

# REHABILITATION AFTER SOFT TISSUE SARCOMA EXCISION

Soft tissue sarcoma surgery recovery: wound healing first, walking usually early, and how radiotherapy changes the plan.

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PATIENT NAME

DATE OF SURGERY

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## WHAT IS INSIDE

- What was done, and what to expect week by week
- Weight bearing, walking aids and precautions
- Your exercises, with a diagram and a dosage for each
- Warning signs, and exactly who to call
- Getting back to driving, work and sport
- A progress chart to fill in and bring to appointments

24 minutes to read. Reviews: Wound review at about 2 weeks. Clinical review with an X-ray at 6 to 8 weeks. Then a surveillance rhythm of roughly every 3 to 4 months, set by the sarcoma team.

## Harbour Orthopaedics & Sports Medicine

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This is a general guide. Your operation record and the instructions you are given always take precedence over anything written here. Last reviewed 5 August 2026.

This guide walks you through recovery after surgery to remove a soft tissue sarcoma, performed with the RPA Bone & Soft Tissue Sarcoma Unit. It is written for you and for your physiotherapist, including a physiotherapist working with you far from Sydney, so everyone is reading from the same page.

Sarcoma surgery is more individualised than joint replacement. What was removed, whether radiotherapy came before or after, and whether a flap was used to close the wound all change the plan. So one instruction matters even more here than in our joint replacement guides: every timeframe in this guide is typical, not a rule: your operation record and your team's instructions always govern.

The headline, though, is genuinely encouraging: most people are up and walking early, weight bearing is usually unrestricted, and recovery is built around one clear priority at a time: first the wound, then movement, then strength, then the long game.

## AT A GLANCE

### WEIGHT BEARING

Usually unrestricted, unless bone was involved or a flap dictates otherwise; your operation record governs

### BRACE

Not usually: a joint is protected specifically where a flap or repair crosses it

### DRIVING

When the criteria in this guide are met and your team agrees. There is no fixed week

### PHYSICAL WORK

Individualised: planned with your team around treatment and healing

### REVIEWS

Wound review at about 2 weeks. Clinical review with an X-ray at 6 to 8 weeks. Then a surveillance rhythm of roughly every 3 to 4 months, set by the sarcoma team

### WALKING AIDS

A frame or crutches early for comfort and balance; weaned as your team advises

### PRECAUTIONS

Selective protection, not blanket rest: set individually by your team, and lifted in stages

### DESK WORK

Often within a few weeks; radiotherapy and chemotherapy schedules matter as much as the wound

### SPORT & ACTIVITY

Graduated, supervised exercise is encouraged; contact and timing are set by your team

## WHAT WAS DONE IN YOUR OPERATION

A soft tissue sarcoma is removed together with a margin of healthy tissue around it. This margin is what makes the operation curative, and it is why the wound is often longer than the lump was.

Sometimes the gap left behind is closed directly; sometimes a flap, living tissue moved from nearby or elsewhere in the body, is used to reconstruct the

area. A flap has its own delicate blood supply and is protected specifically in the early weeks.

Many patients also have radiotherapy, either before or after surgery, and some have chemotherapy. The order of these treatments is decided by the whole sarcoma team, and it shapes your rehabilitation timeline. This guide explains how.

**Drains:** soft tubes carrying fluid away from the wound, are common and normal after this surgery. They are not a sign anything has gone wrong.

## THE IDEAS THAT MAKE EVERYTHING ELSE MAKE SENSE

### **1. The wound comes first**

For the first 2–6 weeks, wound healing is the governing priority, everything else in rehabilitation is staged around it. If radiotherapy was given BEFORE your surgery, the wound is more fragile and major wound-healing problems are considerably more common, so mobilisation is deliberately staged, and physiotherapy begins as soon as wound stability allows rather than on a fixed day. If radiotherapy comes AFTER surgery, the wound is more robust early, but late stiffness, firmness and swelling in the treated area are more likely, so range-of-motion work becomes a long-term commitment, not a six-week task.

### **2. Selective protection, not blanket rest**

Where a flap or a repair crosses a joint, that joint is protected specifically, and the rest of the limb keeps moving. Protecting one thing well beats resting everything. Your team will tell you exactly what is protected, and for how long.

### **3. Drains and seromas are expected, not complications**

Fluid collects in the space where the tumour was. That is simply what the body does. Drains manage it early, and a seroma (a soft fluid swelling under the skin after the drain comes out) is common and usually settles on its own. Tell the team about it; do not be alarmed by it.

#### **4. Fatigue is part of it: plan around it**

If you are having chemotherapy, the fatigue is cyclical: there is a low point in each cycle and a better week. Schedule the harder rehabilitation sessions in the better week, and deliberately conserve energy at the low point. Working with the cycle is not slacking. It is good rehabilitation.

#### **5. Recovery is psychological as well as physical**

Changes in how your body looks and works, fear of the cancer coming back, and grief about what has changed are common and completely legitimate. Psycho-oncology and social work are part of the sarcoma team from the start, not a last resort for people who are "not coping". Please use them.

#### **6. Exercise is part of cancer care: officially**

The Clinical Oncology Society of Australia's position is that exercise should be embedded in routine cancer care: broadly, working towards about 150 minutes of aerobic activity a week plus two to three resistance sessions, tailored to you and supervised. Supervised progressive resistance training is safe and beneficial in sarcoma survivors. The programme in this guide is built on that.

## **WEIGHT BEARING AND WALKING AIDS**

### **WEIGHT BEARING**

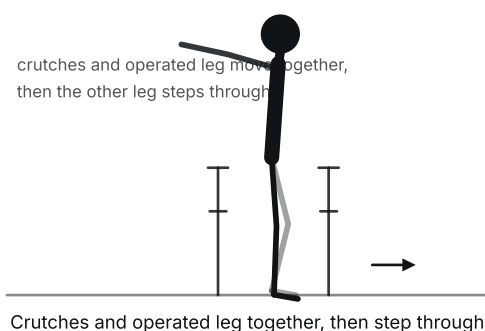
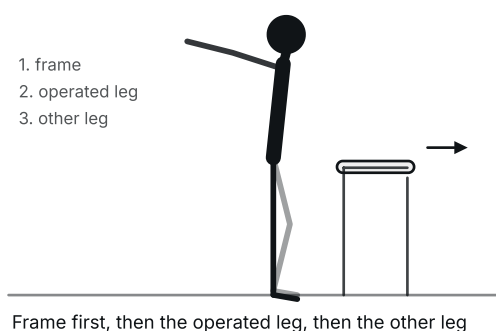
**USUALLY UNRESTRICTED, UNLESS BONE WAS INVOLVED OR A FLAP DICTATES OTHERWISE; YOUR OPERATION RECORD GOVERNS**

Most soft tissue sarcoma operations do not weaken bone, so most patients can put full weight through the limb early, using a frame or crutches for comfort and balance at first.

