

Limb lengthening and reconstruction

Reviewed by SickKids Hospital Staff | Last updated: October 8th 2019

Exercises to manage edema and improve range of motion with a tibial frame

Following surgery, your child will experience some edema (swelling) and stiffness. Regular exercises will help your child minimize swelling and maintain range of motion and muscle strength.

Notes about the exercises

- Not all the exercises shown here may be necessary for your child. If your child's foot is bound to their frame, ankle exercises will not apply to them. Your child's physiotherapist will explain which exercises your child should do and how to modify them if needed.
- Some exercises require you to handle your child's leg to further a stretch or support the weight of their frame. Depending on the location of your child's frame and pin sites, your handling may vary a little from the descriptions below. Your child's physiotherapist will assist you with this.
- As a general rule, try to place your hands as close as possible to the joint you are stretching to avoid added stress through the bone.
- Your child should do the recommended exercises three times a day or as often as instructed by the physiotherapist.

Range of motion exercises

Range of motion exercises help maintain movement in your child's joints throughout your child's leg lengthening process. It is very important to do them to prevent joint stiffness and any related complications.

List of exercises

- Ankle dorsiflexion (DF) while sitting
- Ankle DF while sitting (assisted)
- Ankle DF standing (runner's lunge)
- Ankle plantar flexion
- Ankle inversion and eversion
- Toe flexor stretch
- Knee flexion and extension (active assisted)
- Knee flexion (assisted)
- Prone lying
- Assisted knee extension
- Knee extension stretch (standing)