### Background

Flat feet (pes planus or loss of the medial longitudinal foot arch) are a common and generally benign finding in the pediatric population. Nearly all infants have flat feet, and studies suggest that up to 50% of 3-year-olds and up to 10% of adults have flat feet. Flat feet are generally flexible and are usually considered a normal physiologic variant. The presence of flat feet, however, is often a cause of significant parental/family anxiety; in the past, many patients were “treated” with special braces/shoes to “make” the foot develop an arch. Studies have since shown that most feet develop an arch spontaneously, and that these “treatments” actually did not influence foot growth; no intervention has been proven to alter the natural (or genetically predetermined) course of foot development. Additionally, studies have shown that use of unnecessary orthotics may have long-term negative psychological effects.

There are, however, subsets of patients with flat feet who have painful flat feet, a rigid flat foot position, or both. About 5% of pediatric flat foot patients fall into this category. For these patients, intervention (brace/orthotic use, therapy, and/or surgery) is often able to alleviate complaints of pain and improve ability to participate in normal childhood activities, so it is important to identify and refer these individuals.

Evaluation of the patient should focus on both history and physical examination; it is important to determine whether there is a history of pain, whether there is a family history of flat foot (and/or “treatment” of flat foot), and to assess the flexibility of the foot.

### Initial Evaluation

- Medical history, including birth history and developmental history
- Family history of flat feet, including any brace/shoe usage
- History of foot pain
- Physical examination to include evaluation of the following:
  - Presence of an arch while sitting
  - Presence of an arch while standing
  - Presence of an arch in a tiptoe position

### Initial Management

Reassurance of the family with expectation management:
- Flat feet are a normal finding, even in adulthood
- Orthotics and/or shoes with arch support do not alter foot development

Recommendation of use of OTC arch supports/orthotics (but *NOT* custom orthotics) if pain is present

### When to Refer

- Persistent pain despite use of OTC arch supports/orthotics x 1 month or if no appropriate sized OTC device exists for patient age/size
- Rigid flat feet (no arch on seated or tiptoe exam)
### Co-management Guide

#### Pediatric Orthopedics

**Flat feet**

<table>
<thead>
<tr>
<th>Pre-Visit Work Up</th>
<th>Documentation of physical exam addressing the above “Initial Evaluation” parameters and documentation of no pain relief with use of OTC arch supports x 1 month</th>
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</thead>
</table>
| **Co-management Strategy (as appropriate)** | **Specialist scope of care**  
- Evaluation and management of patients who meet criteria for referral. Workup may include imaging studies, therapy, serial casting, bracing/orthotic usage, and/or surgery  
- **Primary care scope of care**  
- Initial evaluation  
- Monitoring of patients who do not meet criteria for specialist referral  
- Referral to additional specialists (e.g., neurology) as requested by orthopedics and required by patient’s insurance |
| **Return to Primary Care Endpoint** |  
- Patients who do not meet criteria for referral will be returned for monitoring  
- Patients with painful flat feet who subsequently become pain free  
- Patients who decline intervention when clinically indicated |