

Limb-Length Discrepancy and Limb Differences

What Is Limb-Length Discrepancy? What are Limb Differences?

Limb-length discrepancies and limb differences refer to conditions in which arms or legs (also known as limbs) are unequal in length or show other differences. This might mean that one leg is longer than the other, or one leg is shorter than the other.



What Causes Limb-Length Conditions?

Limb-length conditions can result from:

- Congenital disorders of the bones, muscles or joints.
- Disuse or overuse of the bones, muscles or joints caused by illness or disease.
- Diseases, such as bone cancer.
- Issues of the spine, shoulder or hip.
- Traumatic injuries, such as severe fractures that damage growth plates.

Limb-Length Conditions Symptoms and Effects

Leg-length discrepancy symptoms can include difficulty walking. If your child has a leg-length discrepancy or arm-length discrepancy, you might notice them having difficulty engaging in everyday activities.

Limb-Length Conditions Diagnosis

In many cases, signs of limb-length conditions are subtle and only noticeable in certain situations, such as when buying clothing or playing sports. An evaluation should be conducted if your infant, child or teen shows signs of difficulty using the arms or legs.

Proper initial assessments by qualified pediatric orthopedic providers can reduce the likelihood of long-term

complications and increase the likelihood that nonsurgical management will be effective. In most cases, very mild limb-length discrepancies require no formal treatment at all.

As leaders in pediatric orthopedics, skilled surgeons and nurse practitioners at Gillette Children's Specialty Healthcare are experts in diagnosing, treating and managing limb-length conditions—whether your child is born with the condition, or it develops over time.

Limb-Length Conditions Treatment

Treatments for limb-length discrepancies and differences vary, depending on the cause and severity of your child's condition. **Orthopedic surgeons** at Gillette are experts in typical and atypical growth and development, which helps in planning treatments that offer your child a lifetime of benefits.

Treatments might include monitoring growth and development, providing noninvasive treatments or therapy, and providing a combination of orthopedic surgical procedures.

Observation and Noninvasive Treatments

In cases where surgical treatment isn't necessary, orthopedists might monitor your child and plan noninvasive treatments, such as:

- **Occupational therapy.**
- **Braces (also known as orthoses)** and shoe inserts.
- **Physical therapy.**
- **Artificial limbs (also known as prostheses).**

Surgical Treatments

Surgical treatments vary in complexity. Sometimes the goal of surgery is to stop the growth of the longer limb. Other times, surgeons work to lengthen the shorter limb.

Orthopedic surgery to treat limb-length conditions can include one or a combination of these techniques:

- **Bone resection:** Removes a section of bone to even out the limbs. This is an option if your teen is no longer growing.
- **Epiphyseal stapling:** Slows the rate of growth of a longer limb by inserting staples into the growth plate, then removing them when the desired result is achieved.
- **Epiphysiodesis:** Slows the rate of growth of a longer limb by creating a permanent bony ridge near the growth plate.
- **Limb lengthening** (also called distraction osteogenesis or the Ilizarov procedure): Attaches metal rods and pins

(also called fixators) internally or externally to a limb and gradually pulls apart bone segments to grow new bone between them.

Alternative Treatments

To date, alternative treatments like chiropractic care or physical therapy have not measurably altered the progression of or improved limb-length conditions. However, your child might have physical or occupational therapy to address related conditions, such as muscle weakness or inflexibility, or to speed recovery following a surgical procedure.

Integrated Care

When you choose Gillette for comprehensive diagnosis, treatment and management of limb-length conditions, your family will benefit from:

- Facilities and technology designed specifically for people who have limb-length conditions and disabilities.
- One of the nation's highest concentrations of orthopedic surgeons who focus on the needs of children.
- A family-centered team that will work closely with your primary care providers, teachers, and school or community therapists.

If your child has a limb-length condition, we'll help you coordinate the services and specialties you need. For comprehensive limb-length conditions treatment, your family might work with experts in:

- **Assistive technology.**
- **Child life.**
- Nursing.
- **Occupational therapy.**
- **Orthopedics.**
- **Physical therapy.**
- **Radiology and imaging.**
- **Rehabilitation medicine.**
- **Social work.**
- **Therapeutic recreation.**

Make An Appointment **651-290-8707**

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at **651-229-3890**.