

Rehabilitation after the Total Shoulder Arthroplasty and the Ream and Run Procedure

Presented by the University of Washington Shoulder and Elbow Academy
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Total Shoulder Arthroplasty.

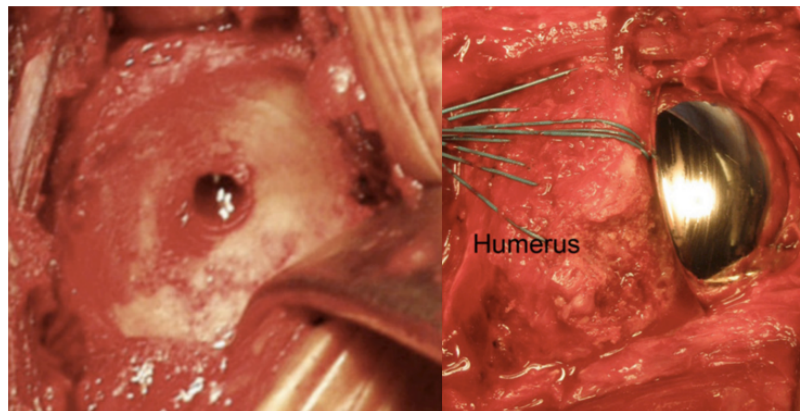
Severe arthritis of the shoulder is commonly treated with a total shoulder replacement in which the arthritic humeral head is replaced with a metal implant while the arthritic glenoid socket is resurfaced with a polyethylene component.



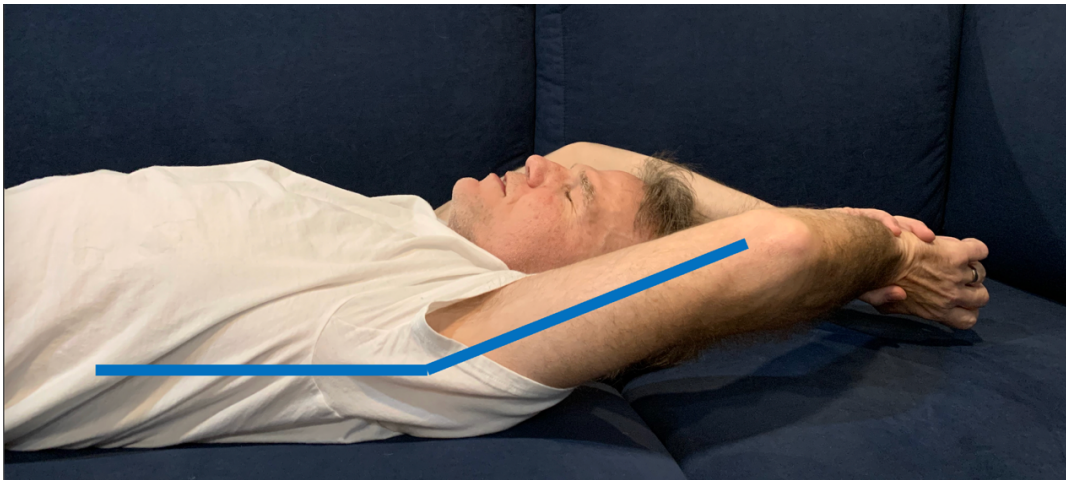
Total shoulder replacement is a reliable and effective surgery that provides significantly improved comfort and function for most patients. The rehabilitation is usually straightforward because a smooth, artificial glenoid joint surface is inserted; most patients are well on their way to recovery by 12 weeks after surgery.

The Ream and Run Arthroplasty

The ream and run procedure is a shoulder joint replacement in which the arthritic humeral head is replaced with a metal implant while the arthritic glenoid socket is reamed to a smooth concavity instead of resurfacing it with a glenoid component.



The ream and run procedure avoids the limitations and potential risk of loosening associated with the polyethylene glenoid socket replacement used in a total shoulder replacement. This procedure is a consideration for patients who desire high levels of shoulder activity after surgery and who are willing to make an extraordinary commitment to the rehabilitation program that can take longer and can be more difficult than that for a conventional total shoulder replacement. With the ream and run it is essential that excellent passive range of motion be achieved and maintained during the first few weeks after surgery, because it is this motion that guides the healing process for the reamed glenoid. During this time, the patient, the surgeon and the physical therapist need to be in close communication to assure that the patient achieves the motion goal of 150 degrees of assisted elevation (shown below).