The exceptions matter: if bone was removed or exposed, or if a flap or repair crosses a weight-bearing area, your team will set a specific restriction. It will be written in your operation record and explained to you before you leave hospital.

If you are ever unsure what your restriction is, do not guess, call the rooms and ask. This is exactly the kind of detail the operation record exists for.

| STAGE                                | TYPICAL TIMING                                                        | MOVE ON WHEN                                                            |
|--------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Wheeled frame or two crutches</b> | From day one, unless your team stages this around the wound or a flap | Safe balance; wound comfortable; any flap positioned as instructed      |
| <b>One crutch or a stick</b>         | As comfort and confidence allow: set by your team, not the calendar   | Walking without a lurch on level ground; wound stable                   |
| <b>No aid</b>                        | Individualised, often within weeks where the wound allows             | No limp; confident indoors and outdoors; your team happy with the wound |



## SELECTIVE PROTECTION: SET BY YOUR TEAM

INDIVIDUALISED: WRITTEN IN YOUR OPERATION RECORD AND LIFTED IN STAGES

The aim is to protect exactly what needs protecting: a healing wound, a flap with a new blood supply, a repair crossing a joint, while everything else keeps moving. Blanket rest costs strength and range you will have to win back later.

| RULE                                                                         | WHY                                                                                                                                                                                                            | HOW TO MANAGE                                                                                                                                                                                 |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If a flap or skin graft was used, follow the flap-care instructions exactly  | A flap survives on a newly connected, delicate blood supply. Pressure, kinking or tension in the early weeks can compromise it.                                                                                | Position the limb as instructed, avoid pressure over the flap, and report any change in the flap's colour, warmth or firmness to the team the same day.                                       |
| Where a flap or repair crosses a joint, that joint is protected specifically | Moving that joint too early pulls directly on healing tissue. The restriction applies to that joint only.                                                                                                      | Keep every other joint of the limb, and the rest of you: moving. The restriction is lifted in stages by your team as healing allows.                                                          |
| Protect irradiated skin from sun, friction and injury: lifelong              | Radiotherapy permanently changes the skin in the treated area: it burns more easily, heals more slowly, and stays more fragile.                                                                                | SPF 50+ sunscreen or covering clothing over the treated area whenever it could see sun, for life, not for a year. Moisturise regularly, and take any break in the skin seriously.             |
| Care for the skin of the whole limb meticulously                             | Surgery and radiotherapy can reduce the limb's lymph drainage, which raises the risk of lymphoedema and of skin infection (cellulitis), and each episode of cellulitis raises the risk of lymphoedema further. | Moisturise daily, treat cuts, scratches, insect bites and tinea promptly, keep nails trimmed carefully, and see your GP early: the same day, for any spreading redness or warmth in the limb. |
|                                                                              |                                                                                                                                                                                                                |                                                                                                                                                                                               |

## EVERYDAY SITUATIONS

**Showering with a drain still in.** Ask the ward team to show you before you go home, usually the drain is secured and the dressing protected. Never let the drain bottle hang by its tubing.

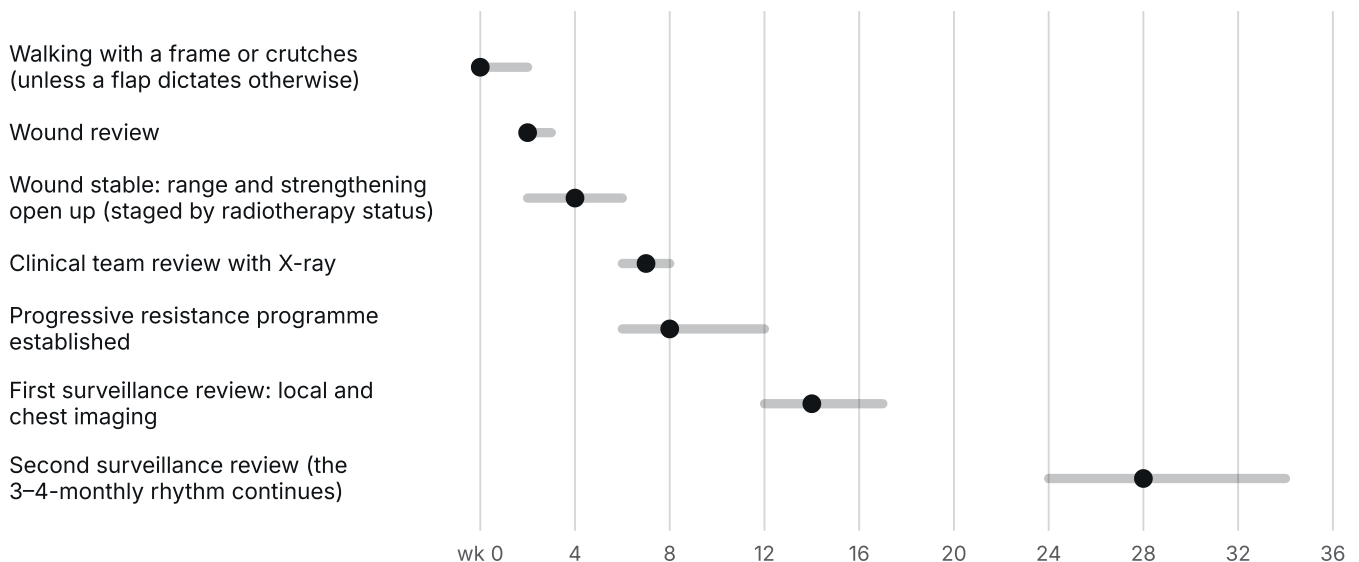
**Sitting and sleeping with a flap.** Your team will show you the positions that keep pressure off the flap. A pillow arrangement that works is worth photographing on your phone so you can rebuild it every night.

