

Patient Guide



Healing your diabetic foot ulcer with Dermagraft®



 **Dermagraft.**
Get Closure.

When is your next appointment?

Date	Time	Progress

An active approach for healing diabetic foot ulcers

A chronic foot ulcer (open wound that doesn't heal) is a serious and all-too-common problem for patients with diabetes. Standard care is often not enough to close the wound and get you back on your feet.

That's why your healthcare provider has chosen Dermagraft, an FDA-approved safe and effective therapy that assists the healing process. Dermagraft has been shown to heal foot ulcers faster, and more often, than basic treatment without this product.¹

This Patient Guide briefly explains what you should know about Dermagraft, and what you can do to help make your treatment successful.

You'll learn basic information, such as how to take care of your wound to promote healing. This guide will answer many of the questions commonly asked by patients.

This Patient Guide is not intended to give you all the information you need or to substitute for professional medical advice. If you have any questions, contact your physician or other healthcare provider.

What is Dermagraft?



Dermagraft is a safe and effective “skin substitute” that is placed on your wound to cover it and to help it heal. It is manufactured in a sterile environment. Dermagraft stimulates your own skin cells to multiply and heal your wound. It also contains a temporary mesh fabric that will eventually dissolve and go away by itself.

Dermagraft is used to treat foot ulcers that have been present for at least 6 weeks in patients with diabetes. It is used together with standard methods of treating foot ulcers, including cleaning and preparing the wound, applying cover dressings to hold it in place, and wearing special shoes to take the pressure off the sore (called “off-loading”).

What makes Dermagraft unique?

Dermagraft:

- Is an advanced wound care product that contains living human skin cells
- Incorporates patented technology that was developed through many years of research
- Heals ulcers faster than standard treatment that does not include Dermagraft

How can I be sure it's safe?

Dermagraft is manufactured under closely controlled conditions and thoroughly tested throughout the manufacturing process to make sure that it is free from any contaminants.

How does Dermagraft therapy begin?

Before you begin therapy, your healthcare provider will perform a physical examination and explain the types of tests and treatments you will be receiving. You may also receive an x-ray to make sure that the bones in your feet are not infected. A culture (a sample of tissue to detect bacteria) may be performed on your wound to determine if an antibiotic is necessary.

Application

Your healthcare provider will explain that Dermagraft does not cause pain or irritation when in place. However, debridement—the necessary removal of old and dead tissue from the wound site—can cause some discomfort. Dermagraft will be placed on your wound regularly (typically, once a week).

Take the pressure off your wound

It is very important that you follow your healthcare provider's instructions involving the use of special shoes or devices to relieve pressure on the wound area. Walking on an ulcer may make it larger and can kill living cells.

Education

Your healthcare provider can educate you on the proper care of your foot ulcer after it has been treated with Dermagraft. Also, be sure to ask for information on skin care and nutrition, two essential things for keeping your feet healthy.



What else should I discuss with my healthcare provider?

Before beginning therapy, have a conversation with your healthcare provider to make sure that Dermagraft is right for you.

Allergies

Tell your healthcare provider if you have ever had any unusual or allergic reaction to bovine (cow) products or Dermagraft. Dermagraft manufacturing medium and storage solution may contain trace amounts of bovine proteins.

Pregnancy

Dermagraft has not been studied in pregnant women. Before treatment, make sure your healthcare provider knows if you are pregnant or if you may become pregnant.

Other medicines

Because some medicines may interfere with the healing of your wound, it is especially important that your healthcare provider know if you are taking any other medications.

