

Department of
ORTHOPAEDIC SURGERY

Your Guide to Recovery From Hip Fractures



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Preface

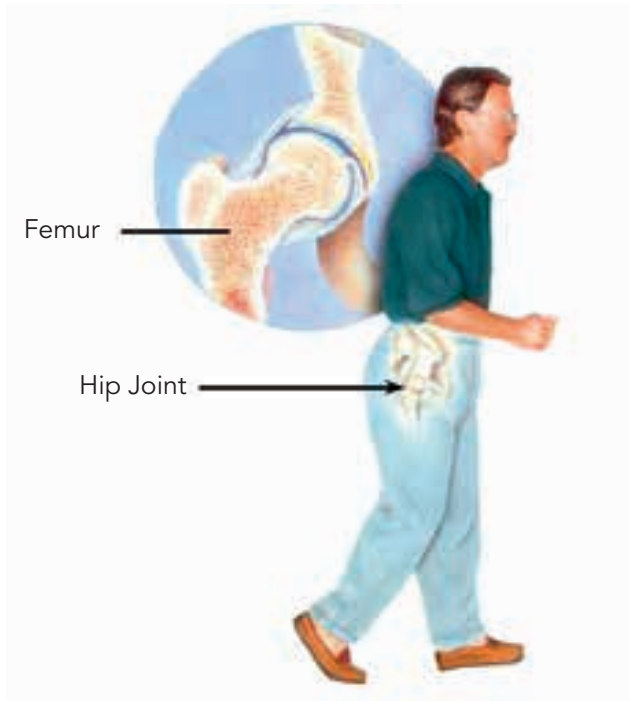
As the population ages, the number of hip fractures that occur each year rises. A fracture of the hip in the elderly is not simply an injury, but can be a life-threatening illness.

This booklet is designed to provide you and your family with information about the care and treatment you are likely to receive while you are in the hospital and to prepare you to go home.

In our Integrated Hip Fracture Programme, you will be looked after by a team of healthcare professionals. These include your surgeon, geriatrician, anaesthetist, other specialist doctors, nurses, care managers, physiotherapists, occupational therapists, and other allied health professionals who will help you on your road to recovery.

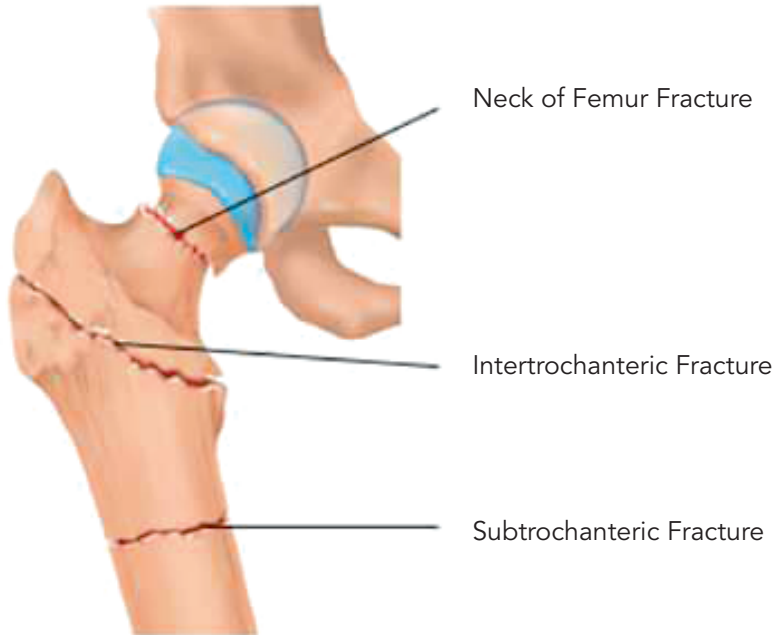
What is a Hip Fracture?

A hip fracture is a break in the part of the thigh bone (femur) that happens within the hip joint. For someone with osteoporosis (condition that makes the bone fragile and more likely to break), it often occurs after a fall.



Common Types of Hip Fractures

The following picture displays three common types of hip fractures:



How do You Know if You Have Fractured Your Hip?

