## ORTHOSPORTS

## JEROME GOLDBERG - Shoulder Surgeon

## PATIENT NOTES - FROZEN SHOULDER

A frozen shoulder, or ADHESIVE CAPSULITIS, is a very common condition seen in about 3% of the population. It generally occurs in people over the age of 40 years and is seen far more commonly in women than in men. It commonly occurs in diabetics and people with thyroid disease.

The cause of this condition is UNKNOWN. It generally occurs spontaneously without any trauma, but can also occur after a significant traumatic event such as a fall, fracture or dislocation. The condition is also seen not infrequently after heart surgery, breast surgery or neurosurgery.

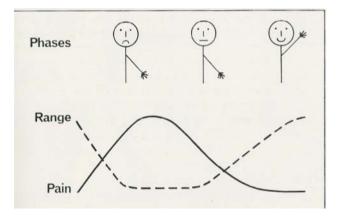
This condition commonly causes shoulder stiffness as well as pain with movements of the arm and significantly pain at night. The inside of the shoulder, the capsule, becomes inflamed and contracted.

The condition occurs in both shoulders in 10% of people. Once the condition settles, it rarely, if ever recurs.

As a general rule the condition is SELF LIMITING. This means that the condition generally gets better by itself for unknown reasons. It can however take up to two years for the condition to resolve.

The condition involves 3 distinct phases:

- 1. **FREEZING PHASE** or painful phase that lasts 2 to 12 months (sometimes even longer in diabetics). Patients get pain at rest and with activity, as well as pain at night. There is significant loss of motion.
- 2. **FROZEN PHASE** this is the progressive stiffness phase that lasts 3 to 12 months. Pain occurs only at the extremes of motion but the shoulder remains stiff.
- 3. <u>**THAWING PHASE**</u> this is the resolution phase where movements improve over a 2 to 6 month period.



It should be noted that in 80% of cases the pain resolves, but some patients are left with a small and permanent restriction in range of motion. This loss of motion hardly ever worries the patient.

Similar symptoms are caused by arthritis of the shoulder and that is the reason I order a plain xray in all cases. Ultrasound examinations are not usually helpful. Rarely arthritis does not show up on xray, especially in the early phase of arthritis, and one can only make the correct diagnosis after a year or two when the condition does not resolve, and the xray changes of arthritis appear.

## **TREATMENT**

The most important aspect of the treatment is that the patient understands that this is a condition that should get better by itself. The mainstay of treatment is to use the arm as much as possible within the limits of your discomfort. You should not under any circumstances immobilise the arm or stop using it, as this will cause the condition to deteriorate. You will require regular analgesia and perhaps some night sedation, for which you should see your family doctor.

I would also recommend regular antiinflammatory tablets. Hydrocortisone injections into the joint are an option but rarely work. At best they tend to give short lived and partial relief of symptoms. If you elect to have the injections then these should be given by a Radiologist, under Ultrasound guidance, and using a sterile technique. You family doctor can refer you if needed. I would only recommend these injections for unremitting pain only, as these injections do have certain risks and side effects.

You need to see a physiotherapist for instruction in a gentle course of range of motion and strengthening exercises. These exercises can be painful and should not include stretching exercises. The aim of the exercises is to keep the shoulder mobile and avoid further stiffness. These exercises do not improve range of motion. It is only necessary to see the physiotherapist on a few occasions and then you must perform the exercises 3 or 4 times a day, for 5 minutes each time.

There is a relatively new technique available called Hydrodistention or Hydrodilatation, where the Radiologist, under Ultrasound guidance, distends the shoulder joint with fluid, and breaks down the contractures. There have been reports of success with this technique leading to a more rapid recovery from the condition, but as yet there has not been a study to determine whether the results, in the long term, are any better than the "wait and see" approach. There are certain risks of the procedure such as infection. You are, of course, free to try this technique and you will require a referral from your g.p. to the Radiologist. If you elect this course of management make sure you discuss the risks and complications with the doctor performing the procedure.

My advice in most cases is that you should learn to live with the condition for 12 to 24 months providing the pain in tolerable and you can cope with the activities of daily living.

If you have not reached the Second "FROZEN" phase within 9 to 12 months, then there is a reasonable case to perform a Manipulation under Anaesthetic and an injection of cortisone. This requires an admission to hospital for 3 hours, and a general anaesthetic. We manipulate the shoulder and inject cortisone under sterile conditions. Following the procedure you will require 3 to 4 months of physiotherapy. The success rate of the procedure is 70%. There is a 2% chance of breaking your arm as a result of the manipulation. There are also risks of the anaesthetic, as well as infection from the cortisone injection.

In the unlikely event that the condition becomes chronic which it does in approximately 20% of people, then I would recommend a procedure called an Arthroscopic Capsular Release. This involves an overnight stay in hospital. Through an arthroscope, via three very small incisions, I can release the contracted tissue. This is a rather painful procedure that takes 6 months to recover from, and requires aggressive physiotherapy following surgery. The success rate of the surgery is about 70%.

There are a number of patients, who for work or social reasons, cannot afford to have a stiff shoulder for a prolonged period of time. Should that be the case then they may wish to consider having a hydrodistention or Manipulation under Anaesthetic early in the course of the disease.

Finally, I would recommend that all patients return to their family doctor to have him or her manage the pain control and monitor the physiotherapy and exercises. Every patient with this condition should have a blood test to exclude diabetes and those patients with diabetes need to ensure their diabetic control is as good as possible.

If after reading this handout you have any questions please ring the office and leave a message for me to ring back. If the condition does not improve in the timeframe indicated above please return to see me.

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160 Belmore Road, Randwick 2031Phone 93995333Fax 9398867347-49 Burwood Road, Concord 2137Phone 97442666Fax 974437062 Pearl Street, Hurstville 2220Phone 95806066Fax 95800890www.orthosports.com.auemail office@orthosports.com.au