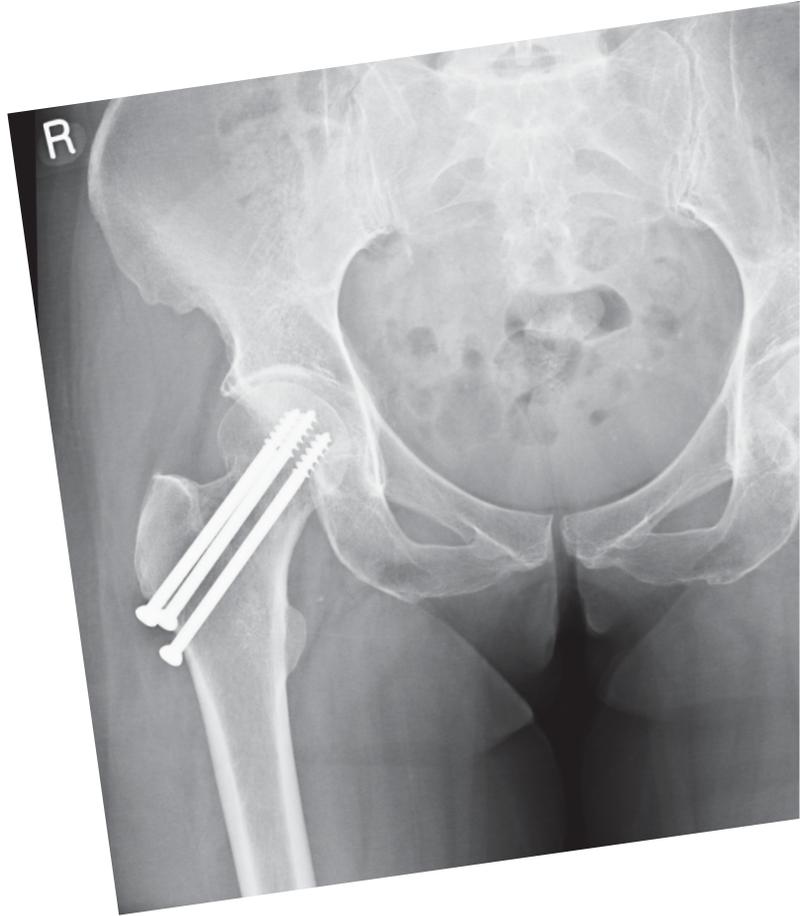


# Hip Fractures



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# Preface

A broken hip or hip fracture occurs commonly in people over 60 years old. Hip fractures are a result of falls or traumatic events, and can significantly alter your lifestyle.

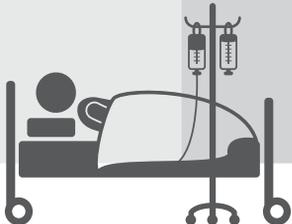
This booklet aims to help our patients and their family understand hip fractures and the types of treatment(s) available at Ng Teng Fong General Hospital and Jurong Community Hospital.

# The Patient Journey

Patients admitted to Ng Teng Fong General Hospital (NTFGH) for hip surgery will be transferred to NTFGH and Jurong Community Hospital (JCH) until their discharge.

| 1-2 weeks stay in NTFGH   |   |   |  |
|---|---|---|--|
| Week 1  |   | Week 2  |  |
| <p>1. Patient comes to A&amp;E with intense hip pain.</p>  | <p>4. After admission, a specialist-led care team assesses and discusses suitable treatment options with the patient/family.</p>  | <p>7. Doctor performs hip surgery in the operating theatre.</p>   | <p>10. A transfer to JCH may be arranged once the patient's condition is stabilised.</p> |
| <p>2. Doctor diagnoses the condition as Hip Fracture.</p>   | <p>5. The Hip Fracture Integrated Care Pathway (ICP) programme will be introduced if the patient is suitable for hip surgery.</p> | <p>8. A multi-disciplinary team from the Hip Fracture ICP programme will continue to monitor and manage the patient's progress.</p> |  |
| <p>3. Doctor admits patient to the ward for treatment/surgery.</p>  | <p>6. A Financial Counselling team provides the estimated costs of surgery and hospital stay.</p>                                 | <p>9. Therapists provide patient with rehabilitative services.</p>  |       |

ll be offered standard protocol to receive coordinated and integrated care in both

| 3 - 4 weeks stay in JCH  |  | Post discharge   |
|--|--|--|
| Week 2-3   | Week 3-6   | Week 7 onwards   |
| 11. At JCH, therapists continue to provide rehabilitation services to the patient. | 13. The LIFE Hub and Mobility Park offer specially-designed facilities that allow a patient to practice moving around the house and taking the public transport. | 15. Patient is discharged from JCH.  |
| 12. Doctors and nurses continue to provide care for the patient.                   | 14. Caregiver training will be provided.   | 16. Patient attends follow-up outpatient visits for: <ul style="list-style-type: none"> <li>- Rehabilitation</li> <li>- Doctor's consultation</li> </ul> |
|  |    |    |
|  |   |  |