**Gardening or outdoor work with a treated limb.** Gloves and long sleeves or trousers over the treated area, sunscreen on any exposed treated skin, and prompt washing and dressing of any scratch. This is lifelong good practice, not a temporary rule.

**Flying and long trips.** Malignancy plus limb surgery raises clot risk, so talk to the team before booking travel in the early months, clot prevention, compression and an aisle seat can all be planned. Ask whether a compression garment should be worn for the flight.

**Feeling a lump, or new pain, and not wanting to "bother anyone".** Please bother us: that is precisely what the surveillance system is for. A phone call that turns out to be nothing costs five minutes. Sitting on a worry costs sleep at best.

## YOUR RECOVERY TIMELINE



Bars show the earliest-to-latest normal window; the dot is typical. Your own dates are set with us, not by this chart.

## THE PHASES, ONE BY ONE

You move to the next phase by meeting its exit criteria, not by the calendar. The week numbers are typical, nothing more.

## PHASE 1: THE WOUND COMES FIRST

WEEKS 0-2 (UP TO 6 WEEKS WHERE RADIOTHERAPY WAS GIVEN BEFORE SURGERY)

Protect the healing wound, manage the drains, keep the calf pumping and the rest of your body moving, and pace your energy.

### GOALS: TICK THEM OFF

- ☐ Wound clean, dry and settling: reviewed on the team's schedule
- ☐ Drains managed confidently, and removed when the team decides
- ☐ Walking as permitted, little and often
- ☐ Ankle pumps every waking hour
- ☐ Swelling controlled with elevation
- ☐ The rest of your body: arms, trunk, other leg: moving daily

### DO THIS

- Follow the wound and drain instructions exactly. This phase is won or lost at the wound.
- Walk short distances often, within whatever limits your team has set.
- Do ankle pumps every waking hour, and elevate the limb properly (lying down) several times a day.
- Keep every part of you that is not protected moving, selective protection, not blanket rest.
- Eat well and rest without guilt: healing and (if you are having it) chemotherapy are genuinely hard work.

### AVOID THIS

- Stretching or loading the tissue across the wound before your team opens that door, especially after pre-operative radiotherapy.
- Soaking the wound, no baths, spas or pools.
- Moving a joint your team has specifically protected.
- Measuring yourself against fixed-day protocols. This phase ends when the wound is stable, not on a set date.

### READY FOR THE NEXT PHASE WHEN...

- Your team confirms the wound is stable
- Drains out, and any seroma being monitored rather than growing
- Walking comfortably at your permitted level

## PHASE 2: SELECTIVE PROTECTION AND EARLY RANGE

FROM WOUND STABILITY, TYPICALLY SOMEWHERE IN WEEKS 2–6

Begin gentle range of motion and re-activation as soon as the wound allows, protecting only what your team says needs protecting.

### GOALS: TICK THEM OFF

- ☐ Gentle range of motion under way at the operative area, as cleared by your team
- ☐ Any protected joint moving again in the stages your team sets
- ☐ Walking further and more normally, weaning off aids as advised
- ☐ Scar care started once the wound is fully healed and the team approves
- ☐ You know the early signs of lymphoedema and are checking for them

### DO THIS

- Start the range-of-motion work your physiotherapist prescribes, early movement, begun as soon as wound stability allows, is the plan, not a risk.
- Begin gentle re-activation: quadriceps sets, straight leg raises and sit-to-stands are the typical lower-limb starting points; your physiotherapist adapts these to your operation.
- Start scar massage once the wound is fully healed and your team approves, irradiated skin needs an especially gentle start.
- Learn the early signs of lymphoedema: heaviness, tightness, a ring or shoe fitting differently, a change in the limb's girth, and report them early. Early treatment greatly outperforms late treatment.

### AVOID THIS

- Forcing range through sharp pain or through a wound that is not yet stable.
- Skipping physiotherapy sessions in a good week because things "feel fine": the gains of this phase compound.

### READY FOR THE NEXT PHASE WHEN...

- Wound fully healed
- Range of motion progressing to your team's satisfaction
- Walking confidently, with or without a stick

### PHASE 3: PROGRESSIVE RESISTANCE

FROM YOUR TEAM'S GO-AHEAD, TYPICALLY FROM AROUND 6–12 WEEKS, AND CONTINUING

Build real strength and endurance with a supervised, progressive programme, exercise is part of cancer care, not an optional extra.

#### GOALS: TICK THEM OFF

- ☐ A supervised progressive resistance programme running 2–3 times a week
- ☐ Aerobic activity building towards about 150 minutes a week, as your team advises
- ☐ Strength, balance and walking endurance improving week on week
- ☐ Energy managed around any chemotherapy cycle: hard sessions in the better week

#### DO THIS

- Work with your physiotherapist or an exercise physiologist on a progressive resistance programme, supervised progressive resistance exercise is safe and beneficial in sarcoma survivors.
- Build aerobic work you enjoy: walking, stationary cycling and swimming (once cleared) are the staples.
- If you are having chemotherapy, plan the harder sessions for the better week of each cycle and scale back, do not stop, at the low point.
- Keep up the scar massage and, where radiotherapy was given, the daily stretching of the treated area.

#### AVOID THIS

- Training through fever, an unwell day, or the day of chemotherapy without checking with your team.
- All-or-nothing patterns: a smaller consistent dose beats heroic bursts followed by collapse.

#### READY FOR THE NEXT PHASE WHEN...

- Strength and endurance sufficient for your daily life and work
- An exercise habit you can sustain, because the next phase never really ends

## PHASE 4: THE LONG GAME

FROM ABOUT 3 MONTHS: ONGOING

Keep the treated tissue long and moving, watch for lymphoedema, protect the skin, and settle into the surveillance rhythm.

