Postoperative Physical Therapy Guide

Limb Lengthening and Complex Reconstruction Service (LLCRS)
Hospital for Special Surgery
Dear Patient,

You have embarked on a journey to a better lifestyle. Our office, in conjunction with the HSS Rehabilitation Department, has constructed this Postoperative Physical Therapy Guide as a helpful tool for your recovery.

Stretching the joints after surgery is important. Exercise for range of motion of the joints above and below the bone cut is critical. For example, the knee and ankle must be exercised when having a tibia procedure. As the adjustments are being done, the bone is growing longer. We want to ensure that the soft tissue also stretches. Range of motion exercises for those undergoing ankle distraction surgeries is also imperative. You will be taught basic stretches and exercises by our physical therapists while in the Hospital. Physical therapy will be ongoing at home and continue with outpatient therapy after your first postoperative visit.

The following are specific exercises for external fixator patients. They should be completed on a daily basis. They are divided into ‘Tibia’, ‘Femur’, ‘Hinged Foot/Ankle’, and ‘Fixed Foot/Ankle’. Modifications to these exercises may be necessary depending on your particular situation.

This is an excellent tool to present to your physical therapist as well. Your physical therapist will then construct a more elaborate exercise regimen that pertains to your condition.

Please contact the office with any questions.

Thank you for your confidence in our medical care.
**Calf Stretch:**
Sit on bed as shown with your knee straight. Use your green stretch strap to pull your foot back towards you.

Hold for _______ seconds

Perform_______ repetitions_______ times a day

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**Passive Knee extension with hand:**
With your foot on a towel roll or pillow, use your hands to gently press down above your knee to help flatten in out on the bed.

Hold for _______ seconds

Repeat _______ repetitions _________ times a day.

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**Knee Flexion Step 1:**
Sit in a chair on a hard floor with socks on.
Slide your _______ foot backwards as far as tolerated to allow for bending of your knee.

Perform_______ repetitions_______ times a day.

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**Knee Flexion Step 2:**
Cross your legs at the ankle and use your good leg to push your ________ leg backwards to feel more of stretch.

Then slowly return to the starting position.

Perform_______ repetitions_______ times a day.
**Active Assitive Knee Extension:**
Sit in a chair.
Put your good leg behind your ______ leg at the ankles.
Use your good leg to help straighten your ______ leg until your knee is straight.
Perform ______ repetitions ______ times a day.

**Ex-fix Heel Slides Step 1:**
Start with your ______ leg straight on the bed

**Ex-fix Heel Slides Step 2:**
Slide your ______ heel back towards your buttocks
Then slide back to the starting position.
Be sure to control the entire movement smoothly.
Perform ______ repetitions ______ times a day

**Proper resting position type 1:**
Place a towel roll under your ______ ankle. Gently relax your ______ leg to allow your knee to slowly lower down to the bed.
Do throughout the day when not ambulating.

**Proper resting position type 2:**
If your fixator extends into the foot place firm object under the last ring of you external-fixator or under your ankle if frame does not cover your foot.
This allows your knee to become as straight as possible (flat on the bed)
Do throughout day when not ambulating
Ex-fix SLR Step 1:
Gently squeeze your _______ knee towards the bed.
Bend the same foot back towards you.

Ex-fix SLR Step 2:
Keeping your knee straight, lift your _______ leg of the bed to a height of 12-18 inches.
Hold _______ seconds
Perform _______ repetitions _______ times a day
**Knee Flexion: Dangle**

Sit in a chair or on the edge of your bed and let your operated leg just hang downwards with gravity. The operated leg can be supported by the opposite leg. The goal is right angle (90 degrees).

Perform _________ repetitions _________ times a day

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**Knee Flexion Step 1:**

Sit in a chair or on the edge of your bed

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**Knee Flexion Step 2:**

Slide your __________ foot backwards as far as tolerated to allow for the bending of your knee. Use your good leg to assist your __________ leg further backwards for a greater stretch.

Goal is right angle (90 degrees).

Then slowly return to the starting position.

You may want to put your foot on a towel to allow the foot to slide easier.

Perform _________ repetitions _________ times a day

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**Hospital for Special Surgery**

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HSS Rehab and LLCRS Provided by Knee Flexion: Dangle

Knee flexion Step 1:

Sit in a chair or on the edge of your bed

Knee Flexion Step 2:

Slide your __________ foot backwards as far as tolerated to allow for the bending of your knee. Use your good leg to assist your __________ leg further backwards for a greater stretch.

Goal is right angle (90 degrees).

Then slowly return to the starting position.

You may want to put your foot on a towel to allow the foot to slide easier.

Perform _________ repetitions _________ times a day
Knee Extension:
Sitting in a chair or on your bed, slowly try to straighten out your leg so your knee is fully straight and then return to the starting position. You may use your leg to assist your leg upwards if necessary. Perform repetitions times a day.

Heel Slide Step 1:
Start with your leg straight on the bed.

Heel Slide Step 2:
Slide your heel back towards your buttocks. Then slide back to the starting position. Be sure to control the entire movement smoothly. Perform repetitions times a day.

Passive Knee Extension:
Place a towel roll under your ankle to allow your knee to become as straight as possible. This is a good resting position and should be used throughout the course of the day.

Prone Lying:
Lie on your stomach times a day for minutes at a time. This will allow for stretching of your hip flexors.
**Prone Knee Flexion:**
Lying on your stomach, slowly bend your ________ knee as shown.
Perform ________ repetitions _________ times a day.

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**SLR Step 1:**
Gently squeeze your ________ knee down towards the bed.

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**SLR Step 2:**
Keeping your knee straight, lift your ________ leg off the bed to a height of 12-18 inches.
Hold for ________ seconds.
Perform ________ repetitions _________ times a day.
**Hinged Foot/Ankle**

**Ankle Active PF/DF Step 1:**
Unlock frame as instructed during your Physician Assistant or Physical Therapist. Place firm object under top ring so your foot ring can clear the bed.

Bend your __________ foot back towards you as far as possible.

**Ankle Active PF/DF Step 2:**
Slowly push your foot away for your body and try to point your toes towards the opposite wall.

Perform repeatedly in a slow fashion so your foot goes all the way towards you then away from you.

Perform __________ repetitions __________ times a day.

**Calf Stretch with strap:**
With your frame unlocked.
Place your green strap around the ball of your foot as shown. Gently pull the strap so your foot bends back towards you.

Hold for __________ seconds.

Repeat __________ repetitions __________ times a day.

**Great Toe ROM Step 1:**
Gently use your hands to stretch your toes back towards your body.

If you cannot reach, have someone perform for you.

**Great Toe ROM Step 2:**
Gently use your hands to stretch your toes away from your body.

If you cannot reach, have someone perform for you.

Perform __________ repetitions __________ times a day.
**Great Toe ROM Step 1:**
Gently use your hands to stretch your toes back towards your body.
If you cannot reach, have someone perform for you.

**Great Toe ROM Step 2:**
Gently use your hands to stretch your toes away from your body.
If you cannot reach, have someone perform for you.
Perform ______ repetitions ______ times a day

**Forefoot Stretch with Strap:**
Place your green strap around the top portion of your foot as shown.
Gently pull the strap back towards your body so your forefoot bends back as well.
Hold for _______ seconds
Perform ________ repetitions ________ times a day
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