You may experience the following if you have fractured your hip:

1. You may experience severe pain in your hip, groin or thigh, and the pain may become worse when you move.
2. You may not be able to bear weight (e.g. support your body weight) on your injured leg.
3. There may be bruises and swelling in and around your injured hip.
4. Your injured leg may look shorter and turn outwards.

How is a Hip Fracture Diagnosed?

An X-ray of the injured hip will usually show the fracture. A second X-ray or MRI scan may be needed to confirm the diagnosis.

How is a Hip Fracture Treated?

Surgery gives you the best chance of walking again. However, non-surgical treatment may at times be considered instead.

Surgical Treatment for Hip Fractures

There are various expected benefits and risks of surgical treatment for hip fractures.

Expected Benefits of Surgery

- Better pain control
- Improved chances of walking and regaining independence
- Earlier return to weight bearing activities (activities that involve supporting your body weight on the affected leg, such as standing or walking)
- Better alignment of fracture

Potential Risks of Surgery

- Wound infection
- Bleeding from wound
- Heart attack
- Stroke
- Deep vein thrombosis and pulmonary embolism (blood clots in the leg and lungs)
- Fractures around implant
- Anaesthesia risk

Early surgery gives better results and reduces the risk of complications.

Types of Surgery

The type of operation the doctor recommends for you will depend on your age, type of fracture, how active you are, and other illnesses that you may have.



1) Dynamic Hip Screw



2) Intramedullary Device



3) Cancellous Screw



4) Hemiarthroplasty
(Partial Hip Replacement)



5) Total Hip Replacement

Non-Surgical Care

Without surgery, your mobility will be severely affected and you may not be able to walk again. However, non-surgical treatment is considered for patients with serious illnesses, where surgery carries high risks or is unlikely to benefit the patient.

Expected Benefits of Non-Surgical Care

- No anaesthesia or surgical risk

Potential Risks of Non-Surgical Care

- Reduced chances of walking and regaining independence
- Increased likelihood of being on wheelchair or bed bound
- Poorer alignment of fracture
- Increased risk of chronic hip pain
- Risks of prolonged immobilisation:
 - Deep vein thrombosis & pulmonary embolism
 - Pressure ulcers
 - Pneumonia
 - Urinary tract infection
 - Muscle wasting

How Will You Receive Care for Hip Fractures?

1. At the Emergency Room	<ul style="list-style-type: none">• You will be attended to by a doctor and given pain relief medication.• You will undergo X-rays to confirm the fracture, and further tests will be done if needed.
2. At the Ward	<p>Medications</p> <ul style="list-style-type: none">• You will be prescribed painkillers and laxatives.• You may be given peripheral nerve block (PNB) for pre- and post-operative pain relief. <p>Preventing Complications</p> <ul style="list-style-type: none">• You will have compression stockings or leg pumps put on, to prevent blood clots in the legs.• You may have to lie on a pressure relief mattress.• Physiotherapists and occupational therapists will help you maintain and improve your functional ability. <p>Discharge Planning</p> <ul style="list-style-type: none">• The care managers will give you and your family more information on the care you will receive while in the hospital and after discharge.

<p>3. Preparation for Surgery</p>	<ul style="list-style-type: none"> • You will be advised if you are suitable for surgery after an assessment of the risks and benefits is done for you. • Once surgery is confirmed, you will be advised on when you need to stop eating or drinking in order to prepare for surgery.
<p>4. During Surgery</p>	<p>The possible types of anaesthetic used include:</p> <p>Spinal Anaesthetic</p> <ul style="list-style-type: none"> • You will be injected with a measured dose of local anaesthetic into the area of the back that contains spinal fluid, using a very small needle. • The injection is generally well-tolerated and will make you experience a loss of sensation from the waist down while remaining awake. This means you will be unable to feel pain. <p>General Anaesthetic</p> <ul style="list-style-type: none"> • You are put to 'sleep' with anaesthetic drugs on a breathing machine (ventilator). • You will receive oxygen through a breathing tube in your throat.

5. After Surgery

Managing Pain and Other Symptoms

- You will be prescribed painkillers.
- You may feel giddy or nauseous after surgery, but medication can help you feel better.
- At times you may have to use a urinary catheter to help you pass urine – however, it will be removed as soon as you are mobile.

