



Vol. 47, No. 1 – March 2011

A Cochrane review of the evidence for non-surgical interventions for flexible pediatric flat feet

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The pediatric flat foot is a frequent presentation in clinical practice, a common concern to parents and continues to be debated within professional ranks. As an entity, it is confused by varied classifications, the notion of well-intended prevention and unsubstantiated, if common, treatment. The available prevalence estimates are all limited by variable sampling, assessment measures and age groups and hence result in disparate findings (0.6-77.9%). Consistently, flat foot has been found to normally reduce with age. The normal findings of flat foot versus children's age estimates that approximately 45% of preschool children, and 15% of older children (average age 10 years) have flat feet. Few flexible flat feet have been found to be symptomatic. Joint hypermobility and increased weight or obesity may increase flat foot prevalence, independently of age. Most attempts at classification of flat foot morphology include the arch, heel position and foot flexibility. Usual assessment methods are footprint measures, X-rays and visual (scaled) observations. There is no standardized framework from which to evaluate the pediatric flat foot. The pediatric flat foot is often unnecessarily treated, being ill-defined and of uncertain prognosis. Contemporary management of the pediatric flat foot is directed algorithmically within this review, according to pain, age, flexibility; considering gender, weight, and joint hypermobility. When foot orthoses are indicated, inexpensive generic appliances will usually suffice. Customised foot orthoses should be reserved for children with foot pain and arthritis, for unusual morphology, or unresponsive cases. Surgery is rarely indicated for pediatric flat foot (unless rigid) and only at the failure of thorough conservative management. The assessment of the pediatric flatfoot needs to be considered with reference to the epidemiological findings, where there is consensus that pediatric flexible flat foot reduces with age and that most children are asymptomatic. Globally, there is need for a standard by which the pediatric flat foot is assessed classified and managed. Until then, assessment should utilize the available evidence-based management model, the p-FFP Future research needs to evaluate the pediatric flat foot from representative samples, of healthy and known disease-group children prospectively, and using validated assessment instruments. The preliminary findings of the benefits of foot exercises, and discrete investigation into the effects of shoes and footwear use are also warranted.

Eur J Phys Rehabil Med 2011;47:69-89.

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1. **The pediatric flat foot:**
 - A. Is uncommon in children
 - B. Always presents with pain and disability
 - C. Is normal finding in half of young children
 - D. Is positively correlated with girls more than boys
 - E. Become more prevalent as children grow older

2. **Pediatric flat feet should not be treated if**
 - A. Pediatric flat feet are rigid
 - B. Pediatric flat feet are painful
 - C. The heel valgus position is $>20^\circ$
 - D. Pediatric flat feet are flexible and not painful
 - E. Pediatric flat feet are due to non-physiological conditions

3. **Which of the following factors has been shown to reduce the incidence of flexible flat feet compared to a control population of children of the same age?**
 - A. Joint hypermobility
 - B. Female
 - C. Obesity
 - D. Increased lean body mass
 - E. Varus position of the heel

Selective and integrated rehabilitation programs for disturbances of visual/spatial attention and executive function after brain damage: a neuropsychological evidence-based review

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The present evidence-based review systematically examines the literature on the neuropsychological rehabilitation of attentional and executive dysfunctions in patients with acquired brain lesions. Four areas are considered: 1) neuropsychological rehabilitation of attentional disorders; 2) neuropsychological rehabilitation of neglect disorders; 3) neuropsychological rehabilitation of dysexecutive disorders and 4) rehabilitation trainings for patients with mild traumatic brain injury (TBI). In each area, search and selection of papers were performed on several databases and integrated by crosschecking references from relevant and recent reviews. The literature up to 2007 was examined (in some areas the search was limited from 2000 to 2007). Class of evidence for each selected study was evaluated according to the SPREAD (2010) criteria. Based on this analysis, recommendations on the effectiveness of rehabilitation trainings are proposed separately for each rehabilitation method in each of the four areas considered. Information on follow-up data and impact on activities of daily living is provided whenever available.

Eur J Phys Rehabil Med 2011;47:123-47.

4. **Which of the following methods for rehabilitation of attentional disorders is considered as particularly effective?**
- A. Repeated execution of standardized specific tasks
 - B. Training based on tasks derived from test batteries used to assess attention deficits
 - C. Training based on strategic approaches
 - D. Training of basic attentional skills
 - E. Restitution training
5. **Treatment of unilateral spatial neglect does not consist of:**
- A. Visuo-spatial orientation training
 - B. Prism adaptation
 - C. TENS
 - D. Caloric vestibular stimulation
 - E. Ultrasound
6. **Which of the following treatments for neuropsychological disorders of patients with mild traumatic brain injury has an A recommendation level?**
- A. Holistic rehabilitation
 - B. Education programs
 - C. Neuropsychological rehabilitation
 - D. Eye patch
 - E. Prism adaptation

See answers on page 352.