

PAEDIATRIC KNEE DISORDERS AND DEFORMITIES

Understanding Angular Deformities Around the Knee in Children

In most scenarios, it's an over-concerned aunt or a nosy neighbour, who sets the alarm bells ringing in the parents' minds. When they point out your child's legs when in a gathering or a playground. Most Angular deformities around the knee, such as genu varum (bow legs) and genu valgum (knock knees), are common in children. These conditions refer to the inward or outward angling of the knees, which can be part of normal growth but sometimes require medical attention.

Early Symptoms and Diagnosis

Genu Varum (Bow Legs):

- Children with genu varum have knees that bow outward when the feet are together.
- It is normal in infants and typically corrects itself by age two.
- However, if the bowing persists beyond this age or worsens, it could indicate genuine varum.

Genu Valgum (Knock Knees):

- In genu valgum, the knees angle inward, causing the feet to be apart when standing with the knees together.
- This condition is often seen in children between ages 2 and 5 and usually resolves on its own.
- Persistent or severe cases after age seven may suggest genuine valgum.

Early diagnosis is crucial for distinguishing between normal developmental variations and pathological conditions. Parents should consult a pediatric orthopedic surgeon if they notice persistent or severe bowing or knock-knee alignment, asymmetry between the legs, or associated pain and difficulty walking.

Treatment Options and Importance

Treatment varies based on the severity and cause of the deformity. For mild cases, observation and regular follow-ups may be sufficient. In more pronounced cases, especially if they are causing symptoms or are likely to lead to long-term complications, treatment options include:

- Bracing: Used in some cases to help guide the growth of the bones.
- Physical Therapy: Exercises to strengthen the muscles around the knee and improve alignment.
- Surgery: In severe cases, surgical procedures like guided growth (temporary hemiepiphyodesis) or corrective osteotomy may be necessary to realign the bones.

Why Treatment is Necessary:

Untreated angular deformities can lead to abnormal mechanical axis deviation, which affects how weight is distributed across the knee joint. Over time, this can cause:

- Joint pain and discomfort.
- Early-onset arthritis due to uneven wear and tear on the joint.
- Impaired mobility and difficulty engaging in physical activities.

Role of the Pediatric Orthopedic Surgeon

A pediatric orthopedic surgeon specializes in diagnosing and managing bone and joint disorders in children. Their role in managing angular deformities includes:

1. **Diagnosis and Assessment:** Accurately diagnosing the condition and assessing its severity using clinical examinations and imaging studies.
2. **Treatment Planning:** Developing a personalized treatment plan, which may include observation, bracing, physical therapy, or surgery.
3. **Monitoring Growth:** Regular follow-ups to monitor the child's growth and the progression of the deformity.
4. **Surgical Intervention:** Performing surgical procedures when necessary to correct the deformity and restore proper alignment.
5. **Education and Support:** Providing parents with information and guidance on managing their child's condition and what to expect during treatment.

Early intervention by a pediatric orthopedic surgeon like Dr Shravan, is crucial for preventing long-term complications and ensuring the best possible outcome for children with genu varum or genu valgum. Parents play a key role in monitoring their child's growth and seeking timely medical advice if they notice any abnormalities.

<https://youtu.be/x59VaGFgoI0>



NATURAL RESOLUTION OF PHYSIOLOGICAL GENU VARUM