

# Clubfoot in Older children

Ponseti Casting allows schooling, play & full correction



4½ yr old had stiff recurrent clubfoot deformity.

9 below knee fibre casts were needed for full correction.

These were changed without anesthesia every 3 weeks. Child attended school and was not a burden to the parents.

There was no osteoporosis and no need for a tenotomy at the end.



3.5 yr old with recurrent clubfoot. Treated with 7 Below Knee casts which were changed at an interval of 3 weeks. Child was able to walk and attend play school. Was given a HDPE moulded brace at the end of treatment to maintain correction.





7 yr old with Streeter's syndrome had severe uncorrected clubfoot. She had 12 Below Knee casts which were changed every month.

Finally she had a limited Postero-lateral soft tissue release to completely correct the equinus.

There was no osteoporosis as she walked all the time. Wore a Foot Abduction Orthosis for 3 months after surgery and last cast.



7½ yr old very mischevious boy had PSTR and external fixation done elsewhere for recurrent clubfoot. Removed the ex-fix with his own hands! We treated him with 7 Below Knee walking casts.

These allowed him to attend school and play and be independent.

At the end of the last cast, a Tibialis Anterior transfer was done and finally braces were given to be worn at night.





7 yr old with stiff clubfoot treated with 12 Below Knee casts which were changed monthly. The BK casts allowed him to attend school and be independent. Final correction achieved with mild rocker.

## Rationale for Below Knee Ponseti Casting in Older Children

Older children may present with recurrence of the deformity after Ponseti casting. They may also present de novo having taken no treatment at all. Both of these types are very amenable to treatment using casting methods as described by Dr. Ponseti.

Recurrence of the deformity after surgery may be tight but correctible with casts if the talar dome is spherical.

Children may present with a recurrence after Soft Tissue release surgery or rough manipulation in which case they may have a flattening of the talar dome. These children will need osteotomy treatment for correction --either Supramalleolar osteotomy or Hindfoot osteotomies like the V-Osteotomy described by Ilizarov.

Those children in whom the talus is spherical can very nicely be treated with Ponseti casting even though Ponseti's method was originally described only for babies. The original method stipulates the use of toe-to-groin casts for full control of foot rotation. This is necessary due to lots of baby fat around the shin which will allow the foot to rotate and lose the correction if a Below Knee cast is applied. These are also changed weekly.

However, above knee casts are poorly tolerated by older children as they cannot walk or play or attend school. Hence they become cantankerous and a burden to the parents. Moreover, treatment duration in these children is very long. Casts cannot be changed weekly as this will not allow softening of the ligaments and correction of the foot bones. Casts need to be retained for as long as two, four or six weeks to be able to achieve the gradual correction. This is all the more reason to apply Below Knee casts. The children are able to walk immediately following casting and do not have to be taken care of.

Older children do not have much baby fat on the shin and the below knee casts can be nicely moulded to achieve and retain the correction. This has been borne out by our experience of treating more than 30 feet over the last 6 years.

Children whose deformities are very severe would need correction with external fixation--of which the Ilizarov fixator is the best due to its ability to employ all the principles of the Ponseti method and achieve full correction.