



## Complete Summary

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### GUIDELINE TITLE

Hallux abducto valgus.

### BIBLIOGRAPHIC SOURCE(S)

Academy of Ambulatory Foot and Ankle Surgery. Hallux abducto valgus. Philadelphia (PA): Academy of Ambulatory Foot and Ankle Surgery; 2003. 9 p. [50 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Academy of Ambulatory Foot and Ankle Surgery. Hallux abducto valgus. Philadelphia (PA): Academy of Ambulatory Foot and Ankle Surgery; 2000. 21 p.

The guideline is reviewed and updated twice a year as needed (in May and October).

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## SCOPE

### DISEASE/CONDITION(S)

Hallux abducto valgus (bunion)

### GUIDELINE CATEGORY

Diagnosis  
Treatment

## **CLINICAL SPECIALTY**

Podiatry

## **INTENDED USERS**

Podiatrists

## **GUIDELINE OBJECTIVE(S)**

To provide recommendations for the diagnosis and treatment of hallux abductovalgus

## **TARGET POPULATION**

Patients with hallux abductovalgus

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Diagnosis**

1. History, including chief complaint (duration, onset, anything that improves or exacerbates symptoms, previous treatment) and general medical history (allergies, medications, surgical history, family history, social history)
2. Physical exam, including vascular evaluation; and neurology, orthopedic, biomechanical, dermatological exams
3. Diagnostic procedures, including radiographic and laboratory examination

### **Treatment**

1. Nonsurgical treatment, such as padding the area with bunion pads, injections, shoe modifications, analgesics, physical therapy, orthotic treatment
2. Surgical treatment, such as partial removal of the medial side and/or dorsal aspect of the first metatarsal head or correcting the osseous deviation or subluxation of the joint
3. Postoperative management, such as x-rays and immobilization

## **MAJOR OUTCOMES CONSIDERED**

Not stated

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The guideline development process began with a thorough MEDLINE search as well as a "call for papers" from the membership of the Academy of Ambulatory Foot and Ankle Surgery at large.

#### **NUMBER OF SOURCE DOCUMENTS**

Not stated

#### **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Not stated

#### **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

#### **METHODS USED TO ANALYZE THE EVIDENCE**

Review

#### **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not applicable

#### **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Not stated

#### **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

#### **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

#### **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

#### **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Drafts of the guidelines were reviewed in detail by each member of the Board of Trustees.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

#### I. Diagnosis

Hallux Abductovalgus diagnosis is made by completion of the history and physical exam and a lower extremity exam, subjective and objective findings, radiological evaluation and other diagnostic procedures.

##### A. History: This may include any of the following:

1. Chief complaint
2. Duration
3. Onset
4. Anything that improves or exacerbates
5. Any previous treatment
6. General medical history
7. Allergic condition
8. Medication taken
9. Surgical history
10. Family history
11. Social history

The patient may be asymptomatic with a small bump, but some patients with mild deformities may have severe pain. Their lifestyle may be altered to the point that they may be unable to perform the activities that they would normally perform. Hallux abductovalgus may be caused by biomechanical abnormalities, and may be an inherited condition. Pressure from the shoe may also cause pain or neuritis and ulceration in the area.

##### B. Physical examination may include:

1. Vascular evaluation
2. Neurology exam
3. Orthopedic exam
4. Biomechanical exam
5. Dermatological exam

With a hallux abductovalgus deformity the great toe may or may not be deviated laterally. Hallux abductovalgus may be caused by biomechanical abnormalities that may lead to dysfunction in the first ray. There are numerous conditions associated with hallux abductovalgus, and sometimes it is necessary to treat these associated conditions while treating the hallux abductovalgus deformity.

##### C. Concomitant conditions may include:

1. Overlapping or under lapping second toe
2. Metatarsalgia
3. Pain in the lesser digits
4. Contracture of the lesser digits
5. Plantar grade position of the adjacent metatarsal heads

6. Sesamoiditis
7. Dorsal Exostosis
8. Arthritic degeneration
9. Neuritis and/or Neuroma
10. (Extensor hallucis longus) EHL tendon contraction
- D. Diagnostic procedure
  1. Radiological examination: X-rays must be taken. They may be used to evaluate the type of deformity: soft tissue, osseous position deformity, structure deformity, joint destruction, sesamoid position. X-rays may be weight bearing, partial weight bearing, or non-weight bearing.
  2. Laboratory testing may be used to rule out inflammatory disease, degenerative joint disease, systemic illnesses, etc.
- II. Types of Treatment
  - A. Nonsurgical treatment
    1. Padding the area with bunion pads
    2. Injection of local anesthetic, anti-inflammatory injections, cortisones, oral anti-inflammatories
    3. Shoe modifications (i.e., wider shoes, molded shoes)
    4. Analgesics
    5. Physical therapy
    6. Orthotic treatment
  - B. Surgical treatment
    1. Partial removal of the medial side and/or dorsal aspect of the first metatarsal head. This is done with or without a soft tissue release.
    2. Correcting the osseous deviation or subluxation of the joint. This may be performed with or without single or multiple osteotomies, or may be done with a Keller procedure.
- III. Surgical Procedures for the Correction of the Hallux Valgus Deformity
  - A. A soft tissue release with an osteotomy of the first metatarsal head
  - B. Osteotomy at the proximal phalanx
  - C. One or more osteotomies of the metatarsal
  - D. A joint destruction procedure whereby an arthroplasty of the proximal phalanx is performed, with or without an implant
  - E. A fusion along with the removal of the bump of the first metatarsal. At this time it may be necessary and indicated to surgically correct other deformities such as hammertoes, metatarsalgia, flexion deformities, and/or sesamoid pain.
- IV. Fixation
 

