

A Study to investigate whether decreasing the Tibia/Femoral angle through chiropractic management can positively affect clumsy gait in children

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ABSTRACT

Background:

Children often walk with a clumsy gait, which can be linked to the tibial femoral angle. This is at its maximum at six months of age, and reduces to the accepted normal measurement for an adult of below a 6° angle by the age of seven years.

Method

123 consecutive children from the age of 36-60 months with a complaint of a clumsy gait were assessed and managed by a chiropractor over a 28-day period. The tibia femoral angle was measured and recorded before treatment commenced and after each clinic visit.

Results

All subjects (53% (65) male and 47% (58) female) presented with a tibial femoral angle of over 6°. After 28 days, 100% (123) of the children's parents / guardians reported a decrease in clumsy gait. 99.2% (122) had a reduced tibial femoral angle below 6°, with 0.8% (1) having a resultant angle above 6°. This was significant at the $p < 0.01$ level.

Conclusion

Using chiropractic management, a measurable change can be made to the tibia femoral angle that reduces it towards the norm, which correlates with a decrease in gait clumsiness in children.