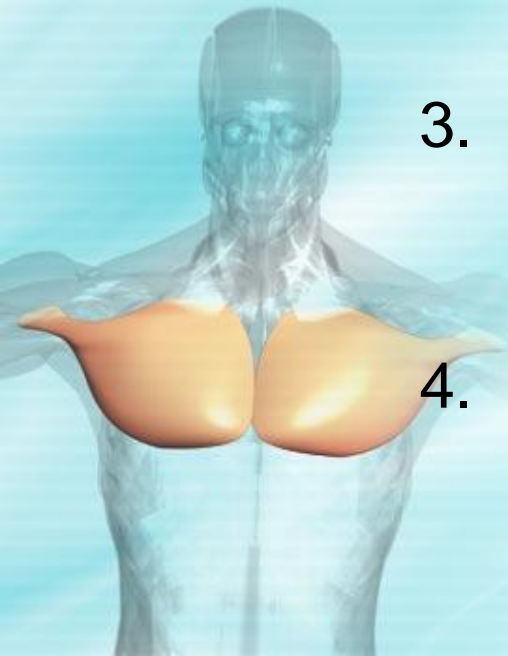


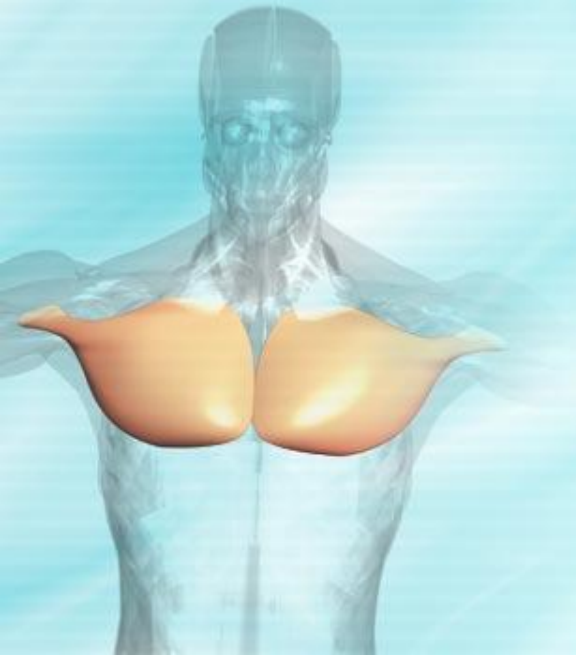
# 9/9/14 Warm-up: National Review

1. What is the difference between pathogens and nonpathogens?
2. List and define three qualities discussed in Intro that HC professionals should possess.
3. What is a protozoa? What type of illness does it cause?
4. In what type of emergency would you need to know the acronym PASS? What does it stand for?



# Today's Agenda: 9/09/14

1. Students will complete warm-up questions.
2. **TO: Identify the purpose and major muscles of the human body.**
3. Students will label and color the appropriate muscles to know for an anatomy quiz in the next week.



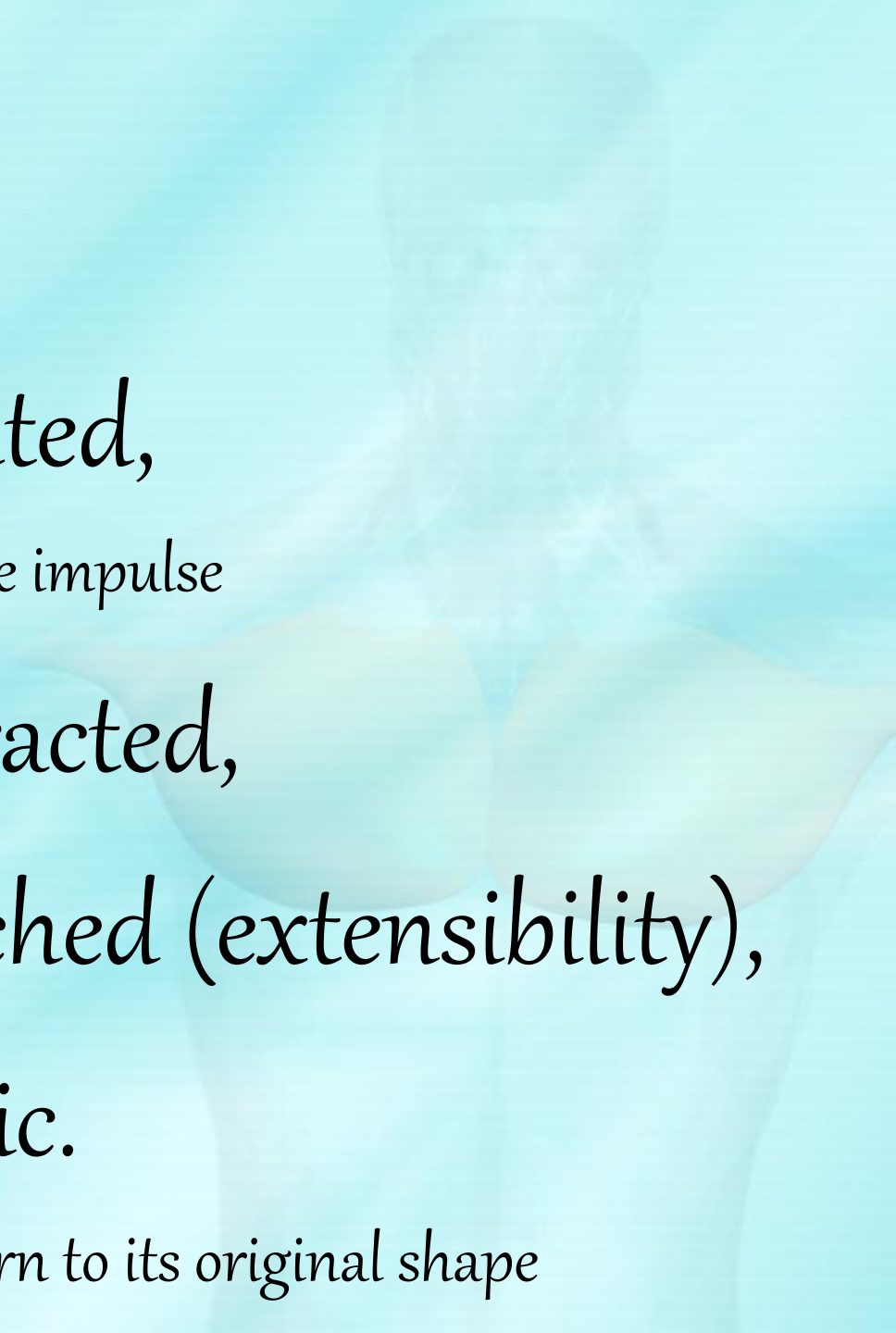
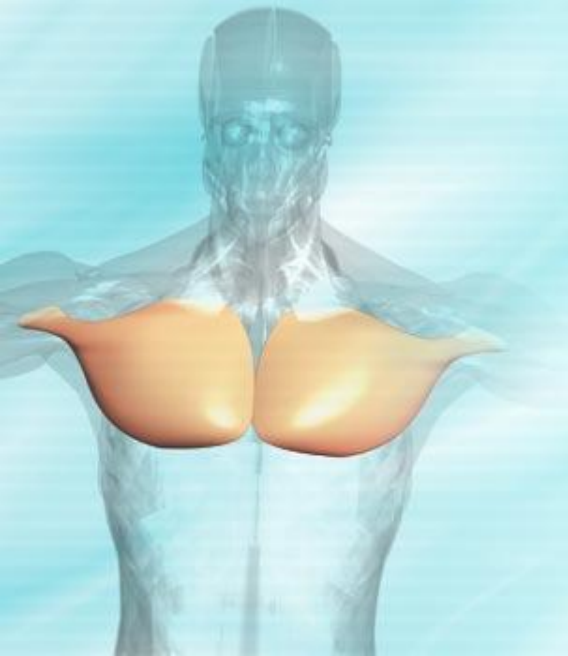
**Unit 1 EQ: What are the 11 body systems functions and common abnormalities?**



*Over 600 muscles!*

# Muscles can....

- Be excited,
  - Nerve impulse
- ...contracted,
- ...stretched (extensibility),
- ...elastic.
  - Return to its original shape



