



## Complete Summary

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### GUIDELINE TITLE

Metatarsalgia/intractable plantar keratosis/Tailor's bunion.

### BIBLIOGRAPHIC SOURCE(S)

Academy of Ambulatory Foot and Ankle Surgery. Metatarsalgia/intractable plantar keratosis/Tailor's bunion. Philadelphia (PA): Academy of Ambulatory Foot and Ankle Surgery; 2003. 6 p. [26 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Academy of Ambulatory Foot and Ankle Surgery. Metatarsalgia/intractable plantar keratosis/Tailor's bunion. Philadelphia (PA): Academy of Ambulatory Foot and Ankle Surgery; 2000. 13 p.

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

## \*\* REGULATORY ALERT \*\*

### FDA WARNING/REGULATORY ALERT

**Note from the National Guideline Clearinghouse:** This guideline references a drug(s) for which important revised regulatory information has been released.

On April 7, 2005, after concluding that the overall risk versus benefit profile is unfavorable, the FDA requested that Pfizer, Inc voluntarily withdraw Bextra (valdecoxib) from the market. The FDA also asked manufacturers of all marketed prescription nonsteroidal anti-inflammatory drugs (NSAIDs), including Celebrex (celecoxib), a COX-2 selective NSAID, to revise the labeling (package insert) for their products to include a boxed warning and a Medication Guide. Finally, FDA asked manufacturers of non-prescription (over the counter [OTC]) NSAIDs to revise their labeling to include more specific information about the potential gastrointestinal (GI) and cardiovascular (CV) risks, and information to assist consumers in the safe use of the drug. See the [FDA Web site](#) for more information.

Subsequently, on June 15, 2005, the FDA requested that sponsors of all non-steroidal anti-inflammatory drugs (NSAID) make labeling changes to their products. FDA recommended proposed labeling for both the prescription and over-the-counter (OTC) NSAIDs and a medication guide for the entire class of

prescription products. All sponsors of marketed prescription NSAIDs, including Celebrex (celecoxib), a COX-2 selective NSAID, have been asked to revise the labeling (package insert) for their products to include a boxed warning, highlighting the potential for increased risk of cardiovascular (CV) events and the well described, serious, potential life-threatening gastrointestinal (GI) bleeding associated with their use. FDA regulation 21CFR 208 requires a Medication Guide to be provided with each prescription that is dispensed for products that FDA determines pose a serious and significant public health concern. See the [FDA Web site](#) for more information.

## COMPLETE SUMMARY CONTENT

\*\* REGULATORY ALERT \*\*

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## SCOPE

### DISEASE/CONDITION(S)

- Metatarsalgia
- Intractable plantar keratosis
- Tailor's bunion

### GUIDELINE CATEGORY

Diagnosis  
Treatment

### CLINICAL SPECIALTY

Podiatry

### INTENDED USERS

Podiatrists

### GUIDELINE OBJECTIVE(S)

To provide recommendations for the diagnosis and treatment of metatarsalgia, intractable plantar keratosis, and Tailor's bunion

### TARGET POPULATION

Patients with metatarsalgia, intractable plantar keratosis, and Tailor's bunion

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Diagnosis**

1. History, including an evaluation of the chief complaint (nature, location, duration, onset, course, anything that improves or exacerbates, any previous treatment) and past medical history (medications/allergies, medical history, surgical history, family history, social history)
2. Physical examination, including peripheral vascular, neurological, orthopedic (palpation, biomechanical/gait analysis, range of motion), and dermatological exams
3. Diagnostic procedures, including radiographic examination, laboratory tests, additional tests (nerve conduction studies, electromyography [EMG], noninvasive vascular testing)

### **Treatment**

1. Nonsurgical treatments, including debridement, padding, shoe modifications, oral anti-inflammatory medications (NSAIDs), anti-inflammatory injectables, orthotics
2. Surgical treatments, including metatarsal osteotomy (percutaneous, transverse, "V" shaped, or bi- or tri- plane, partial or "through and through"), excision of all or part of a metatarsal head and/or shaft, intramedullary decompression
3. Postoperative management, including x-rays, foot gear, and orthotics

## **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
  - A. History: This may include any of the following:
    1. An evaluation of the chief complaint (including the nature, location, duration, onset, course, anything that improves or exacerbates, and any previous treatment).
    2. The past medical history (including medications/allergies, medical history, surgical history, family history, and social history).

