

## **FOOT DERMATITIS**

### I. Differential Diagnoses

#### Shoe pattern

- Allergic contact
- Hyperkeratotic
- Pitted keratolysis
- Non-inflammatory fungus
- Chronic vesicular dermatitis

#### Insteps and heels

- Psoriasis
- Inflammatory fungus

#### Forefoot

- Atopic dermatitis
- Juvenile plantar dermatitis

### II. Common Shoe Allergens

<b><i>allergen</i></b>	<b><i>source</i></b>
mercaptobenzothiazole	rubber
thiuram mix	rubber
carba mix	rubber
mercapto mix	rubber
dithiodimorpholine	rubber
potassium dichromate	leather
p-tert-butylphenol formaldehyde resin	neoprene gloves
Mixed dialkyl thioureas	neoprene
colophony	glues
formadehyde	fabrics
Nickel sulfate	metal
p-phenylenediamine	dyes
black rubber mix	rubber
ethyl/methyl acrylate	glues
preservatives	biocides

III. OTHER ALLERGENS WHICH MAY MASQUERADE AS SHOE CONTACT DERMATITIS

- a. Topical medicaments, eq. steroids, antifungals, antibiotics, Bag Balm, botanicals
- b. Socks - Disperse yellow no. 3
- c. Plants, eq. woods, liverworts and lichens

IV. MANAGEMENT OF FOOT OR SHOE ALLERGIC CONTACT DERMATITIS

- a. While sorting out the diagnosis try all wood (clogs), all plastic, all sewn no glue leather, Birkenstock sandals

(NB. If patient clears using these shoes, ACD to shoes is increasingly suspect).

Use all new socks.

- b. Once patched and/or diagnosed; specify shoes:

**HYPOALLERGENIC SHOES**

- 1. A local cobbler who will use glues and fabrics you specify or:

- o The Cordwainer Shop  
P.O. Box 110 / 67 Candia Road  
Deerfield, NH 03037  
(603) 463-7742

They make casual leather styles for men and women - sewn. They will send samples of leather for patch testing if requested. A catalog can be purchased for \$5. Call for more information.

- o P.W. Minor and Son, Inc.  
3 Treadeasy Avenue  
P.O. Box 678  
Batavia, NY 14021-0678  
Contact: Beth Anderson -Head of Custom Pair Dept. or  
Robert Chamberlain  
Telephone: (800) 524-1084

This company seems about the best bet for a custom-made shoe in the \$200. range. Their catalogue specifically advertises that they will custom-make hypoallergenic shoes which are vegetable-tanned leather with a cement-free upper. There is a wide range of shoes for both men and women, orthopedic use, work, dress, and casual use. You may need to order these shoes through a shoe store or through a hospital orthotics department. The company will send samples of leather, etc. for patch testing. This is probably worthwhile before ordering shoes, especially if you suspect a dye allergy.

- Loveless Orthopedic Appliance  
2434 Southwest 29<sup>th</sup> Street  
Oklahoma City, OK 73119  
(405) 631-9731  
[www.lovelessboots.com](http://www.lovelessboots.com)

This company is also good for special order shoes and Musebeck Shoe Company in Oconomowoc, WI who used to make hypoallergenic shoes now refers all inquiries to Mr. Loveless. He can duplicate any shoe, but it will cost at least \$350. He will also send the leather for patch testing; it takes about 10 - 12 weeks and the patient should contact Mr. Loveless directly to learn the details of how the measurement should be made, etc. Specific information on positive patch tests with chemicals to be avoided, etc. should be sent to Mr. Loveless as well as to any other custom shoe maker.

## 2. **Chrome Free**

- Work Boots  
Westcoast Shoe Company (West Co)  
P.O. Box 706  
Scappoose, OR 97956  
(503) 543-7114

A family owned business. Vegetable-tanned shoe approximately \$205. + custom fit + additional price for leather, soles, and heels. Will supply pieces of leather for patch testing. Will make several styles of work boots on request from vegetable-tanned leather made by Muir and McDonald Tannery in Dallas, Oregon.

## 3. **Insoles**

- Dr. Scholls (are made and distributed by Schering-Plough of Memphis, TN)  
8300 Maryland Avenue  
St. Louis, MO 63105  
(800) 766-6465 for general information  
[www.drscholls.com](http://www.drscholls.com)
  - Sports Cushion - flat, perforated polyurethane insole
  - Warm-Eze - fleece insoles (acrylic material) with latex rubber foam bottoms.
  - Air Pillow - insoles are latex and all of the Dr. Scholls odor-disguising insoles are latex. These include odor attacker insoles (no fragrance), Fresh-Step insoles (fragrance) and Sneaker Snuffers (no fragrance).
  - Non-latex alternatives include the Gel insole and Back Guard insole.

