

Shoulder Subluxation

Shoulder subluxation is a partial dislocation of the arm at the shoulder joint that occurs in many people after a stroke. In most cases the humerus (upper arm bone) drops down out of the shoulder joint. This condition is caused by either extreme muscle weakness around the shoulder, or spastic muscles.

Extreme muscle weakness can result in the muscles not being able to hold the weight of the arm at the shoulder and it can also cause the shoulder blade to lose its normal position. Spastic muscles around the shoulder joint can pull the humerus and shoulder blade into abnormal positions, at times causing subluxation.

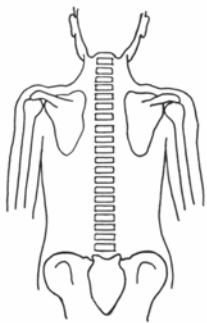


Figure 1. (View from behind) Normal shoulder position, with shoulder blades even and the humerus of each arm stable and secure in shoulder joint.

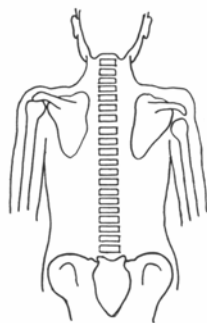


Figure 2. (View from behind) Right shoulder subluxation - shoulder blade turned down, and humerus dropped out of its joint.

Protecting the Arm

When the arm is affected by a stroke it is important to protect it from injury and try to keep the arm in a normal position, especially at the shoulders. When resting, the affected arm can be kept in a comfortable position that prevents or lessens subluxation.

Use pillows while in bed to support the arm and hold it in normal position (elbow straight and hand open), as well as to elevate the arm to reduce any swelling. The nurse, or the OT (occupational therapist) and PT (physical therapist) can show you how to support the affected arm in bed.

When sitting in a chair the arm should be supported on a surface to help keep the shoulder joint intact. Attach a lapboard or laptray to the wheelchair to support the arm, or if these are not available rest it on a pillow.

When sitting at a table, place the affected arm on the table top for support. The OT teaches you how to position the arm to prevent shoulder subluxation.



Figure 3. Right arm in proper position to prevent subluxation and reduce swelling.

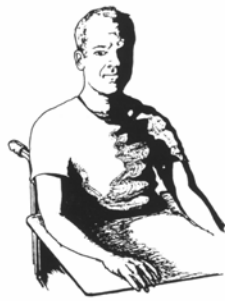


Figure 4. Right arm placed on lapboard.

Helping a stroke survivor to move in bed, or get up from the bed or chair can result in injury at the shoulder. We often help someone move by lifting them under the arms.

Because the affected shoulder is often weak and unstable, this method can further pull the arm out of the shoulder joint (sublux), or cause trauma to the inside structures of the shoulder. **Never lift under the arms when helping someone with a stroke.** The nurse, or the OT and PT can show you how to help patients get in and out of bed.

Care of the Arm

During recovery from a stroke the doctor will most likely order OT and P T to help in regaining movement and function. These therapists will check the affected arm to find out if shoulder subluxation is present.

When not in therapy, gentle range of motion (ROM) exercises can be done in bed. ROM exercises are used to keep the muscles and joints moving, to reduce swelling, and to stimulate the affected arm. Gently move the hand (fingers, thumbs and wrist) and elbow slowly in the complete motion of each joint. Do this exercise slowly and never bend the fingers back too far at the knuckles.

Do very minimal ROM to the shoulder in the early stages after a stroke. If this ROM exercise is to be done, only raise the arm upward at the shoulder about ten inches off of the bed. Remember, the arm is getting enough activity in therapy, so ROM exercises at the shoulder are not always needed in bed. The OT can show you proper ROM techniques.

Figure 5. (View from behind) Normal motion of raising the

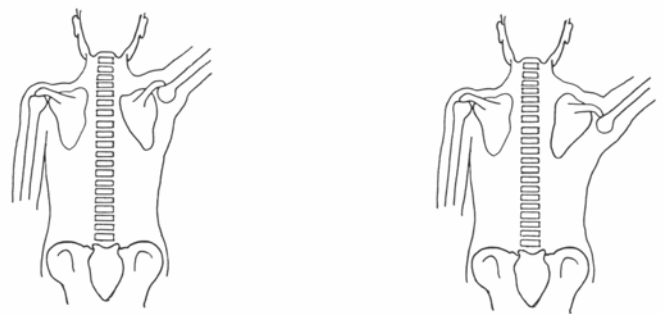


Figure 6. (View from behind) This shoulder blade does not turn upward, as it should. Shoulder structures can be pinched or humerus can drop further out of the joint. Occurs when raising the arm if subluxation is present or muscles around shoulder are weak or spastic.

The same principles that apply to ROM exercises of an affected arm also apply to daily care of the arm. It is necessary to move the affected arm during bathing, dressing and putting on deodorant or lotion. Remember, in the early stages of recovery movements need to be gentle and the arm should be raised only slightly at the shoulder.

Please follow these guidelines when bathing, dressing, and using deodorant or lotion on the affected arm:

- When dressing, put the affected arm through a sleeve first and then the unaffected arm.
- When taking the shirt off the affected arm should come out of the sleeve last.
- Contact the Physical Medicine Department to talk to the specific therapist for answers to any questions about shoulder subluxation or stroke rehabilitation.

Riverside (614) 566 - 4191

Grant (614) 566 - 9802

Definitions

Dislocation - Dislocation The displacement of a bone from its normal position in a joint.

Humerus - The bone that extends from the shoulder to the elbow.

OT - Occupational therapist - A licensed who works with patients to restore such functions as self-care, work and leisure activities after disease or injury; with special attention to on coordination, vision, ability to learn, and upper arm limitations

PT - Physical therapist - A licensed person who helps the patient restore movement and function after disease or injury; range of motion, strength and the ability to work

ROM - Range of motion exercises - Movements of joints through their full range of motion

Rehabilitation - Treatment and education that lead the disabled person to reach highest level of function

Spastic - Strong, involuntary muscle contractions

Subluxation - A partial or incomplete dislocation