Anatomy & Physiology: Muscles—Longissimus, of erector spinae group.

STRUCTURE.

- Longissimus Capitis
 - o Origin: transverse processes of T1-T5; articular processes of C4-C7.
 - o Insertion: mastoid process of temporal bone.
- Longissimus Cervicus
 - o Origin: transverse processes of T1-T5.
 - o Insertion: transverse processes of C2-C6.
- Longissimus Thoracis
 - Origin: medial iliac crest, posterior sacrum, transverse processes and spinous processes of L1-L5.
 - o Insertion: transverse processes of all thoracic vertebrae and lower nine ribs.

FUNCTION.

- Concentric action: trunk, neck, and head extension at spinal joints; lateral flexion of trunk, neck, and head at spinal joints. Lesser: ipsilateral rotation of trunk, head, and neck.
- Reverse mover action: anterior tilt of pelvis at the LS joint; lower spine extension. Lesser: ipsilateral elevation of pelvis and lateral flexion of lower spine; contralateral rotation of the pelvis and lower spine.
- Eccentric action: controls/restrains/slows flexion, contralateral lateral flexion, and contralateral rotation of trunk, neck, and head; controls/restrains/slows posterior tilt, ipsilateral rotation, and ipsilateral depression of pelvis.
- Isometric action: stabilization of the spine, ribs, and SI joint.
- Innervation: middle and inferior cervical and spinal nerves.
- Arterial supply: dorsal branches of posterior intercostal and lumbar arteries.

CLINICAL SIGNIFICANCE.

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