

DIABETIC FOOT

Important
to know



What is a diabetic foot?

A diabetic foot is an ulcer or tissue destruction of the foot resulting from diabetic complications. The ulcer is often accompanied by infection.

Some facts:

- ▶ 15% of all diabetics can develop a “diabetic foot”.
- ▶ At any given time, between 4% and 10% of diabetics in society suffer from ulcers.
- ▶ 2-4% of patients underwent foot amputation.
- ▶ 70-90% of amputations in the western world are due to diabetes.

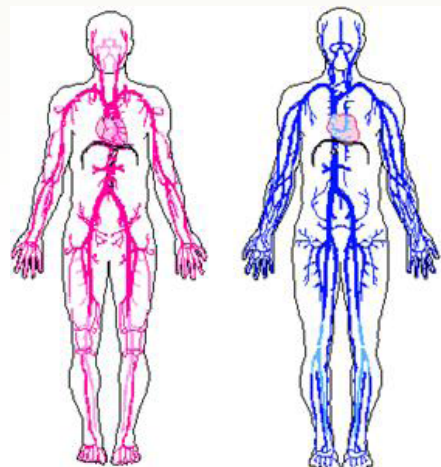
Factors

Peripheral neuropathy - lack of nerve sensitivity. It affects up to 50% of diabetics.

Causes: impairment of the blood supply to the nervous system. The high sugar content damages the nervous membrane.

It is characterized by tingling, numbness, sleeping in the extremities, instability, absence of heat/ cold sensation, burning sensation, and increased sensitivity to touch.

Damage to the peripheral motor nerves causes muscle weakness and contributes to foot deformity.



Damage to the autonomic nerves contributes to the development of dry skin and cracks in the legs, and also increases the tendency to form thickened and hard skin.

Peripheral vascular disease reduces blood flow to the foot and thus increases trauma and slows wound healing.

Proper and appropriate care of your limbs is important to maintain their integrity and prevent complications, suffering and hospitalizations.

It is important to do the following daily.

Prevention of foot problems

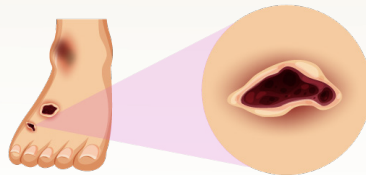
- ▶ Balance your sugar levels.
- ▶ Wash your nails and provide them with the following care.
- ▶ Check your feet regularly, even if you think there are no problems with them. You can use a magnifying mirror for this.
- ▶ Minor injuries can be healed on their own. If the injury does not respond to treatment quickly, you should seek professional help without delay.
- ▶ Cuts and minor abrasions should be washed with soap and a light bandage.
- ▶ If blisters form, do not pierce them; if they burst, tie them up like a small cut.
- ▶ Do not use strong medications such as iodine or commercial ointments.
- ▶ Do not apply the patch directly to the wound.

Signs of unhealthy feet

Seek professional help as soon as you notice the following signs:

- ▶ Any discoloration of the leg or foot.
- ▶ Any discharge from a hernia, cracks in the skin, calluses or under the nail.
- ▶ Swelling anywhere in the foot.

It is important to understand that the sensation of pain, heat and cold is dulled, and blood circulation is impaired. A minor and painless abrasion can be invaded by bacteria causing infection, which can spread very quickly due to weakened blood circulation. If these wounds are not healed **quickly**, serious infections can develop. Keep in mind that even a small infection can destabilize diabetes.



Cleanness

- ▶ Wash your feet daily with warm water up to 37 degrees.
- ▶ Use mild soap.
- ▶ After washing, wash your feet thoroughly and dry the skin very gently, especially between the toes.
- ▶ Do not force your fingers apart.
- ▶ Wipe the skin between your fingers with a soft towel.
- ▶ Do not rub your skin.