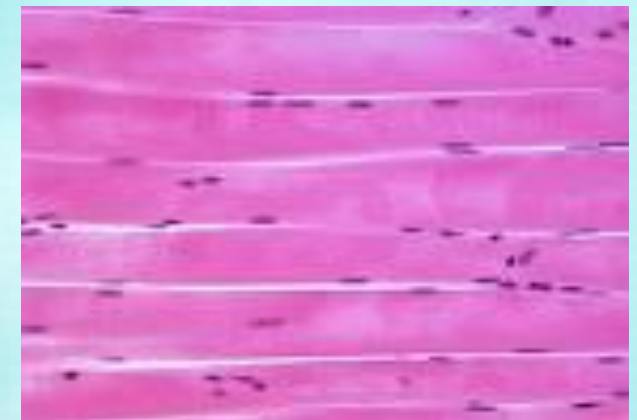
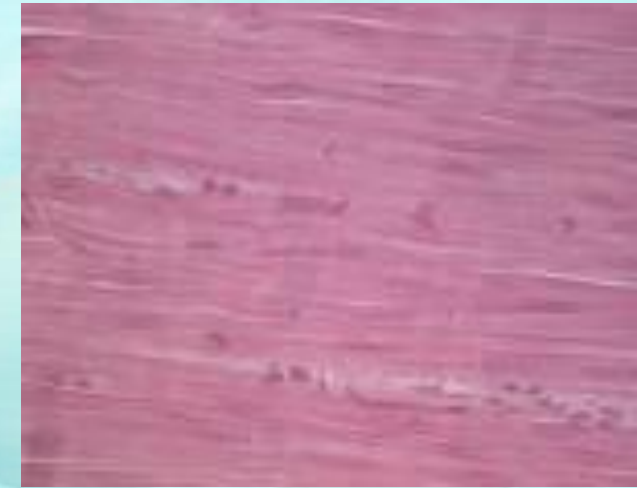
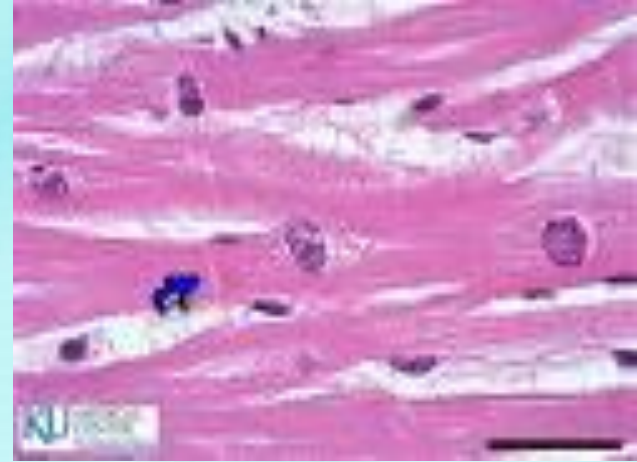
# Types of Muscle

1. Cardiac Muscle

2. Smooth Muscle

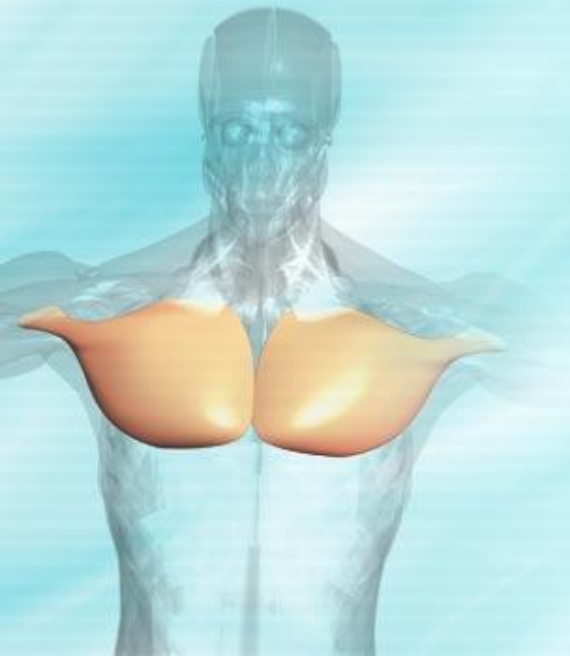
Both are **INVOLUNTARY**

3. Skeletal Muscle: **VOLUNTARY**



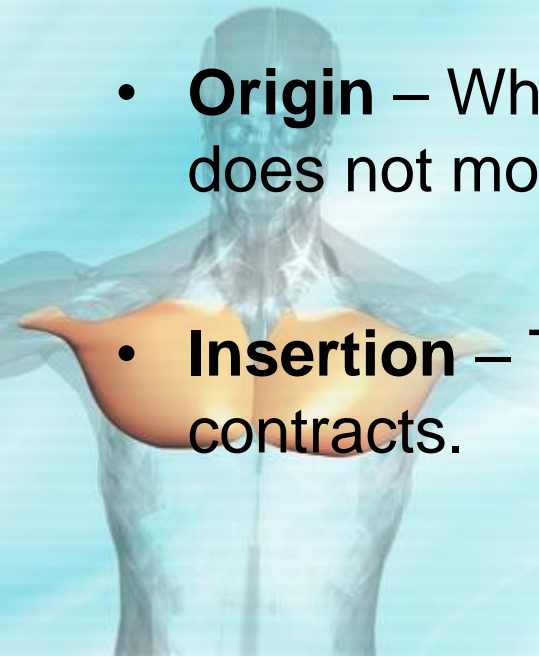
# Skeletal Muscle Functions...

- Attach to bones to provide voluntary mvmt,
- Produce heat and energy for the body,
- Help maintain posture,
- Protect internal organs



# Terms

- **Tendons** – Strong, tough connective tissue cords that connect muscle to bone.
- **Fascia** – A tough, sheet-like membrane that covers and protects the tissue.
- **Origin** – Where a muscle attaches to bone; the end that does not move.
- **Insertion** – The end that moves when the muscle contracts.



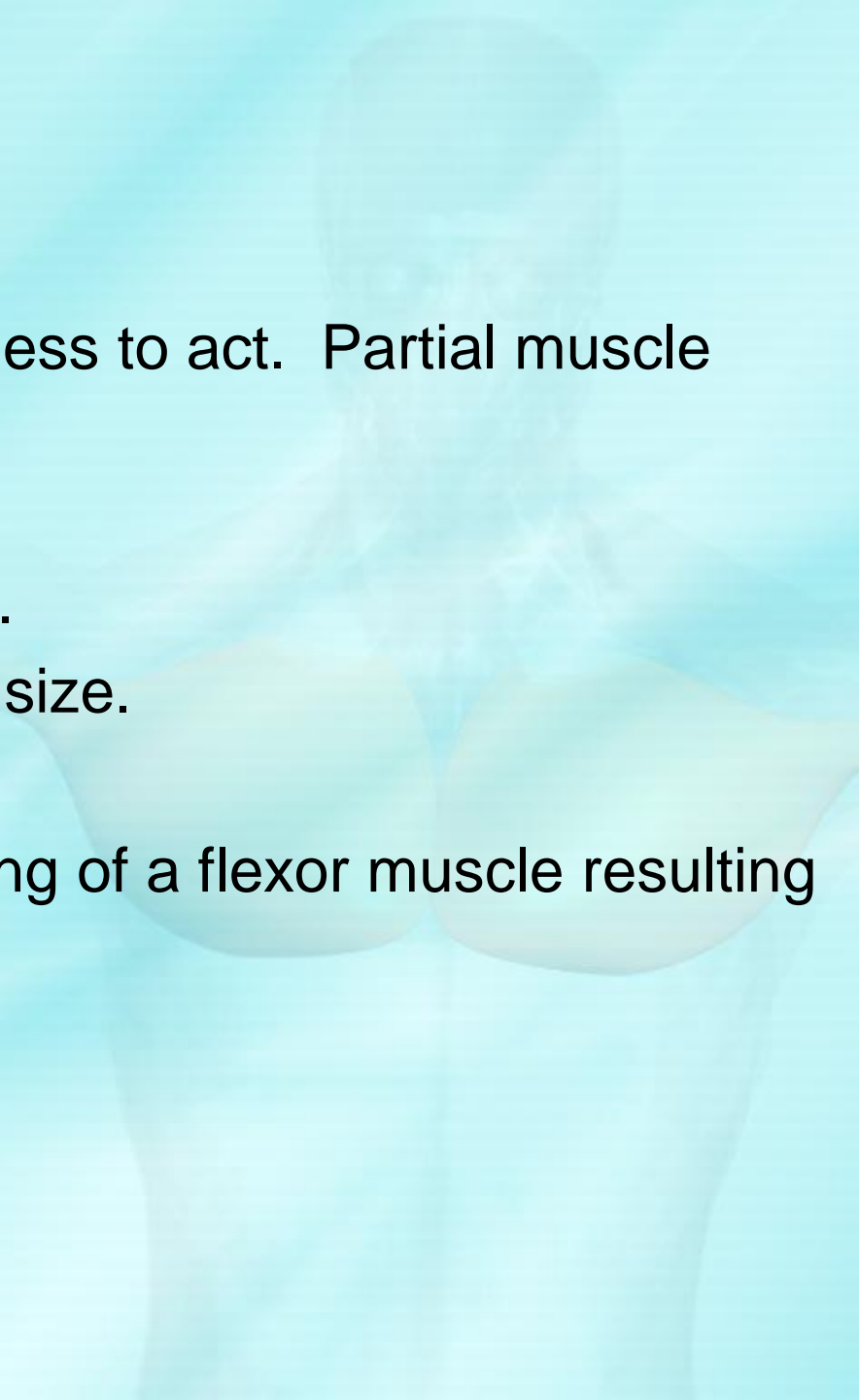
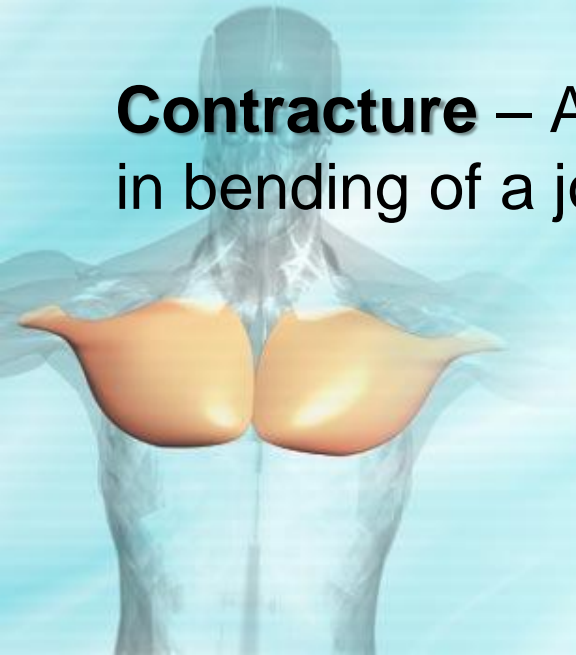
# More Terms