### GOALS: TICK THEM OFF

- ☐ A daily stretching routine for the irradiated area: maintained for the long term
- ☐ Twice-weekly (or better) resistance sessions maintained
- ☐ Skin care and sun protection habits locked in
- ☐ Surveillance appointments attended and used, bring your questions and worries to them

### DO THIS

- If you had radiotherapy, treat stretching of the treated area as a long-term commitment: radiation fibrosis: gradual firmness and tightening of irradiated tissue, develops slowly over months to years, and regular stretching is the defence. This is a long-term project, not a six-week task.
- Keep the resistance and aerobic habit going. It protects function, energy and mood.
- Keep elevating and monitoring the limb, wearing any compression garment as prescribed, and reporting early lymphoedema signs promptly.
- Use the surveillance visits: clinical review with local and chest imaging roughly every 3–4 months for the first 2–3 years, 6-monthly to 5 years, then annually. This rhythm is routine: it is how sarcoma follow-up is done for everyone, and it is the right forum for raising anything on your mind.

### AVOID THIS

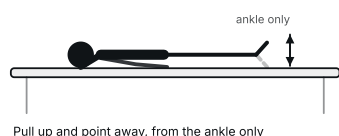
- Letting the stretching lapse because the area "feels fine": fibrosis is quiet until it is established.
- Sitting on a new lump or a new pain until the next scheduled visit, call between visits. That is what we are here for.

### READY FOR THE NEXT PHASE WHEN...

- There is no exit: this phase is maintenance. The measure of success is a routine you barely notice keeping.

## YOUR EXERCISES

Little and often beats one heroic session. Each exercise lists what you should feel, sharp pain that lingers afterwards means ease off and, if it persists, call.



### ANKLE PUMPS

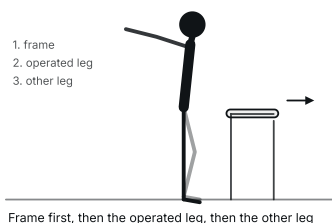
PHASE 1

Keep blood moving in the calf: your main clot-prevention exercise, and it matters more here because cancer raises clot risk.

**10 firm pumps, every waking hour, for at least the first 2 weeks**

1. Lie or sit with the leg supported.
2. Pull your foot up towards you as far as it goes.
3. Point it away as far as it goes.
4. Repeat briskly.

**Feel:** You should feel the calf muscles working. Move through the full range each time.



### WALKING PRACTICE WITH A FRAME OR CRUTCHES

PHASE 1

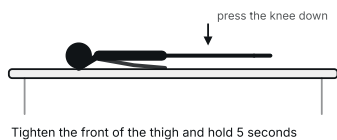
Safe, frequent walking at whatever level your team has permitted: little and often beats one long outing.

**Short walks every 1–2 waking hours, building distance gradually**

1. Move the frame (or both crutches) forward first.
2. Step the operated leg forward to the frame, taking the weight your team has permitted.
3. Step the other leg through.
4. Stand tall between steps: look ahead, not at your feet.

**Feel:** Aim for an even rhythm rather than speed. Stop while you still have energy for the walk back.

**Harder:** Wean to one aid, then none, as your team advises.



## STATIC QUADRICEPS SETS

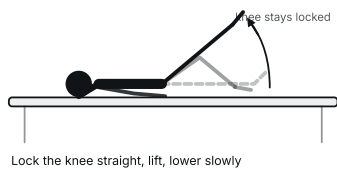
PHASE 2

Wake the thigh muscle up after surgery and rest. A typical lower-limb starting point that your physiotherapist will adapt to your operation.

**10 holds of 5 seconds, 3–4 times daily**

1. Lie with the leg straight.
2. Push the back of the knee down into the bed by tightening the front of the thigh.
3. Hold, then fully relax.

**Feel:** You should feel this in the front of the thigh. It should not pull painfully on the wound, tell your physiotherapist if it does.



## STRAIGHT LEG RAISE

PHASE 2

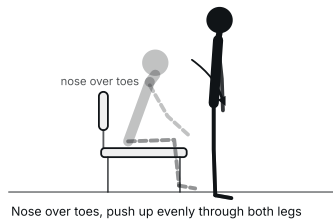
Re-connect thigh strength with a controlled, wound-friendly movement.

**10 lifts, hold 3 seconds, 2–3 times daily**

1. Lie on your back, other knee bent, operated leg straight.
2. Tighten the thigh first.
3. Lift the whole leg about 30 cm.
4. Lower slowly.

**Feel:** Stop below any range that pulls on the wound or flap. Quality beats height.

**Easier:** Tighten the thigh without lifting until the lift is comfortable.



## SIT-TO-STAND

PHASE 2

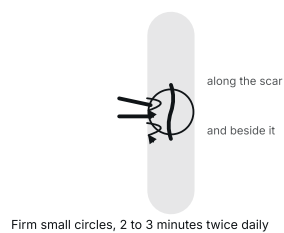
Real-world leg strength: the movement you will do more than any other.

**2–3 sets of 8–10, once or twice daily**

1. Sit on a firm chair with arms.
2. Feet back, lean forward, push up through the legs, use the arms only as needed.
3. Lower back down slowly with control.

**Feel:** Share the load between the legs as your team permits. No flopping into the chair.

**Harder:** Lower the chair height, then progress to no hands.



## SCAR MASSAGE

PHASE 2

Soften and desensitise the scar and surrounding skin once the wound is fully healed and your team approves.

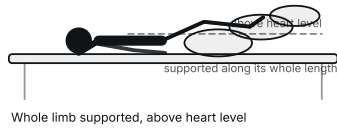
**2–3 minutes, twice daily, once healed, dry and team-approved**

1. Use a bland moisturiser.
2. Firm, small circles along and beside the scar.
3. Include the skin around it.

**Feel:** Irradiated skin needs a gentler start, build pressure gradually. It should never break or blister the skin.

## LIMB ELEVATION AND LYMPHOEDEMA CHECK

PHASE 2

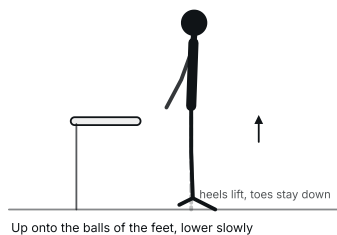


Help fluid drain from the limb, and catch the early signs of lymphoedema: early treatment greatly outperforms late treatment.

**20–30 minutes of elevation, 2–3 times daily; a quick daily check of the limb**

1. Lie down and raise the limb above heart level on pillows.
2. While elevated, do a slow set of ankle pumps (or hand pumps for an arm).
3. Once a day, check: does the limb feel heavy or tight? Does a ring, watch or shoe fit differently? Does one limb look fuller than the other?

