

SUPPLEMENTARY MATERIAL 6

***Information given to patients about the importance of exercise in the
management of rotator cuff tendinopathy***

EXERCISE FOR THE TREATMENT OF ROTATOR CUFF TENDINOPATHY

Exercise programs are the most effective treatment for shoulder tendinopathy in the medium and long term. Exercise therapy has the advantages that it has almost no adverse effects, and that the improvement achieved is usually maintained over time (although it may take a few weeks to appear).

Why is exercise important for treating rotator cuff tendinopathy?

The most common shoulder problem is rotator cuff tendinopathy. Pain appears at the level of the tendons of the muscles that surround the humeral head and form the rotator cuff. The rotator cuff is formed by four muscles surrounding the humeral head: supraspinatus, subscapularis, infraspinatus, and teres minor. It is a pain that appears especially when raising the arm, when bringing the hand towards the back or when lying on the bed on the side supporting the shoulder.

The reasons for the appearance of rotator cuff pain are not well understood, but it is known that the most important contributor is the load imposed to the shoulder. For example, increasing shoulder work in a high amount in a short period of time, or be for a prolonged period of time of low load, and then resume normal shoulder work. However, other factors such as sleep quality, or stress, can also influence on it. The result is a shoulder with tissues that become unaccustomed to the imposed load, producing the sensation of pain, even though the load is not harmful to the shoulder.

For that reason, the treatment of choice for this musculoskeletal disorder is therapeutic exercise, aimed at strengthening the shoulder musculature with exercise programs increases the stability of the glenohumeral joint. If the exercises are performed for several weeks the pain will begin to improve in most patients (although it is common to feel some discomfort initially when doing the exercises). Strength and endurance will also improve, and the ability to perform activities with the arm without pain will increase.

How is exercise performed?

The exercise programs to be used are simple and will be adapted to the characteristics of each individual. You will be instructed by a physical therapist, very familiar with this type of shoulder injury, who will select the most

appropriate combination of exercises for your specific situation. Once you have learned the exercises you will be provided with the necessary equipment, and you will have to continue doing them at home for at least 3 months. The physical therapist and the medical doctor of the rehabilitation unit will review you periodically. You will be indicated the necessary modifications to progress in the exercises in aim to achieve the maximum improvement.