

The Role of the Scapula in Human Health: An Overview

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DESCRIPTION

The scapula is an important bone in the function of the shoulder joint. It engages in 6 types of motion, which allow for full-functional upper extremity movement including protraction, retraction, elevation, depression, upward rotation, and downward rotation. The scapula, a flat triangular bone situated on the upper back, is part of the shoulder girdle, which connects the upper limb to the axial skeleton. While it may seem unassuming, the scapula acts as a crucial attachment point for muscles and tendons, enabling complex movements that we often take for granted. The scapula forms an intricate articulation with the clavicle and humerus, collectively creating the shoulder joint. This remarkable arrangement facilitates a wide range of motions, including flexion, extension, abduction, adduction, rotation, and circumduction of the arm. The scapula acts as a stable platform upon which these movements can occur seamlessly, granting us the ability to perform daily activities, sports, and even intricate tasks. Beyond its role in movement, the scapula plays a vital role in maintaining good posture and stability throughout the upper body. When the scapulae are properly positioned, the spine is better supported, reducing strain on the neck, shoulders, and lower back. Proper scapular stability is essential for athletes, weightlifters, and individuals engaged in physically demanding occupations, as it improves performance and reduces the risk of injury.

Injuries or dysfunctions affecting the scapula can have significant repercussions on our overall physical well-being. Conditions like winged scapula, scapular dyskinesis, or impingement syndrome can limit range of motion, cause pain, and hinder daily activities. However, through targeted rehabilitation exercises and physiotherapy, it is possible to restore proper scapular function, alleviate pain, and regain optimal mobility. Despite its importance, the scapula often remains overlooked in discussions on physical health and fitness. The focus tends to be on more visible muscles like the biceps or pectorals, neglecting the fact that these muscles rely heavily on

the scapula for coordinated movement. Educating individuals about the crucial role of the scapula can enhance their understanding of their own bodies, leading to improved training methods, injury prevention, and overall well-being. A combination of upper back strength and shoulder mobility, the prone scapular retraction is a great way to train the upper back to handle stresses and fatigue from many every day activities. This will help with your shoulder and scapular positioning which can also prevent acute and chronic pain in this area. Mechanically, the coordinated coupled motion between the scapula and humerus, often termed scapula-humeral rhythm, is needed for efficient arm movement and allows for glenohumeral alignment in order to maximize joint stability.

Causes of scapular dyskinesis include weakness, imbalance, tightness, or (rarely) detachment of the muscles that control the scapula. Injuries to the nerves that supply the muscles. Injuries to the bones that support the scapula or injuries within the shoulder joint. When it comes to recovering from shoulder injuries or regaining mobility after surgeries, the scapula plays a pivotal role in the rehabilitation process. Physical therapists employ specific exercises and techniques to strengthen and retrain the scapular muscles, restoring functionality and aiding in the recovery of patients. Furthermore, understanding the scapula's intricate connections with the surrounding musculature can help prevent injuries by identifying and addressing potential imbalances or weaknesses before they escalate into more significant problems. The scapula, an unassuming bone often overshadowed by its neighboring anatomical structures, deserves recognition for its indispensable contribution to our upper body mobility. From enabling a wide range of movements to providing stability and supporting proper posture, the scapula is a true unsung hero of human anatomy. By appreciating its significance and integrating targeted exercises to maintain scapular health, we can optimize our physical performance, prevent injuries, and lead healthier lives. It's time to shine a light on the scapula and acknowledge its silent yet vital presence in our daily lives.

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