Cutting your nails

- ▶ Toenails should be cut after bathing when they are soft. Cut your nails in a straight line. Don't cut your nails too short.
- ▶ Do not allow the edges of the nail to grow into the nail groove. They should grow straight and extend beyond the grooves.
- ▶ Do not use sharp objects to clean the free end of the nail or nail grooves.
- ▶ If your toenails grow in and hurt or are difficult to cut, see a podiatrist or pedicurist who specializes in this area.
- ▶ If you have a problem with your foot, continue visiting your podiatrist.

Dry skin and wet skin

- ▶ Every day apply a cream to increase the oiliness of the skin (not between the toes).
- ▶ After washing your feet, gently apply the cream to the skin. If your skin sweats, dab your feet, especially between the toes.
- ▶ Do not spread your fingers with pressure devices.



Heat and cold

- ▶ Do not take too hot bath. The water temperature should not exceed 37 degrees Celsius. Measure the temperature of the water with a bath thermometer.
- ▶ Do not check the temperature of the water with your hand, as the nerves in the arms and legs may become numb.

Check with your elbow if necessary.

- ▶ Do not sit too close to heaters or fireplaces.
- ▶ Avoid using heating pads or electric sheets.
- ▶ Preferably use white cotton socks.
- ▶ Do not let your feet get wet. If you have wet feet, you should dry them and put on dry socks and shoes.

Shoes and socks

- ▶ Wear shoes that fit your foot with laces and padded corners.
- ▶ Do not wear shoes that you think you need to get used to.
- ▶ It is recommended that custom shoes or insoles be adjusted according to existing pressure points in the foot.
- ▶ Buy shoes in the afternoon when your feet are swollen. This will help you select the correct size.
- ▶ It is recommended to wear new shoes for several hours every day until they completely fit your foot.
- ▶ The inside of the shoe should be soft and porous. The sole should be thick.
- ▶ It is important that you have at least 2 pairs of shoes.
- ▶ It is recommended to wear closed shoes to ensure full protection of the foot.
- ▶ Check the inside of the shoe daily with your hands for foreign objects and rough spots.
- ▶ Do not put pressure on your socks / tights.
- ▶ Wear cotton socks and change them daily.



- ▶ Do not go barefoot indoors or outdoors. Do not walk barefoot on the beach.

Calluses and hardenings

- ▶ Do not treat calluses and hardenings on your own and do not let an unskilled person do it for you. The treatment should be handled by a pedicurist or podiatrist.
- ▶ Do not use callus removers - they contain dangerous acids.
- ▶ Any callus or hardening of the skin, ingrown toenails and other foot problems should only be dealt with by a podiatrist!
- ▶ Make sure your podiatrist is a specialist and has a license.

Vacation Feet Care

Taking a long vacation can cause leg problems. Therefore, you need to make sure that the trip goes without problems, namely:

- ▶ Long travel by train, bus, or plane can cause swelling in the legs. Walk down the aisle every half hour.
- ▶ Take another pair of shoes with you on your trip.
- ▶ If you usually wear hospital-provided shoes, try not to take them off, even when on vacation. Remember that switching to normal shoes can cause sores and ruin your vacation.
- ▶ Do not walk barefoot on the beach or in the water. Only wear plastic beach sandals.



- ▶ Avoid sunburn on feet and soles. Use a sunscreen with a high sun protection factor or cover your body.
- ▶ If your skin is very dry in the sun, apply a moisturizer to your feet. Pay special attention to your heels, where dry skin cracks easily.
- ▶ Bring bandages with you on vacation to heal minor cuts.
- ▶ Clean up any small blister, cut or scratch with diluted disinfectant and apply a dry bandage.
- ▶ Check your feet daily for bruising, swelling, or discoloration. If you experience these problems, contact a local doctor.

