# Children's Hospital Of Wisconsin

**Co-Management Guidelines**

To support collaborative care, we have developed guidelines for our community providers to utilize when referring to, and managing patients with, the pediatric specialists at Children's Hospital of Wisconsin. Co-management guidelines provide protocols for jointly managing patient cases between community providers and our pediatric specialists.

## Metatarsus Adductus

An adduction or medial deviation of the forefoot and is recognized as a contracture at the tarsometatarsal joints

| Diagnosis/Symptom | Referring provider's initial evaluation and management: | When to initiate referral/ consider refer to Orthopedic Clinic: | What can referring provider send to Orthopedic Clinic? | Specialist's workup will likely include: |
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| **Signs and symptoms**<br>• Deformity usually present at birth but may not present until the first year of life (3)<br>• Incidence estimated to be as high as 1 in 100 births (4) | **Differential Diagnosis**<br>a. Dynamic hallux varus<br>b. Internal rotation of the foot<br>c. Metatarsus primus varus<br>d. Skewfoot<br>e. Tibial torsion<br>f. Clubfoot<br>**Diagnostic Tests**<br>a. Radiographs- not needed unless child has failed casting<br>b. Xerox of feet<br>**Treatment Options**<br>Mild/Moderate Flexible & approximately 7 months of age<br>No intervention passively correctible deformity will spontaneously correct on its own by age 1 (3,4) | Parental or provider concern. | **1. Using Epic**<br>• Please complete the external referral order<br>**In order to help triage our patients and maximize the visit, the following information would be helpful include with your referral order:**<br>• Urgency of the referral<br>• What is the key question you would like answered?<br>Note: Our office will call to schedule the appointment with the patient.<br><br>**2. Not using Epic external referral order:**<br>• In order to help triage our patients maximize the visit time, please **fax** the above information to **(414-607-5288**)<br>• It would also be helpful to include: | **After referral to Orthopedic Clinic:**<br>• Comprehensive birth history<br>• Family history<br>• HPI<br>• Neuromuscular exam<br>• Gait evaluation<br>• Evaluate for hip dysplasia (9)<br>• Complete rotational profile (internal and external hip rotation, thigh-foot axis, transmalleolar axis, heel bisector angle, foot progression angle) (1,3,4)<br>• Neuromuscular exam<br>• Assessment of the foot, assess for degree of flexibility (4) |

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| | • Educate families that the deformity should not interfere with normal development and that the child will have no restrictions or limitations in any sports or activities (4).<br>• Offer casting which works best in children under 8 months of age<br>Moderate/Severe Inflexible Serial Casting:<br>• Inflexible: Initiate treatment immediately<br>• If present at 8 months may initiate serial casting as the percentage of favorable outcomes decreases if treatment was initiated after the patient was more than 8 months of age (1)<br>• If flexible, partially flexible at 8 months may cast<br>• Follow-up post casting to ensure no recurrence | | • Chief complaint, onset, frequency<br>• Recent progress notes<br>• Labs and imaging results<br>• Other Diagnoses<br>• Office notes with medications tried/failed in the past and any lab work that may have been obtained regarding this patient's problems. | • Evaluate for hip dysplasia or other congenital orthopedic conditions(4)<br>• Evalaute heel bisector line (1)<br>• Identify: flexible, partially flexible, inflexible |
| **Causes**<br>• Spontaneous resolution to normal in 83%(1) to 95% (4) of cases by age one<br>• Pathogeneis is unknown but is believed to result from intrauterine crowding or positioning (4) | | | | **Follow up Recommendations**<br>• If flexible & less than 7 months<br>• f/u as needed at 7 months<br>• Bi-weekly for 6-8 weeks if treating with plaster casts (2)<br>• Follow-up with surgeon:<br>• Over age 2years old<br>• Rigid/Inflexible after casting<br>• Operative treatment is not needed or desirable in patients |

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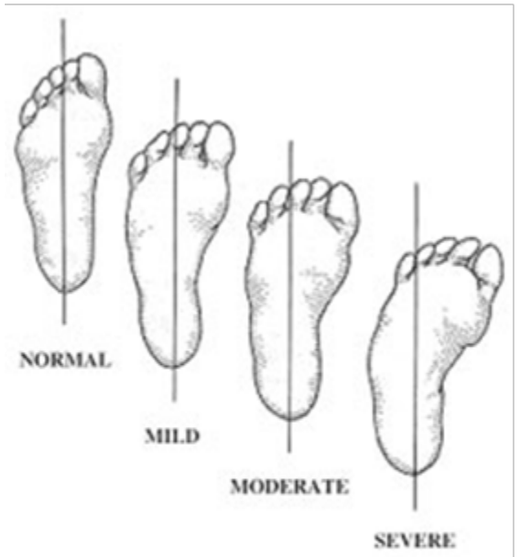


FIGURE 1: In normal foot, heel bisector intersects second and third toes. With increasing adduction, bisector is displaced toward the fifth toe. Note convex lateral border of foot in severe metatarsus adductus.

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| | | | | who have mild or moderate deformities past age 2yo(3) |

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**Evidenced Based Literature Review**

Bleck, E.E. (1983). Metatarsus adductus: Classification and relationship to outcomes of treatment. *Journal of Pediatric Orthopedics*. 3, 2-9.

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Hart, E.S., Grottkau, B.E., Rebello, G.N., & Albright, M.B. (2005). The newborn foot: Diagnosis and management of common conditions. *Orthopaedic Nursing.* 24(5), 313-321.

Herring, J. A. (2008). Disorders of the foot. In M.O. Tachdjian & J.A. Herring (Eds), Tachdjian's Pediatric Orthopedics (4th Ed) (pp.1035-1186). Philadelphia: Saunders Elsevier.

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