**Muscle Tone** – A state of readiness to act. Partial muscle contraction.

**Atrophy** – \_\_\_\_\_ of muscle size.

**Hypertrophy** - \_\_\_\_\_ of muscle size.

**Contracture** – A severe tightening of a flexor muscle resulting in bending of a joint.





# Movements:

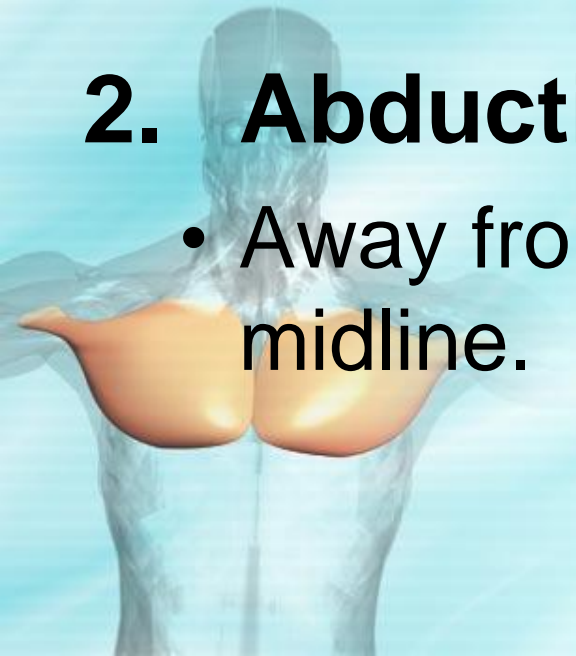
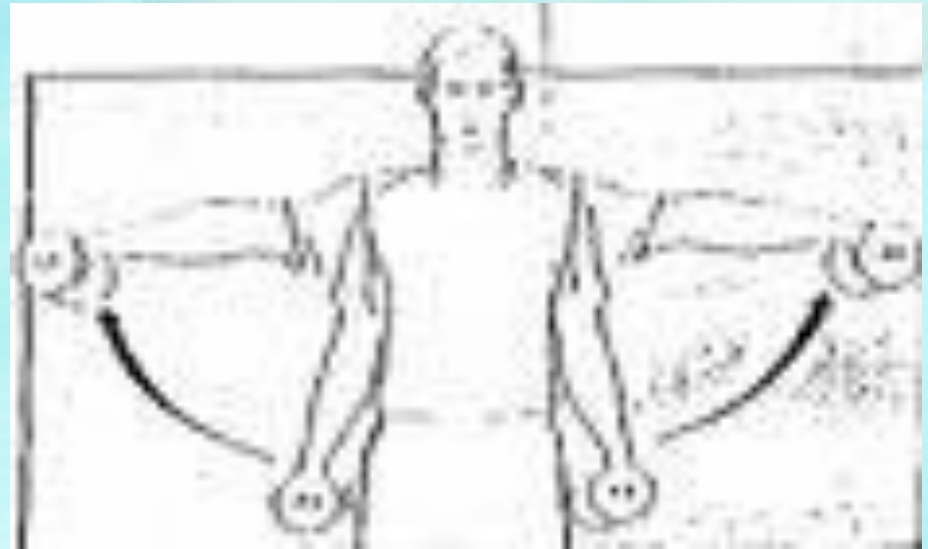
## 1. Adduction

- “ADD” it to the  
midline.



## 2. Abduction

- Away from  
midline.



# Movements

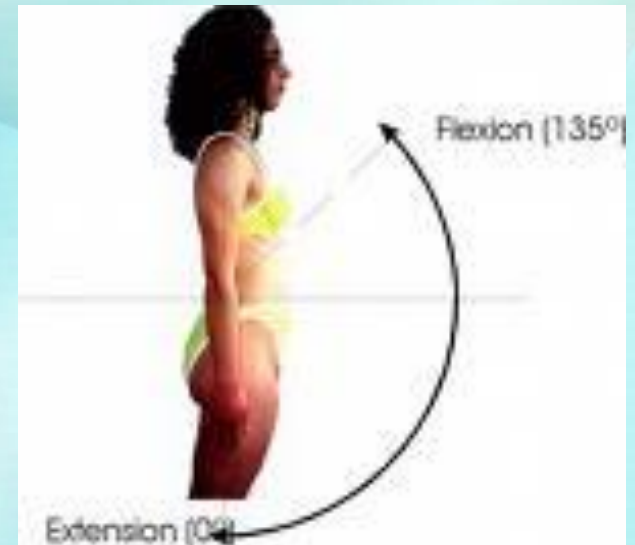
## 3. Flexion

- Decrease in jt angle.



## 4. Extension

- Increase in jt angle.



# Movements

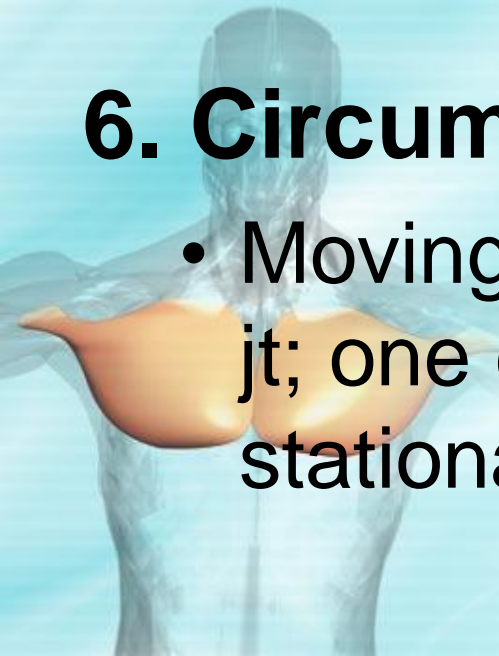
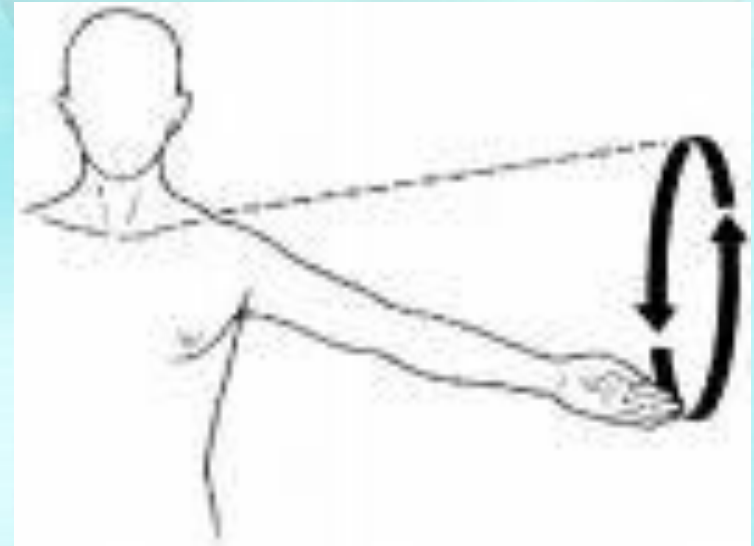
## 5. Rotation

