INTRODUCTION

additive or compensating thus internal tibial torsion and internal femoral torsion are additive. External tibial torsion and internal femoral torsion are compensatory ***(Staheli, 2001)***.

The foot axis is a line which runs from the midpoints of the foot at the heel to the mid point of the foot at the metatarsal head. In walking or running. the body moves forward along a path called the line of progression. The intersection of the foot axis with the line of progression of the body is called the foot progression angle.

The foot progression angle is the net result of structural and dynamic influences at several segments. Bone configuration, muscle balance and joint capsule all may contribute to the final alignment of the lower limb. Intoeing may be the result of torsion, imbalance or contracture at one or several segments.

Intoeing is medial deviation of the foot progression angle beyond normal range ***(Staheli, 1990)***. (Fig.1)

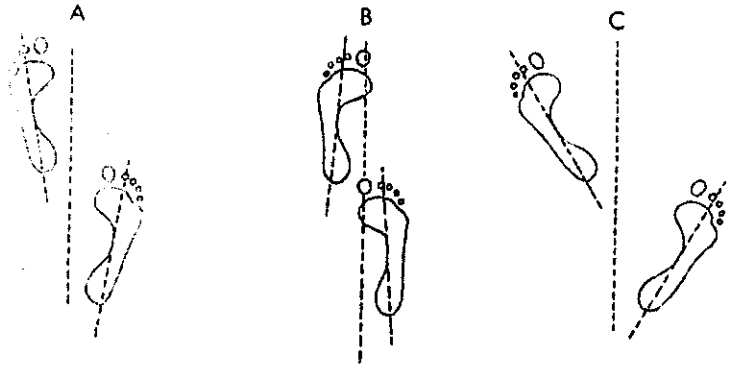

Figure (1): The foot progression angle is the intersection of the long axis of the foot and the line of progression of the body A, usual foot progression angle. B, toeing-in C, toeing-out ***(Staheli, 1990)***.

The most common benign causes of intoeing are metatarsus adductus. increased or persistent femoral anteversion, and increased or persistent internal tibial torsion ***(Karoll, 1997)***.

Other benign causes include structural anomalies of the legs or feet. Most of these conditions do not need to be treated. Instead, the parents simply need to be reassured that the condition usually resolves on its own and the

patient should be observed on regular basis to ensure that the foot progression angle gradually return to normal ***(Tachdjian, 2002)***.

Occasionally, however, intoeing can be a manifestation of a more significant problem that necessitates further evaluation and may require treatment.

Examples include: Static encephalopathy, other neurologic disorders, some mild tibial deficiencies, infantile blount's disease, metabolic bone diseases and skeletal dysplasias.

Patients with these condition are sometime referred with an initial complaint of "intoeing" thus the focused examination of the child with intoeing is concerned with ruling out one of the aftermentioned serious causes, making sure that the child has normal neurologic function, and confirming that the aetiology of the problem is benign ***(Herring, 2002)***.

To manage child with intoeing the physician should know the level, severity and natural history and the treatment options available for each ***(Staheli, 1990)***.