

General Myology

There are 3 types of muscle (smooth, cardiac and skeletal). In gross anatomy; muscle means only skeletal muscle.

Muscle-related connective tissue:

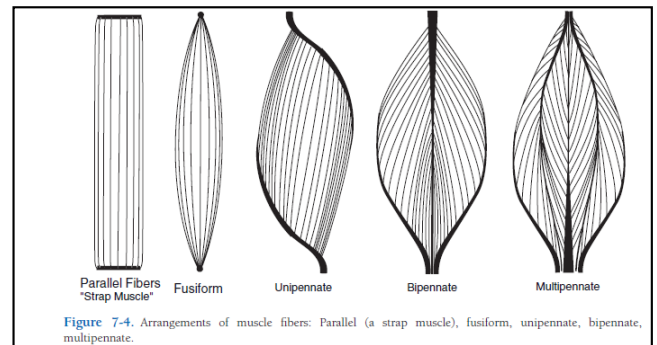
Muscle fibers are within a connective tissue framework that is continuous with tendons. As a result, passive muscles are able to serve as ties that reinforce joints & oppose forces on bones.

Fascia:

- Sheets of connective tissue consist of bundles of collagen fibres.
- There are two types of fascia: Superficial and deep
- Muscle associated fascia: Epimysium: connective tissue surrounding an entire muscle; Perimysium: connective tissue surrounding muscle fascicles; Endomysium: loose connective tissue surrounding individual muscle fibers.

Muscle Nomenclature

- Muscle names may be Latinized/English.
- Muscles are named according to their shape or location or attachments or structure or function or combinations of these.
- Muscles are named according to direction of muscle fibres; Rectus (Straight), obliquus (oblique), transverses (transverse) etc..



Muscle Fiber arrangement:

- Muscles are classified according to fibre orientation: Pennate (Feather shape), Strap muscle (rectangle shape), fusiform (spindle shape), sphincter muscle etc

* *Sphincter muscle*: muscle when encircle an opening is called sphincter muscle. It consists of series of circular layers and act as door or gate. Sphincter muscle can be either smooth or skeletal e.g., pyloric shincter; anal sphincter etc.**

“Penna”means feather

Some definitions:

Tendon: the tendon is a band of dense connective tissue by which muscle is attached the bones. (Attaches muscle to bone)

Ligament: the ligament is a band of dense connective tissue which binds bone together. (Attaches bone to bone)

Aponeurosis: Aponeurosis is broad fibrous sheet which attached to the muscles to the bones.

Origin: the term origin is applied to the attachment which always or more commonly remains stationary (fixed) during the contraction of the muscles.

Insertion: the attachment of the muscles which is movable during contraction.

Head and belly: In case of long muscles, the origin is known as head and the fusiform, the large part is called belly.

Extrinsic muscle: muscles having attachment with bone and origin and insertion may be the different organ. e.g. muscles of eye

Intrinsic muscle: muscles having without any bony attachment and orgin and insertion may be the same organ. e.g. intrinsic muscles of tongue.