- Turning a body part around its own axis



## 6. Circumduction

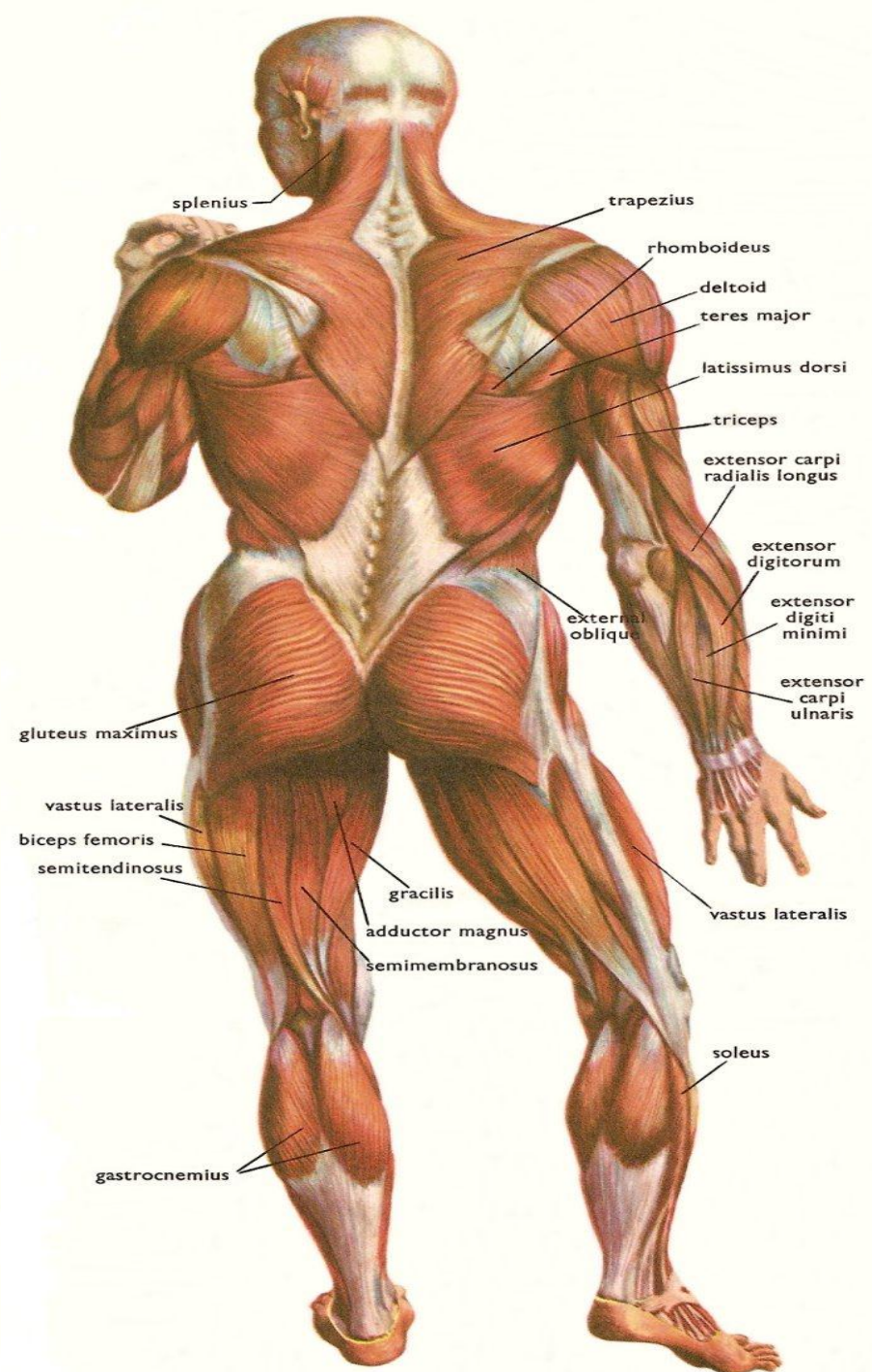
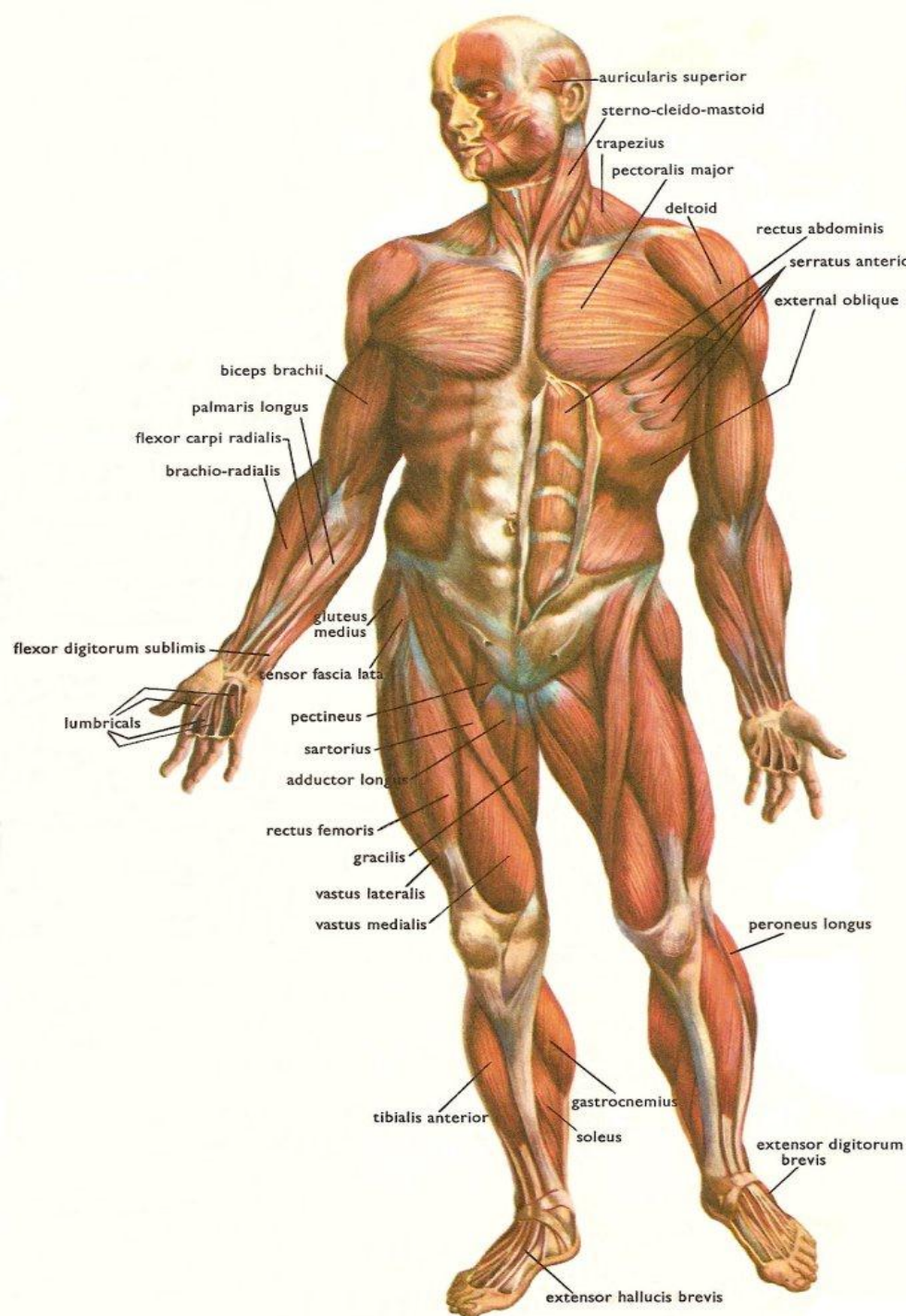
- Moving in a circle at a jt; one end remains stationary.



# Major Muscles of the Body

- Sternocleidomastoid
- Trapezius
- Deltoid
- Biceps
- Triceps
- Pectoralis Major
- Intercostals
- Rectus Abdominus
- Latissimus Dorsi
- Gluteus Maximus
- Quadriceps
- Hamstrings
- Tibialis Anterior
- Gastrocnemius