**Feel:** Any "yes" that persists for more than a day or two is worth a call, early referral to a lymphoedema-trained physiotherapist is the plan, not a defeat.



## HEEL RAISES

PHASE 3

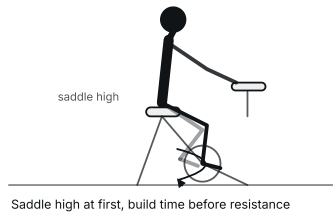
Calf strength for a normal push-off when walking.

**2–3 sets of 10, once or twice daily**

1. Stand tall holding the bench or rail.
2. Rise up onto the balls of both feet.
3. Lower slowly.

**Feel:** Even weight through both feet, within your permitted level.

**Harder:** More weight onto the operated side over time, as cleared.



## STATIONARY CYCLING

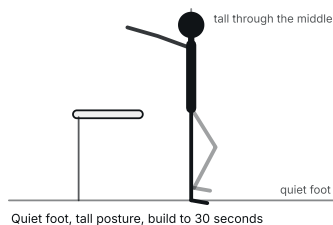
PHASE 3

Aerobic fitness and limb movement with almost no impact: a staple of the 150-minutes-a-week aerobic target.

**10–20 minutes, most days, once your team clears it**

1. Saddle high at first if knee bend is limited.
2. Start with light resistance and build time before effort.
3. Progress towards a comfortable, sustainable rhythm.

**Feel:** You should finish feeling worked, not wrecked, especially in a chemotherapy low week.



## SINGLE-LEG BALANCE

PHASE 3

Steadiness and confidence: protects you from trips and falls as strength returns.

**Build to 3 holds of 30 seconds each leg, daily**

1. Stand near the bench, fingertips hovering.
2. Lift the other foot and balance.
3. Progress: eyes tracking side to side, then no hands.

**Feel:** Quiet foot, tall posture.

# SWELLING, ICE AND ELEVATION

## WHAT IS NORMAL

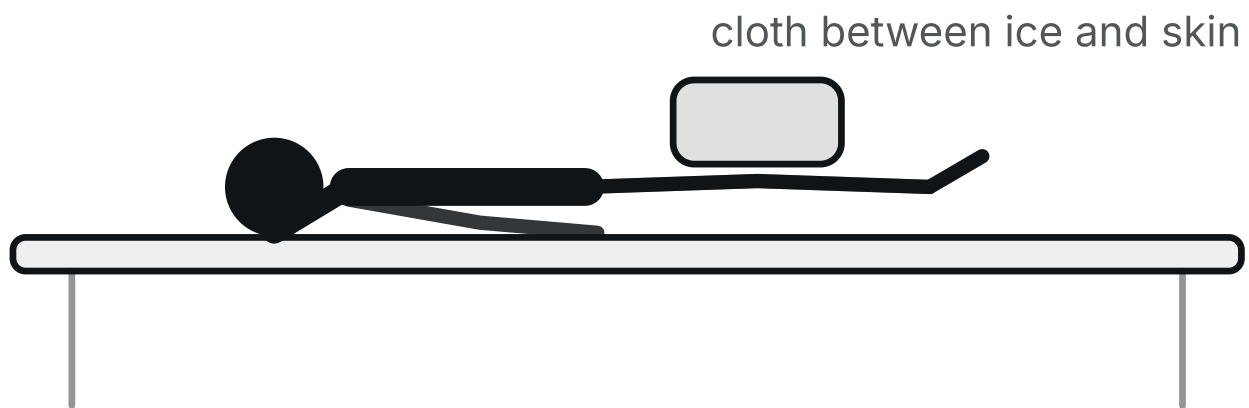
- Swelling after sarcoma surgery is normal and settles gradually over weeks to months. A limb that is fuller after a big day usually means you did too much yesterday, not that something is wrong.
- A seroma: a soft, fluid swelling under the wound after the drains come out, is common and usually settles on its own. Mention it to the team so it can be watched.
- What is NOT ordinary swelling: persistent heaviness or tightness, a ring or shoe fitting differently, or a girth change in the limb. Those are the early signs of lymphoedema, call, because prevention and early intervention greatly outperform late treatment.

## ICE

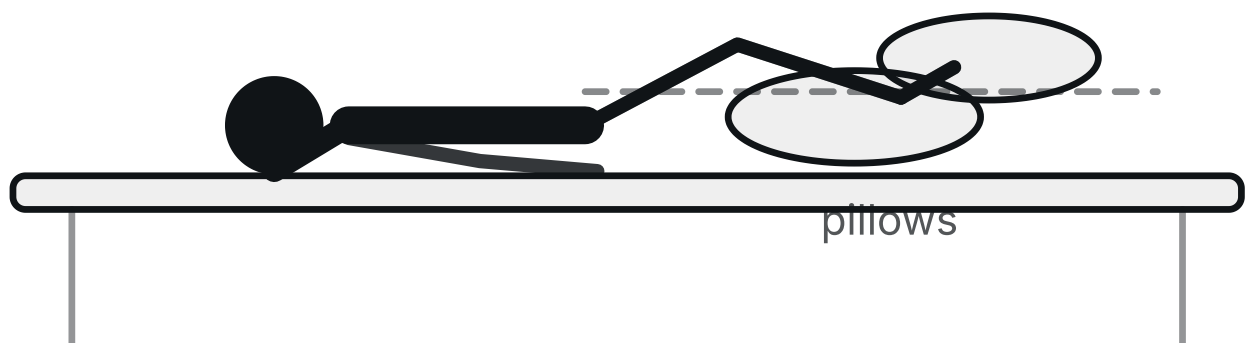
- Ice is safe, cheap and comfortable, and probably gives a small benefit for pain and swelling in the first few days.
- Use it for 15–20 minutes at a time, 4–6 times a day for the first 2 weeks, then as needed after activity and physiotherapy. It is particularly useful in the hour after exercise.
- Always place a thin cloth between the ice and your skin. Never sleep with ice on. Never ice over numb skin or a fresh wound dressing without checking with the rooms first.
- Stop and call the rooms if the skin becomes white, mottled or numb.
- Two extra cautions after sarcoma surgery: never ice over a flap, and never ice over irradiated or numb skin, without your team's explicit okay. Both have reduced ability to protect themselves from cold.