So that we can closely monitor progress, we ask the patient to email us a photograph taken from the perspective shown above each week for the first 6 weeks after surgery.

If the patient experiences difficulty in attaining the desired flexibility, we consider a manipulation of the shoulder under anesthesia. This is a two-minute, non-surgical procedure in which we stretch the shoulder while the patient is under a short anesthetic with muscle relaxation.

After the first six weeks, additional exercises are added to develop range of motion and strength.

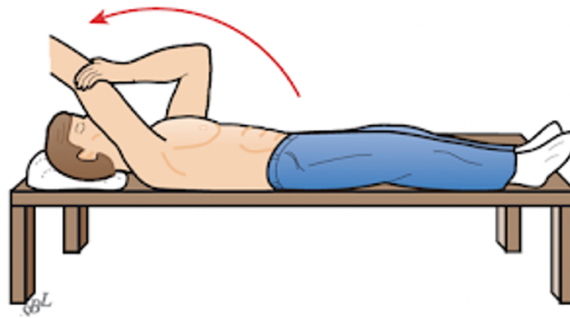
The recovery after shoulder joint replacement is progressive; ongoing rehabilitation usually continues for a year after surgery.

The Shoulder Arthroplasty Rehabilitation Program

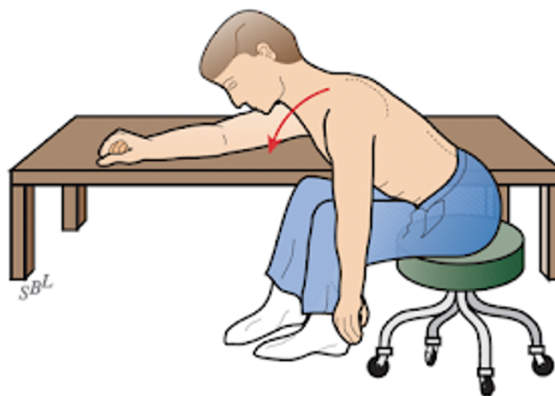
The usual rehabilitation program for patients having the ream and run and those having a total shoulder is shown below. However, the specifics of the program for each patient will be determined by the surgeon based on the characteristics of the shoulder and the surgery.

The first six weeks – Phase 1

The goal is to achieve and maintain 150 degrees of assisted elevation using exercises that should be comfortable. This goal is achieved by two stretching exercises performed for three repetitions, five times a day. Each stretch is performed for one minute with a focus on muscle relaxation, deep breathing, and slowly moving the shoulder with the assistance of the opposite arm as shown below for the *supine stretch*.

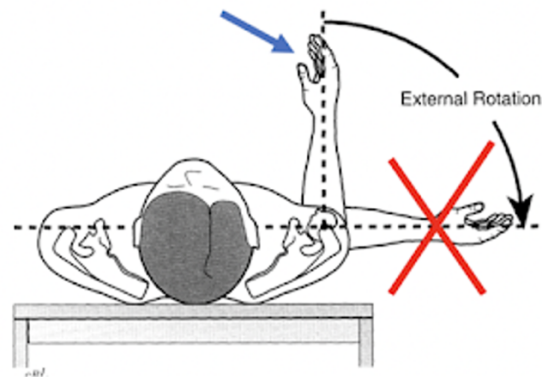


The *table slide* is also performed five times a day for one minute for three repetitions. The relaxed arm gently slides forward on a table as shown below.



Do your first set of exercises first thing in the morning and repeat the exercises four more times each day. Make an exercise calendar and make a check each time you perform your exercises.

For the first six weeks certain precautions must be observed to protect the repair of the subscapularis tendon that is incised to open the shoulder and repaired at the end of the surgery. During this time, do not attempt to raise the arm under its own power or use it for pushing or pulling. Do not allow the arm to be rotated further out than the handshake position shown by the arrow.



Recovery after shoulder joint replacement can seem long and slow. Thus, an important aspect of recovery, is getting out of the house and staying fit using safe aerobic exercises, such as walking, stationary biking, or stair climbing. Take time for yourself and enjoy family and friends.