- Sternocleidomastoid



- Trapezius



- Deltoid



- Pectoralis Major



- Biceps Brachii



- Triceps Brachii





- Intercostals



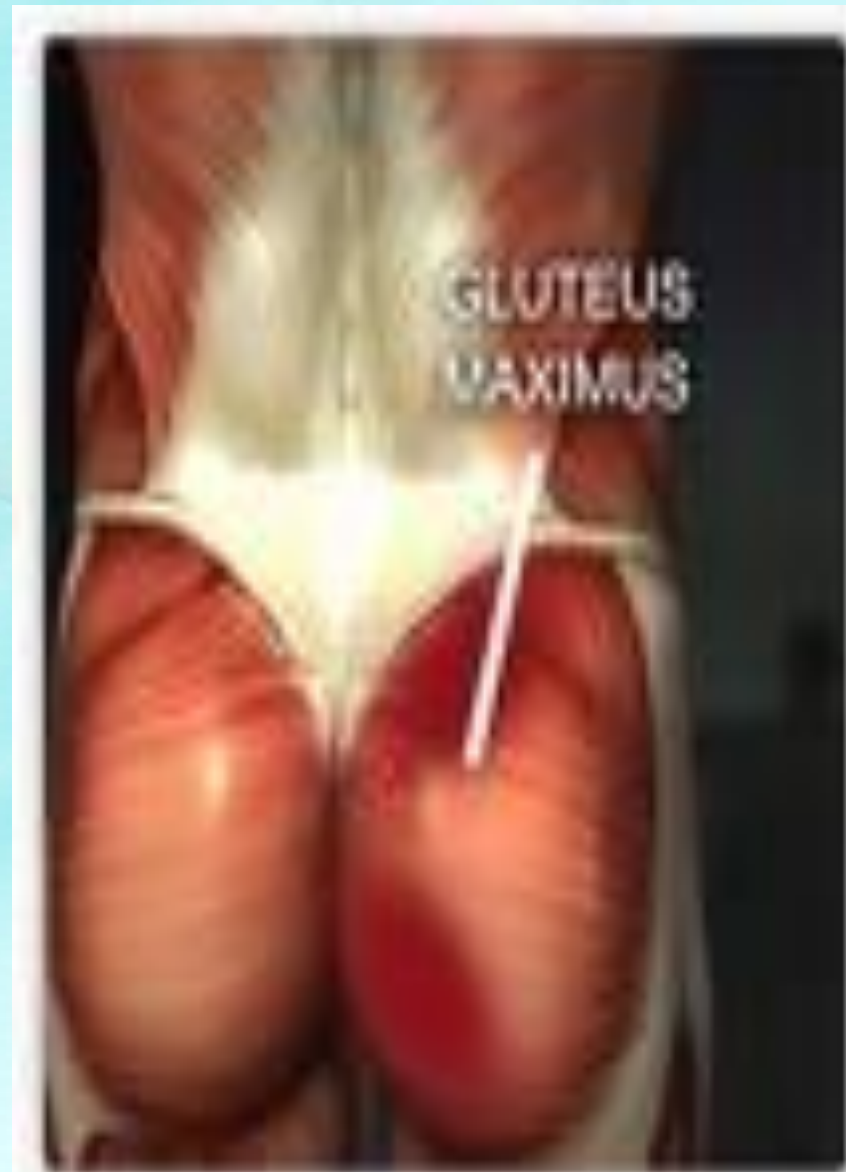
- Rectus Abdominus



- Latissimus Dorsi



- Gluteus Maximus



- Hamstrings



- Quadriceps



- Sartorius



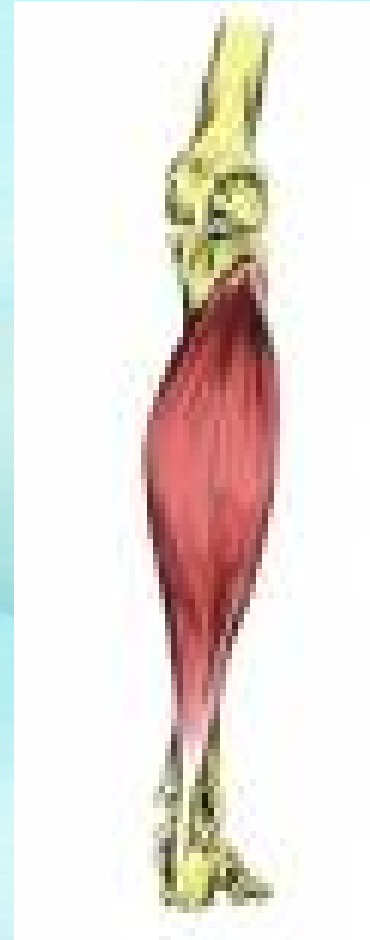
- Tibialis Anterior



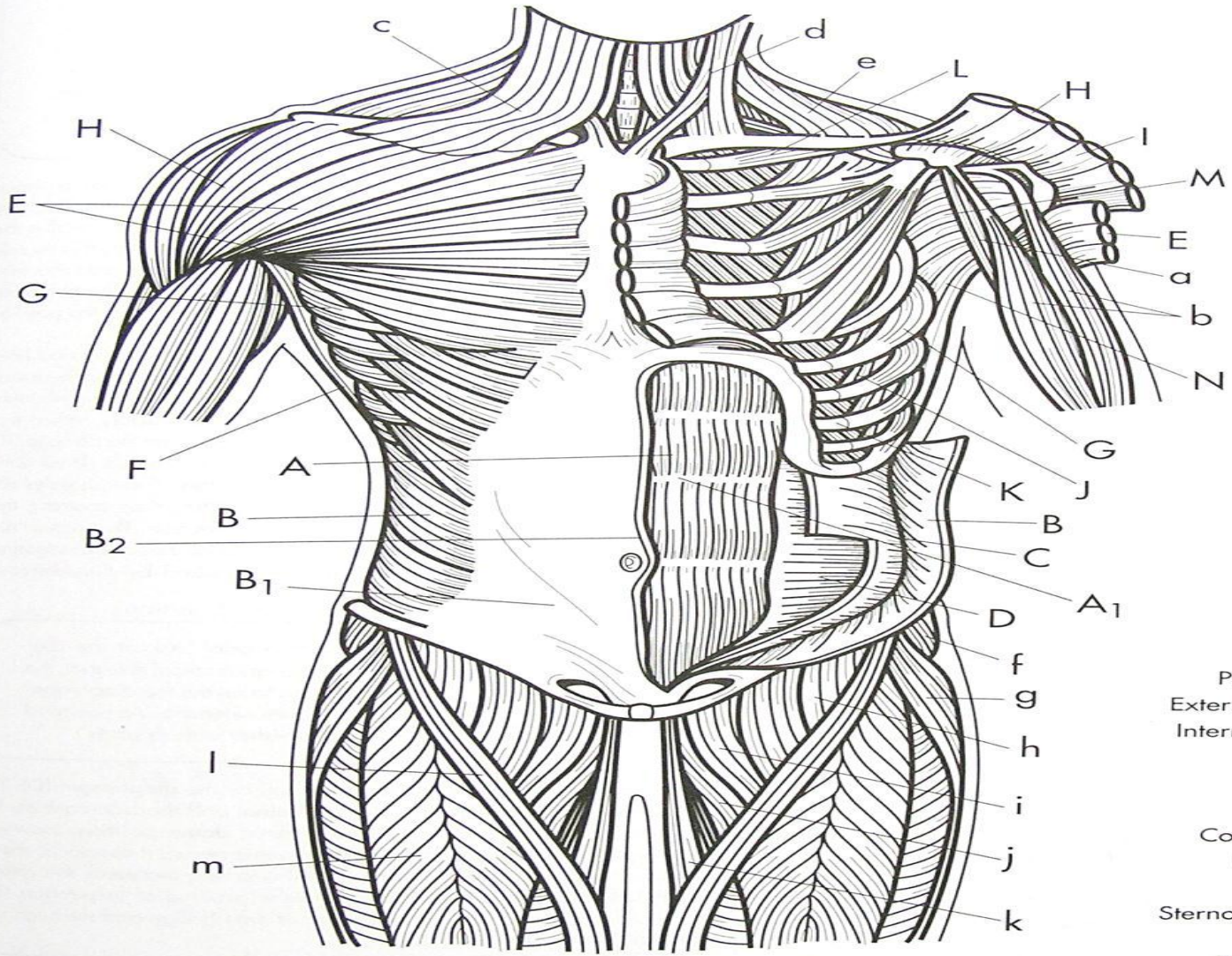
- Gastrocnemius



- Soleus



**MUSCLES OF THE THORAX AND ABDOMEN (ANTERIOR)**



Superficial view

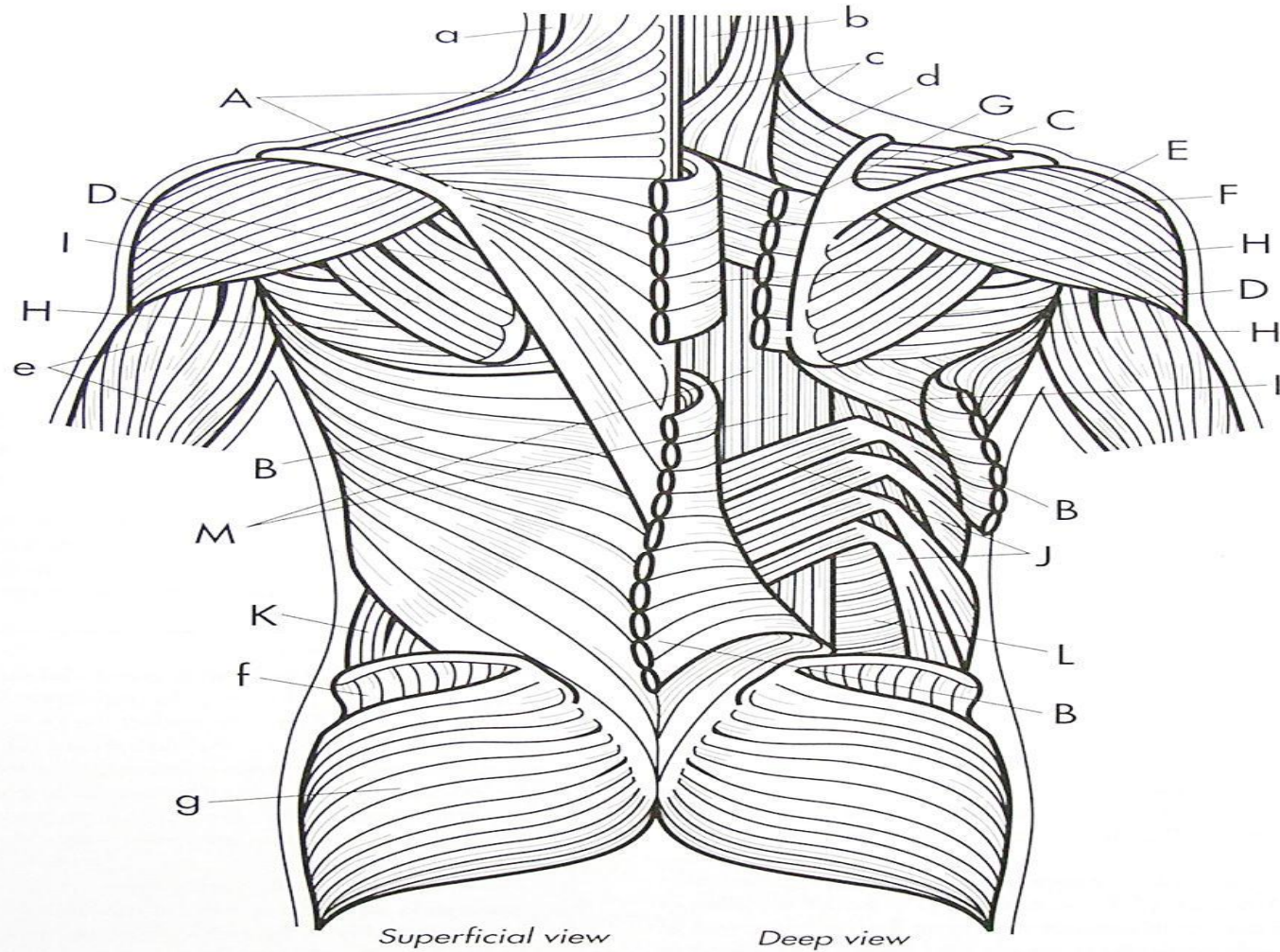
Deep view

- Rectus abdominis A ○
- Intersections of tendon A<sub>1</sub> ○
- External oblique B ○
- Aponeurosis B<sub>1</sub> ○
- Linea alba B<sub>2</sub> ○

- Internal oblique C ○
- Transversus abdominis D ○
- Pectoralis major E ○
- Latissimus dorsi F ○
- Serratus anterior G ○

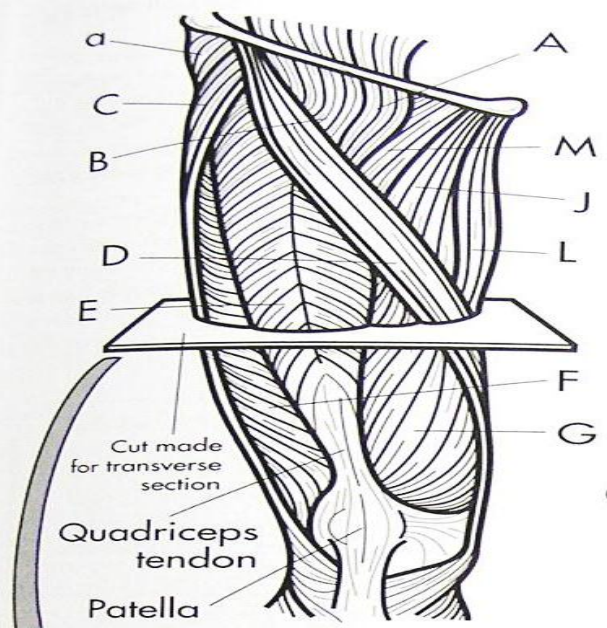
- Deltoid H ○
- Pectoralis minor I ○
- External intercostals J ○
- Internal intercostals K ○
- Subclavius L ○
- Subscapularis M ○
- Teres major N ○
- Coracobrachialis a ○
- Biceps brachii b ○
- Platysma c ○
- Sternocleidomastoid d ○
- Trapezius e ○
- Gluteus medius f ○
- Tensor fascia latae g ○
- Iliopsoas h ○
- Pectineus i ○
- Adductor longus j ○
- Gracilis k ○
- Sartorius l ○
- Rectus femoris m ○

**MUSCLES OF THE THORAX AND ABDOMEN (POSTERIOR)**

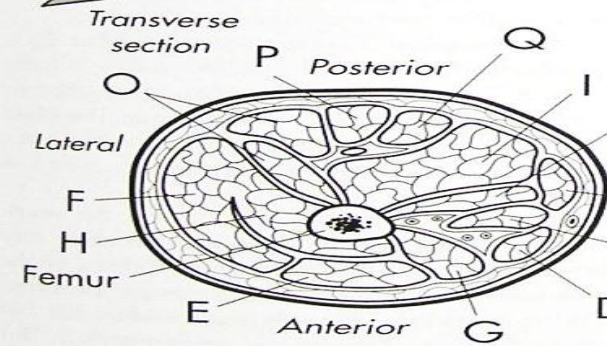


- |                   |   |   |                             |   |   |                      |   |   |
|-------------------|---|---|-----------------------------|---|---|----------------------|---|---|
| Trapezius         | A | ○ | Serratus posterior superior | H | ○ | Semispinalis capitis | b | ○ |
| Latissimus dorsi  | B | ○ | Serratus anterior           | I | ○ | Splenius capitis     | c | ○ |
| Supraspinatus     | C | ○ | Serratus posterior inferior | J | ○ | Levator scapulae     | d | ○ |
| Infraspinatus     | D | ○ | External oblique            | K | ○ | Triceps brachii      | e | ○ |
| Deltoid           | E | ○ | Internal oblique            | L | ○ | Gluteus medius       | f | ○ |
| Rhomboideus major | F | ○ | Erector spinous             | M | ○ | Gluteus maximus      | g | ○ |
| Rhomboideus minor | G | ○ | Sternocleidomastoid         | a | ○ |                      |   |   |

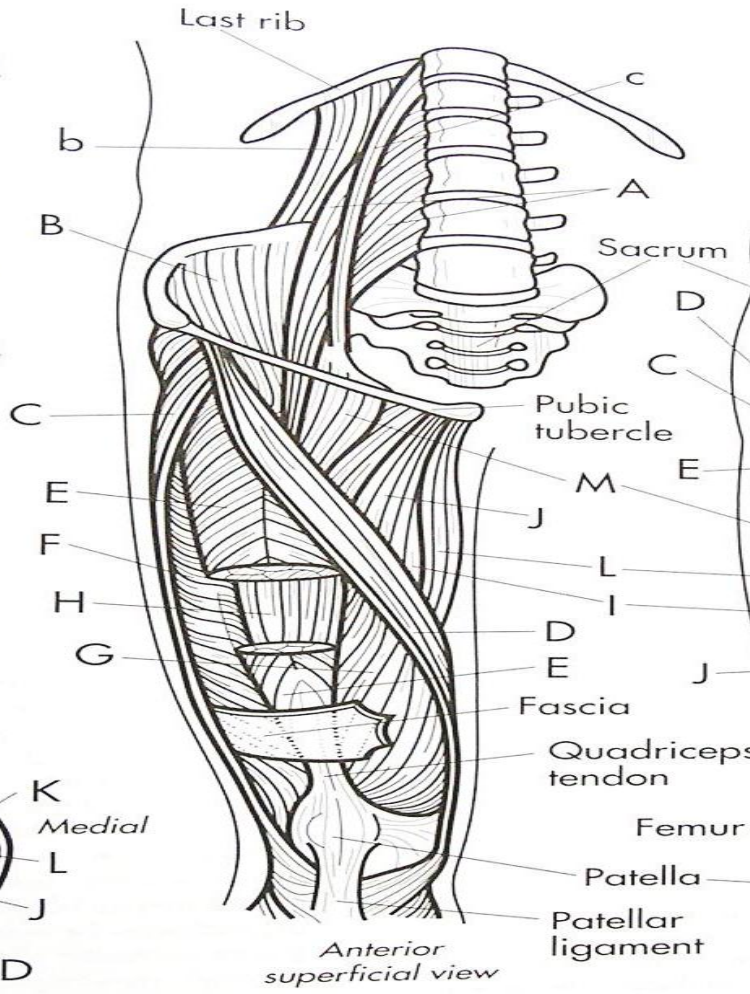
# MUSCLES OF THE THIGH (ANTERIOR)



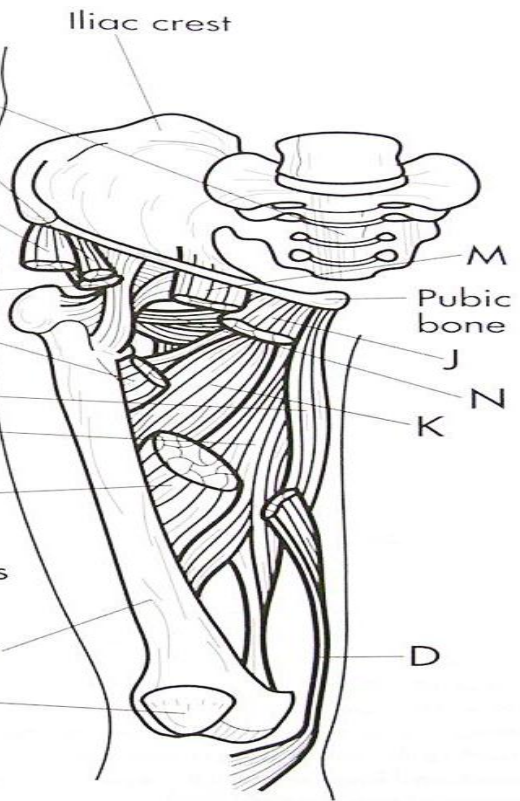
Anterior superficial view



Transverse section



Anterior superficial view



Anterior deep view

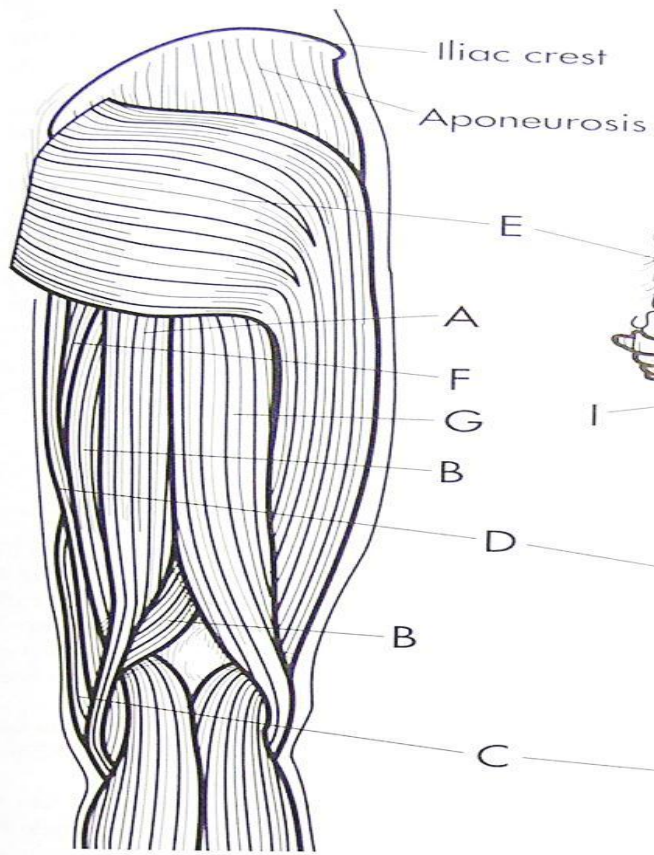
Psoas major	A	○
Iliacus	B	○
Tensor fasciae latae	C	○
Sartorius	D	○
Rectus femoris	E	○
Vastus lateralis	F	○
Vastus medialis	G	○

Vastus intermedius	H	○
Adductor magnus	I	○
Adductor longus	J	○
Adductor brevis	K	○
Gracilis	L	○
Pectineus	M	○
Obturator externus	N	○

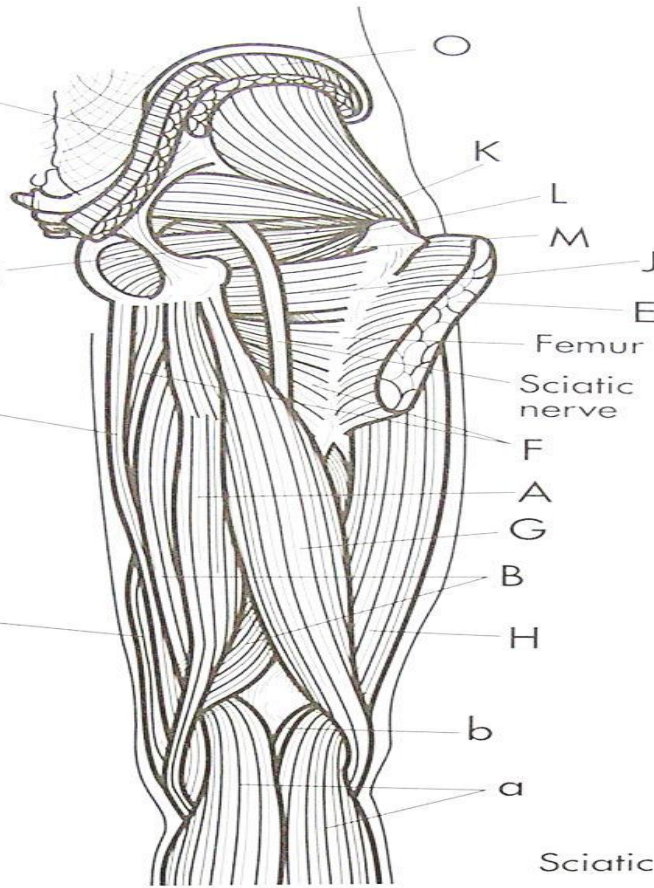
Biceps femoris	O	○
Semitendinosus	P	○
Semimembranosus	Q	○
Gluteus medius	a	○
Quadratus lumborum	b	○
Psoas minor	c	○



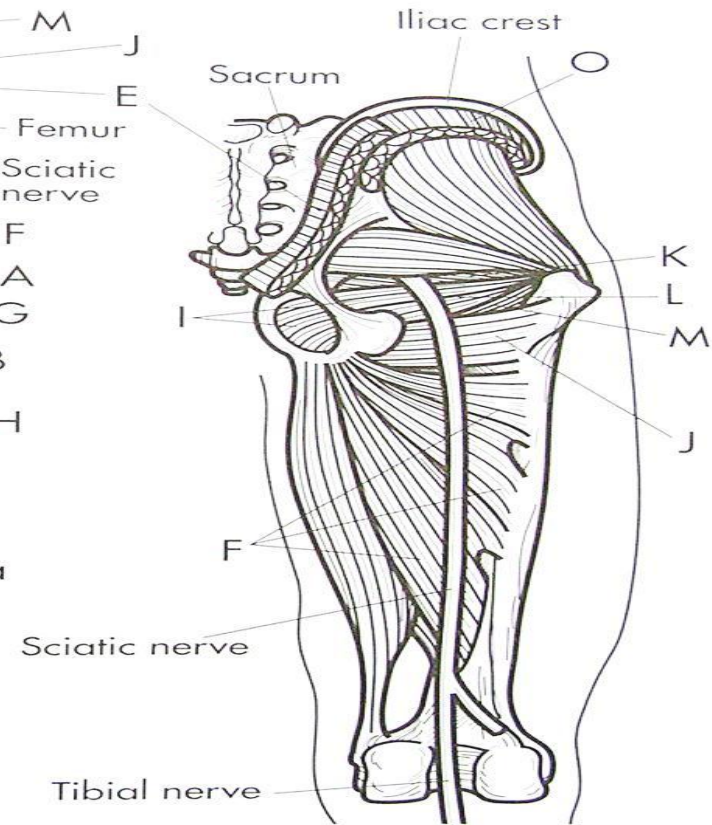
# MUSCLES OF THE THIGH (POSTERIOR)



