

Post-operative rehabilitation protocol

Anterior latissimus dorsi transfer for subscapularis tear

Transfer of a back muscle tendon to the front of the shoulder, for a subscapularis tear that cannot be repaired. For patients, physiotherapists, and GPs.

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The plan at a glance

The tendon is moved to the front of the shoulder to turn the arm inwards and hold the joint steady. Turning the arm outwards stretches it, so that movement is limited for six weeks. The muscle then learns its new job.

	Phase 1 Weeks 0 to 6	Phase 2 Weeks 6 to 12	Phase 3 Months 3 to 6	Phase 4 After 6 months
Sling	On day and night, off for exercises	Wean off over 1 to 2 weeks	None	None
Movement	Pendulums. Assisted lift to 90°. No outward turn past straight ahead	Assisted, then active. Outward turn regained gradually	Active, building to full available range	Full available range
Load	A cup of tea, elbow at the side	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 at the front of the shoulder, with sudden pain and loss of the inward turn.
- The shoulder slips forward or changes shape.
- 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: weeks 0 to 6

Aims: let the transfer heal, control pain, start gentle assisted lifting.

Do

- Wear the sling day and night, with the hand resting across the body. Take it off to wash, dress, and exercise.
- Move the fingers, wrist, and elbow fully, several times a day.
- Start pendulum exercises from the first week.
- Lying on your back, lift the arm with the other hand to 90°, within comfort.
- Keep a pillow behind the elbow when lying down, so the arm does not drop back.
- Sleep propped up on pillows.
- Keep the wounds dry until the wound check: one at the front of the shoulder, one at the armpit.

Avoid

- Turning the arm outwards past the straight-ahead position.
- Taking the arm out to the side and back.
- Turning the arm inwards under its own power: pressing the hand to the stomach, reaching behind.
- Pushing up from a chair or bed.
- Lifting anything heavier than a cup of tea.
- Driving.

Expected in this phase

The armpit wound bruises and may collect fluid. Bruising spreads down the side of the chest. This settles over two to three weeks.

Phase 2

Move and retrain: weeks 6 to 12

Aims: come out of the sling, regain movement, begin retraining.

Do

- Wean out of the sling over one to two weeks.
- Lift the arm with help, then under its own power, lying down first.
- Turn the arm outwards gradually, a little further each week. Do not force it.
- Start retraining: press the elbow gently into your side as you bring the hand to your stomach.
- Exercise in a pool once the wounds have healed.
- Use the hand for light tasks at waist level.

Avoid

- Forced outward turning, or stretching the arm out and back.
- Lifting anything heavier than a cup of tea.
- Pushing and pulling against resistance.
- Body weight through the arm.
- Any activity with a risk of falling.

Move on to Phase 3 when

Twelve weeks have passed and you can lift the arm unaided lying down.

Phase 3

Retrain and strengthen: months 3 to 6

Aims: active inward turn, lift in sitting and standing, light strength.

Do

- Practise pressing the hand to the stomach with the elbow held forward.
- Practise lifting the hand off the lower back.
- Start light resistance bands for inward turning.
- Strengthen the deltoid, the outward turners, and the shoulder blade muscles.
- Use the arm for daily tasks at and above shoulder height.

Avoid

- Lifting more than 2 kg.
- Heavy pulling: rowing machine, pull-ups.
- Sudden or jerking movements.
- Heavy manual work and sport.

Move on to Phase 4 when

Six months have passed and inward turning is active and comfortable.

Phase 4

Return: after 6 months

Aims: best possible strength and function.

- Progress strengthening as the shoulder allows.
- Return to swimming, golf, and gardening in stages.
- Discuss heavy manual work with your surgeon before returning.

What to expect

Improvement continues for 12 to 18 months. The aims are less pain, a steadier shoulder, and a useful inward turn for tasks in front of the body. Strength does not return to normal.

Return to activity

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

Activity	From	Condition
Desk work	3 to 4 weeks	One-handed, in the sling
Light tasks at waist level	6 weeks	Out of the sling
Driving	8 to 10 weeks	Out of the sling, able to control the wheel. Tell your insurer.
Pool exercise	8 weeks	Wounds healed
Light manual work	4 months	Within the 2 kg limit, then building
Light gym resistance	4 months	As directed by your therapist
Swimming	4 to 6 months	Breaststroke first
Golf	6 months	Putting and chipping first
Heavy manual work	6 to 9 months	Discuss with your surgeon. It may not be advised.

When to slow the protocol

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

- **Teres major transferred with the latissimus dorsi.** The same phases apply.
- **Pectoralis major transferred instead.** The same restrictions apply. There is no armpit wound.
- **A shoulder that sat forward out of joint before surgery.** The sling stays on for the full six weeks and outward turning is regained more slowly.
- **Repair of other rotator cuff tendons at the same operation.** Unaided lifting waits until eight weeks.
- **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 anterior latissimus dorsi tendon transfer for an irreparable subscapularis tear. It is not a substitute for individual medical advice. Instructions from your own surgeon and therapist take precedence.

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