# **Hip Fracture Integrated Care Pathway (ICP) Multi-disciplinary Team**

The Hip Fracture ICP multi-disciplinary team comprises of Orthopaedic surgeons, Ortho-Geriatricians, Family Physicians, Physiotherapists, Occupational Therapists, Speech Therapists, Case Managers, Nurses and Medical Social Workers. They provide coordinated care to the patient from day one of the admission and meet weekly to discuss and update the patient on his/her care plan.

During a patient's hospital stay, the Case Manager:

- Coordinates care during his/her hospital stay
- Performs screenings
- Makes follow-up calls every 6 and 12 months
- Serves as a point of contact for clarifications

The Case Manager can be reached at  
JHCampus\_hip\_fracture\_casemanager@nuhs.edu.sg  
on weekdays from 8am to 5pm (except Public Holidays).

## **What is a Hip Fracture?**

The "hip" is a ball-and-socket joint which enables the upper leg to bend and rotate at the pelvis.

A hip fracture occurs when there is a break in the thigh bone below the hip joint. In the elderly, hip fractures can be the result of falls and Osteoporosis (weak/brittle bones).

# Types of Hip Fracture

## Neck of femur fracture

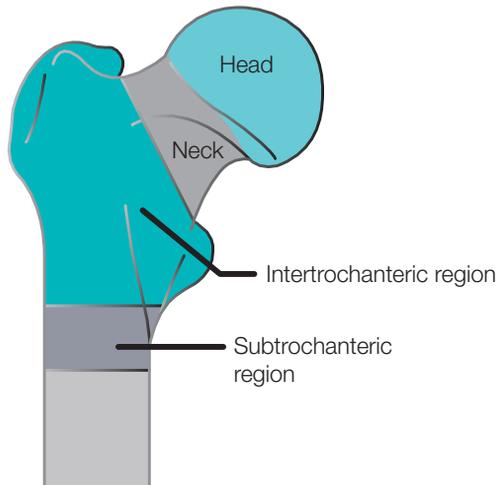
Such fractures occur at the neck and head of the femur, and generally within the soft tissue which contains the lubricating and nourishing fluid of the hip joint.

## Intertrochanteric fracture

This occurs between the neck of the femur and a lower bony prominence called the lesser trochanter. Intertrochanteric fractures generally occur between the lesser trochanter and the greater trochanter (bump under the skin on the outside of the hip).

## Subtrochanteric fracture

This fracture occurs below the lesser trochanter, between the lesser trochanter in an area approximately 6cm below.



# Diagnosing a Hip Fracture

An X-ray and/or physical examination can determine if a patient has a hip fracture.

# Managing a Hip Fracture

Once the patient has been diagnosed with a hip fracture, he/she will be assessed for his/her suitability for a surgery.

## Non-surgical Management

For a minority of patients, surgery may not be suitable. Such patients will be managed conservatively.

In non-surgical management of a hip fracture, patients and caregivers are taught how to use a wheelchair and make appropriate transfers with it.

### Risks of Non-surgical Management

For some, long periods of bed rest may cause:

- Chest infection
- Urinary tract infection
- Constipation from lack of fibre, poor fluid intake and inactivity
- Pressure ulcers (bedsores)
- Deep vein thrombosis (blood clot in the vein of legs)
- Pulmonary embolism (displaced blood clot obstructing the flow of blood to the lungs)

# Surgical Management

Surgery helps to stabilise a hip fracture with either a surgical plate and screws, or a prosthesis.



Early consent for surgery will be sought from the patient/family member.

After surgery, the patient will be encouraged to sit out of bed as early as the next day.

## Risks Associated with Surgery

Like all surgeries, a hip surgery will involve some form of risk and minor complications.

- Deep vein thrombosis (blood clots)
- Infection of the wound or implant
- Nerve and blood vessels injury
- Leg length discrepancy (shortening)
- Peri-prosthetic and Peri-implant fractures (fracture around the metal)
- The implant cutting out of the bone
- Loosening, dislocation and wear-and-tear of the prosthesis
- Risk of undergoing anaesthesia (e.g. heart attack and stroke)
- Bone cement decreasing blood pressure

Such complications may be higher in patients with co-existing medical conditions.

## After Surgery

Patient will be moved to a recovery area before being transferred back to the ward. A wedge (triangular pillow) may be placed between the patient's legs after a hip surgery.

Oral medications and injections are often used to manage pain. It is normal for the patient to feel some giddiness or nausea after surgery, but medication can help him/her to feel better. At times a catheter is used to help the patient pass urine. It will be removed as soon as he/she is mobile.

## Post-surgery Exercises

The following exercises are recommended once every one to two hours daily. A member of the Physiotherapy or Nursing team will guide the patient.

- **Deep Breathing**

Take deep breaths slowly through the nose and exhale through the mouth. Repeat two to three times. Let out a strong cough to clear the chest.

- **Ankle Exercises**

Flex the feet up and down for five to ten times and make circles at the ankles to improve blood circulation in the legs.

- **Muscle Contractions**

Press the back of the knees into the bed and squeeze the buttocks three to five times to work the muscles and promote blood circulation to the legs.

- **Hip and Knee-Bending**

Bending the knees one at a time, the patient slides his/her foot up and down the bed. It may be painful at first, but keep trying and it will get easier.



On the second day after surgery, the drain and drips used may be removed. The patient's blood pressure, temperature, oxygen levels and blood tests will be taken.

The patient will be encouraged to sit out of bed for meals and walk to the toilet if he/she is able to do so without assistance.

Constipation is common after surgery. Prevent it by:

- Drinking six to eight cups of fluid a day
- Eating more fibre (whole grains, fruits, vegetables and beans)
- Avoiding long periods in bed which slow down bowel movement
- Avoiding self-medicating with oral laxatives
- Improving his/her bowel routine

### **Precautions**

For the first six weeks:

- Do not sit, lie down or stand with the legs crossed.
- Do not sit on low stools or bend to reach for anything beyond the knees. The maximum bend at the hip should be 90 degrees.

Keep the hips higher than the knees when sitting. If there is a need to lean forward, make sure the operated leg is in front of the body, and the knee is lower than the hip.

- Avoid lying on the operated side. Lie on the operated side once the wound has healed.
- Avoid twisting the operated leg when sitting, standing or lying down.

Keep the height of chairs, beds and toilet seats one to two inches above the bend/crease at the back of the knee.

# Osteoporosis Treatment

Osteoporosis patients are at higher risk of hip fractures after a fall. Treatment is recommended to strengthen the bones and prevent another fracture. Blood tests and a Bone Mineral Density scan will be taken for baseline measurements to formulate a suitable treatment plan.

# Wound Care

Do not allow the dressing to get wet when the patient bathes. Stitches and skin staples used at surgery will be removed two weeks later.

Signs of infection in the wound:

- Increasing pain around the wound or leg
- Redness, swelling or tenderness
- Drainage or discharge from the incision or wound opening
- Fever higher than 38°C
- Increasing difficulty to walk



# Getting Dressed

To help the patient dress comfortably, equipment may be recommended in the first six weeks after surgery. Sit at the side of the bed or chair to dress and undress. When undressing, remove the clothing on the operated leg last.

A therapist will assess the patient's ability to walk without crutches or a walking frame and guide him/her in exercises to:

- Improve movement, control and strength of the hip and legs
- Transfer in and out of a bed/chair safely
- Correct the patient's walking gait
- Navigate stairs or steps with confidence

## Transfer to Jurong Community Hospital (JCH)

The patient is encouraged to continue with inpatient rehabilitation at JCH if he/she is found suitable after a fitness assessment.

## Post Acute Continuing Care at JCH

Through close collaboration, NTFGH and JCH share the same clinical information and expertise to improve patient care. Partnering healthcare providers in the healthcare continuum further ensures care extends beyond inpatient stays and within the community.

## Inpatient Rehabilitation

Occupational therapists, physiotherapists and speech therapists conduct indepth assessments to customise rehabilitative exercises for each patient. These are done to maximise a patient's functional recovery and lower his/her dependence on caregivers after discharge.



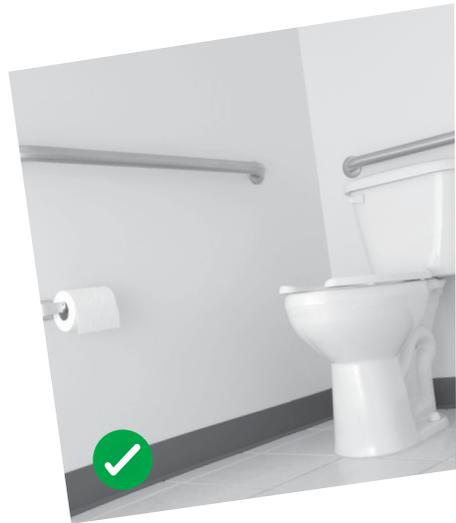
## Caregiver Training

Please identify a caregiver as soon as possible upon the patient's discharge. Caregiver training will be provided.

## Home Care Advice

The following home modifications can help to improve home safety in the home:

- Install a stable shower seat to bathe
- Install safety grab bars in the shower or bath area
- Use a raised toilet seat
- Remove loose carpets, electrical cords and toys from the floor
- Sit on firm pillows
- Use a stable chair with a firm seat cushion to let knees rest lower than the hips
- Use a dressing stick, sock aid or a long-handled shoe horn to wear or remove shoes
- Use a reacher to retrieve objects



## Discharge

Before discharge, occupational therapists will review a patient's ability to clean and dress themselves independently. They may also prescribe home aids to help a patient cope with day-to-day tasks.

### After discharge, prevent complications with these tips:

- Do not sit in bed for long periods
- Practice deep breathing
- Drink six to eight cups of fluids a day
- Eat more fibre (whole grains, fruits, vegetables and beans)
- Sleep on a pressure-relieving mattress
- Use a calf pressure pump or anti-embolic stocking



## Outpatient Rehabilitation

A therapy gym facility that is equipped with comprehensive equipment will support a patient's rehabilitation journey and reintegration into the community. Exercises are conducted by JCH's therapists.

An outdoor Mobility Park allows a patient to practice navigating different terrains, slopes and stairs, and familiarises him/her with taking the public transport through life-sized mock-ups of a taxi, bus and MRT train carriage.

Connecting NTFGH and JCH on Level 2 is LIFE Hub, a three-room HDB mock-up flat which prepares the patient to readapt to a home environment. Fully interactive, it contains practical solutions and assistive devices to help the patient practice good home health and safety.

## For more information

### Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

General enquiries: 6716 2000 Fax: 6716 5500

[www.ntfgh.com.sg](http://www.ntfgh.com.sg)

[www.jch.com.sg](http://www.jch.com.sg)

## Clinic opening hours

Monday – Friday 8.30am – 5.30pm, Saturday 8.30am – 12.30pm

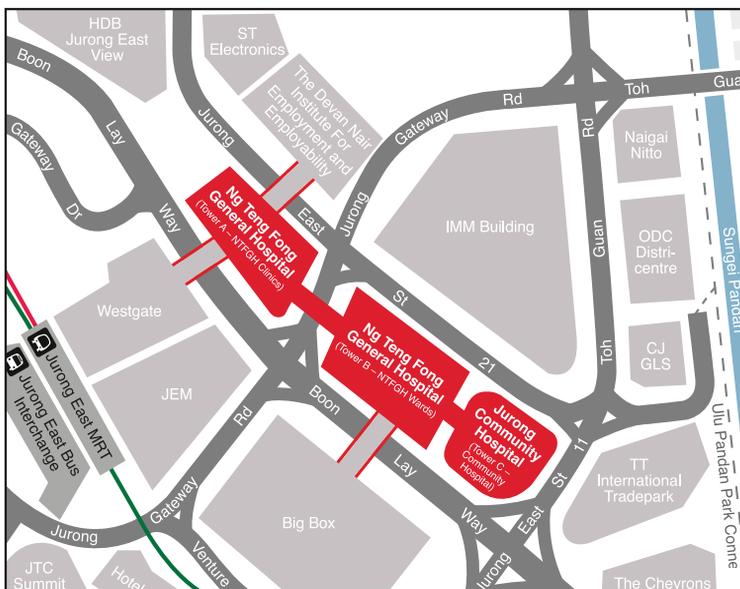
Dental clinic: Monday – Thursday 8.00am – 5.30pm, Friday 8.00am – 5.00pm

## Appointments

Appointment line: 6716 2222

Dental appointment line: 6716 2233

## Getting there



### By train

Jurong East MRT Station

### By bus

#### From Jurong East Bus Interchange

41, 49, 51, 52, 66, 66B, 78, 78A, 79, 79A, 97, 97E, 98, 98M, 105, 143, 143M, 160, 183, 183B, 197, 333, 334, 335, 506

#### Along Boon Lay Way

99, Private bus service 625, 990

### Disclaimer:

The information in this brochure is meant for educational purposes and should not be used as substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition.