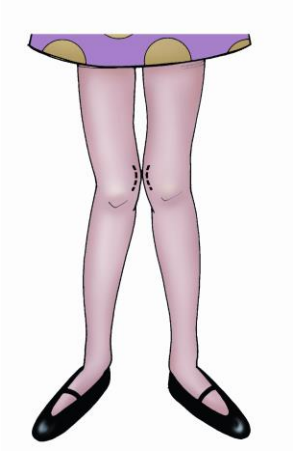
HEMI-EPIPHYSIODESIS

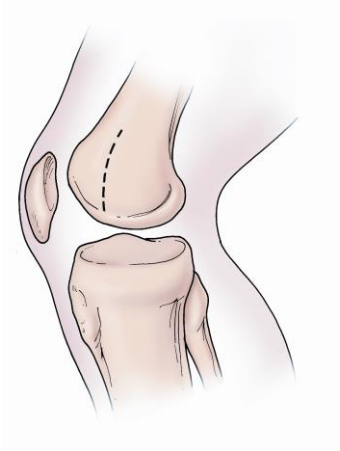
Normally, most adolescents have "straight legs". A few, however, develop a growth problem around the knees that results in excessive knock-knees or "genu valgum". Adolescents with genu valgum often run and walk awkwardly and occasionally have knee pain. Severe cases which are left untreated into adulthood can cause early arthritis and knee pain.

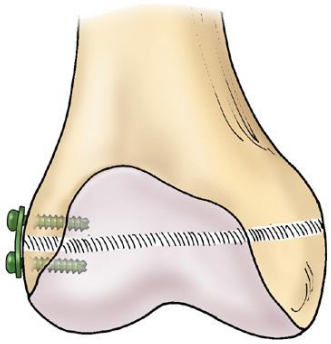
The diagnosis of knock-knees is made by observing the child standing with the insides of their knees touching. If their ankles are more than 4-6 inches apart in this position then the child has genu valgum. X-rays showing abnormal bony alignment confirm the diagnosis. The majority of abnormal growth is in the growth plate at the end of the thighbone (femur).

If the patient is still growing there is an option that is available for promoting more normal growth and straightening the leg. This is a surgical technique used to promote straightening of the legs called 'hemi-epiphiseodesis'.

At the appropriate time, months before completing growth, bone "clamps" or staples are put into the bone around the growth plate.







Over the next 1 1/2 - 2 years, this will result in redirected growth that can lead to straightening of the legs. The bone staples can be left in permanently once the goal is achieved and the legs are straight.

In some cases hemi-epiphyseodesis is not enough. If the deformity is severe or the patient is finished growing, then the femur bone can be cut, straightened, and allowed to heal in the new, corrected position. Bone screws and plates are used to keep the bone straight during the healing process.

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