## ELEVATION & COMPRESSION

- Elevate the limb above heart level for 20–30 minutes several times a day: foot higher than the knee, knee higher than the hip, hip higher than the heart.
- Lie down to do this: a recliner does not raise the leg above your heart.
- Avoid sitting with the leg hanging down for long periods.
- Elevation matters doubly here: it controls ordinary post-operative swelling now, and it is part of managing lymphoedema risk for the long term.
- Compression garments are commonly used after limb sarcoma surgery, particularly where lymphoedema risk is raised. Your team will advise whether, when and what to wear.
- A properly fitted garment from a trained fitter beats an off-the-shelf guess. If a garment is prescribed, wear it as directed and have the fit rechecked if your limb size changes.



15 to 20 minutes, 4 to 6 times daily



Foot above knee, knee above hip, lying flat

## WOUND AND SCAR CARE

- Keep the dressing dry and intact until it is reviewed. Most modern waterproof dressings allow showering, but do not soak, scrub, or put soap directly on the wound.
- No baths, spas, pools or ocean swimming until the wound is fully healed and has been reviewed, usually 2–3 weeks at a minimum.
- Do not apply creams, powders or antiseptics unless you have been told to.
- Clips or stitches are removed or checked at your first appointment.
- Tell the rooms about any dressing that becomes soaked, loose or soiled.
- Drains are common and normal after sarcoma surgery. You may go home with one; the team will teach you to empty and record it, and the drain comes out when the fluid slows: a decision your team makes, not a fixed day.
- Where radiotherapy was given before surgery, the wound is more fragile and is watched more closely, extra reviews are normal and planned, not a sign of trouble.
- Any wound edge opening, new discharge, spreading redness or fever is a same-day phone call, never "wait and see" after sarcoma surgery.
- From about 3 weeks, once the wound is fully healed and dry: massage the scar with a bland moisturiser for 2–3 minutes, twice a day, using firm circular pressure. This softens the scar and desensitises the skin around it.
- Silicone gel or sheeting can improve the appearance of prominent scars.
- Protect the scar from the sun for 12 months. It burns easily and can darken permanently.
- Scars take a full 12–18 months to fade and flatten.
- Numbness in the skin around and below the scar is normal and often permanent, small skin nerves are unavoidably divided during surgery.
- One important upgrade to the usual scar advice: skin in a radiotherapy field needs sun protection for life, not just 12 months. SPF 50+ or covering clothing, every time it could see sun.

## SLEEP AND POSITIONING

Sleep in whatever position is comfortable, with one exception: if a flap was used, keep pressure off it exactly as your team has shown you. A pillow

arrangement that works is worth keeping identical every night.

Elevating the limb on a pillow overnight helps with swelling in the early weeks.

Broken sleep is common early on, from the wound, from treatment, and from a busy mind. All three are normal. If worry is the main thing keeping you awake, say so at a review: that is exactly what the psycho-oncology members of the team are for.

If you are having chemotherapy, expect sleep and energy to dip and recover with each cycle, plan rest as deliberately as you plan exercise.

## PAIN, MEDICATION AND WHAT TO EXPECT

Expect real pain for the first couple of weeks, needing regular pain relief, settling steadily after that. Take medication as prescribed and ahead of physiotherapy rather than chasing pain afterwards.

Odd sensations around the scar: numbness, tingling, occasional sharp zings, are common, come from small skin nerves, and usually fade over months.

You will usually be on a blood thinner for a period: cancer plus limb surgery raises clot risk, so take it exactly as directed.

Pain that is increasing rather than settling, or a NEW pain at the operative site months later, is not a normal part of the pattern, call the rooms. Not because it is probably serious, but because checking is quick and it is exactly what we are here for.

If you are having chemotherapy or radiotherapy, tell the oncology team about all pain medication so everything is coordinated.

## PREVENTING BLOOD CLOTS

- Get up and move at least hourly while you are awake.

- Do ankle pumps: 10 firm up-and-down pumps of the ankles: every waking hour for the first 2 weeks.
- Stay well hydrated.
- Take any prescribed blood thinner exactly as directed, and wear stockings as advised.
- Avoid long-haul flights for 6 weeks after joint replacement: discuss any earlier travel with the rooms.

## DRIVING: THE CRITERIA THAT ACTUALLY MATTER

You may drive when **all** of the following are true:

- You are off opioid painkillers and any other sedating medication.
- You can sit comfortably in the driver's seat.
- You can perform an emergency stop at full force, without hesitation and without pain.
- You are not using a walking aid in the car, and not wearing a brace that limits the movement needed to work the pedals.
- You have practised the movements in a stationary car first.

### What the driving research does and doesn't show

What the research actually measures is braking reaction time on a simulator. Those studies show braking performance returns to its pre-operative level at about 2 weeks after a right hip replacement and about 4 weeks after a right knee replacement, with movement time back to normal by 6 weeks. After knee arthroscopy the simulator evidence is more conservative than common practice: in the one study that measured it directly, braking was still slower one week after surgery than before it, and had recovered by four weeks, and a 2021 review of eight studies put the average return at about six weeks. Most people having a simple arthroscopy are driving well before that, which is why the criteria above matter more than the date. But these are averages, in one study, about one in three right-hip patients still could not meet an emergency-stop benchmark at six weeks. Treat the timeframes in this guide as targets for discussion with us, not as permissions.

No published study has compared automatic and manual cars. The logical point is simply that a manual needs the left leg for the clutch, so left-sided surgery is the relevant caution in a manual. Advice about driving earlier with a left-leg operation in an automatic is clinical judgement, not trial evidence.

In Australia, your treating doctor's advice governs: under the Austroads "Assessing Fitness to Drive" standards, temporary post-operative impairment is a matter of clinical judgement, and commercial drivers are held to a higher standard. Driving while impaired may invalidate your insurance, check your insurer's position. Do not drive for at least 24 hours after any general anaesthetic or sedation.

