

Scapulohumeral rhythm

The shoulder joint is made up of the scapula (shoulder blade) and the humerus (arm bone). This joint is known as a ball and socket joint, where the head of humerus (ball) sits in the socket of the scapula.

Scapulohumeral rhythm (SHR) refers to the movement between the scapula and the humerus. With efficient SHR, when you move your arm outwards, the first 60° of movement comes from the humerus moving alone. The remainder of the movement occurs when the humerus and scapula move together.

The most important part of maintaining efficient SHR is to have adequate muscle strength and control around the shoulder. Firstly, the muscles that set the scapula in a good position (known as scapulothoracic muscles) must be working well. Secondly, the 4 rotator cuff muscles may require strengthening exercises as they sit on the front and back of the shoulder and their role is to hold the ball in the socket when moving your arm.

SHR is often altered when you have a sore shoulder. This leads to poor rotator cuff muscle function.

Also, the scapula is positioned on your rib cage and the rib cage attaches to the spine. Therefore, stiffness through the joints in the spine can lead to poor mechanics at the shoulder joint and can also be the cause of poor SHR and pain.

To improve the SHR and decrease pain, treatment usually involves physiotherapy to release any tight muscles or stiff joints, correct posture and strengthen the muscles around the shoulder, especially the rotator cuff muscles. This will help to restore smooth movement and eventually alleviate symptoms so you can return to your normal activities and sports.

Rotator Cuff Muscles

