

GENU VALGUM (KNOCK KNEES)

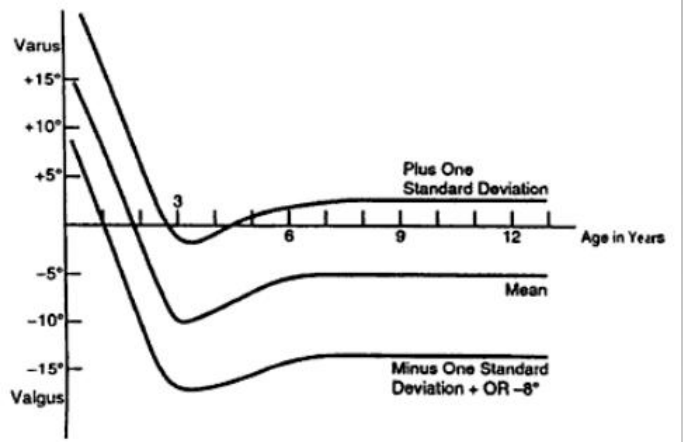
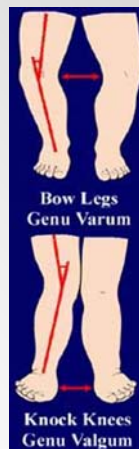
Knock-knees (genu valgum) identified by GP

History:

- Age at presentation
- Growth and development
- Associated complaints (limp, pain)
- History of infection, trauma, or fracture to affected limb(s)?
- History of renal disease, late onset Vit D deficiency, or chronic disease leading to altered gait?
- Family history (short stature, skeletal dysplasia)

Examination:

- Growth parameters
- Lower extremity exam including rotation profile (excessive femoral anteversion may exaggerate genu valgum)
- Assess intermalleolar distance with patient supine and knees together (SEE DIAGRAM ABOVE)



- At birth, normal alignment is varus
- As the child begins to stand and walk, the amount of varus often increases. Children who walk at an early age may have greater varus alignment.
- Around 18 to 24 months of age, alignment becomes neutral
- After 24 months, alignment should progress to valgus until it reaches a maximum at around age 3-4 years
- After age 4 years, valgus alignment should decrease toward physiologic adult alignment of slight valgus to neutral
- By age 7 years, a child usually has reached his or her adult lower-extremity alignment

Salenius 1975

Age less than 18 months (early valgus)

Yes

Refer to Paediatric Medical for workup

No

Concern for pathologic valgus?

- Unilateral or severe deformity?
- Associated symptoms (limp, pain)?
- History of infection, trauma, or fracture to affected limb(s)?
- Disease or metabolic disorder associated with valgus present?

OR Age greater than 10?

No

Likely physiologic genu valgum

- Reassurance as physiologic angulation is typically self-limited with improvement or resolution occurring in most children without intervention
- Consider referral to Paediatric Orthopaedics if findings are worsening or still subjectively concerning by age 10 years

Yes

Refer to Paediatric Orthopaedics