Reply to student posts

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**Reply to student post 1**

**Strain vs sprain vs cramp compared to normal structure and function**

Strain, sprains and cramps definitely make you think about muscle pain. All these also share similar symptoms. However, they differ from one another in their structure and function. A joint sprain refers to overstretching of ligaments, which are bands that connect two bones. Joint sprain is most common in ankle joint having the symptoms of hurting, pain and swelling around the joint as well as limited flexibility (Wollman, 2013). On the other hand, joint strain refers to overstretching of tendons, which are thick fibrous cords that connect bones to muscles. Immediate treatment for this is to give rest to muscle and use ice packs to the affected muscles (Ravikanth et al., 2018).

Conversely, in cramps people have abrupt and painful contractions having a duration of seconds or minutes. Cramps are the result of fatigue, exercise or electrolyte deficiency. These are temporary and can be simply treated at home.Its treatment includes massage of the affected muscle.

References

Aguirre, K., & Kiel, J. (2019). Anatomy, Shoulder and Upper Limb, Subscapularis Muscle. In *StatPearls*. Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK513344/

Ravikanth, R., Singh, J. K., Pavithran, A., Pilar, A., Nagotu, A., Sarkar, P., …Joshy, J. (2018). A review of sports-related injuries: Head to toe spectrum. *Apollo Medicine*, *15*(2), 79.

Wollman, S. (2013). Sprains and strains. *Nursing2018*, *43*(9), 58.

**Reply to student post 2**

**The joint shoulder**

The shoulder joint has humerus, scapula and the clavicle bones and is a ball and socket joint between the scapula and the humerus. There is articulation of the head of the humerus with the glenoid cavity of the scapula.Theglenoid cavity has shallow nature that gives little stability to the joint. Scapula has irregular shape that allows it to increase the space by changing the original position of the proximal humerus. Most of the stability of the shoulder joint is the result of presence of powerful muscles and tendons of the rotator cuff (Aguirre & Kiel, 2019) (Carbone &Gumina, 2017). The rotator cuff has four muscles; supraspinatus, infraspinatus, subscapularis, and teres minor.

Four joints constitute shoulder joint; the sternoclavicular ,acromioclavicular , and scapulothoracic joints, and glenohumeral joint. Shoulder movements are the results of cordinaiton between muscles, tendons, ligaments, and bones across the glenohumeral joint and scapulothoracic articulation (Aguirre & Kiel, 2019). Due to more movements, the joint is at more risk of injuries. It is also the main joint that connects the upper limb to the trunk.

References

Aguirre, K., & Kiel, J. (2018). Anatomy, Shoulder and Upper Limb, Subscapularis Muscle. In *StatPearls [Internet]*. StatPearls Publishing.

Carbone, S., &Gumina, S. (2017). Rotator Cuff Biomechanics. In *Rotator Cuff Tear* (pp. 45-51). Springer, Cham.