



Upping the Ante!: Physical Therapist Management of Femoral Anteversion

Kathryn R. Terrian, SPT and Matthew Daugherty PT, DPT, OTR/L

BACKGROUND PURPOSE:

Excessive femoral anteversion is a common structural deformity in pediatric orthopedics and is the most common cause of an intoed gait pattern after the age of three¹.

The purpose of this case report is to describe the outcomes following the rehabilitation of an 11-year-old female athlete with femoral anteversion utilizing Pilates based therapy in conjunction with traditional physical therapy.

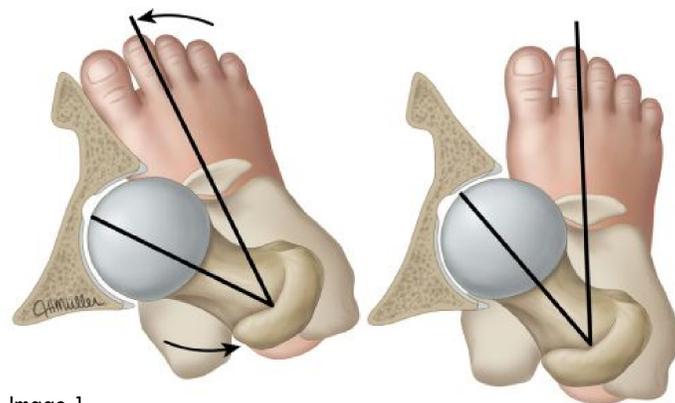


Image 1
Excessive Femoral Anteversion Normal Femoral Anteversion

CASE DESCRIPTION:

The patient was an 11-year-old female competitive cheerleader and dancer presenting to physical therapy for an abnormal intoed gait pattern, weakness, and coordination deficits secondary to femoral anteversion. The patient did not report any pain or discomfort.

METHODS:



Image 2



Image 3

RESULTS:

TABLE 1: Outcomes	Initial Evaluation		Reassessment (15 Treatments)		
	RIGHT	LEFT	RIGHT	LEFT	
Active/ Passive Range of Motion					
	Hip External Rotation (ER) (knee extended)	~5°	~5°	20°/40°	13°/ 30°
Manual Muscle Test (MMT)					
	Hip Abduction	3+/5	3/5	4/5	4/5
	Hip Extension	3+/5	3/ 5	4/5	4+/5
	Hip ER	3/5	3-/5	4-/5	4-/5
	Knee Extension	4/5	4/5	5/5	5/5
Balance	Single Leg Stance	26 sec	12 sec	40 sec	30 sec
Gait-Analysis	Unable to ambulate > 10 steps without returning to intoed gait pattern.		Able to ambulate > 1 minute without returning to intoed gait pattern.		

DISCUSSION:

Conservative management for children with femoral anteversion is not commonly researched. Utilizing Pilates-based interventions and physical therapy management may be an effective tool to improve strength, balance, and coordination deficits in children with femoral anteversion.

CONCLUSION:

The results of this case report suggest that conservative rehabilitation of this patient improved:

- Intoed gait pattern
- Lower extremity and core strength
- Endurance
- Balance deficits

This case report also suggests that the implementation of Pilates-based interventions may allow for versatile functional training.

FOR REFERENCES & EXERCISES PLEASE SCAN:

