The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

## If you require a special edition of this leaflet

This leaflet is available in large print. Arrangements can also be made on request for it to be explained in your preferred language. Please contact the Patient Advice and Liaison Service (PALS) email: pals@rjah.nhs.uk

Date of publication: May 2013
Date of review: May 2015
Author: KSG


### Hospital Stop Smoking Service

For advice and information on quitting smoking, or for an informal chat, please contact the Hospital Stop Smoking Sister on:
01691 404114

### Further Information

Please contact the tumour unit with any questions or if you are concerned on 01691 404107.
If there is no one to take your call please leave your name and number on the answer machine.

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# Guidelines for Physiotherapy Rehabilitation

# Distal Femoral Replacement

## Distal Femoral Replacement

During a Distal Femoral Replacement up to two third of the distal portion of the femur is excised and replaced by a prosthesis incorporating a rotating hinged total knee replacement. This surgery is performed for bone tumours of the distal femur and the main muscles affected are quadriceps, gastrocnemius and hamstrings.

## Complications Early

- Infection
- Wound healing
- Nerve damage/Neuropraxia
- Patella dislocation or poor patella tracking
- DVT/PE
- If extensive soft tissue excision, there may be severely reduced muscle control and power

## Late

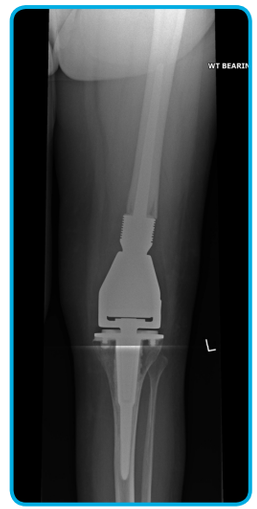
- Recurrence of tumour
- Aseptic loosening

## Patient education/Expected Outcome

- Should be able to achieve a high level of function, but it may take up to 12 months before optimal function has been achieved.
- ROM at the knee can reach 0-120
- Aim to achieve independent mobility with no aids

## Restrictions

- No contact sports or high impact activity




## Phase of Rehabilitation

### Phase 1 / 0-6 weeks

### Goals

Adequate analgesia
Maximise tissue healing
Transfer and mobilise independently with walking aids
If appropriate, be able to negotiate stairs safely

### Physiotherapy rehabilitation programme

- Circulatory exercises
- Isometric exercises
- Gait re-education with appropriate walking aids; check operation notes for weight bearing status
- Stairs practice as appropriate
- Encourage independence with ADL and exercises
- Patient education
- After 2 weeks the patient will be reviewed at clinic in the Tumour Units and if the wound has healed, can commence knee flexion exercises. If appropriate, after 6 weeks the patient may be admitted for inpatient physiotherapy. However, if the patient is receiving cytotoxic chemotherapy, this may then have to be postponed. Please see separate physiotherapy inpatient rehabilitation guidelines.



### Phase 2

6-12 weeks

### Goals

If the patient has not achieved 90 flexion, improve range of movements
Prevent joint stiffness
Improve muscular strength/endurance and control
Encourage weight bearing, wean off walking aids as appropriate
Can start driving if good muscular control, but patients need also to check with their insurance company, and need to be able to do an emergency brake if right leg.

### Physiotherapy rehabilitation programme

- Knee Range of motion exercises
- Active muscle strengthening exercises
- Gait re-education, wean off walking aids as appropriate
- Proprioception exercises, wobble boards, therapy ball exercises etc
- Muscle balance exercises as appropriate
- Treat/prevent scar adherence
- Home exercise programme
- Admit for inpatient physiotherapy rehabilitation if appropriate
- If knee flexion is less than 90, inform the oncology team regarding possible MUA
- Inpatient physiotherapy rehabilitation, as discussed with surgeon. This will involve exercises in the hydrotherapy pool and in the physiotherapy department gym.

### Phase 3

12

### Goal

Prepare physical and psychological ability to return to optimal function
Physiotherapy rehabilitation programme

- Optimise patients' functional independence
- Continue with same physiotherapy programme as phase 2 as appropriate
- Home exercise programme
- Admit for inpatient physiotherapy rehabilitation if appropriate.

*This is a guideline only. Each case should be assessed individually and the guideline may be altered where necessary.*

## Bibliography

METS Modular Proximal Tibia Implant system. www.stanmoreimplants.com
McGinty et al. Clinical Biomechanics 15 (2000) 160-166.
Biomechanical considerations for rehabilitations of the knee.
Martin Malawer and Paul Sugarbaker. Musculoskeletal Cancer Surgery.
Treatment of Sarcoma and Allied Diseases.