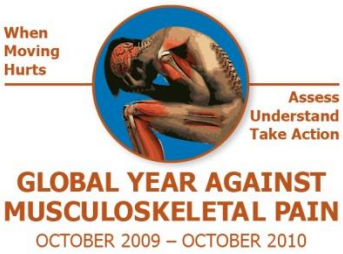

• **FACT SHEET No. 23**

Shoulder Pain

Introduction

Shoulder pain is typically characterized by symptoms in the various joints, muscles, tendons, and bursa involved with shoulder motion. Onset of shoulder pain is variable and can occur with no direct cause, or it can be related to trauma, repetitive movements, or a neurological event (i.e., a stroke). Shoulder pain often causes short-term activity limitation and less frequently develops into a chronic condition.

Epidemiology and Economics

Shoulder pain is only surpassed by pain in the low back and knee in terms of the most common areas of musculoskeletal pain [4,5].

- 1-year prevalence rates for shoulder disorders range from 5% to 47% [2,6].
- Point prevalence estimates range from 14% to 21% [4,5].
- 18% of insurance disability payments made for musculoskeletal pain can be attributed to patients with neck and shoulder disorders [3].

Pathophysiology

Multiple factors that can contribute to shoulder pain, either alone or in combination.

- Inflammatory conditions: Tendons and bursa become inflamed, often due to overuse or anatomical factors (i.e., impingement). Shoulder tendons can also be torn (i.e., rotator cuff tear), or joint surfaces can be damaged from degenerative processes (i.e., osteoarthritis) or autoimmune disease (i.e., rheumatoid arthritis).
- Excessive motion: Capsules and ligaments are lax and allow for excessive movement, resulting in instability of the shoulder. This problem arises either from congenital factors (which can cause multiple directions of instability) or from traumata (which causes one direction of instability). Excessive shoulder motion can result in subluxation or dislocation.
- Limited motion: Capsules and ligaments are tight and restrict shoulder movement, especially when raising the arms overhead or behind the back. This problem is common following prolonged immobilization, but it can also occur when the shoulder joint becomes irritated from no specific cause (i.e., adhesive capsulitis).

- Muscle weakness/imbalance: The muscles that balance the humeral head or scapula are weak, resulting in inefficient shoulder motion. This problem can result from poor posture, or it can occur in athletes who train too much or improperly. Shoulder muscle weakness can also occur after a stroke.

Clinical Features

The specific symptoms of shoulder pain vary considerably. When shoulder pain is severe, it may radiate to other areas of the body, including the upper arm and elbow (but not typically below the elbow) and certain areas of the neck (but not typically the upper cervical spine or the head). Other symptoms include weakness, limited motion of the arm and hand, difficulty in dressing, difficulty performing work at home or at the workplace, and interrupted sleep [1].

The shoulder joint comprises several anatomical structures, each of which can be a source of pain. Shoulder joints are the glenohumeral joint (primary shoulder joint), the scapulothoracic joint (secondary shoulder joint), and the sternoclavicular joint and acromioclavicular joint (accessory joints). Muscle groups that are potential sources of shoulder pain include the rotator cuff (responsible for maintaining glenohumeral balance), scapular stabilizers (responsible for scapula position), and prime movers (responsible for power movements). Finally, there are several bursa that can cause shoulder pain, and the most relevant are located in an area known as the subacromial space.

Diagnostic Criteria

A variety of diagnostic criteria are used to identify shoulder pain, and most are relevant to a specific anatomical region. In general these criteria should perform two important functions. First, they should confirm the shoulder as the primary source of symptoms because shoulder pain can be referred from the neck, or even from visceral structures such as the heart. Second, the criteria must identify specific anatomical areas of shoulder involvement so that treatment can be directed accordingly.

Diagnosis and Treatment

Shoulder disorders are a common reason for people to seek health care, with the annual incidence in general practice offices estimated at 12/1000 visits [8]. Assuming that other sources of pain have been effectively ruled out, shoulder pain is not life-threatening. Shoulder pain can be difficult to treat, as only 50% of patients with new shoulder disorder episodes experience complete recovery at 6 months, and this rate only increases to 60% at 1 year [1,7,9]. Common treatments for shoulder disorders include corticosteroid injections, joint manipulation, physical therapy, and surgery, with no obvious advantage of one treatment over another [1,8,9].

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