- Gel Insole - made of polyurethane gel with a laminated polyester top cloth. This product has NO: p-tert-butylphenol formaldehyde resin.
- Spenco Insoles  
P.O. Box 2501  
Waco, TX 76702  
(800) 877-3626  
www.spenco.com

Green and beige insoles are gas blown with a polyurethane adhesive; apparently do not contain thioureas in either the foam or the adhesive. It might be best to talk with Ray Cash at Rubatex Corporation who supplies Spenco to verify this. Their supports for knees, elbows, etc. are blue colored. They also make a gel cushion insole which is polyester and vinyl plastisol.

All leather or all wool insoles (are available in some outdoor stores eg. L.L. Bean)

- L.L. Bean replacement insoles - available by catalog or order from [www.llbean.com](http://www.llbean.com) and search for wool insoles.
  - Coldproof Insoles - Warm, high-grade sheepskin stitched to leather sole. Imported. Available in men's whole sizes. Women please order two sizes down. Men's whole sizes 3 to 14. Medium. TA11051. Leather Shank - \$12. Or Steel Shank - \$14.
  - Stay-Dry Insoles - Shock-absorbing urethane foam with an acrylic-pile footbed that moves moisture away from feet. Men's whole sizes 7 to 13. Medium. TA10808. \$7.00
- Piano felt cut to fit the inside of a shoe makes a good insole.
- Cork or composition insole from your local cobbler.

#### 4. **PVC Work Boot**

- LaCrosse Footwear, Inc.  
18550 NE Riverside Parkway  
Portland, OR 97230  
(800) 323-2668; (503) 766-1010  
[lacrossesafety.com/footwear.html](http://lacrossesafety.com/footwear.html)

Polyurethane/leather work boots are available. A catalog is available online. Call or check online for more information.

## 5. **Wooden Clogs**

- The Clog Factory  
217 1<sup>st</sup> Avenue S.  
Seattle, Washington 98104  
(206) 682-2564

This store carries a “Dutch” clog which is made completely of wood as well as a large selection of leather/wood clogs. They would be able to remove the rubber soles to make the shoe completely rubber free.

- Crary Shoe Company  
8235 S.E. Stark  
Portland, OR 97216  
(503) 253-8984  
[www.craryshoes.com](http://www.craryshoes.com)
- Multnomah Leather Shop  
44420 Camp Morrison Road  
Scio, OR 97374  
(503) 394-2364  
email: [clogs@bhumsiva.com](mailto:clogs@bhumsiva.com)

Will make custom clogs. Contact them directly for more information.

- Dutch Wooden Shoes  
Klagerstuin 16  
Zwaag 1689 KB  
Netherlands  
[www.dutchwoodenshoes.com](http://www.dutchwoodenshoes.com)

Can only purchase these shoes online. Email them to obtain more information.

## 6. **Plastic Shoes**

Usually PVC or polyurethanes

- Clogs-N-More  
717 SW Alder Street  
Portland, OR 97205  
(503) 279-9358 fax: (503) 629-2114  
[www.alveus.com/clogs](http://www.alveus.com/clogs) or [www.clogsnmore.com](http://www.clogsnmore.com)

The Anywhere Shoe - made of “Axiflex” polyurethane foam. ANYWEARS can be autoclaved (sterilized) up to 100 degrees centigrade (212F) for hospital workers. Kitchen workers can throw them in a typical restaurant dishwasher. This store also carries wood/leather clogs with rubber soles.

- “Jellies” sandals are made of rubber-free plastic materials. Check in your area department stores for availability. One source found on the web was:

Melissa Grendha Shoes Corporation  
Consumers Department  
2481 Principal Row, Suite 300  
Orlando, FL 32789  
(888)887-0808  
[www.melissausa.com](http://www.melissausa.com)

Can order by phone or online. The style “possession” is a rubber free plastic sandal for females.

- Hammill International makes plogs, which are 100% polyurethane. Can contact them at 1-800-228-2129 or on the web at [www.plogs.com](http://www.plogs.com) .

#### 7. **Athletic shoes**

We are unable to recommend a “hypo allergenic” athletic shoe with confidence

#### V. WHAT TO TRY IF UNABLE TO FIND AN ALTERNATIVE SHOE OR PATIENT WANTS TO TRY WEARING THEIR “REGULAR” SHOES:

- a. Decrease hyperhidrosis (tea or glutaraldehyde soaks) or DrySol.
- b. Buy all new socks (allergens are absorbed by socks).
- c. Use insoles described above appropriate to identified allergen or cork or piano felt insoles
- d. Try corticosteroid spray such as Kenalog spray before “dangerous” shoe wear (not a long term solution).
- e. Wood, all plastic, all sewn shoes made of leather, or old fashioned Birkenstock sandals.

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