

Patient Education



ARNOLD PALMER HOSPITAL
For Children
Supported by Arnold Palmer Medical Center Foundation

Orthopedic Center
at Arnold Palmer Hospital
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Blount's Disease (Tibia Vara)

What is Blount's Disease?

Blount's disease is a growth disorder of the shin bone (tibia). The inner (medial) part of the upper tibia grows at a slower rate than the outer (lateral) part. The result is bowing of the tibia and a bowlegged appearance. Frequently there is rotation of the tibia so that the patient is intoed (pigeon-toed) as well. The condition is frequently seen in heavy set children and for unknown reasons, it affects African American children more often. Either one or both legs may be involved. Blount's is a treatable condition. Your child should recover fully after treatment.

How is it diagnosed?

Your doctor will examine your child and request an X-ray of the lower legs. If the X-ray is normal, the leg(s) will usually grow straight without any treatment. If the X-ray of the upper tibial growth area appears abnormal, Blount's is present and treatment will be started.

What is the treatment?

Infantile Blount's occurs between the ages of two to six years. Treatment of Infantile Blount's includes:

– Observation

Your child will return every four to six months for X-rays and check-ups with your doctor.

– Braces

Your doctor may order braces for your child to wear on the involved leg(s). The braces should be worn during the day when your child walks. The braces help take pressure off of the medial growth area and allow it to grow.

– Surgery

Surgery may be needed to straighten the tibia(s) if bowing of the tibia is still present at age four. This surgery may be either placement of a guided growth "peanut plate" or may be a surgery called a "tibial osteotomy". (See below) Your child will be in the hospital for two to three days after surgery and will go home

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with cast(s) on the leg(s). Cast(s) will stay on for six to eight weeks. Your child will return to the clinic to have the cast removed. X-rays will be taken at this visit to check for bone healing.

Adolescent (or “late onset”) **Blount’s** occurs between the ages of nine to fifteen years.

Treatment of Adolescent Blount’s is surgery. Three possible methods are listed below:

– **Epiphysiodesis** (e-pif-uh-si-o-desis) can be either:

- the removal of the growth area in the outer part of the upper tibia.
- the application of a metal implant (“peanut plate”) which is applied to the growth area on the outer part of the upper tibia. This allows the inner side of the growth plate to continue growing while the outer side stops. It may take several months before you see any change. This is a minor surgery and requires a hospital stay of one to two days. No cast is needed. Your child should be back to normal activities in about two weeks. This is the best option and least invasive but unfortunately generally only works well in thinner patients whose BMI (body mass index) is less than 40.

– **Tibial Osteotomy** is done to straighten the bowed tibia. Your child will stay in the hospital for two to three days after the surgery. Metal pins or plates and screws are necessary to hold the bone straight while it heals. Your child’s leg(s) may be put in cast(s) after the surgery. The cast(s) will stay on for six to eight weeks and then your child will return to the clinic to have the cast removed. X-rays will be taken at this visit to check for bone healing.

– The **Ilizarov frame** involves putting a device on the tibia and very slowly correcting the bowed tibia. Your child’s hospital stay may be two weeks or longer. You will be able to stay with your child. During this time you and your child will be taught how to care for the device. Your child will come back for X-rays every two weeks. This treatment will take many months to complete.