Anatomy & Physiology: Muscles—Extensor Digitorum.

STRUCTURE.

- Origin: lateral epicondyle of humerus.
- Insertion: distal and middle phalanges of each finger.

FUNCTION.

- Concentric action: extends distal and middle phalanges of each finger at interphalangeal joints, proximal phalanx of each finger at metacarpophalangeal joint, and hand at wrist joint. Lesser: medial rotation of pinky finger at CMC joint; elbow extension.
- Reverse mover action: extension at MCP, DIP, PIP joints; wrist extension; lateral rotation of hamate; elbow extension.
- Eccentric action: controls/restrains/slows MCP, DIP, PIP flexion; wrist flexion; pinky finger lateral rotation; elbow flexion.
- Isometric action: stabilize MCP, DIP, PIP, wrist, radioulnar joint, elbow joint.
- Innervation: radial nerve.
- Arterial supply: posterior interosseus artery.

CLINICAL SIGNIFICANCE.

References

Biel, A. (2015). Trail guide to the body: A hands-on guide to locating muscles, bones and more.

Cedars-Sinai. (2018). Vertebrae of the spine. Retrieved from https://www.cedarssinai.org/health-library/diseases-and-conditions/v/vertebrae-of-the-spine.html

Clark, M., Lucett, S., Sutton, B. G., & National Academy of Sports Medicine. (2014). *NASM essentials of corrective exercise training*. Burlington, MA: Jones & Bartlett Learning.

Jenkins, G., & Tortora, G. J. (2012). *Anatomy and Physiology: From Science to Life, 3rd Edition International Stu*. John Wiley & Sons.

Muscolino, J. E. (2017). The muscular system manual: The skeletal muscles of the human body.