Posterior superficial view



Posterior superficial view

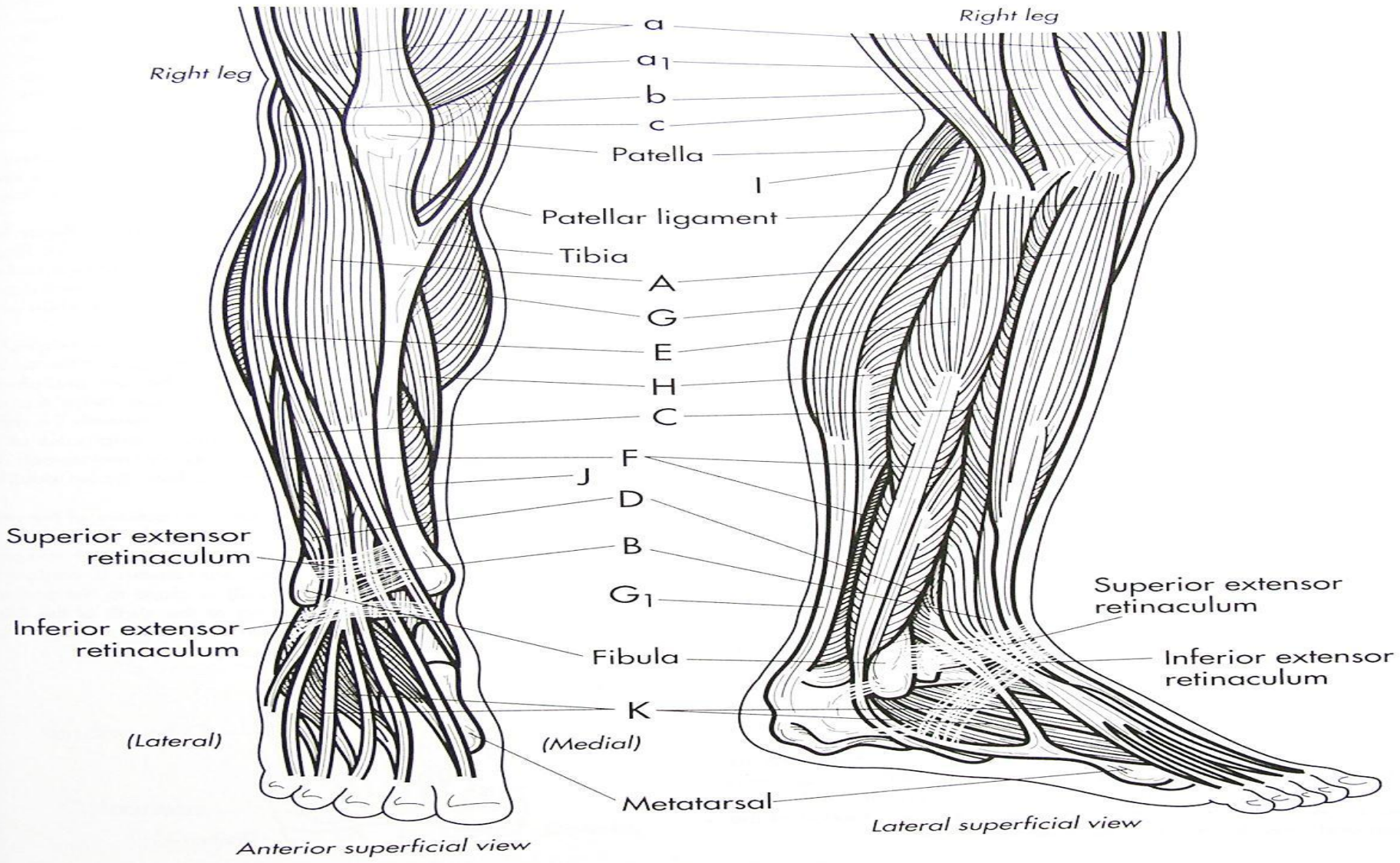


Posterior deep view

- |                    |   |   |
|--------------------|---|---|
| Semitendinosus     | A | ○ |
| Semimembranosus    | B | ○ |
| Sartorius          | C | ○ |
| Gracilis           | D | ○ |
| Gluteus maximus    | E | ○ |
| Adductor magnus    | F | ○ |
| Biceps femoris     | G | ○ |
| Vastus lateralis   | H | ○ |
| Obturator internus | I | ○ |
| Quadratus femoris  | J | ○ |
| Superior gemellus  | K | ○ |

- |                    |   |   |
|--------------------|---|---|
| Inferior gemellus  | L | ○ |
| Obturator externus | M | ○ |
| Gluteus medius     | O | ○ |
| Gastrocnemius      | a | ○ |
| Plantaris          | b | ○ |

**MUSCLES OF THE LOWER LEG (ANTERIOR AND LATERAL)**

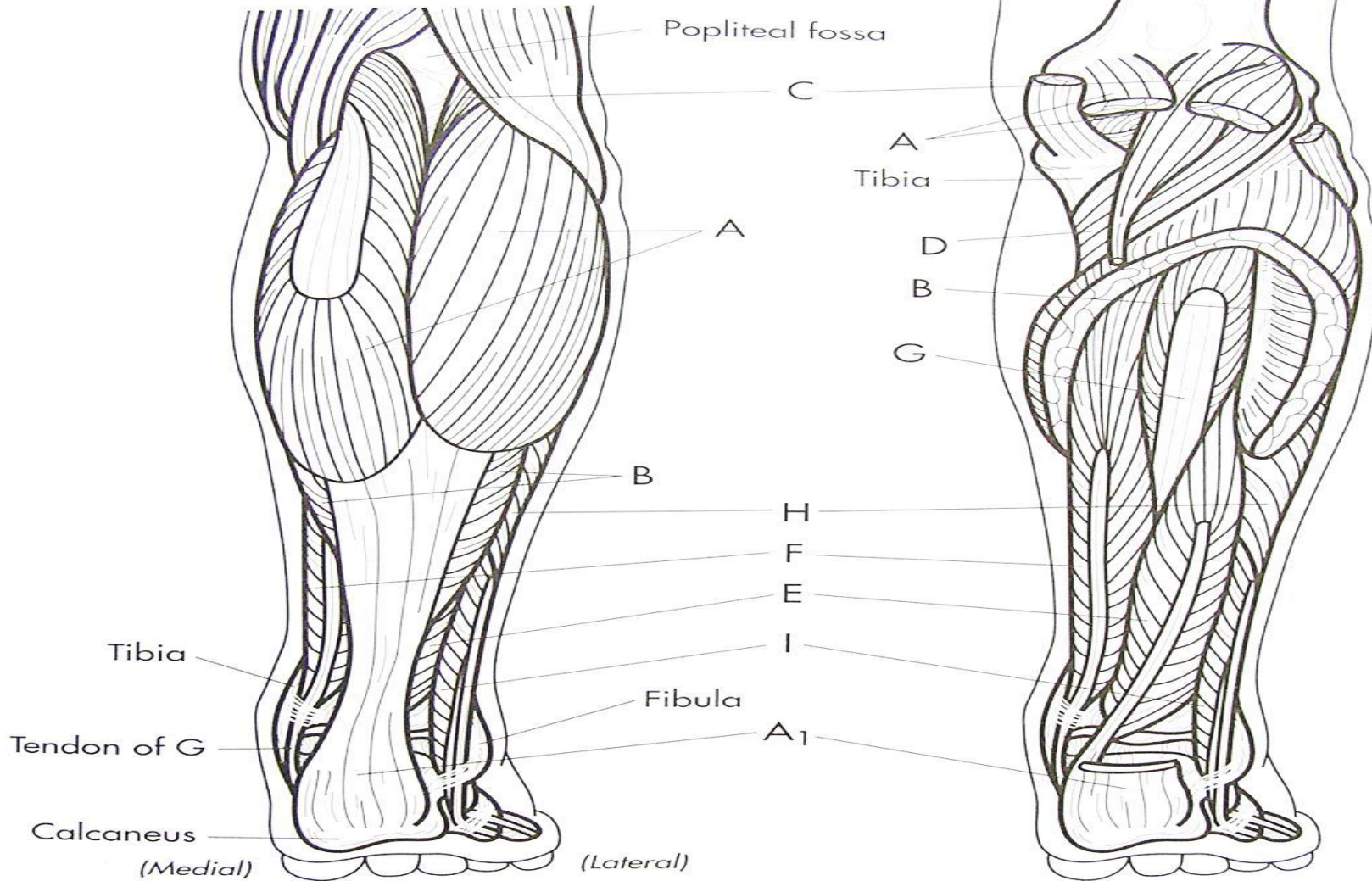


Tibialis anterior	A	○	Gastrocnemius	G	○	Quadriceps femoris	a	○
Extensor hallucis longus	B	○	Calcaneal tendon	G <sub>1</sub>	○	Tendon	a <sub>1</sub>	○
Extensor digitorum longus	C	○	Soleus	H	○	Fascia latae	b	○
Peroneus tertius	D	○	Plantaris	I	○	Biceps femoris	c	○
Peroneus longus	E	○	Flexor digitorum longus	J	○			
Peroneus brevis	F	○	Extensor digitorum brevis	K	○			

# MUSCLES OF THE LOWER LEG (POSTERIOR)

Posterior superficial view

Posterior deep view



- |                  |                |                       |
|------------------|----------------|-----------------------|
| Gastrocnemius    | A              | <input type="radio"/> |
| Calcaneal tendon | A <sub>1</sub> | <input type="radio"/> |
| Soleus           | B              | <input type="radio"/> |
| Plantaris        | C              | <input type="radio"/> |
| Popliteus        | D              | <input type="radio"/> |

- |                         |   |                       |
|-------------------------|---|-----------------------|
| Flexor hallucis longus  | E | <input type="radio"/> |
| Flexor digitorum longus | F | <input type="radio"/> |
| Tibialis posterior      | G | <input type="radio"/> |
| Peroneus longus         | H | <input type="radio"/> |
| Peroneus brevis         | I | <input type="radio"/> |