



# Diabetic Foot Blisters

## About the Doctor

Terence D. Bredeweg, DPM



A West Michigan native, Dr. Terence Bredeweg was born and raised in the Grand Rapids area. He earned his bachelor's degree in cell and molecular biology from Grand Valley State University, then moved to the Chicago area to earn his doctor of podiatric medicine from the William M. Scholl College of Podiatric Medicine at Rosalind Franklin University.

Dr. Bredeweg returned to Michigan for his podiatric surgical residency at Henry Ford Wyandotte Hospital. He then moved back to the west side to join Kalamazoo Podiatry, and later became a partner in the practice in January 2015. He became lead podiatrist in January 2016, after Dr. Redmond's retirement from full-time practice.

Dr. Bredeweg believes that spending time with patients, educating them about their condition and treatment options, and helping them feel empowered to make decisions about their health care are key to providing the best outcomes.

In his free time, you might find Dr. Bredeweg reading a book or watching the game. He also enjoys outdoor activities, including golf, fishing, and skiing.

Diabetes has a hand in many major health issues, such as peripheral neuropathy, vascular disease, kidney damage, vision impairment, slowed healing, and foot ulcers. A condition that often avoids the lime-light is diabetic foot blisters.

Blisters frequently crop up due to excessive friction; however, diabetic foot blisters (DFBs) can also manifest due to high blood sugar levels that compromise skin integrity, enabling DFBs to seemingly erupt spontaneously, apart from friction.

DFBs can appear as solo acts or in clusters. Their size varies. Many are small and round; others measure several inches and/or have an irregular shape. They tend to mimic the look of a blister that develops as a result of a bad burn, but most times they're painless. With proper care, they frequently heal on their own without any complications. However, with the threat of infection and ulceration heightened for diabetics, professional medical attention is strongly advised. Never puncture, or "pop," a DFB at home, which increases the risk of infection.

Podiatric care at our office may include the following:

- Deroofing or draining ("aspirating") the blister(s).
- Antibiotic or steroidal cream or ointment.
- Bandaging.
- Evaluation for the possibility of a more serious skin condition.
- Saline compress to relieve itching and irritation.

Patients should practice meticulous foot hygiene, wear comfortable and properly fitted shoes, and conduct daily foot checks, as diabetic peripheral neuropathy can impair sensation and cause one to miss a DFB.

The main goal with DFBs is to head off infection and prevent ulceration. They need to be taken seriously.

If you experience any persistent foot or ankle discomfort, turn things around by scheduling an appointment with our office.

# April Is National Foot Health Awareness Month!

## 'Protuberant Disturbances'

Did you know the word "bunion" is derived from the Greek word for "turnip"? A red, bony bump at the base of one's big toe does merit turnip comparisons.

Turnips aside, that knob-like bump is a result of shifting bones, tendons, and ligaments in the metatarsophalangeal (MTP) joint, the bridge between your big toe and the rest of your foot. Genetics plays the lead role in 70%–80% of cases of bunion development. Elevated heels and shoes with narrow toe boxes accelerate the process. Conditions such as arthritis and gout sometimes mimic a bunion.

Women are far more susceptible to bunions than men. In addition to genetics and footwear, women's higher estrogen levels can relax connective tissue, which makes the MTP joint less stable and the effects of ill-advised footwear more pronounced.

Fortunately, not all bunions are painful, and some develop so slowly as to never become a problem. Nevertheless, podiatric monitoring is wise, as progressing bunions can raise one's risk of arthritis, hammertoes, bursitis, and other painful conditions.

For patients with mild bunion discomfort, conservative remedies such as shoes with a wide toe box, shoe inserts or arch supports, nighttime bunion splints, toe spacers, over-the-counter medications, and possibly a steroid injection can bring relief.

Some bunions cross the line and interfere with quality of life, despite conservative treatment measures. Bunion correction surgery (bunionectomy) — typically an outpatient procedure — may be required to realign bones, ligaments, and tendons to relieve pain and restore mobility.

Our feet and ankles are beasts of burden. During National Foot Health Awareness Month, and beyond, commit to giving them the care and attention they deserve. Our practice stands ready to assist.

## Mark Your Calendars

- Apr. 1** April Fools' Day: What did the king say when the queen gifted him a fool for his birthday? "I've no use for one of these, but it was a nice jester."
- Apr. 1** Passover (sundown): Before the temple's destruction, Passover, Sukkot, and Shavuot were the three Jewish festivals requiring a pilgrimage to Jerusalem to bring offerings.
- Apr. 5** Easter: The Bible says that, upon his resurrection, Jesus had a glorified body — imperishable and unrestrained by space or time.
- Apr. 11** Submarine Day: Submarines have military, research, and tourist applications. The sandwich is pretty good too.
- Apr. 15** Tax Day: For nine years in the 1920s, the IRS was tasked with enforcing Prohibition.
- Apr. 22** Earth Day: It is estimated that one large deciduous tree can provide enough oxygen each day for four people.





