

Post-operative rehabilitation protocol

Elbow medial collateral ligament reconstruction

Reconstruction of the ligament at the inner side of the elbow with a tendon graft. For patients, physiotherapists, and GPs.

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The plan at a glance

A tendon graft replaces the torn ligament. It needs months to mature. Movement returns by six weeks. Strength returns by four months. Throwing is rebuilt slowly after that.

	Phase 1 Weeks 0 to 2	Phase 2 Weeks 2 to 6	Phase 3 Weeks 6 to 12	Phase 4 After 12 weeks
Brace	Backslab at 90°. Sling	Hinged brace, range increased in stages	None	None
Movement	Hand, wrist, and shoulder	Active elbow movement. Full range by week 6	Full range	Full range
Load	A cup of tea	A cup of tea. No sideways stress on the elbow	Progressive strengthening. No throwing	Sport-specific loading. Throwing programme from month 4
Review	Wound check and brace fitted at 2 weeks	Clinic at 6 weeks	Clinic at 12 weeks	Clinic at 6 and 12 months

Darker shading means tighter restriction. Times are guides. Your surgeon's instructions take precedence where they differ.

Seek advice urgently if

- The wound becomes red, hot, or swollen, or it leaks or opens.
- You have a fever or feel unwell.
- You feel a pop at the inner side of the elbow, or it gives way.
- Numbness or tingling develops or worsens in the little and ring fingers.
- The elbow swells rapidly and feels tight.
- The hand becomes cold, pale, or blue.

Call 999 or go to the Emergency Department for shortness of breath or chest pain.

For anything else on this list, contact your surgical team the same day. Out of hours, call NHS 111.

Phase 1

Protect: weeks 0 to 2

Aims: control swelling, protect the graft and the wounds.

Do

- Keep the backslab on and dry. Wear the sling when up and about.
- Move the fingers and thumb fully, every hour. Squeeze a soft ball gently.
- Move the shoulder: pendulums and lifting the whole arm.
- Keep the hand raised on pillows when resting.
- Look after the graft wound, at the wrist or behind the knee, in the same way.
- Take pain relief regularly as prescribed.

Avoid

- Moving the elbow inside the splint.
- Lifting anything heavier than a cup of tea.
- Leaning on the inner side of the elbow.
- Driving.

Expected in this phase

Tingling in the little finger is common for a few days. The nerve at the inner elbow lies beside the graft. Tell your surgeon if it persists or worsens.

Phase 2

Move in the brace: weeks 2 to 6

Aims: regain elbow movement, protect the graft from sideways stress.

Do

- Wear the hinged brace at all times. Your therapist sets the range.
- Bend and straighten the elbow under its own power within the brace limits.
- Expect the range to open each week, to full movement by week six.
- Turn the palm up and down with the elbow at your side.
- Start static (isometric) wrist, forearm, and shoulder exercises.
- Keep fit: walking and a static bike are safe.

Avoid

- Sideways stress on the elbow: carrying a bag in the crook of the arm, pushing up from a chair.
- Turning the shoulder outwards against resistance. It stresses the graft.
- Lifting anything heavier than a cup of tea.
- Any activity with a risk of falling.

Move on to Phase 3 when

Six weeks have passed and elbow movement is full, or close to it.

Phase 3

Strengthen: weeks 6 to 12

Aims: full movement, strength through the whole arm, shoulder, and trunk.

Do

- Stop using the brace.
- Stretch any remaining stiffness gently.
- Strengthen the wrist, forearm, biceps, and triceps with bands, then weights.
- Strengthen the rotator cuff and shoulder blade muscles.
- Work on trunk, hip, and leg strength. Throwing power comes from the ground up.
- Return to running.

Avoid

- Throwing, serving, and overhead hitting.
- Sideways stress on the elbow: chest fly, wide press.
- Heavy lifting.
- Contact sport.

Move on to Phase 4 when

Twelve weeks have passed, movement is full, and strength work is pain-free.

Phase 4

Return to sport: after 12 weeks

Aims: rebuild power and throwing in stages.

- Start two-handed medicine ball drills, then one-handed drills.
- Start an interval throwing programme from four to five months: short, soft throws on flat ground, built up over weeks.
- Return to non-throwing sport and gym work from four months.
- Return to contact sport from six months.
- Return to competitive throwing from nine to twelve months.

What to expect

Soreness after a throwing session is a signal to rest a day and drop back a stage. Most throwers return to their previous level, but it takes a year or more.

Return to activity

Typical times from surgery. Each depends on comfort, movement, and healing.

Activity	From	Condition
Desk work	1 to 2 weeks	One-handed, in the brace
Driving	6 weeks	Out of the brace, able to control the wheel
Running	6 to 8 weeks	Out of the brace
Light manual work	8 to 12 weeks	No heavy carrying
Gym, general strength	3 to 4 months	No sideways elbow stress
Golf	4 to 5 months	Putting and chipping first
Interval throwing programme	4 to 5 months	Full strength, no pain
Tennis groundstrokes	5 to 6 months	Serve from 6 to 9 months
Heavy manual work, contact sport	6 months	Full strength
Competitive throwing	9 to 12 months	Completed throwing programme

When to slow the protocol

Some patients need more time. Your surgeon will tell you if any of these apply.

- **Ulnar nerve moved to the front of the elbow at the same operation.** The same phases apply. Avoid pressure on the inner elbow.
- **Repair of the forearm muscle origin at the same operation.** No resisted wrist bending or gripping for six weeks.
- **Ligament repair with a reinforcing tape, without a graft.** Recovery is often faster. Your surgeon will set the timings.
- **Revision surgery.** Each phase runs later and return to throwing is less predictable.
- **Smoking and diabetes.** Both slow healing. Stop smoking and vaping nicotine. Keep blood sugar well controlled.

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This protocol is general guidance for uncomplicated reconstruction of the medial collateral ligament of the elbow with a tendon graft. It is not a substitute for individual medical advice. Instructions from your own surgeon and therapist take precedence.

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