HealthPathways Melbourne

Putting knowledge into practice

CASE STUDY 31:

Paediatric intoeing over several years

Luca, four, attends the clinic with his father, who is concerned that the child's feet "turn inwards" when he walks and runs.

Luca's childcare educators have also mentioned that he trips more often than other children during outdoor play. He does not complain of pain but has recently started avoiding running games.

Luca was born at term following an uncomplicated pregnancy and vaginal delivery. He was a first-born child. Developmental milestones have been appropriate.

There is no known family history of neuromuscular conditions, although his father recalls as a child having "pigeon toes" that resolved over tme. On further history, there are no red flags. Luca has no pain, limp, fever, or recent illness.

There do not appear to be any footwear problems. His father has not noticed any regression in motor skills and there are no concerns regarding behaviour or learning.

The GP performs a full examination. Luca is active and cooperative. His gait demonstrates bilateral intoeing, more noticeable when running. There is no limp.

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Spine examination is normal, with no scoliosis, dimples, or abnormal cutaneous markers.

Neurological examination is also normal, with normal tone, reflexes, and power. Hip examination shows full range of motion bilaterally, though internal rotation is increased and external rotation reduced, consistent with femoral anteversion.

Patellae appear mildly inward-facing when walking. Thigh-foot angle is within normal limits and there is no evidence of metatarsus adductus. The deformity is symmetrical.

The GP reviews the HealthPathways Melbourne page on Pigeon Toes (Intoeing) in Children.

The GP explains to Luca's father that intoeing is common in children aged between two to five, and is usually a normal physiological variation.

The expected natural history is discussed. The GP explains that gradual improvement typically occurs over childhood, often normalising by late primary school age. Reassurance is provided that Luca's examination is consistent with benign intoeing and that special shoes, braces, or exercises are not recommended because they do not improve outcomes.

The GP explains that the main role of primary care is to confirm this is a normal variant and monitor over time. Red flags that would prompt earlier review are discussed. These include pain, asymmetry, progressive deformity, limping, functional limitation, or concerns about development.

Luca's father is encouraged to return if any of these occur. Annual follow-up review is arranged to monitor gait and function.

At Luca's five-year review, his father reports that he remains active but still trips occasionally, particularly when tired. He is otherwise participating fully in childcare and play.

Examination again shows symmetrical intoeing with no pain or functional limitation. The father requests an x-ray of the hip to make sure a more serious pathology is not missed.

The GP explains that, given Luca's normal examination and absence of red flags such as pain, limp, asymmetry, or developmental concerns, imaging is not required and would not change management at this stage. Ongoing observation is recommended.

At age eight, Luca returns with both his parents, who are concerned that his intoeing persists and that he has started to feel self-conscious after comments from peers at school. He has also had several minor falls during sport.

Examination again shows increased femoral internal rotation but now with some functional impact. The GP reviews the Victorian Government statewide referral criteria for the assessment of non-traumatic foot and ankle conditions in children. Given his age and the persistence of intoeing, along with tripping that is affecting participation in activities, she advises a non-acute referral to the local paediatric orthopaedic team for further assessment and advice.

The GP reassures Luca and his parents that most children do not require intervention, but specialist review is appropriate when intoeing persists into later childhood or begins to impact function. Plans are made for ongoing GP follow-up alongside specialist care.