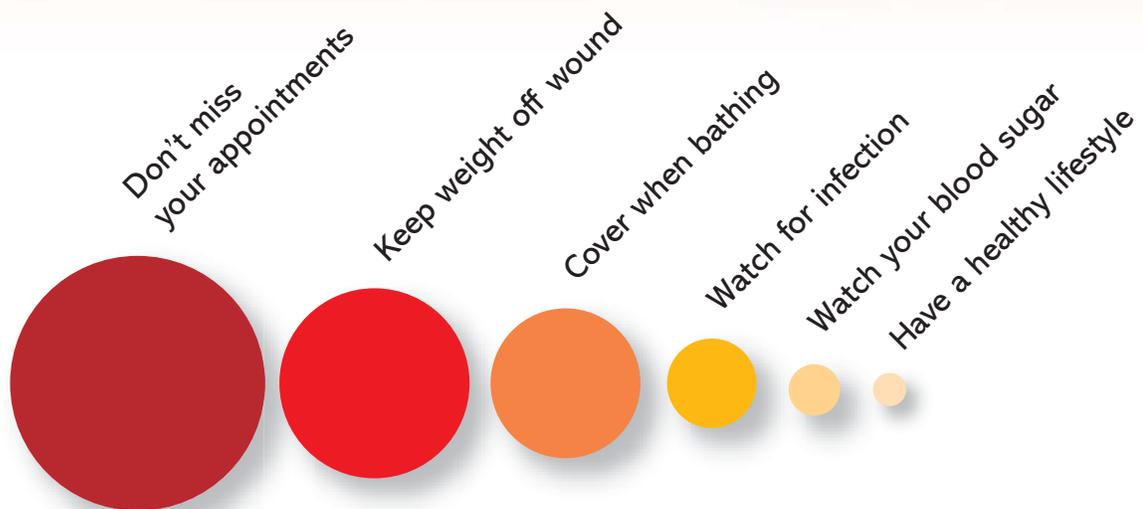
Related medical issues

Diabetic foot ulcers are commonly associated with other unwanted medical problems, including wound infection and inflammation, bone infection, allergic reaction, and wound drainage. Antibiotics, surgery, and other treatments may be required to manage these issues. If you have a medical problem that you think may be related to the treatment of your foot wound, talk to your healthcare provider.



What can I do to help my wound heal?

For your wound treatment to succeed, you must follow all of your healthcare provider's instructions.



Keep your medical appointments

Attend all your scheduled appointments so that your healthcare provider can check your progress, make any necessary treatment changes, and place a new piece of Dermagraft on your wound as needed.

Keep weight off the treatment area

Your doctor may recommend that you wear something on your foot to relieve pressure around the ulcer, such as a custom-made insole, shoe, or even a cast or brace. Your healthcare provider may also recommend that you use a cane, walker, crutches, or a wheelchair. Follow your healthcare provider's directions closely and use the device as instructed.

Always keep as much pressure off your wound as possible. Increased pressure will slow the healing process. Just one step on an unprotected foot can slow the healing process. More information about how to keep the pressure off your foot is provided on page 10 of this booklet.

Cover the treatment area while bathing

It is critical that you keep the wound and dressings dry. Your healthcare provider will explain how to keep your dressings covered while bathing.

Look for signs of infection

Call your healthcare provider immediately if you notice any changes in the wound. Signs of infection may include, but are not limited to:

- A rise in temperature (fever)
- An increase in blood sugar
- Swollen, red, or red-streaked skin near the wound
- Discharge, drainage, foul odor, warmth, and/or pain around the wound area

Remember to take all of your prescribed antibiotics, if applicable.

Watch your blood sugar

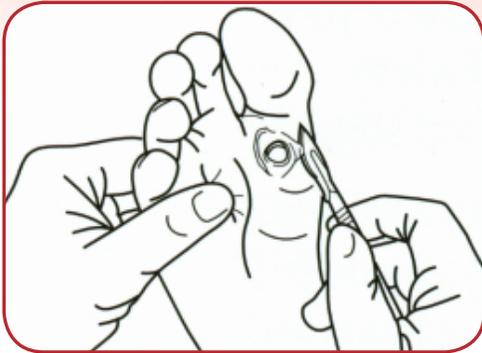
According to the American Diabetes Association (ADA), keeping your feet healthy starts with taking care of your diabetes. Check your blood sugar as directed by your healthcare provider, to make sure that your blood sugar is within your target range every day because high blood sugar makes it harder to fight infection and to heal wounds.²

Have a healthy lifestyle

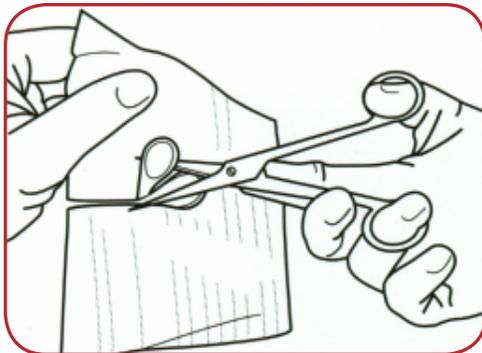
The better your overall health, the better the chances that your wound will heal. Your blood carries oxygen and other metabolic products needed to help the healing process. If you smoke, stop—nicotine in tobacco products can constrict blood flow to the wound site and prevent proper healing.