Preventing Complications

- Nurses will sit you up in a chair at least two times a day during meal times.
- Nurses will also assist you to walk with your walking aids during your hospital stay.

Improving Mobility

- The physiotherapists and occupational therapists will assist you in your rehabilitation. You are encouraged to exercise as soon as possible (i.e. the day after surgery).





Inpatient Rehabilitation

On your first day of admission into the hospital, the physiotherapist and the occupational therapist will teach you some exercises. You may refer to the tables below as a guide.

It is important to note that everyone progresses at a different pace depending on your medical condition and function prior to your fracture.

Exercises You Can do While Resting in Bed:

Bed Exercises	
Ankle pumps	<ul style="list-style-type: none">• Keeping your knees straight, move your feet up and down.• Repeat 10 times 2-3 sets a day. 
Deep breathing exercise	<ul style="list-style-type: none">• Take a deep breath through your nose, slowly breathe out through your mouth.• Repeat 10 times 2-3 sets a day. 

Quadriceps setting

- Straighten your affected knee as much as you can. Hold for 5 seconds, then relax.
- Repeat 10 times 2-3 sets a day.



Walking Aids

- You will use walking aids such as walking frames or walking sticks for ambulation after surgery, as advised by your therapist.



Walking Frame



Quadstick
(broad/ narrow base)



Walking Stick

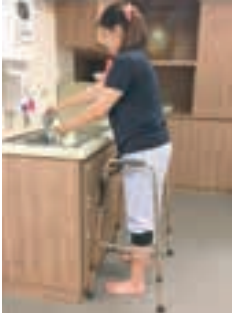




Exercises Taught by the Physiotherapist after Surgery:

Post-Op Day	Physiotherapy Exercises and Mobility Training	Pictures
Day 0-1	<ul style="list-style-type: none"> • Deep breathing exercises • Exercises on unaffected leg • Educate on post-operative rehabilitation and precautions for the operated leg 	
Day 1	<ul style="list-style-type: none"> • Teach bed exercises • Teach how to get out of bed • Sit over the edge of bed or chair • Stand and walk a little with the walking frame 	

<p>Day 2</p>	<ul style="list-style-type: none"> • Continue with bed exercises • Teach how to get out of bed and transfer to a chair • Sit on the chair for meals • Walk further with the walking frame 	
<p>Day 3</p>	<ul style="list-style-type: none"> • Continue with bed exercises • Teach seated exercises • Transfer to a chair and sit on the chair for meals • Walk further with the walking frame 	
<p>Day 4</p>	<ul style="list-style-type: none"> • Continue with bed and seated exercises • Walk further with walking frame or quad stick • Teach how to cross a kerb • Teach how to climb stairs • Start caregiver training if required 	

Occupational Therapy Services:

<p>Pre-Op / Awaiting Op Decision</p>	<ul style="list-style-type: none"> • Educate on how to prevent pressure sores • Teach ways to manage pain better • Discuss home environment and existing home equipment (e.g. grab bars, walking stick, urinal)
<p>Post-Op (1st session onwards)</p>	<ul style="list-style-type: none"> • Educate on hip precautions during movement and self-care activities (if applicable) • Practise turning in bed • Practise getting out of bed • Initial session: Practise simple self-care activities (e.g. self-grooming, wearing clothes on bed)
<p>Conservative Management</p>	<ul style="list-style-type: none"> • Subsequent sessions: Practise other self-care activities (e.g. toileting, grooming at sink) • Wheelchair training (if applicable) <div style="display: flex; justify-content: space-around; align-items: flex-start;">   </div> <div style="display: flex; justify-content: center; align-items: center; margin-top: 20px;">  </div>

If directly discharged home from TTSH

- Start and complete Care Giver Training (CGT)
- Home safety and falls prevention education
- Recommend suitable home equipment (e.g. wheelchair, commode)
- Recommend suitable home modifications (e.g. grab bars in home toilet, non-slip mats)



Discharge Planning

You are likely to require a caregiver if you experience any of the conditions below:

1. Recurrent falls and unsteady gait
2. Memory problems (e.g. dementia)
3. Medical conditions (e.g. poor vision, stroke, Parkinson's disease)
4. Need assistance with your daily needs

Please make caregiving plans in advance.