## GETTING BACK TO WHAT YOU DO

| ACTIVITY                  | TYPICAL                                     | WHEN IT'S RIGHT                                                         | NOTES                                                                                             |
|---------------------------|---------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Walking for exercise      | From the outset, at your permitted level    | Comfort, steadiness, wound settled                                      | The core of the programme: build distance gradually                                               |
| Desk work                 | Often within a few weeks                    | Comfortable sitting; energy allows; travel sorted                       | Radiotherapy and chemotherapy schedules often set the real date: plan with your team and employer |
| Swimming and hydrotherapy | Once the wound is fully healed and reviewed | Wound closed and team-cleared; radiotherapy skin reaction settled       | No pools, spas or baths before clearance                                                          |
| Stationary cycling        | Once cleared, often in the early weeks      | Wound stable; any protected joint cleared to move                       | A staple of the aerobic programme                                                                 |
| Driving                   | Individualised, no fixed week               | The standard driving criteria in this guide, plus your team's agreement | Wound position, treated side and any protected joint all matter: discuss it at a review           |

| ACTIVITY                   | TYPICAL                                                | WHEN IT'S RIGHT                                                         | NOTES                                                                                 |
|----------------------------|--------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Resistance training</b> | From your team's go-ahead, typically around 6–12 weeks | Wound healed; programme supervised and progressive                      | In line with the COSA position: 2–3 sessions a week, tailored and supervised          |
| <b>Physical work</b>       | Individualised                                         | Strength and endurance for the actual duties; treatment schedule allows | Modified duties are often the bridge: start that conversation early                   |
| <b>Sport</b>               | Individualised: set with your team                     | Strength, confidence and any protected structures fully cleared         | Most people can return to meaningful activity; the route back is planned, not guessed |

### Flying after joint replacement: an honest note

You will often hear "no flying for six weeks" after joint replacement. Be aware that this is a convention, not a proven rule: a 2025 review found limited data and no demonstrated difference in clot risk between people who did and did not fly after hip or knee replacement: mostly within the first week.

The six-week convention reflects practical realities rather than trial evidence: managing airports and cramped seating, being past the highest-risk clot window while still on prevention, the higher baseline clot risk of long-haul flights over four hours, and individual airline and travel-insurance rules, check both, as some airlines impose their own restrictions.

If you need to travel long-haul in the first six weeks, talk to the rooms first so clot prevention, an aisle seat, stockings and on-board movement can be planned.

## WARNING SIGNS: ACT, DON'T WATCH

None of these should be watched overnight to see how they go. Early treatment of a problem is simple; late treatment is not.

**EMERGENCY: 000** Emergency department / call 000

- Sudden shortness of breath
- Chest pain
- Coughing blood, or feeling faint

**GP TODAY** See your GP today

- New, one-sided calf pain, tenderness or firmness
- Calf or whole-leg swelling out of proportion to the rest of your recovery

**CALL THE ROOMS** Call the rooms: same day

- Pain that is increasing rather than decreasing after the first week
- New redness spreading out from the wound
- Wound discharge, particularly cloudy, thick or offensive fluid, or wound edges opening
- Fever of 38°C or higher, or shaking chills, or feeling generally unwell
- Wound edges pulling apart (dehiscence), especially where radiotherapy was given before surgery
- A NEW LUMP, or new or changed pain at the operative site. This is exactly what surveillance is for. Call us; don't sit on it. Almost always it is scar, seroma or healing tissue, and checking is quick

For joint replacement patients, a wound problem is never something to "wait and see". Early treatment of an infected joint replacement is vastly more successful than late treatment, call the rooms the same day.

## ARRANGING PHYSIOTHERAPY IN AUSTRALIA

- Most privately insured patients self-fund private physiotherapy or use extras cover. A GP Chronic Disease Management plan subsidises only five allied-health visits per calendar

year, not enough for a major reconstruction, so plan for this.

- Compensable patients (workers compensation, CTP) follow an insurer-approved plan.
- Tele-rehabilitation and app-supported home programmes are reasonable additions, but a sports knee reconstruction still needs periodic in-person objective strength testing.

## COMMON QUESTIONS

### **When will I walk again after sarcoma surgery?**

Usually much sooner than people fear. Most soft tissue sarcoma operations do not restrict weight bearing, so most patients are up with a frame or crutches within a day or two. The aid is for comfort and balance, not because the leg cannot take weight. The exceptions are where bone was involved or a flap needs protecting; in that case your team stages walking deliberately, and your operation record sets the plan. Ask before discharge exactly what your level is.

### **Why do I still have a drain, and is the fluid lump after it comes out normal?**

Drains and seromas are expected, not complications. Removing a sarcoma leaves a space, and the body fills spaces with fluid. The drain carries it away early, and it comes out when the fluid slows, on your team's decision rather than a fixed day. After that, a soft fluid swelling under the wound (a seroma) is common and usually settles on its own. Tell the team about it so it can be watched, but do not be alarmed by it.

### **Will radiotherapy affect my wound healing?**

It changes the plan, and your team plans for it. If radiotherapy came BEFORE surgery, the wound is more fragile and major wound problems are considerably more common, so mobilisation is staged deliberately, physiotherapy starts when the wound is stable rather than on a fixed day, and extra wound reviews are routine. If radiotherapy comes AFTER surgery, the wound is more robust early, but the treated tissue is more likely to stiffen and firm up over time, which is why the stretching programme is long-term.

### **Why is the treated area getting stiff months after radiotherapy?**

This is radiation fibrosis: a gradual firmness and tightening of irradiated tissue that develops quietly over months to years. It is common, it is expected, and the defence is regular stretching of the treated area as a long-term habit, not a six-week task. If stiffness is progressing despite the stretching, raise it at a surveillance visit. There are more options when it is addressed early.

### **What are the early signs of lymphoedema?**

Heaviness or tightness in the limb, a ring, watch or shoe fitting differently, or a visible change in the limb's girth. Surgery and radiotherapy to a limb can reduce its lymph drainage, so these signs matter, and the key fact is that prevention and early intervention greatly outperform late treatment. If you notice them, call: early referral to a lymphoedema-trained physiotherapist, elevation, meticulous skin care and prompt treatment of any skin infection are the plan.

### **Is exercise safe after cancer surgery?**

Yes, and it is officially part of your treatment, not a risk to it. The Clinical Oncology Society of Australia's position is that exercise should be embedded in routine cancer care: broadly 150 minutes of aerobic activity a week plus two to three resistance sessions, tailored to you and supervised. Supervised progressive resistance training is safe and beneficial in sarcoma survivors. The timing and starting point are individualised. Your team opens each door, but the direction of travel is always towards more activity, not less.