For more helpful tips on foot care for patients with diabetes, or to get general information on diabetes, call the ADA at 1-800-DIABETES (342-2383) or visit www.diabetes.org on the Internet.

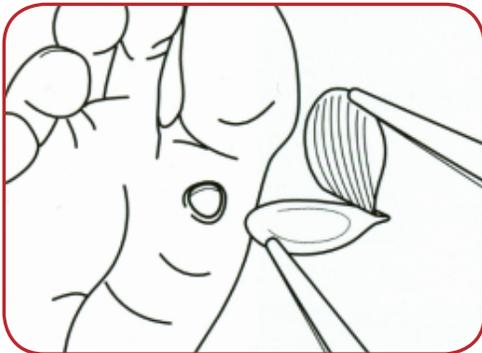
How is Dermagraft applied to my wound?



First, your healthcare provider will use a sharp instrument to remove dead or unhealthy skin around your wound through a process called debridement, and then he or she will clean the wound with a sterile saline solution.



Dermagraft is then thawed, rinsed, and cut to the size of your wound.



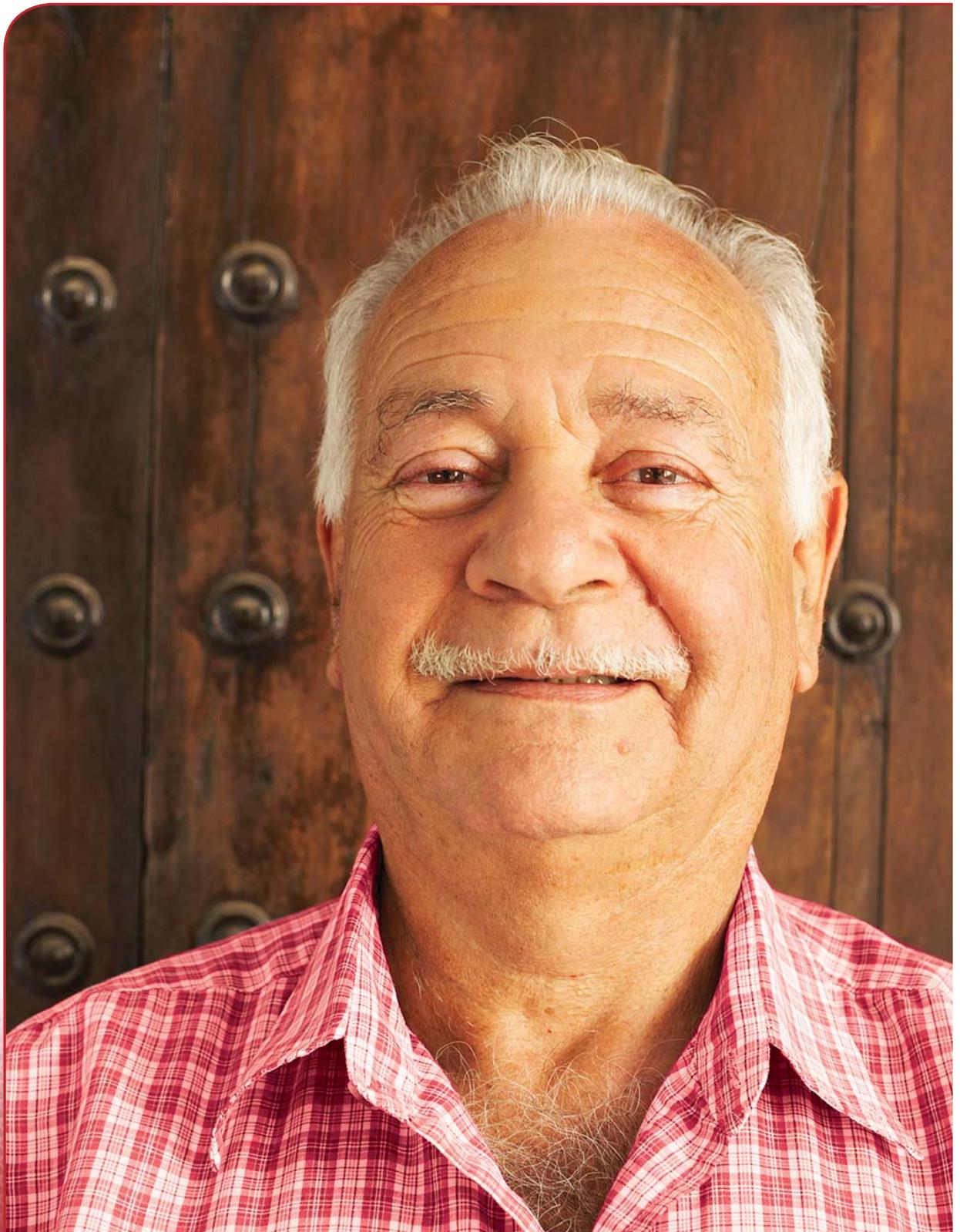
Finally, Dermagraft is placed on your wound and covered with an appropriate secondary dressing.



