

## Flexion

Raise your arm straight in front of you as high as possible without pain.



Perform these exercises  
3-5 times on each side

Hold 30 seconds to 1  
minute for each rep

Perform 1-2 times a day

## Abduction

Raise your arm straight out to the side as high as possible without pain (like a jumping jack)



Perform these exercises  
3-5 times on each side

Hold 30 seconds to 1  
minute for each rep

Perform 1-2 times a day

## Internal/External Rotation

- Bend your elbow to 90 degrees.
- Place a towel between your elbow and ribs and hold it there while performing the exercises.
- Bring your hand in towards your stomach for Internal Rotation.
- Bring it out to the side as far as you comfortably can for External Rotation.



Perform these exercises  
3-5 times on each side

Hold 30 seconds to 1  
minute for each rep

Perform 1-2 times a day

If any of these exercises cause you pain, **stop immediately**. Consult your healthcare provider about working directly with a physical therapist for a personalized shoulder program.

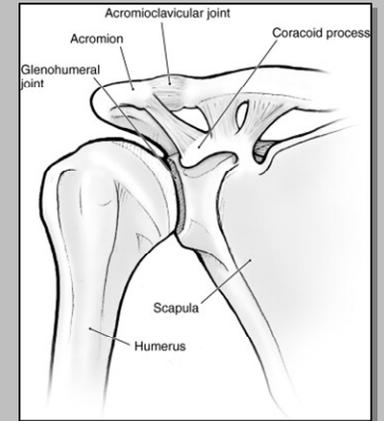


# CAUSES AND PREVENTION OF SHOULDER PROBLEMS IN PEOPLE WITH ALS

## INTRODUCTION

### Basic Shoulder Anatomy

- The shoulder joint is a “ball and socket” joint between the upper arm bone, called the humerus, and the shoulder blade, called the scapula.
- The round head or “ball” of the humerus rests in the cup-like “socket” of the scapula.
- The socket is not very deep, so the ball does not stay in the socket by itself.
- The shoulder joint uses ligaments and muscles to keep the bones in the proper position.



The shoulder joint

Waldman S. MD, JD. *Pain Management*. Copyright © 2009 by Saunders, an imprint of Elsevier Inc. Retrieved from ClinicalKey.

ALS causes muscles to weaken over time. As the muscles around the shoulder become weaker, the “ball” is no longer as stable in the “socket”. As a result, the shoulder joint is more prone to pain and issues including frozen shoulder, impingement, subluxation, and dislocation.\*

This brochure summarizes current recommendations for preventing shoulder pain in people with ALS. These recommendations are meant to reduce the likelihood of experiencing a shoulder problem.

If you currently have shoulder pain or have a history of shoulder problems, consult with your healthcare provider before beginning a shoulder program. If any of these strategies or exercises cause you pain, stop immediately and consult with your healthcare provider for other strategies.

### \*Glossary:

**Frozen Shoulder:** pain and stiffness in the shoulder joint that can make it extremely difficult to move your shoulder; also known as adhesive capsulitis.

**Shoulder Impingement:** pinching of the muscles and tendons between the shoulder bones; usually causes pain when lifting your arm.

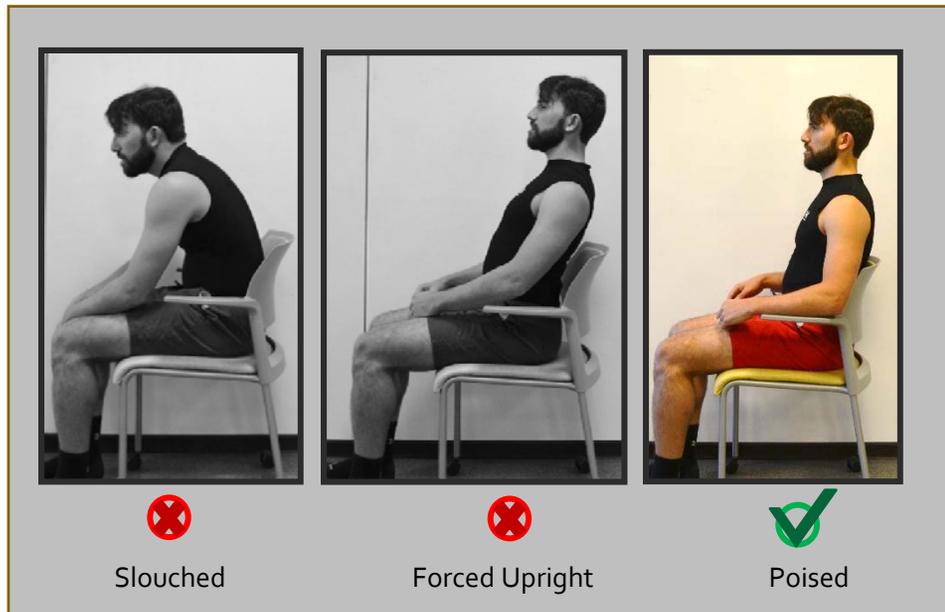
**Shoulder Subluxation/Dislocation:** partial or complete separation of the “ball” from the “socket” in the shoulder joint.



