

# bow legs (genu varum)

Many infants and toddlers begin life with bowed legs that gradually straighten with growth over a period of years. This is a normal physiologic process in children:

- Normal in children less than 2 years
- Migrates to neutral with growth around 22-24 months
- Can continue onto “knocked knees” (genu valgum) at around 3 years
- Knocked knees then migrate back to normal at around 7 years of age

This can be related to “packaging”. If the child was a large baby, or if there wasn’t much room in the womb (such as with decreased amniotic fluid), the legs are pressed across each other in the fetal position. This can lead to bowing that also improves as the child grows.



**We typically observe this type of bowlegs for several years and do not treat unless severe and the child is older than 6–8 years of age.**

## pathologic (abnormal) bowlegs

There can be other causes for bowlegs that your child will be screened for upon evaluation by your provider. One of these causes is Blount’s Disease.

**Blount’s Disease** is a progressive form of bowlegs at the tibia. It does have a genetic factor, however another contributing factor is an overweight child that is an early walker (less than one year of age).

## diagnosis

A thorough physical exam and patient history will be performed at your child’s evaluation. This is often all that may be needed to differentiate normal versus abnormal bowlegs. If indicated, xrays of your child’s legs may be obtained. X-ray measurements can be important for treatment planning and predict progression.

## braces

Braces are only used for bow legs when the child is older and x-rays show that abnormal growth will continue. Bracing will not improve normal or physiologic causes of bowlegs. Bracing in Blount’s disease may be necessary. Improvement with braces can be poor with heavier children or when both legs are affected.



## **surgery**

The deformity of Blount's disease can progress despite non-operative treatment. Surgery can be indicated depending on the age of the child and severity of the deformity. Surgery can include modifying different areas of the growth plate of the bone depending on the deformity. Sometimes plates will be placed on one side of the growth plate to encourage the other side to grow. Occasionally, a surgery where the bone is cut is required to encourage the bone to straighten.

## **prognosis**

Some adults are bow-legged. When the bowing is mild, it does not cause any problems. Some outstanding athletes have bow legs and feet that turn in. There is some evidence that this makes them better runners. However, adults with bow legs can be more likely to develop arthritis in their knees. This is one of the primary indications for treatment of bowlegs in children.

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