

# Leg Length Differences

Most differences in leg length are normal. No one is perfectly symmetrical and a difference of up to 2 cm in adults is typical.

## CAUSES AND RISK FACTORS

If you notice your child's leg lengths are unequal, it could be caused by one of the following:

- Normal differences in leg length
- Bone growth disturbances
- Infection
- Trauma
- Hip dislocation
- Clubfoot and other neuromuscular diseases
- Congenital abnormality (e.g. shortening of leg bone)

Differences in leg length can also be mistaken for scoliosis.

## SYMPTOMS AND TYPES

- Difference in length of the legs
- Difference of knee, hips or shoulder height
- Limp

## DIAGNOSIS AND TESTS

Doctors will conduct a clinical examination by measuring leg lengths by a variety of techniques.

A radiographic examination will include standing x-rays of the entire length of both legs. These x-rays are often taken at yearly intervals to monitor the leg length discrepancy. X-rays of the wrist are sometimes taken to help predict the final difference in leg lengths.

## TREATMENT AND CARE

Using the x-rays and clinical exam, your doctor will predict the estimated difference between leg lengths at the end of your child's growth. Based on this prediction, treatment recommendations are made.

Treatment recommendations:

- 0-2 cm difference: no treatment or shoe lift
- 2-5 cm difference: if your child is still growing, the doctor may recommend stopping the growth in the longer leg
- >5 cm difference: your doctor may discuss a combination of recommending stopping the growth in the longer leg and lengthening the shorter leg

Shoe lifts:

- Leg length differences of less than 2 cm can be left untreated or a shoe lift can be used. With a small difference, there is no negative impact on the knees, hips, or back in the future.
- For larger leg length differences, the size of the needed lift may be too large to be put into the shoe and a custom shoe with a thicker in sole is made

Shortening procedures:

- The doctor will appropriately time when the growth in the longer leg will be stopped
- This procedure can be done in a variety of ways

If lengthening a leg is required, physicians have many procedures to choose from.



**Need an appointment or have questions?  
Call 832-822- 3100 for the Main Campus Clinic and  
Health Centers.  
For our West Campus location, call 832-227-7678.**