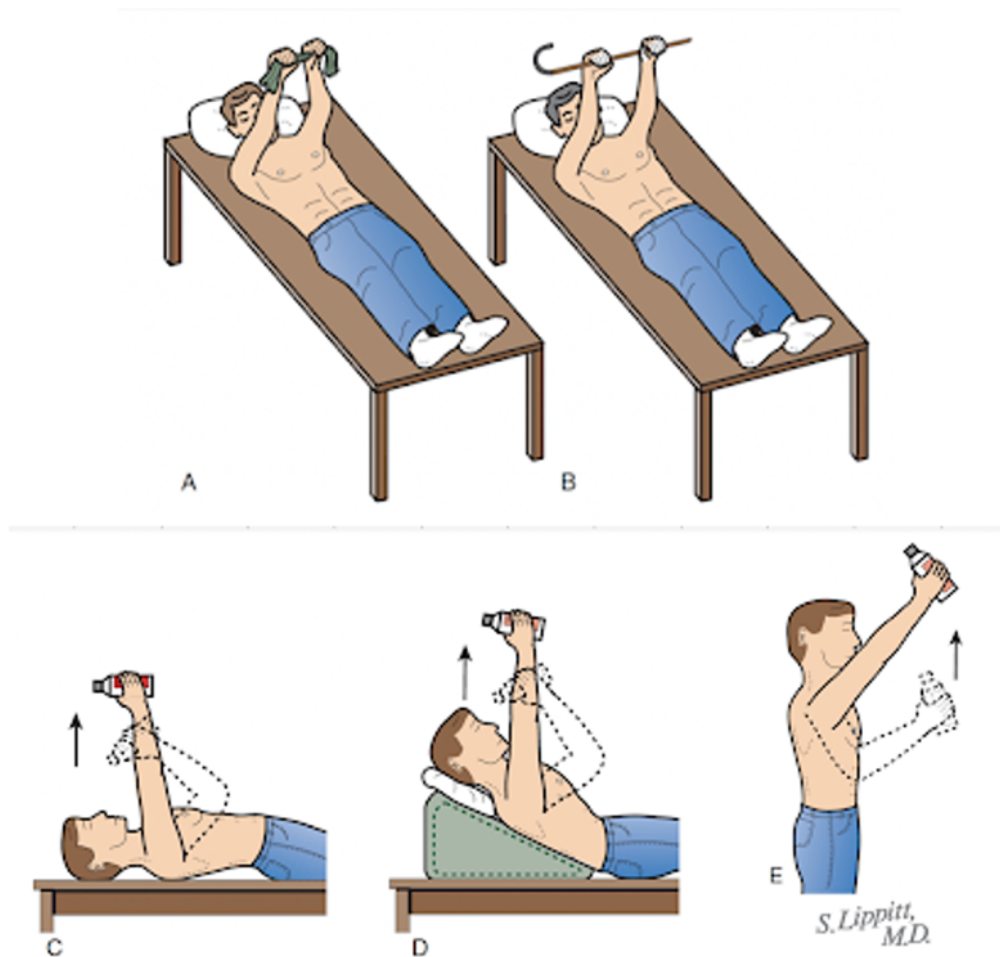


The second six weeks – Phase 2

During the second six weeks, the flexibility exercises are continued – whatever is needed to maintain the desired 150 degrees of elevation.

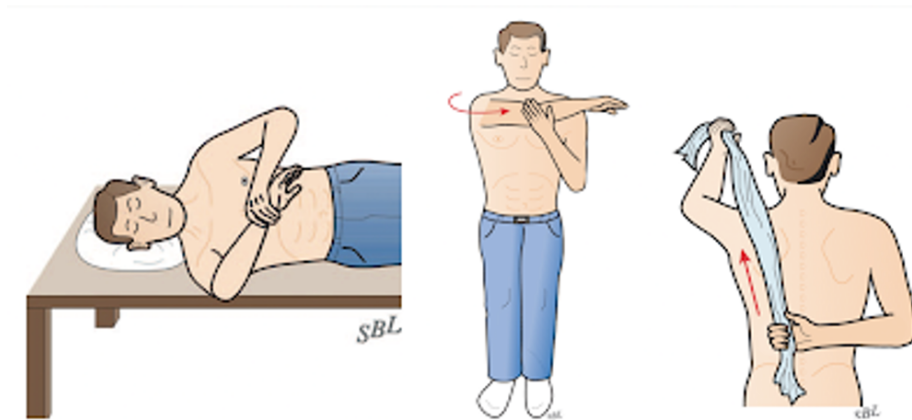
Gentle strengthening exercises are started using the progressive press as shown below. These exercises are performed three times a day, being sure that they are comfortable and that progression from one stage to another takes place only when the exercise can be done easily for 20 repetitions.

