

### Introduction

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The biceps tendon ruptures off the forearm bone (radius) and retracts into the upper arm, causing a deformity and weakness.

A small incision is made over the upper forearm, where the biceps should attach onto the radius bone. The retracted biceps tendon is retrieved through the incision. Sometimes another incision higher up the arm may be required to find the tendon. The radius is prepared to encourage healing, bone anchors and sutures are inserted into the bone as an anchorage for the tendon.

After the surgery a hinged elbow brace is applied with the elbow locked at 60-90 degrees of flexion. The brace is adjusted gradually to allow more movement. By six weeks you should be able to remove the brace

### Contraindications

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- Use of hinged-elbow brace for 6 weeks
- No active use of the arm for 3 weeks (all activities of daily living e.g. feeding, dressing, cooking must be done by the un-operated arm).

### Phase 1 (0-2 weeks)

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- Advise to use ice and elevation to reduce any swelling (if appropriate)
- Provision of Mayo hinged-elbow brace, locked at 90°. Brace flexion maybe unlocked to allow passive ROM exercises as below.
- Passive range of movement (ROM) for flexion to limit of brace and supination (full) both as comfort allows, **do not force or stretch**.
- Teach scapulae setting and neck, shoulder, wrist and hand full range of movement exercises as comfortable.
- Refer to Physiotherapy Outpatients within 2 weeks.

### Phase 2 (2-4 weeks)

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- Lock brace at 60°.
- Continue to increase passive ROM as comfort allows, to the limit of the brace, **do not force or stretch**.
- Progress to single plane active ROM elbow flexion, extension, supination and pronation as comfortable.
- Introduce sub-maximal (<30%) biceps isometrics with forearm neutral, as comfortable.
- Introduce sub-maximal isometrics for triceps and shoulder muscles.

### Phase 3 (4-6 weeks)

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- Lock brace a 30°.
- Continue to increase passive ROM as comfort allows, to the limit of the brace, **do not force or stretch**.
- Progress single plane active ROM elbow flexion, extension, supination and pronation as comfortable.
- Progress sub-maximal biceps isometrics with forearm neutral, as comfortable.
- Progress sub-maximal isometrics for triceps and shoulder muscles.
- Advise patient to use arm and hand for light activities with no lifting.

### Phase 4 (6-12 weeks)

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- Discontinue use of brace.
- Continue progression as above.
- Begin combined motions, e.g. flexion with supination.
- Introduce and progress resisted exercise programme for elbow flexion, extension, pronation and supination.
- Introduce passive stretching.

- Introduce light work and sport specific movements

**Returning to Activities**

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- Light duties: 6 weeks
- Heavy duties: 12 weeks, including gradual return to sport as comfortable.