### **How do I exercise when chemotherapy leaves me exhausted?**

Work with the cycle, not against it. Chemotherapy fatigue is cyclical. Each cycle has a low point and a better week. Schedule the harder rehabilitation sessions in the better week, and at the low point scale down rather than stop: a short walk and your ankle pumps still count. Conserving energy at the low point is good rehabilitation, not weakness. And tell the team how the fatigue is trending. It is something they actively manage.

### **How often will I have scans, and what are they looking for?**

The usual rhythm is clinical review with local and chest imaging roughly every 3–4 months for the first 2–3 years, then 6-monthly to 5 years, then annually. This is the standard, routine follow-up for everyone after sarcoma treatment. It is not a signal about your particular risk. It is also the right forum for anything on your mind: bring your questions, your niggles and your worries to those visits, and call between them if something new appears.

### **What should I do if I find a new lump near my scar?**

Call the rooms: that day, not at the next scheduled visit. Finding changes early is exactly what the surveillance system is designed for, and a new lump or a new or changed pain at the operative site should always be checked. Most turn out to be scar tissue, a seroma or normal healing, and the check is quick. What we ask is simple: call, don't sit on it.

### **Is it normal to feel low, anxious or not like myself after sarcoma surgery?**

Completely. Changes to how your body looks and works, fear of recurrence, and the sheer weight of treatment are common and legitimate, recovery is psychological as well as physical. Psycho-oncology and social work are part of the sarcoma team from the beginning, not a last resort, and using them is a normal part of good care. Mention how you are travelling at any review, or call the rooms between visits.

### **Do I need to protect my scar from the sun?**

Yes, and if you had radiotherapy, for life. Any surgical scar burns easily and can darken permanently in its first year or so. Skin in a radiotherapy field goes further: it stays permanently more fragile, burns more easily and heals more slowly, so it needs SPF 50+ or covering clothing every time it could see sun, indefinitely. Meticulous skin care of the whole limb also reduces the risk of cellulitis and lymphoedema.

**THE EVIDENCE BEHIND THIS GUIDE** 7 sourced statements

| CLAIM                                                                                                                                                                            | SOURCE                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exercise should be embedded as part of routine cancer care: broadly 150 minutes of aerobic activity weekly plus 2–3 resistance sessions, tailored and supervised                 | Clinical Oncology Society of Australia position statement on exercise in cancer care, Med J Aust 2019 (PMID 30636309)                                                                                                                                                                                                                                                                 |
| Pre-operative radiotherapy roughly doubles major wound complications compared with post-operative radiotherapy, in exchange for less late fibrosis and better long-term function | O'Sullivan et al., preoperative versus postoperative radiotherapy in soft-tissue sarcoma of the limbs, Lancet 2002 (PMID 12103287), wound complications 35% against 17%; Davis et al., late radiation morbidity in the same randomised patients, Radiother Oncol 2005 (PMID 15948265), where the reduction in fibrosis favoured preoperative treatment but did not reach significance |
| Supervised progressive resistance exercise is safe and beneficial in sarcoma survivors                                                                                           | Clinical Oncology Society of Australia position statement on exercise in cancer care, Med J Aust 2019 (PMID 30636309); Campbell et al., exercise guidelines for cancer survivors, international multidisciplinary roundtable consensus, Med Sci Sports Exerc 2019 (PMID 31626055)                                                                                                     |
| Early detection and early intervention for limb lymphoedema substantially outperform treatment of established lymphoedema                                                        | Stout Gergich et al., preoperative assessment enables early diagnosis and successful treatment of lymphoedema, Cancer 2008 (PMID 18428212)                                                                                                                                                                                                                                            |
| Surveillance after soft tissue sarcoma: clinical review with local and chest imaging roughly every 3–4 months for 2–3 years, 6-monthly to 5 years, then annually                 | Soft tissue and visceral sarcomas: ESMO-EURACAN-GENTURIS clinical practice guidelines, Ann Oncol 2021 (PMID 34303806)                                                                                                                                                                                                                                                                 |
| Venous thromboembolism risk is elevated where malignancy and limb surgery combine                                                                                                | Venous thromboembolism in orthopaedic oncology, a systematic review of 17 studies, Bone Joint J 2020 (PMID 33249908): mean VTE incidence 10.7%, deep vein thrombosis 8.8% and pulmonary embolism 2.4%                                                                                                                                                                                 |
|                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                       |

| CLAIM                                                                                                                          | SOURCE                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Radiation fibrosis develops progressively over months to years and warrants a long-term stretching and rehabilitation approach | Stubblefield, radiation fibrosis syndrome, neuromuscular and musculoskeletal complications in cancer survivors, PM R 2011 (PMID 22108231) |

Rehabilitation after sarcoma surgery is more individualised than after joint replacement. The staging of every step in this guide, walking, movement, strengthening, is set by your operation record and your team's instructions, which always govern.

This guide is general information for patients of Dr Matthew Broadhead (Harbour Orthopaedics & Sports Medicine) and is not a substitute for the specific advice given to you by Dr Broadhead, your physiotherapist or your hospital team.

Surgical findings vary, and your protocol may differ from what is written here: your operation record and your surgeon's instructions always take precedence.

If in doubt, call the rooms on (02) 9052 1883. In an emergency, call 000.

Last reviewed: 2026-08-05 by Dr Matthew Broadhead, FRACS (Orth).

## YOUR PROGRESS TRACKER

Fill this in once a week: it shows your trend at a glance and makes reviews far more useful.  
Bring it to every appointment.

| Week                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| Exercises done (sessions)     |   |   |   |   |   |   |   |   |   |    |    |    |
| Walking distance / time       |   |   |   |   |   |   |   |   |   |    |    |    |
| Pain score (0–10)             |   |   |   |   |   |   |   |   |   |    |    |    |
| Knee bend (degrees)           |   |   |   |   |   |   |   |   |   |    |    |    |
| Swelling (less / same / more) |   |   |   |   |   |   |   |   |   |    |    |    |

### QUESTIONS FOR DR BROADHEAD

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