

# leg length discrepancy (LLD)

A difference in people's leg length shape or size is common. It may be slight enough to never cause any difficulty. Or it may be significant enough for your child to have treatment to prevent an abnormal walking pattern or for cosmetic reasons.

## why does LLD occur?

The femur (thigh bone) and tibia (shin bone) have growth areas on both ends of the bones. Various causes can disturb one of these areas and affect the growth. When this occurs, one leg may continue to grow while the other does not. Your provider will explain the reason if the cause is known.

## what is the treatment for LLD?

The decision to treat an LLD depends on how much difference there will be when the child stops growing. Not all leg length discrepancies need to be treated. The amount of difference determines the type of treatment needed.

## amount of leg length discrepancy:

- **0-2 cm (<1 inch):** No treatment may be necessary or your provider may suggest a shoe lift. A small lift is either placed inside the shoe or attached to the sole of the shoe.

- **2-5 cm (1-2 inches):** A small surgery may be done to slow the growth of the longer leg. This allows the shorter leg to catch up in length. This is called an epiphysiodesis.

Slowing the growth takes very little away from your child's final height. It is also substantially easier with a much quicker recovery than procedures designed to lengthen the bone.

- **5-15cm (2-6 inches):** Surgical options include two approaches:

1. **Lengthen the shorter leg.** This surgery involves cutting the bone and placing metal fixation to stabilize the bone as it grows. This may be accomplished with a rod or frame. A frame is used to slowly lengthen the bone. The process takes many months to finish and requires commitment from the patient and family to complete all of the treatment.
2. **Shorten the longer leg.** Once your child is finished growing, a surgery is done to remove a small piece of bone from the long leg. This will help make the leg lengths more even.

- **15 cm (> 6 inches) or more:** A prosthesis (artificial leg) may need to be worn on the shorter leg to make the leg lengths more even.

