



CLINICAL CORNER

Dry Heels: It Could Be a Reflection of Something More Insidious

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The average person thinks they just need to slather on more moisturizer. Unfortunately, the root of the problem is most likely internal, not external. If your patient has vertical cracks/fissures and dryness on the posterior, lateral and medial aspects of both heels, their gut health may be compromised, especially if it's independent of season. They may also have hypothyroidism, diabetes, atopic dermatitis, or a number of other conditions; as well as (or in addition to!) potential vitamin C, B₃, E and/or omega-3 fatty acid deficiencies.

If your patient complains of dry eyes and generalized dry skin, they may just need to supplement with extra omega-3s. On the other hand, if they have hypochlorhydria (low stomach acid) and complain of fatigue, they may have a B-vitamin deficiency. (Reduced parietal cell output can lead to gastric bacterial overgrowth, enteric infections and hypergastrinemia, in addition to malabsorption of nutrients and amino acids.) Vitamin E deficiency is extremely rare in the U.S., and less than 10 percent of the population suffer from vitamin C deficiencies. (If they're vitamin C deficient, they may bruise easily, have rough / bumpy skin and be prone to bleeding gums.)



If your patient's heels are dry, but so are their hands, and they present with a high BMI, have sluggish bowels, and are cold most of the time with fatigue and brittle nails, then hypothyroid is the culprit, not their gut. Diabetics tend to get brown, reddish or yellow patches on their skin (*necrobiosis lipoidica*), digital sclerosis (hard thickening of skin on the hands and feet), raised bumps - either red or skin colored (*granuloma annulare*), blisters, or skin tags. It's fairly easy to rule them out. Since atopic dermatitis is a common symptom of gut dysbiosis / leaky gut, your patient may have that in addition to their dry heels.

Is It a Gut Problem? Signs and Symptoms

The tricky thing with gut issues is they can present across multiple organ systems, with potential symptoms including cramps, constipation, diarrhea, heartburn, gas, bloating, food allergies, inflammation, aching joints, acne, skin rashes, psoriasis, chronic fatigue, anxiety, depression, Candida, immune system problems, irritable bowel syndrome, allergies / asthma, nutritional deficiencies, memory loss and more.

Patients can also present with various syndromes in traditional Chinese medicine, including spleen *qi* deficiency, damp heat of the large intestine, heat in the blood, various "bi" syndromes, etc., all with their own specific signs, symptoms, and tongue and pulse characteristics. Treating those syndromes with acupuncture and herbal medicine may or may not solve the underlying gut problems.

Step #1: Ask these Questions

Asking your patient the following questions will help narrow down if gut dysbiosis (an imbalance of good and bad bacteria) or even hyperpermeability of the small intestine (leaky gut) is the etiology of their dry, cracked heels. [*Potential underlying condition(s) based on a positive response to specific questions are noted in italics.*]

1. Do you have a history of antibiotic use? *Gut barrier integrity*
2. Do you drink alcohol regularly or use NSAIDs / aspirin often? *Gut barrier integrity*
3. Do you have any food allergies, environmental allergies or atopic disorders? *Autoimmune response, glyphosate exposure*
4. Do you have issues with acid reflux or bad breath? *H-pylori, hypochlorhydria, or small intestine bacterial overgrowth (SIBO)*
5. Do you have consistent bowel movements? If not, explain. *IBS*
6. Do you suffer from anxiety, brain fog or insomnia? *Compromised blood brain barrier ("leaky brain")*
7. Have you had Candida, or a urinary tract or bladder infection, in the past few years? *Immune system weakness*
8. Have you been diagnosed with any autoimmune disorder? *Leaky gut*
9. Do you have joint aches or generalized fatigue? *Inflammatory cascade*
10. Do you like bread, crackers and other gluten-containing foods? *Exposure to glyphosate*
11. Have you tested positive for Epstein Barr virus or cytomegalovirus? *Immune system challenges*
12. Do you have a history of toenail fungus? *Immune system weakness / systemic Candida*
13. Do you bruise easily or have slow wound healing? *Vitamin C deficiency*
14. Do you suffer from fatigue? *Deficiency of D₃ or iodine, or toxic load / parasites*

Step #2: Testing & Treatment

Now that you have some dots to connect, it would be appropriate to test them for leaky gut with a lactulose / mannitol urine test and/or SIBO breath test. (Please be aware that the breath test can produce both false positives and false negatives.) If you find they have SIBO, you can offer a two-week course of antibiotic treatment or use natural methods to eliminate the bacterial overload and then reinoculate with prebiotics and probiotics. If they test positive for leaky gut, it's a bit more of a process. The "four Rs" of leaky gut are:

- Remove
- Replace
- Re-inoculate
- Repair

The first step is to remove the irritant (alcohol, NSAIDs, allergenic foods, pathogens, etc.) and reduce stress. The good news is that the small intestinal wall barrier cells are replaced every 72 hours, so the damage to the microvilli is not long-lasting after the irritant is removed. Recommending a detoxification/cleanse can go a long way for overall health and well-being. Bentonite clay, digestive enzymes, soaking in Epsom salts and baking soda, skin brushing and buffered vitamin C are all helpful in reducing the toxic load. (Referring the patient to a naturopathic physician would be a good call here - they're experts in this area.)

The next step is to replace the hydrochloric acid and enzymes to proper levels in the stomach. Fat absorption and gastric analysis tests can guide your treatment plan. After re-establishing HCL and enzyme balance, it's time to reinoculate, which can take 6-12 weeks to rebalance the microflora. Recommend fermented foods such as kimchi, pickles, sauerkraut, kefir and kombucha in addition to prebiotics (e.g., oligosaccharides, arabinogalactans, soluble fiber) and probiotics. Make sure the probiotics you suggest have at least five different strains and a minimum of 25 billion CFU (colony forming units). *Lactobacillus acidophilus* alone just won't cut it. In extreme circumstances, a fecal transplant may be necessary.

At this point, it's time to repair the damaged lining. This process can take as long as six months through a clean diet and supplements to reduce intestinal inflammation. I've found that L-

glutamine, zinc and colostrum are paramount for success, with vitamin D and pantothenic acid (vitamin B₅) helpful.

Slowly but surely, your patient's food allergies and autoimmune symptoms will fade. You can measure their progress with a complete stool analysis along the way. Once their heels are in better shape, you can feel pretty confident that they're out of the woods.

Resources

- Giannella RA, Broitman SA, Zamcheck N. Influence of gastric acidity on bacterial and parasitic enteric infections. *Ann Intern Med*, 1973;78:271-276.
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- Du Moulin GC, Paterson DG, Hedley-Whyte J, et al: Aspiration of gastric bacteria in antacid-treated patients: a frequent cause of postoperative colonisation of the airway. *Lancet*, 1982;1:242-245.
- "What Is Gut Dysbiosis (Plus Associated Conditions)?" [PranaThrive.com](https://pranathrive.com).

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