## POSTURE/POSITIONING

Good posture can decrease the stress on your shoulder joint. Here are some tips for good posture:

1. SIT UP STRAIGHT
2. KEEP YOUR CHEST UP AND YOUR SHOULDERS BACK
3. RELAX YOUR SHOULDERS – DON'T LET THEM COME UP BY YOUR EARS



## Helpful Tips

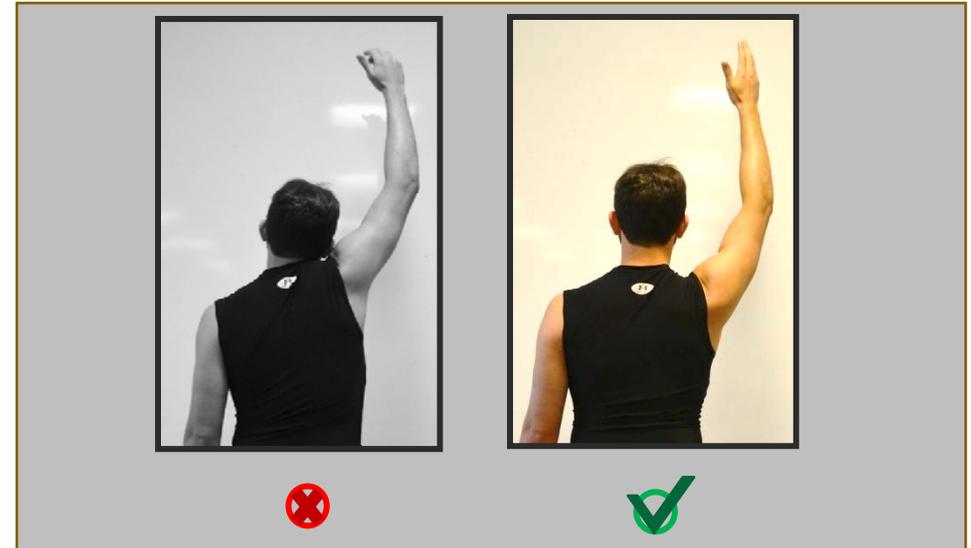
- Check that you are maintaining good posture throughout the day.
- Keep your arms supported to avoid pull on the shoulder from the weight of your arms. Arms can be supported on a desk, table, tray, armrest, or other surface on which you can rest your forearms.
- When you raise your arms, try to lift your arms with your thumbs pointed towards the ceiling to avoid pinching the muscles and tendons in the shoulder.

## RANGE OF MOTION

Range of motion exercises may help maintain normal shoulder movement and keep your shoulder joint healthy.

**IT IS RECOMMENDED THAT YOU PERFORM SHOULDER RANGE OF MOTION EXERCISES ON A DAILY BASIS. THESE EXERCISES SHOULD BE IMPLEMENTED BEFORE YOU HAVE A SHOULDER PROBLEM TO PREVENT SHOULDER DISCOMFORT AND OTHER ISSUES FROM DEVELOPING.**

These exercises can be performed actively (you do the movement yourself) or passively (another person moves your arm for you) if you are unable to do it actively. When performing these movements, keep your thumb pointed up toward the ceiling. The top of your shoulder should not rise up toward your ear when your arm moves.



When performing these exercises, raise your arm as high as you can without pain. Try to keep the motion slow and smooth. You may feel a slight stretch, but these motions should not cause pain. If you experience pain at the end of the motion, move your arm through a smaller range.

These exercises (found on the next page) can be performed while lying on your back or in a reclined chair to provide additional support for your shoulder. You can also perform them in front of a mirror to check your form.

