



## How does it happen?

The biceps tendon can be pulled away from its main bony insertion just below the elbow as a result of a single powerful muscle contraction, for example while undertaking intense weight training or lifting a heavy object.

There is usually immediate pain and an obvious deformity of the arm, known as the 'Popeye sign'. The long term result can be weakness of elbow flexion and forearm rotation. In order to achieve maximal recovery, surgical reconstruction is required but must be undertaken within 3 weeks. Surgery is not appropriate for all patients. With recent advances in surgical technique, the rehabilitation period has been considerably reduced. This has helped to achieve excellent outcomes in most cases.

The biceps tendon can sometimes be subject to partial tears, strain or bursitis – inflammation of a fluid-filled sac next to the tendon. In most cases what may be required is rest, alteration of activities, non-steroidal anti-inflammatory tablets or gel, physiotherapy and occasionally stem cell injection.

For some cases of partial biceps tendon injury, surgical reconstruction is advisable. A full explanation can be provided at the time of your consultation.



## How is it diagnosed?

The condition can be diagnosed on the basis of the history described above – weakness of the forearm 'screw action' rotation and a 'Popeye' deformity of biceps at the arm.

An ultrasound or MRI scan can be used for subtle or complex cases.





## What does a tendon reattachment operation involve?

Surgery can be carried out either as a day case or as an overnight stay under general or regional anaesthetic. The end of the injured tendon is located in the arm, usually through a small incision and then buried in a bone tunnel with button, screw and suture (triple fixation – tension slide technique).

The skin is closed with non-absorbable sutures. A long acting local anaesthetic is then administered to provide pain relief. Finally, a dressing and bandaging are applied and the elbow is placed in a comfortable sling to protect the repair.







Once the local anaesthetic has worn off, normally 6 to 8 hours, simple analgesic tablets may be taken if there is pain.

Bandaging is maintained for 5 to 7 days. Sutures are removed in the clinic at 10 to 14 days. The surgical wound should be kept dry and clean until stitches are removed. Prior to this it's possible to shower by keeping the extremity dry with a plastic bag secured over the limb using an elastic band or a purpose made shower cover.

The hand and fingers should be used immediately. Elbow and forearm movements should only begin after discussion with Mr Perez or under direct supervision by a physiotherapist usually within the first week. The aim is to restore full movement by 4 weeks and 80% power by 3 months. Throwing and contact sports can usually be resumed at six months.

Driving will not be possible for a minimum of four weeks.

Light keyboard work may be possible after 2-3 weeks.

Heavy manual work and sports may be possible after three months.



## Are there any possible complications?

Over 90% of patients are satisfied with the results of surgery.

However, as with any treatment, there are always risks involved: infection: 2%, nerve injury: 2%, chronic regional pain syndrome: 2%, elbow stiffness: about 5% forearm stiffness (synostosis): less than 5%, repeat rupture: Possible



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