#### Are children's fractures same as adults fractures?

No, children's fractures have typically different patterns and they need to be treated differently from adult's fractures. Open surgeries are rarely indicated to treat children's fractures. Common fractures are treated in plaster casts after manipulation if necessary. Some fractures need fixation through key hole surgery using an x ray machine known as image intensifier. Fractures involving the growing part of the bone, known as growth plate need to be accurately replaced. If this is not done, the bone may stop growing or may grow in a crooked manner.

FRACTURE OF ARM BONE





**Before Surgery** 

After Surgery

### Can a short leg be made longer?

Yes, the leg or arm can be lengthened using various types of fixators. Illizarov's ring fixator is a popular apparatus used for this purpose. For selective indications these equipments can be used to lengthen a shortened segment or segments of a limb and also correct deformities. This is a prolonged process and needs plenty of care and expertise.



## Are spinal deformities common in children?

No, spinal deformities are not common. However some children can have defective vertebrae from birth, which can produce deformity. There is also another condition, which appears during adolescence usually in girls. These children should be immediately seen by an experienced surgeon and assessed, so that appropriate treatment can be initiated.

# **Department of Orthopaedic Surgery**

Dr. David V. Rajan MS Orth MNAMS Sports Injuries, Arthroscopy, Knee & Shoulder Surgery

Dr. K. Vinodh M.Ch., Ortho (U.K.), D. Ortho., Paediatric Orthopaedics & Joint Replacement Surgery

Dr. J. Clement Joseph M.S. Orth Trauma, Arthroscopy, Sports Injuries

#### Contact:



657, Trichy Road, Singanallur Post, Coimbatore - 641 005, Tamil Nadu, INDIA +91 (0)422 2317118 / 119; +91 (0)9244404247; +91 (0)9244401100 www.jointsindia.org www.arthroscopyindia.com www.ortho-one.in ortho.one@gmail.com



# PAEDIATRIC ORTHOPAEDIC SERVICE



Orthopaedic Problems in Children

Ortho One, has been providing highly specialized service to patients with various orthopaedic problems.

One of the sub-specialities of orthopaedics in which we are at the forefront is Paediatric Orthopaedics. Orthopaedic problems in children are unique in that. children are growing and any injury or disease affecting the injured bone or supporting structures will alter the growth and may cause shortening or deformity of the limb. There fore these problems must be diagnosed early and treated by doctors who have vast experience in tackling children's orthopaedic conditions. We have an excellent team of doctors who are well versed in treating children's orthopaedic problems and we offer warm friendly care for your Childs problem.

#### What are the common paediatric orthopaedic problems?

- Congenital deformities of the limbs
- Postural deformities
- Birth injuries
- Cerebral palsy
- Bone and joint infections
- Bone and joint injuries
- Limb length discrepancies due to various causes
- Spinal deformities
- Tumours of the limbs affecting children

#### What is clubfoot?

One of the commonest deformities of the limbs is the clubfoot deformity where the feet are in turned and curved from birth. This may affect one or both feet. Till recently this deformity was treated with open surgery in majority of children. However at present we are treating these children by a method known as Ponseti's method, where this deformity is corrected through weekly change of plaster casts followed by a minimally invasive minor procedure to release a tight tendon in some children.



**After Surgery** 

# Should you treat congenital dislocation of hip early?

Yes, this birth deformity of the hip should be diagnosed very early through examination and an ultra sound scan. If diagnosed early, this can be treated through simple



splints. If left alone, this can prevent proper development of the hip joint and may require one or more surgeries. If neglected, the treatment gets more complicated and the child may end up with a limp.

## What is cerebral palsy?

This condition is caused due to an irreversible damage to the brain, which occurs before, during or after birth. This causes tightness of muscles of the limbs and occasionally the trunk as well, and hence these children are commonly referred to as 'spastic children'. These children require long-term treatment directed by various specialists. The orthopaedic treatment involves physiotherapy in the form of exercises and splinting, using certain medications and surgical correction. A new

injection, which is available in the name of 'Botox', is useful in selected children in reducing the spasticity. Some of these children need surgeries to correct the deformities, balance muscles and stabilize the ioints. These children can be made to function





**Before Surgery** 

**After Surgery** 

# better with suitable form of treatment. What are postural deformities?

These are some of the deformities seen in growing toddlers and small children, which do not require any treatment. Most of these deformities improve and correct themselves with normal growth of the bones and normal action of muscles. However these children should be seen by a specialist to assess if these deformities indeed are postural deformities and not some other defects, which require early treatment. The common postural deformities are in-toeing, knock knees, bow legs and flat feet.

#### How to know if my child has a bone infection?

Bone and joint infections are serious conditions and should be treated early. Children with bone or joint infection usually refuse to move the affected limb due to pain. There may be swelling of the affected region and warmth and there is usually high fever. These symptoms are not usually seen in newborns as their resistance power is low and they are prone for infection. If diagnosed early, the infection can be controlled with intra venous antibiotics. If the infection results in collection of pus, that needs to be let out early, or else, it will cause destruction of the bone or joint cartilage. Neglected infections will result in chronic discharging wounds and deformity of the limbs.