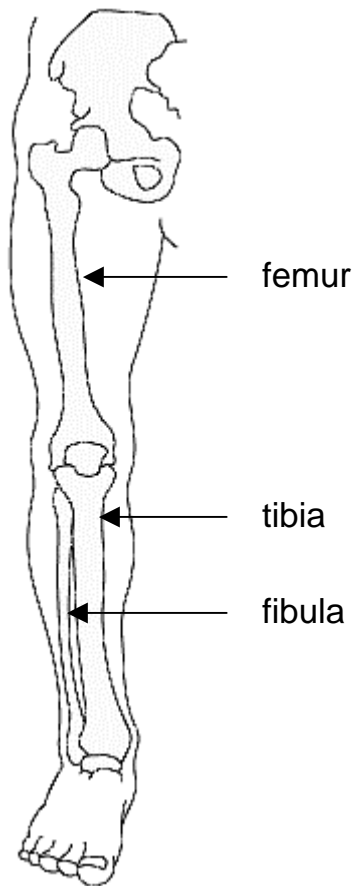


Leg Length Discrepancy

when your child's legs are different lengths

Why are my child's legs different?



Your child's legs may be different in length, shape or thickness. This difference is called "leg length discrepancy" or "leg length deformity". The short form for this is LLD.

LLD is caused by changes in bone growth.

Some children are born with LLD. This is called congenital LLD. For others, the problem is noticed as the child grows.

The change in bone growth may be due to:

- infection
- paralysis
- a broken bone (fracture)
- other trauma to the leg

In some cases the exact cause of the LLD is not known.

The bones affected are usually the femur and/or the tibia.

How do you know that my child has LLD?

Some conditions, such as a curved spine (scoliosis) or a dislocated hip, may make it look like one leg is shorter than the other, but they are actually the same length. The doctor will carefully examine your child, take measurements and have x-rays taken to make the diagnosis of LLD and determine the exact difference in the length of the legs. X-rays taken over several months show the pattern of growth. This helps the doctor predict what your child's leg length will be at maturity, when he or she stops growing.

Will my child need treatment?

The doctor considers the amount of discrepancy that will be present when your child is fully grown to determine the method of treatment.

A small difference of 1 cm or less is not usually a problem and does not require treatment. Your child may benefit from shoes with a heel lift.

If surgery is recommended, the doctor will discuss the plans with you, including the risks and benefits. The goals of surgery are to maintain your child's body proportions, and improve the appearance and function of his or her leg as much as possible.

Surgery may be recommended to:

- slow the growth of the longer leg
- shorten the longer leg
- lengthen the shorter leg

Slowing the growth of the longer leg

For differences of 2 to 6 cm, a procedure called epiphyseodesis may be recommended. In this procedure the surgeon stops growth in the "growth plates", the parts of the bones (just above and below the knee) where most bone growth takes place. This must be done 2 to 3 years before growth stops. After the procedure is done, your child can go home to recover for a few days.

This treatment will affect your child's height.

❑ Shortening the longer leg

Surgery to shorten the leg may be done for older children who have finished growing. This treatment will affect your child's height.

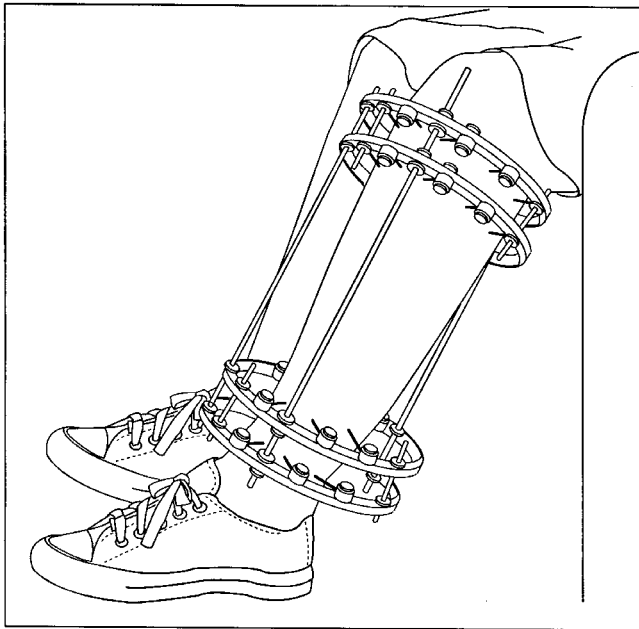
❑ Lengthening the shorter leg

During surgery, the bone is cut and a device called the Ilizarov External Fixator is applied to the bone. The device will remain in place for several months until the new bone becomes strong.

The surgery takes about 2 to 3 hours. Your child will stay in the hospital for 4 to 7 days. When he or she goes home, the device is adjusted several times a day, tension slightly pulls the ends of the bone apart. The body's natural healing process fills this space with new bone. The bone can be lengthened about 1 mm a day.

If more than 5 to 6 cm of lengthening is needed, your child will need very close follow-up and intense treatment, including physiotherapy, to prevent complications.

For longer lengthening, your child may need to have more surgery and/or procedures.



In this picture the child's lower leg is being lengthened.

If your child needs this type of surgery, the health care team will help you learn more about the Ilizarov External Fixator and your child's care during leg lengthening. You will get another information sheet called "The Ilizarov External Fixator".

How can I help my child during treatment?

- You can become involved in your child's treatment. Your child's health care team will teach you how to care for your child to help in his or her recovery. They will also help you arrange any services that your child will need at home.
- There are many health care professionals who can help you. If you have questions or concerns, talk with your child's caregivers. It may help to write down your questions.
- Follow the instructions you are given about your child's activity during treatment and recovery. Encourage your child to resume his or her usual activities as soon as the doctor recommends.
- Ask about the follow-up plans for your child's care after you leave the hospital and keep all appointments.
- If your child has surgery, he or she will need to do exercises at home. A physiotherapist will teach your child how to do the exercises properly and check on your child's progress. **Exercises are extremely important for your child's treatment to be successful.**