# Covering Ground

Since 1988, the winner of the men's division of the Boston Marathon, which takes place April 20, has resided in either Kenya or Ethiopia all but four times. In the women's division, since 1997, all but three. Kenyan and Ethiopian dominance encompasses all the major marathons, not just Beantown's, and long-distance track events too.

A major factor in East African runners' success is the high altitudes in which they live and train, frequently 6,000 to 9,000 feet above sea level. "Thinner" air (i.e., less oxygen) spurs increased natural production of the hormone erythropoietin, which facilitates red cell production and an increased capacity to deliver oxygen to muscles. Lungs are also forced to expand a greater amount to take in as much oxygen as possible. Once conditioned for high altitudes, a runner's physiological advantage at other altitudes can be decisive.

But altitude doesn't explain everything. If it did, runners from the Andes Mountains or Himalayas would be just as dominant. A "running culture" is deeply ingrained in East African runners' daily lives. For example, most children live long distances from schools — no buses and the terrain isn't bicycle friendly — so they run, unknowingly building their aerobic base at a young age.

A diet that typically includes a high intake of complex carbohydrates and a low intake of processed foods certainly helps too, as does an overall simpler lifestyle in many cases.

East African runners train in large groups, a competitive-collaborative environment that motivates, encourages, and pushes everyone forward. Prominent in the highlands of Kenya and Ethiopia are organized running camps, where runners benefit from the tutelage of national heroes. Success breeds success.

For competitors participating in races involving Kenyan and Ethiopian runners, it might be best to focus on personal goals.



# Lamb Pastry Bundles

Yield: 1-1/2 dozen (2 cups sauce); prep time: 30 min.; cook time: 20 min.

Looking for a delicious and savory appetizer that combines tender lamb, flavorful herbs, and flaky pastry? Here you go!

## Ingredients

- 1 small onion, grated
- 2 teaspoons ground cumin
- 1 teaspoon paprika
- 1-1/2 pounds ground lamb
- 1 tablespoon olive oil
- 1 package (17.3 ounces) frozen puff pastry, thawed
- 2 logs (4 ounces each) fresh goat cheese, cut into 18 slices
- 1 large egg, lightly beaten

## Sauce:

- 3/4 cup mayonnaise
- 1 jar (24 ounces) roasted sweet red peppers, drained
- 1 garlic clove, minced
- Dash of crushed red pepper flakes

## Directions

1. Preheat oven to 400°. In a large bowl, combine onion, cumin, and paprika. Crumble lamb over mixture and mix well. Shape into eighteen 1/2-in.-thick mini patties. In a large skillet, cook patties in oil in batches over medium heat until a thermometer reads 160° and juices run clear, 3–4 minutes on each side.
2. On a lightly floured surface, unfold puff pastry. Roll each sheet into a 12x12-in. square. Cut each into 9 squares. Place a patty in the center of each square; top with cheese. Lightly brush egg over edges of pastry. Bring opposite corners of pastry over patty; pinch seams to seal tightly.
3. Place seam side up on a 15x10x1-in. baking pan; brush with egg. Bake until pastry is golden brown, 18–22 minutes.
4. Place sauce ingredients in a food processor; cover and process until blended. Serve with pastry bundles.

Recipe courtesy of [www.tasteofhome.com](http://www.tasteofhome.com).



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See page one.

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## Think Before You Ink

Many people like to express themselves through body ink: a tattoo. Sometimes a foot or ankle is the chosen canvas for this work of art. Some notes of caution....

The top of the feet and ankle areas do not have much muscle between the skin and bones. The tattooing needle is pretty much vibrating directly against bone and a dense network of nerves. If you are pain sensitive, foot and ankle tattoos will test your mettle.

In addition, these areas are sometimes ensconced in sweaty socks and bacteria-infested shoes. A patch of skin on the mend from a tattoo can more easily become infected in such an environment. Friction doesn't help either.

Impaired circulation in the feet can slow the healing process for the tattoo area and give infection an opening. Inadequate circulation has many causes, including various diseases, inactivity, obesity, smoking, and high blood pressure. If you notice redness, heat, or discharge, don't waste time in contacting our office or your personal care physician.

In addition, those with peripheral artery disease already have compromised circulation; those with diabetes are at greater risk for poor circulation and diminished nerve sensation. Don't schedule a foot or ankle tattoo without consulting our office. An infection can quickly devolve into a nonhealing ulcer — a dangerous, potentially life-threatening development.

There is also the matter of potential tattoo removal in the future. Bacteria, infection, and pain sensitivity can rear their ugly heads then, too, with the added variable of possibly needing multiple tattoo removal sessions.

If you have questions or experience foot or ankle issues due to a tattoo or tattoo removal, please contact our office.