The physiotherapists and occupational therapists will check your functional status and train your family members or other caregivers to make sure you can be safely discharged from the hospital. You and your caregiver will be taught exercises that you can do at home to recover and prevent complications.

Post-Discharge Rehabilitation

Depending on your condition and needs, our therapists and care managers may recommend either a community hospital stay or rehabilitation at a Day Rehabilitation Centre (DRC).

For rehabilitation at a community hospital, your stay may range from 2 to 3 weeks depending on your condition. If you are progressing well, you could be discharged home, with regular visits to DRC to continue rehabilitation.

Your care team may also arrange for a home visit after you are discharged, to make sure you can move around safely at home.

Community Hospital

A community hospital is a facility where therapists assist you in regaining certain levels of your physical function, so that you can return home more quickly and resume your daily activities as much as possible. The facilities include rehabilitation gyms, therapy areas, inpatient beds, and mock-up HDB rooms.

A team of doctors, nurses, therapists and dieticians will work closely to chart a customised rehabilitation plan for you.

You will undergo therapy provided by trained therapists (i.e. physiotherapists, occupational therapists and speech therapists) to improve your post-operation disability and functional impairment so as to optimise your activities of daily living (ADLs) and facilitate re-integration to your home environment or other long-term care settings.

The rehabilitation provided may be in a one-to-one or group setting, depending on your needs.

Returning to the Community

After discharge from the community hospital, you may be advised to continue your rehabilitation at a Day Rehabilitation Centre (DRC).

You may contact Agency for Integrated Care (AIC) at 1800 650 6060 for general enquiries.

What Happens After You go Home?

To improve your walking ability, you will need to:

- Perform home exercises as prescribed by your therapist (with your caregiver's assistance if needed)
- Walk around at home often (with your caregiver's assistance if needed)
- Continue physiotherapy at DRC
- Adhere to these precautions:
 1. No bending of operated hip for more than 90 degrees
 2. No crossing of operated leg
 3. No turning inwards of your operated leg

Caring for Your Wound

Do not allow your dressing to get wet when you bathe. The stitches or skin staples used during surgery will be removed 10-14 days later.

Please consult your doctor if you experience the following signs and symptoms of wound infection:

- Increasing pain around the wound area or leg
- Redness or swelling
- Discharge (e.g. pus, fluid) from the opening of the wound
- Fever

Why is Fall Prevention Important?

Falls can result in temporary or permanent disability for seniors, causing loss of independence and reducing their quality of life. Those who have experienced falls before are more likely to experience more falls in the future.

Why do Falls Occur?

You are more likely to fall if you have:

1. Poor vision
2. Poor balance
3. Medical conditions (e.g. stroke, arthritis, Parkinson's disease etc.)
4. Risk-taking behaviours such as climbing on top of a chair / rushing to pick up a phone call / not using walking aids if needed
5. Medications that can cause drowsiness or giddiness
6. Environmental hazards (e.g. loose rugs, slippery floor etc.)

How can You Prevent Falls?

1. Undergo regular vision checks
2. Take medications as prescribed by your doctor
3. Use appropriate walking aids as prescribed by a therapist
4. Exercise regularly



5. Wear appropriate shoes (firm, nonslip soles, with flat heels) indoors and outdoors



Home Environment Assessments

- Home environment assessments, conducted by an occupational therapist, will be recommended before discharge, to ensure that your home environment is safe for you.
- The occupational therapist will provide advice or suggestions such as placement of grab-bars, ramps and tips on how you can move around safely in the house.

Environmental Changes to Prevent Falls

These are some environmental changes you may wish to make, to reduce your risk of falling:

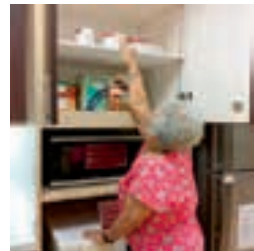
1. Ensure walkways are free of clutter. Secure wires and cords behind furniture/away from walkway.
2. Ensure there is adequate lighting



3. Clean up spills immediately
4. Install grab-bars in the toilets
5. Use non-slip mats



6. Store frequently used items within easy reach



Osteoporosis Treatment

Patients with osteoporosis are at a higher risk of fractures after a fall. Treatment is recommended to strengthen the bones in order to prevent another fracture.

