

Post-operative rehabilitation protocol

Triple tendon transfer for trapezius palsy

Transfer of three muscles (levator scapulae, rhomboid minor, and rhomboid major) to do the work of a paralysed trapezius. For patients, physiotherapists, and GPs.

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The plan at a glance

The three muscles are moved outwards along the shoulder blade so they can hold it up and back. They need six weeks held still in a brace to heal to the bone. Reaching forward pulls directly against them, so that is the movement to avoid longest.

	Phase 1 Weeks 0 to 6	Phase 2 Weeks 6 to 12	Phase 3 Months 3 to 6	Phase 4 After 6 months
Brace	On day and night, arm held out, shoulder blade held back	Wean off over 2 weeks	None	None
Movement	Hand, wrist, and elbow only. The shoulder stays still	Assisted, then active lift. No reaching forward or across	Full active range. Shoulder blade control	Full range
Load	None	A cup of tea	Light resistance, up to 2 kg	Progressive strengthening
Review	Wound check at 2 weeks. Clinic at 6 weeks	Clinic at 12 weeks	Clinic at 6 months	Clinic at 12 months

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

Seek advice urgently if

- A wound becomes red, hot, or swollen, or it leaks or opens.
- You have a fever or feel unwell.
- You feel a pop beside the shoulder blade, and the shoulder droops or the shoulder blade wings out again.
- The brace rubs, or the skin under it becomes sore or broken.
- New numbness, tingling, or weakness develops in the arm or hand.
- 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 in the brace: weeks 0 to 6

Aims: let the transfers heal, control pain, keep the hand and elbow moving.

Do

- Wear the brace day and night. It holds the arm out to the side and the shoulder blade back.
- Move the fingers, wrist, and elbow fully, several times a day.
- Keep the neck moving gently, within comfort.
- Wash with help. Keep the arm supported in the brace position at all times.
- Sleep propped up, with the brace on.
- Keep the wound dry until the wound check. It runs along the inner edge of the shoulder blade.
- Walk daily.

Avoid

- Taking the arm out of the brace.
- Reaching forward or across your body.
- Rounding the shoulders or letting the shoulder drop.
- Lying on the operated side or flat on the wound.
- Using the hand to lift, push, or pull.
- Driving.

Expected in this phase

The wound is long and the muscles around the shoulder blade ache and spasm. This eases over two to three weeks. Plan help at home for washing, dressing, and meals for six weeks.

Phase 2

Come out of the brace: weeks 6 to 12

Aims: wean the brace, regain shoulder movement, begin retraining.

Do

- Wean out of the brace over two weeks. Use a pillow under the arm when sitting.
- Lift the arm with help from the other hand, lying on your back, then under its own power.
- Start retraining: squeeze the shoulder blades together and lift the shoulder towards the ear, then hold.
- Keep the shoulder blade held back as you lift the arm.
- Sit and stand tall. A mirror helps.
- Exercise in a pool once the wound has healed.

Avoid

- Reaching forward at full stretch or across the body.
- Lifting anything heavier than a cup of tea.
- Carrying with the arm hanging at your side.
- Resistance exercise.
- Any activity with a risk of falling.

Move on to Phase 3 when

Twelve weeks have passed and you can lift the arm lying down with the shoulder blade held back.

Phase 3

Retrain and strengthen: months 3 to 6

Aims: a stable shoulder blade through full movement, light strength.

Do

- Lift the arm in sitting and standing with the shoulder blade controlled.
- Start light resistance for shoulder blade squeezes and shrugs.
- Add light rowing movements with a band.
- Start reaching forward and across the body gently.
- Strengthen the rotator cuff and deltoid.
- Use the arm for daily tasks at and above shoulder height.

Avoid

- Lifting or carrying more than 2 kg.
- Pushing: press-ups, heavy doors, trolleys.
- A heavy bag on the operated shoulder.
- Heavy manual work and sport.

Move on to Phase 4 when

Six months have passed and the shoulder blade stays steady when you lift the arm.

Phase 4

Return: after 6 months

Aims: best possible strength, return to work and activity.

- Progress strengthening, including pushing movements, in stages.
- Return to swimming, the gym, and non-contact sport.
- Discuss heavy manual work and contact sport with your surgeon before returning.

What to expect

Improvement continues for 12 to 18 months. The aims are a shoulder that no longer droops, less neck and shoulder ache, and a lift above shoulder height. Heavy overhead work often stays limited.

Return to activity

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

Activity	From	Condition
Desk work	4 to 6 weeks	One-handed, in the brace, if you can travel safely
Light tasks at waist level	6 to 8 weeks	Out of the brace
Pool exercise	8 weeks	Wound healed
Driving	10 to 12 weeks	Out of the brace, able to control the wheel. Tell your insurer.
Running	12 weeks	Shoulder blade controlled
Light manual work	4 months	Within the 2 kg limit, then building
Light gym resistance	4 months	As directed by your therapist
Swimming	6 months	Breaststroke first
Golf, racket sports	6 months	Good shoulder blade control
Heavy manual work, contact sport	6 to 9 months	Discuss with your surgeon

When to slow the protocol

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

- **Weak tissue or bone at the shoulder blade.** The brace stays on for eight weeks. Each phase runs later.
- **Long-standing palsy with a stiff shoulder.** Regaining movement takes longer. Expect therapy for nine to twelve months.
- **Weakness of other shoulder blade muscles.** The result is less predictable. Your surgeon will set specific goals.
- **Transfer with a piece of bone (original technique).** Loading waits for the bone to heal on X-ray.
- **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 triple tendon transfer (modified Eden-Lange) for trapezius palsy. It is not a substitute for individual medical advice. Instructions from your own surgeon and therapist take precedence.

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