Treatment of foot ulcers

- ▶ In the event of an injury to the foot, such as a cut, wound, fungus, or non-healing wound, seek medical attention.
- ▶ Don't panic if you develop a foot ulcer - ulcers are almost always amenable to careful treatment. Call your doctor immediately.
- ▶ Change a clean dressing daily as directed by your doctor.
- ▶ If you find it difficult to dress on your own, ask a nurse for help.
- ▶ Be sure to lift the limb, avoid physical activity until recovery.
- ▶ Be sure to see a podiatrist regularly. If the ulcer worsens, see your doctor immediately.
- ▶ If you are taking antibiotics, make sure you have a supply of the medicine and that you are taking it correctly



Diet recommendations

Diabetic foot is one of the most common complications of diabetes caused by ischemia (poor blood supply), neuropathy, and infection of the foot. Over time, the blood supply to this area decreases due to damage to the blood vessels. In addition, the blood vessels that feed the nerves in these areas are affected, resulting in an infected ulcer.

Treatment for a diabetic foot depends on various factors and requires attention to your general condition. Treatment includes debridement (removing dead tissue and stimulating and speeding up the healing process), antibiotic treatment (to prevent bacterial growth in the necrotic area) and nutritional therapy - stimulating building processes by increasing calorie and protein intake.

In case of a diabetic foot, unbalanced and untreated diabetes leads to amputation of the injured limb.

Consequently, sugar balance is essential for wound healing by switching to a low-sugar diet, rich in calories and protein as needed.



Recommendations for lowering sugar levels:

1. Obligatory are 3 main meals a day and 3-4 snacks. **Breakfast** is a very important meal as it breaks the night fast and supplies the body with the energy it needs for the morning hours. **Don't skip breakfast.** **A night-time snack** is important as it provides the right amount of glucose at night.
2. Limit your consumption of simple sugars: sugar, honey, alcohol, chocolate, jelly, fruit juices, jams, sugary drinks, sweets, ice cream, cakes and cookies.
3. It is recommended to eat complex carbohydrates such as bread, flour, rice, potatoes, pasta, noodles, cereals, pasta, burgul, semolina, barley, corn, sweet potatoes and green peas. This group also includes legumes: hummus, dried peas and beans.



Complex carbohydrates should be distributed throughout the day as recommended by a dietitian.

1. Dietary fiber. Foods containing dietary fiber should be preferred. Dietary fiber is a carbohydrate that is not broken down during digestion and is found in foods such as raw bread, whole rice, whole-flour pasta, burgundy, lentils, peas, beans, hummus, and soybeans.

A variety of vegetables are also a source of dietary fiber. Vegetables of any kind, boiled or raw, should be eaten, preferably in a peel (no potatoes, peas and corn).

2. Fruits contain simple sugar. Their consumption is allowed, but limited. Note that they are rich in vitamins and dietary fiber and are recommended for daily consumption. The portion of fruit is determined by the nutritionist as part of the menu. Each fruit counts as a separate meal.
3. Artificial sweeteners for cold/ hot drinks are allowed: sucrose, golden sucrose, sweet and light, dietype, sucra diet, sucra light, SWEET-DIET, Matok Vekal Zahav. These are all calorie-free sweeteners. Products that do not contain sugar can be consumed on the recommendation of a nutritionist in a personal menu.
4. It is recommended to reduce the consumption of animal fats, preferably to give preference to olive/ rapeseed oil, margarine and low-fat butter. It is advisable to reduce the consumption of meat products



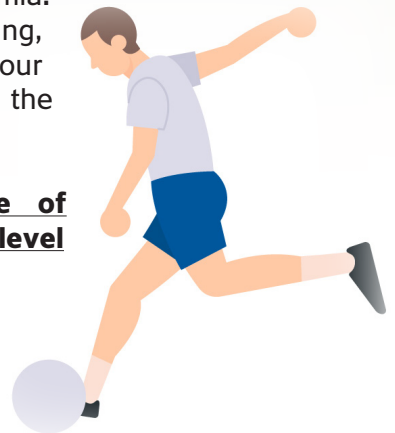
and fats: hamburger, kebab, sausages, minced meat (purchased), lamb, fatty veal, beef and internal organs.

