

## Bow Legs

Bow legs is a condition where the legs curve out at the knees when the feet and ankles are touching. It is very common and occurs in most children between birth and 2 years of age. As a child grows, their legs change. Many children between the ages of 3 and 5 years will develop knock knees, where the knees tilt in. By the time most children are 7 or 8 years old, their legs will have straightened.

### Causes

A twist or rotation in the leg bones can cause bow legs. In babies, the twist can be caused by the tight space of their mother's womb. In children during their first year of life, bowing can develop with normal growth for no known reason. Bowing in is considered normal. Bowing can worsen when a child starts to walk. It then improves with time and growth. Most children with bow legs outgrow them by the time they are 2 or 3 years old.

Rarely, bow legs can be caused by a more serious medical problem, such as:

- Rickets – a bone growth problem caused by a lack of vitamin D, calcium or phosphorus
- Blount's disease – bowing due to the shinbone (tibia) growing abnormally
- Lead or fluoride poisoning
- Other problems such as, injury, infection or tumor

### Symptoms

Bow legs change the appearance of the legs. This is often noticed by parents or other family members. Children with bow legs may walk with their toes pointing in or with an awkward pattern. They may trip or seem clumsy. Bow legs don't often bother child or

cause pain. Children with bow legs can crawl, walk and run.

Older children and adults with bow legs may have pain in their knees, hips and ankles. They may also be bothered by the appearance of their legs.

### How It Is Diagnosed

Your child's doctor may be able to diagnose bow legs after an exam. If your child is under 2 years of age and has bowing of both legs, no further testing may be needed. If your child's doctor is concerned that the bowing may be due to a more serious problem, they may order x-rays to look at the bones. Your child may also need blood tests.

### Severe Symptoms

Some children will have symptoms that could mean there is a more serious problem. If your child has any of the symptoms listed below, you should talk to your child's doctor. They may suggest a visit with a Pediatric Orthopedic provider.

- Bowing that gets worse after the age of 2
- Bowing that is not the same between the two legs
- Limp when walking
- Knee or hip pain (in a young child)

### Treatment

Treatment for bow legs depends on the cause. Bow legs will get better on their own for most children. These children have bowing that looks the same on both legs and does not cause pain or other symptoms. If the bowing does not resolve, surgery can correct it.

Blount's disease will not get better on its own. Young children with Blount's may be treated with a brace. If the brace does not work, or if the child is older, surgery may be needed.

Rickets is managed by a metabolic specialist along with a Pediatric Orthopedic provider. Medicine is often used to treat Rickets. Medical treatment can correct the bowing of the bones. If a child's bone deformity is too severe, surgery may also be needed.

### **Surgery**

Surgery of bow legs can involve "guided growth." This type of surgery straightens the leg by temporarily stopping the growth on one side of a bone (typically the top of the shin bone), so the other side can catch up. This is done by using a small metal plate that can be removed once the bowing is corrected. This procedure can be done on bones that are still growing, but does not work well in an older child.

If a child is too old for guided growth, or the bowing is too great to correct with growth, your surgeon may do an osteotomy. This is when the bone is cut and reshaped. The cut pieces are held in place with a plate or screws while the bone heals.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 6/2021 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8209.