Blood tests and Bone Mineral Density scans will be done so that you can be started on treatment once you have recovered from your hip fracture.

What can You do and not do After Surgery?

Weeks 1 to 6:

- No kneeling or sitting cross-legged
- No driving
- For sedentary occupations (e.g. desk-bound work), you may be able to return to work 6 weeks after surgery if there are no complications, as long as provisions are made to elevate the leg

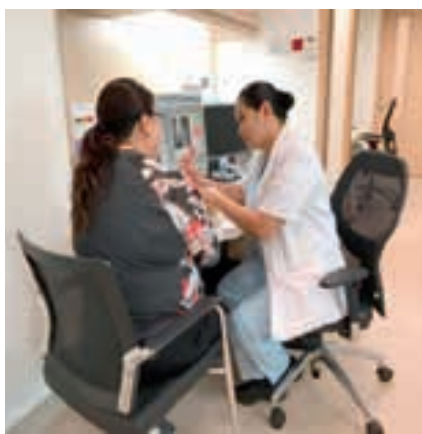
After 6 months:

Recommended	Permitted	Not Permitted
<ul style="list-style-type: none">• Swimming• Water aerobics• Cycling or stationary bike• Golf• Dancing• Sedentary occupations (desk-bound work)	<ul style="list-style-type: none">• Hiking• Gentle jogging• Gentle doubles tennis• Light labour (jobs that involve driving, walking or standing but not heavy lifting)	<ul style="list-style-type: none">• Long distance running• Impact exercises• Sports that require twisting (aggressive tennis, basketball, racquetball)• Contact sports

Please check with your doctor before undertaking any physical activity.

Follow-Up Care

You will be given a follow-up appointment to see your doctor at the Orthopaedic outpatient clinic.



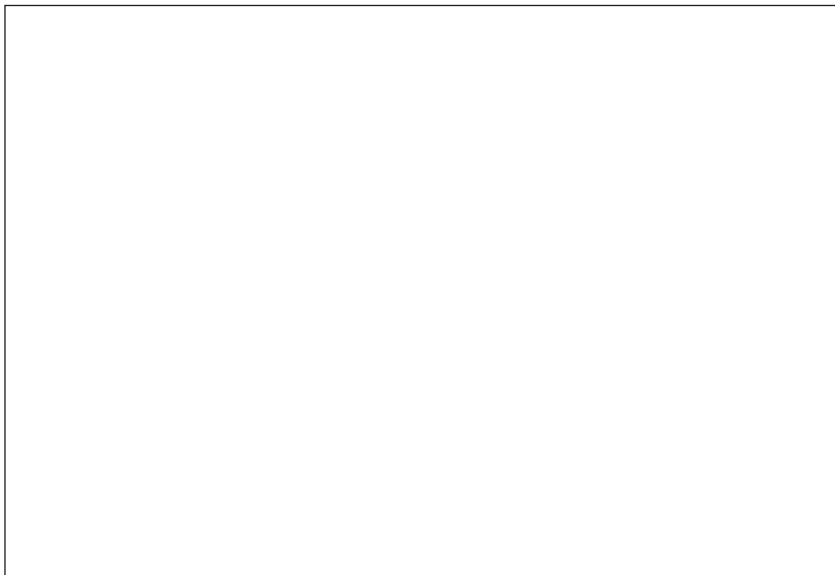
A hip X-ray will be done to monitor the healing of the bone, and you will be screened and treated for osteoporosis.

Please keep to all your appointments.

The care managers at the Integrated Hip Fracture Programme will follow up with you for one year. During this period, if you have any problems related to your hip fracture, you may contact your care manager during office hours (8.30 am – 5 pm).

If you need urgent medical attention, please seek medical assistance from your nearest general practitioner or at the Emergency Department of the nearest hospital.

Your care manager is:



Notes

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Produced by:



In collaboration with:



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