Chicken, turkey, fish, lean beef, and veal with no visible fat / turkey pastrami and vegetable substitutes can be eaten. Eliminate fatty processed foods such as jahnun, burekas, maluakh, cigars, pizza, and the like from your diet.

5. It is advisable to use fermented milk products up to 5% fat, while limiting the use of liquid dairy products. Liquid dairy products contain lactose, which is a milk sugar from the group of simple carbohydrates. The use of foods from this group should be limited, and they should be eaten with dietary fiber or vegetable fats. These foods should be spread across meals throughout the day. For example: a glass of milk during the day.
6. It is recommended to exercise for about 30 minutes without a break a day. Exercises should be done after a light meal containing complex carbohydrates to prevent hypoglycemia. Recommended activities: walking, swimming and bicycling. Consult your doctor before exercising and adjust the activity to the position of the foot.

Exercise should be avoided in case of unbalanced diabetes mellitus (sugar level above 300 mg% or hypoglycemia).

Have a piece of sugar/ sweetened juice/ sweet bar with you in case of hypoglycemia.



Enriching the menu with protein

Due to damage to skin tissue, it is very important to consume enough protein.

Protein is an essential component in the building of many tissues in the body, optimal maintenance and growth of the body, as well as other processes in our body.

During illness or after surgery/ injury/ infection/ burn, the body needs additional protein for rehabilitation.

Protein deficiencies can lead to fatigue, hair loss, muscle mass loss, damage to the immune system, and many other problems.

The highest quality proteins are animal proteins: lean red meat, turkey, chicken, fish, eggs and dairy products and cheeses, **which also contain carbohydrates in addition to proteins.**

Sources of vegetable protein: lentils, beans, soybeans, hummus and burgul.

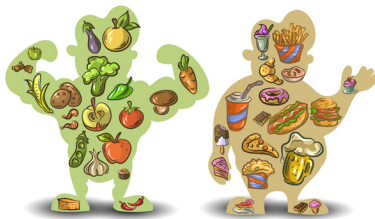
Millet, whole rice - **in addition to protein, they also contain a large amount of carbohydrates.**

Pumpkin and sunflower seeds, nuts, almonds and sesame seeds contain protein and fat.



Food components and the content of protein in them

Food product	Portion size	Average protein content (g)
Eggs	egg 1	6
Milk	glass	8
Low fat yogurt with fruit taste	cup	9
Natural low fat yogurt	cup	12
White cheese	g 100	15
Tuna	Can (113 g)	30
Fish	g 100	20
Chicken	g 100	25
Whole-grain rice	glass	6
White rice	glass	2
(Almonds (not roasted	almonds 20	10
Boiled lentils	glass	9



Social Work Service

Dear patients and family members,

Coping with ongoing illness creates insecurity and affects the patient and the family.

If you are admitted to a hospital, a social worker can answer a variety of questions, such as:

- ▶ Emotional support during a crisis or illness.
- ▶ Providing information, advice and instructing the patient and the family.
- ▶ Briefing on the exercise of rights.
- ▶ Help in planning the hospital discharge.

To contact a social worker during hospitalization, you can call the secretary of the department where you/ your relative is staying or the secretary of social services between 08:30 and 14:00 at 09-8609219.

If you need help with realizing your rights and/ or emotional support, you can contact the social services (social welfare department) at your place of residence and/ or a social worker at the HMO you are insured in.

We wish you good health!

Social service staff

Laniado Hospital

מנהל היחידה לאנדוקרינולוגיה וסוכרת:

ד"ר מרק ניבן

אסתר כפרי - מנהלת מרכז סכרת:

09-8609354

היחידה לכף רגל סכרתית (סיעודית ג'):

09-8609299

מזכירות:

טל: 09-8609312

בברכת בריאות טובה!

© כל הזכויות שמורות לבית חולים לניאדו



sakeret@laniado.org.il

| 09-860-93-12

www.laniado.org.il | 09-860-46-66 | רחוב דברי חיים 16 קרית צאנז, נתניה