In stage A, a towel or bar is grasped with both hands close together. Starting with the hands on the chest, the hands are pressed up to the ceiling. In stage B, the press is performed with the hands further apart. In Stage C, the surgical arm presses up by itself – first with no weight and then with a one-pound weight in the hand. When this can be performed 20 times comfortably, the press is performed with the body at a small incline as shown for Stage D. The incline is slowly increased until the press can be performed while sitting or standing, Stage E. Again, progressing these exercises should take place only as fast as it is comfortable. Usually, the muscles of the arthritic shoulder have gotten weak and need time to recover. Patience is a virtue.

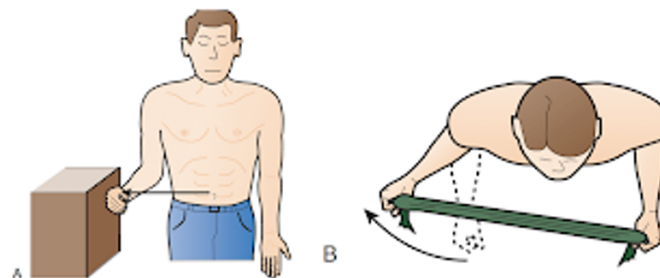


At two months

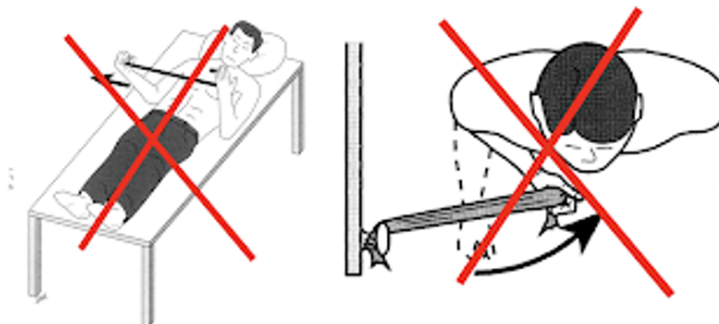
When the surgeon gives the OK, start these exercises to stretch the back of the shoulder: the sleeper stretch, the cross body stretch and towel up the back



And start external rotator strengthening using isometric and band exercises



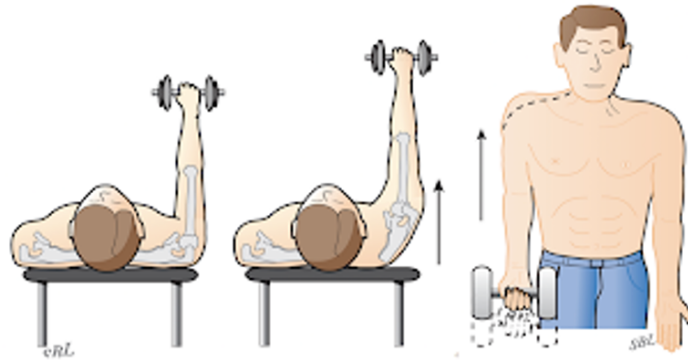
Certain exercises should be avoided for the first three months after surgery, such as stretching in external rotation or attempting to strengthen internal rotation.



After the first three months,

Continue to perform the stretching exercises often enough each day as necessary to maintain an excellent range of motion.

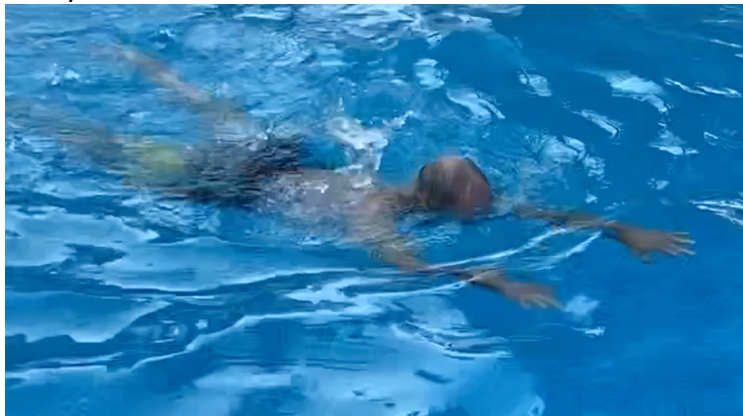
Add high repetition press ups and shoulder shrugs with light weights



Smoothly and progressively return to high repetition, low load activities (such as pull downs and rowing), making sure that the range of motion is maintained and that the shoulder remains comfortable.



Gradually return to your normal activities.



Be sure to let your surgeon know if you have any questions or concerns.