Your healthcare provider will apply Dermagraft to your wound on a regular schedule, typically once per week. Dermagraft may be applied to your wound up to 8 times or until your healthcare provider determines no further applications are necessary.

What special precautions should I take?

Your healthcare provider will instruct you to always wear special treatment shoes or to use other off-loading devices to reduce the amount of weight on your foot in order to help heal your wound.



Steps for successful off-loading

- 1** Wear the special treatment shoe or off-loading device prescribed by your healthcare provider. Do not go barefoot, even when inside. Remember, just one step on your unprotected foot may slow your healing progress or might displace the Dermagraft.
- 2** If your healthcare provider has asked you to use a walking aid such as a cane, crutches, or walker, be sure to use this aid according to the instructions. These devices will help you with your balance, especially if you are not used to wearing a special shoe.
- 3** If your special shoe or off-loading device does not seem to fit properly, let your healthcare provider know immediately. Report any new areas of redness or irritation to your healthcare provider. Small adjustments may be needed to ensure optimal healing and to prevent new wounds from developing.
- 4** If a shoe insert becomes worn out, let your healthcare provider know immediately.
- 5** If your walking aid is not comfortable to use, or you are having problems with it, let your healthcare provider know immediately.
- 6** Wear clean, dry, properly fitting socks with your treatment shoe. Do not wear socks or stockings that are torn, have been mended, or have seams in them.

**Always remember,
if you are not sure what to do,
call your healthcare provider for advice.**

References: **1.** Gentzkow GD, Iwasaki SD, Hershon KS, et al. Use of Dermagraft, a cultured human dermis, to treat diabetic foot ulcers. *Diabetes Care*. 1996;19:350-354. **2.** American Diabetes Association. Foot complications. <http://www.diabetes.org/type-1-diabetes/foot-complications.jsp>. Accessed March 5, 2007.

Dermagraft

Human Fibroblast-Derived Dermal Substitute

Essential Prescribing Information

Numbers in parentheses () refer to sections in the Directions for Use.

Device Description: Dermagraft is a cryopreserved human fibroblast-derived dermal substitute. (1)

Intended Use/Indications: Dermagraft is indicated for use in the treatment of full-thickness diabetic foot ulcers greater than 6 weeks duration, which extend through the dermis, but without tendon, muscle, joint capsule, or bone exposure. Dermagraft should be used in conjunction with standard wound care regimens and in patients that have adequate blood supply to the involved foot. (2)

Contraindications:

- Dermagraft is contraindicated for use in ulcers that have signs of clinical infection or in ulcers with sinus tracts
- Dermagraft is contraindicated in patients with known hypersensitivity to bovine products, as it may contain trace amounts of bovine proteins from the manufacturing medium and storage solution (3)

Warnings: None (4)

Precautions:

Caution: The product must remain frozen at $-75^{\circ}\text{C} \pm 10^{\circ}\text{C}$ continuously until ready for use.

Caution: Do not use any topical agents, cytotoxic cleansing solutions, or medications (e.g., lotions, ointments, creams, or gels) on an ulcer being treated with Dermagraft as such preparations may cause reduced viability of Dermagraft.

Caution: Do not reuse, refreeze, or sterilize the product or its container.

Caution: Do not use the product if there is evidence of container damage or if the date and time stamped on the shipping box has expired.

Caution: Dermagraft is packaged with a saline-based cryoprotectant that contains 10% DMSO (Dimethylsulfoxide) and bovine serum. Skin and eye contact with this packaging solution should be avoided.

Caution: Dermagraft has not been studied in patients receiving greater than 8 device applications.

Caution: Dermagraft has not been studied in patients with wounds that extend into the tendon, muscle, joint capsule, or bone. Dermagraft has not been studied in children under the age of 18 years, in pregnant women, in patients with ulcers over a Charcot deformity of the mid-foot, or in patients receiving corticosteroids or immunosuppressive or cytotoxic agents.

Caution: To ensure the delivery of metabolically active, living cells to the patient's wound, do not hold Dermagraft at room temperature for more than 30 minutes. After 30 minutes, the product should be discarded and a new piece thawed and prepared consistent with Preparation for Use instructions.

Caution: The persistence of Dermagraft in the wound and the safety of this device in diabetic foot ulcer patients beyond 6 months has not been evaluated. Testing has not revealed a tumorigenic potential for cells contained in the device. However, the long-term response to these cells is unknown.

Caution: Always thaw and rinse product according to the Preparation for Use instructions to ensure the delivery of metabolically active, living cells to the patient's wound.

Caution: Do not use Dermagraft after the expiration date indicated on the labeled unit carton. (5)

Adverse Events: In clinical studies conducted to date, the overall incidence of reported adverse events was approximately the same for patients who received Dermagraft compared to those who received the Control treatment. (6)

Maintaining Device Effectiveness: Dermagraft must be stored continuously at $-75^{\circ}\text{C} \pm 10^{\circ}\text{C}$. Dermagraft must be thawed and rinsed according to the Preparation for Use instructions. After the initial application of Dermagraft, subsequent sharp debridement of the ulcer should continue as necessary. Additional wound preparation should minimize disruption or removal of previously implanted Dermagraft. (13)

Patient Counseling Information: After implantation of Dermagraft, patients should be instructed not to disturb the ulcer site for approximately 72 hours (3 days). After this time period, the patient, or caregiver, should perform the first dressing change. The frequency of additional dressing changes should be determined by the treating physician. Patients should be given detailed instructions on proper wound care so they can manage dressing changes between visits. Compliance with off weight-bearing instructions should be emphasized. Patients should be advised that they are expected to return for follow-up treatments on a routine basis, until the ulcer heals or until they are discharged from treatment. Patients should be instructed to contact their physician, if at any time they experience pain or discomfort at the ulcer site or if they notice redness, swelling, or discharge around/from the ulcer. (8)

How Supplied: Dermagraft is supplied frozen in a clear bag containing one piece of approximately 2 in x 3 in (5 cm x 7.5 cm) for a single use application. The clear bag is enclosed in a foil pouch and labeled unit carton.

Caution: Dermagraft is limited to single-use application. Do not reuse, refreeze, or sterilize the product or its container.

Dermagraft is manufactured using sterile components and is grown under aseptic conditions. Prior to release for use, each lot of Dermagraft must pass USP Sterility (14-day), endotoxin, and mycoplasma tests. In addition, each lot meets release specifications for collagen content, DNA, and cell viability.

Dermagraft is packaged with a saline-based cryoprotectant. This solution is supplemented with 10% DMSO (Dimethylsulfoxide) and bovine serum to facilitate long-term frozen storage of the product. Refer to the step-wise thawing and rinsing procedures to ensure delivery of a metabolically active product to a wound bed. (9)

Customer Assistance: For product orders, technical support, product questions, reimbursement information, or to report any adverse reactions or complications, please call the following number which is operative 24 hours a day:

Advanced BioHealing Customer Service

1-877-Dermagraft

1-877-337-6247

Caution: Federal (U.S.) law restricts this device to sale by or on the order of a physician (or properly licensed practitioner).

Manufactured and distributed by:

Advanced BioHealing, Inc.

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US PAT Nos 4,963,489; 5,266,480; 5,443,950

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