Fixation may be used at the discretion of the surgeon, and may be internal or external or not at all.
- V. Site of Surgery
 

The surgical procedure is primarily performed in the doctor's office, but may also be done in the hospital or an ambulatory surgical center.
- VI. Anesthetic

Local anesthetic is sufficient unless there are extenuating circumstances. Intravenous (IV) sedation may or may not be utilized with this.

VII. Hemostasis

Absence of bleeding via tourniquet is not required and is not recommended with minimal incision surgery.

VIII. Surgical Preparation

Antiseptic preparation usually consists of antiseptic scrub pre-op, and sterile draping and technique.

IX. Preoperative Lab

Need based on patient's past medical history and current medical status.

X. Prophylactic Antibiotics

May be given at the discretion of the surgeon.

XI. Bilateral or Multiple Surgery

May be performed at the same surgical session or in different surgical sessions.

XII. Postoperative Management

- A. X-rays are necessary to assess the progress of osseous healing. They should be taken immediately postoperatively and may be indicated at intervals throughout the postoperative follow-up period, depending on the type of procedure performed and the wishes of the doctor. Non-weight bearing (NWB) x-rays, weight-bearing (WB) x-rays taken at the angle and base of gait, or semi-weight bearing (SWB) x-rays are acceptable. NWB, SWB, or (WB) x-rays are taken at the discretion of the surgeon.
- B. Postoperative immobilization may consist of casting, a splint, surgical shoe, a rigid sole shoe, or external splinting via gauze, tape, etc.
- C. Internal fixation of fixating devices are not required when doing bunion surgery, but may be used at the discretion of the surgeon when it is appropriate.

**CLINICAL ALGORITHM(S)**

None provided

**EVIDENCE SUPPORTING THE RECOMMENDATIONS**

**TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

The type of supporting evidence is not specifically stated for each recommendation.

## **BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

### **POTENTIAL BENEFITS**

Treatment may reduce symptoms and the deformity, which will allow the patient to maintain or return to a relatively normal activity level.

### **POTENTIAL HARMS**

#### **Complications**

- The deformity may reoccur or worsen
- Hallux varus
- Hallux elevatus (toe may not touch ground)
- Sesamoiditis
- Fusion of the joint
- Limited dorsiflexion and/or plantar flexion of toe
- Prolonged healing
- Metatarsalgia/transfer of weight
- Non-union/delayed union/malunion
- Vascular failure (gangrene)
- Nerve damage/Reflex sympathetic dystrophy
- Shortening of metatarsal and/or toe

## **IMPLEMENTATION OF THE GUIDELINE**

### **DESCRIPTION OF IMPLEMENTATION STRATEGY**

An implementation strategy was not provided.

## **INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES**

### **IOM CARE NEED**

Getting Better  
Living with Illness

### **IOM DOMAIN**

Effectiveness  
Patient-centeredness

## **IDENTIFYING INFORMATION AND AVAILABILITY**

### **BIBLIOGRAPHIC SOURCE(S)**

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## **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

## **DATE RELEASED**

2000 (revised 2003 Sep)

## **GUIDELINE DEVELOPER(S)**

Academy of Ambulatory Foot and Ankle Surgery - Medical Specialty Society

## **SOURCE(S) OF FUNDING**

Academy of Ambulatory Foot and Ankle Surgery (AAFAS)

## **GUIDELINE COMMITTEE**

Preferred Practice Guidelines Committee

## **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

The committee consisted of five (5) members who were board certified, had a minimum of ten (10) years of clinical practice experience, and a minimum of five (5) years of teaching experience.

## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

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## **GUIDELINE AVAILABILITY**

Electronic copies: Not available at this time.



Print copies: Available from the Academy of Ambulatory Foot and Ankle Surgery (AAFAS) (formerly the Academy of Ambulatory Foot Surgery), 1601 Walnut Street, Suite 1005, Philadelphia, PA 19102; Web site, [www.academy-afs.org](http://www.academy-afs.org).

## **AVAILABILITY OF COMPANION DOCUMENTS**

None available

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This summary was completed by ECRI on October 12, 2000. The information was verified by the guideline developer as of December 8, 2000. This summary was updated by ECRI on December 19, 2003. The information was verified by the guideline developer on December 29, 2003.

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