INFORMATION FOR PARENTS

Leg length difference in children

A leg length difference (also called leg length discrepancy) means one leg is longer than the other. Small differences are very common and usually cause no problems. Larger differences may need treatment, and the right choice depends on how big the difference is expected to be when your child stops growing.

At a glance

How common	A small difference of under 1 cm is very common and usually goes unnoticed
Main signs	A limp, walking on tiptoe on one side, or a tilted pelvis or spine
What decides treatment	The difference expected when your child stops growing, not just the difference today
Treatment options	Monitoring, a shoe raise, slowing growth of the longer leg, or lengthening the shorter leg
Follow-up	Regular measurements during growth to see whether the difference is changing

Why it happens

There are many possible causes. Often no cause is found. Known causes include:

- **Conditions present from birth,** such as a shortened thigh or shin bone, or one side of the body growing more than the other (hemihypertrophy)
- **Damage to a growth plate** from a fracture or a bone or joint infection
- **Hip conditions,** such as developmental dysplasia of the hip, Perthes disease or a slipped capital femoral epiphysis (SCFE)
- **Conditions affecting the nerves or muscles,** such as cerebral palsy

Sometimes the legs are the same length but one looks shorter because of a tilted pelvis, a curved spine (scoliosis) or a tight hip or knee. This is called an apparent difference, and treatment is aimed at the cause.

What you may notice

- a limp, which may be more noticeable when your child is tired
- walking on the toes of the shorter leg, or bending the knee of the longer leg
- trousers that look longer on one side
- one hip or shoulder sitting higher than the other

How it is assessed

Mr Umar will examine your child lying down and standing. He may place thin blocks under the shorter leg until the pelvis is level, which shows the size of the difference. X-rays of the whole length of both legs are often taken to measure the bones accurately and see where the difference comes from. An X-ray of the hand and wrist may be used to estimate how much growing your child has left.

Because some differences stay the same and others increase as the child grows, measurements are usually repeated every 6 to 12 months. These, together with your child's age and growth, are used to predict the difference when growth stops.

Treatment

Treatment depends on the expected difference at the end of growth, your child's height and the cause. As a general guide:

Expected difference at the end of growth	Usual approach
Under about 2 cm	Usually no treatment, or a heel insert if it helps comfort
About 2 to 5 cm	A shoe raise, or an operation to slow the growth of the longer leg at the right time
Over about 5 cm	Lengthening of the shorter leg, sometimes combined with slowing the growth of the longer leg

- **Shoe raise or insert:** a simple, non-surgical way to level the pelvis. A raise of up to about 1 cm can fit inside the shoe; larger raises are added to the sole.
- **Slowing growth of the longer leg (epiphysiodesis):** a small operation, usually through small cuts at the knee, that stops or slows one or more growth plates in the longer leg. The shorter leg then catches up as the child keeps growing. Timing is important, so it is usually done between about ages 11 and 14, depending on growth.
- **Leg lengthening:** the bone is cut and lengthened gradually, about 1 mm a day, using either an external frame or a lengthening nail inside the bone. This is a longer treatment, carried out in specialist limb reconstruction centres.

Mr Umar will talk through the benefits, risks and practical demands of each option for your child.

When to seek medical advice

Seek same-day advice (NHS 111, GP or A&E) if:

- your child has a limp or leg pain with a fever or feeling unwell
- your child cannot put weight on the leg
- a joint is hot, red or swollen

Ask your GP to refer your child, or contact Mr Umar's team, if:

- you notice a new limp or a difference in leg length
- a known difference seems to be getting bigger

- your child has pain in the hip, knee or back
- one side of your child's body looks larger than the other

Sources

This guide is based on Mr Umar's practice and is guided by British Orthopaedic Association and British Society for Children's Orthopaedic Surgery guidance and published guidance on the assessment and management of leg length discrepancy in children.

Questions?

Children's appointments at The Alexandra Hospital, Cheadle Danielle Heron · 07528 523911

This is general guidance. Always follow the specific advice of your child's own clinical team, as their care may differ.

Version 1.0 · Last reviewed November 2026 · Next review November 2027