- B. Physical examination: The following may be important parts of the appropriate examination:
  1. Peripheral vascular
  2. Neurological
  3. Orthopedic (involvement may be ascertained by examining the foot in either the weight bearing or non-weight bearing positions)
    - a. Palpation
    - b. Range of motion
    - c. Biomechanical/gait analysis
  4. Dermatological (presence of lesions or hyperkeratoses).
- II. Diagnostic Procedures
  - A. Radiographic examination: X-rays should be taken. They may be used to evaluate the type of deformity as well as other factors. X-rays may be weight bearing, partial weight bearing, or non-weight bearing.
  - B. Laboratory tests: Not required in the nonsurgical patient, unless underlying factors exist (i.e., infection or inflammatory disease). Blood and urine tests may be indicated for the surgical patient at the discretion of the surgeon based on the patient's medical history.
  - C. Additional tests (nerve conduction studies, electromyography (EMG), noninvasive vascular testing). These studies may be utilized in isolated situations when deemed necessary.
- III. Nonsurgical Treatment
  - A. The primary reasons for nonsurgical treatment are:
    1. Due to the patient's health status, surgery is contraindicated
    2. The patient does not want surgery
  - B. Types of nonsurgical treatment:
    1. Debridement
    2. Padding
    3. Shoe modifications
    4. Oral anti-inflammatory medications (NSAIDs)
    5. Anti-inflammatory injectables
    6. Orthotics
- IV. Surgical Treatment
  - A. The primary reasons for surgical treatment are:
    1. Failure of nonsurgical treatment
    2. Impracticality of nonsurgical treatment
    3. The patient desires correction of a presenting deformity that is painful and/or causes a degree of loss of function.
    4. The patient is informed of the procedure(s) to be performed, the treatment alternatives, and the reasonable risks involved and elects to have surgical intervention.
  - B. Site of surgery: The surgical treatment of metatarsalgia, intractable plantar keratosis (IPK), and Tailor's bunion is usually performed in the doctor's office, however, the hospital or an ambulatory center may also be appropriate.
  - C. Anesthesia: Local anesthesia is sufficient, unless there are extenuating circumstances.
  - D. Hemostasis: Absence of bleeding is not required.
  - E. Surgical preparation: aseptic preparation ("usual" aseptic scrub, prep, draping, and sterility).
  - F. Preoperative lab: May or may not be necessary based on the patient's past medical history and current medical status.

- G. Prophylactic antibiotics: At the discretion of the surgeon (or based upon requirement: i.e., mitral valve prolapse).
  - H. Pathological analysis of surgically removed tissue: Recommended.
  - I. Bilateral or multiple surgery: May be performed at the same surgical session, or in different surgical sessions.
- V. Surgical Procedures for the Correction of Metatarsalgia/IPK/Tailor's Bunion

Procedures may be performed as isolated situations or in conjunction with other procedures.

- A. Metatarsal osteotomy may be:
    1. Percutaneous
    2. Transverse, "V" shaped, or bi- or tri-plane
    3. Partial or "through and through"
  - B. Excision of all or part of a metatarsal head and/or shaft may be performed at appropriate times to treat these conditions.
  - C. Intramedullary decompression (IMDC)
- VI. Fixation

Fixation may be via internal, percutaneous, or external means such as casts, splints, surgical shoes, or adhesive forms of dressings. Internal fixation is generally not required and is at the discretion of the surgeon.

VII. Postoperative Management

The patient may ambulate during the recovery period. X-rays should be taken postoperatively and may be taken thereafter to assess the healing. Postoperative foot gear may include a surgical shoe or other form of restrictive footwear. Generally, a surgical dressing is applied in the immediate postoperative period. This is modified with time and the postoperative course. The return to a normal shoe is based upon the procedure(s) performed and the postoperative course of the individual patient. Orthotics may be useful postoperatively.

**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 relieve or reduce pain, reduce the deformity, eliminate lesions (or reduce severity), and arrest progression of deformity.

## **POTENTIAL HARMS**

### **Postoperative Complications**

- Edema
- Recurrence/regrowth
- Pain
- Numbness
- Stiffness
- Shortening of digits/metatarsals
- Malposition
- Nonunion
- Delayed union
- Transfer lesions
- Vascular complications
- Reflex sympathetic dystrophy

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

**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. This summary was updated on May 3, 2005 following the withdrawal of Bextra (valdecoxib) from the market and the release of heightened warnings for Celebrex (celecoxib) and other nonselective nonsteroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI on June 16, 2005, following the U.S. Food and Drug Administration advisory on COX-2 selective and non-selective non-steroidal anti-inflammatory drugs (NSAIDs).

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Date Modified: 11/3/2008

