

# HEALTHY FEET

Information for patients



Type 2 diabetes mellitus

Disease Management Programme



# HEALTHY FEET IN CASES OF TYPE 2 DIABETES MELLITUS – WHAT CAN I DO?

**More and more people are getting type 2 diabetes mellitus. Diabetic foot diseases are a possible later consequence that is to be taken seriously. If these are not diagnosed at an early stage and correctly treated, it can lead to problems.**

Therefore, do not let it get to that stage! The more you do actively for your health, the better the effect will be on the course of your disease. Take note of the following points in this regard:

## **A balanced diet**

It is best to choose a combination of plenty of fresh fruit and vegetables, wholegrain products and few animal foods. Try to eat as little sugar and fat as possible – ideally sugar-free! Drinking is very important – also ideally without sugar!

## **Adequate exercise**

Introduce more exercise to your everyday life and increase it gradually. Discuss with your doctor what type of movement is best for you and to what extent you can exert yourself.

## **Body weight**

With a balanced diet and adequate exercise, you can reduce obesity in the long term. It is important not to eat more than your daily energy requirement. You can achieve this with a low-fat mixed diet rich in fibre and in appropriate portion sizes.

## **Quit smoking**

Start a new smoke-free life. Your doctor will be happy to advise and support you in quitting smoking.

## **Regular medicine intake**

If you take medication to reduce blood sugar, ensure that intake is regular.

## **Diabetes education**

As part of a group diabetes discussion, you can find out everything worth knowing about diabetes, so that you can take action autonomously under your own responsibility.



**Have your feet checked once a year by a doctor, as damage can often occur unnoticed and painlessly.**

## **Foot examination**

To identify any consequent damage at an early stage, in the Active Therapy Programme special importance is attached to a regular foot examination by a doctor. This includes checking the pedal pulses (at the groin, back of the knee, inner ankles and instep), vibration sensation

(using a tuning fork), pressure perception and temperature sensation. This should be carried out once a year. If necessary, your doctor will refer you to diabetic foot outpatient department. You can view on our website what the procedure is for a diabetic foot examination.

# WHAT CAN HAPPEN?

**The diabetic foot is caused by circulation disorders and/or a reduced conductivity of the nerves. The danger is that the diabetic foot changes caused by nerve disorders are almost painless – and can therefore also develop unnoticed.**

## Circulation disorders

A narrowing of the blood vessels (arteries) can cause a restricted blood supply. The consequences depend on the site of the vascular constriction. They can occur in the calf, thigh or pelvis.

### INDICATIONS

- ... Cool and pale feet
- ... The tips of the toes and sides of the feet are bluish
- ... Skin is pale and thin
- ... Calf pain and calf cramp when walking
- ... Black discolouration of the tips of the toes and heels (= start of foot gangrene)
- ... Complaints are eased when standing still – also known as peripheral artery occlusive disease (PAOD). (Do not wait until your legs hurt when walking, stand still beforehand so that your muscles are not lacking a supply).

## Nervous disorders

A consistently high blood sugar level compromises the function of the nervous system, as it is supplied by the smallest blood vessels. The nerve fibres on the feet and legs are especially affected by this.

### INDICATIONS

- ... Warm and extremely dry feet
- ... Calluses, horny and cracked skin
- ... Frequent nail and skin fungus
- ... The start of tingling, pins and needles and paraesthesia
- ... Reduced vibration sensation
- ... Reduced pressure sensation
- ... Feeling of numbness, unsteady gait
- ... Burning pain and heat sensation especially at night and when at rest
- ... Reduced temperature sensation, causing the danger of burning or freezing
- ... Reduced or lost pain perception
- ... Development of hammer toes or claw toes

# ULCERATION

A restricted nerve function causes an incorrect burdening of the soles of the feet and consequently an increased development of horny skin and calluses. This can also lead to haematomas which, in the worst case, burst and form open sores. If these spread, amputation of parts of the feet may become necessary.

Circulation problems, e.g. at the toes or the forefoot can also lead to the development of ulcerations.

In order to counter this danger, in case of diagnosed circulation and/or nerve disorders, professional foot care is recommended (see also page 8).

All these complications develop slowly over a period of years. If the initial indications are



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Identified in time, one has the opportunity to intervene – before greater problems and open sores occur.

You can do a lot to prevent this. Through a thorough and regular self-checking of your feet, you can soon notice the smallest changes and injuries and react appropriately.

You can read on the following pages what you should look out for and what you can do in addition for the health of your feet.



## IMPORTANT

- ... Due to the nervous disorder, it is possible that you cannot feel pain. Even if wounds do not hurt, you must consult a doctor without delay!
- ... Avoid walking barefoot!  
To reduce the risk of injury, you should not walk barefoot!





## CHECKLIST

Always check your feet from all sides.  
You can take a good look at the underside  
of your feet with the help of a mirror

- ☐ Is the foot swollen?
- ☐ Does the foot feel warm?
- ☐ Can you see pressure sores or blisters?
- ☐ Does the foot have horny skin calluses or corns?
- ☐ Does the skin show changes or discoloration?
- ☐ Are there small wounds, cracks or scratches?
- ☐ Are the nails thickened or discoloured?
- ☐ Is a nail ingrown?
- ☐ Is the skin between the toes whitish (fungal infection)?

# HOW DO I TREAT IT CORRECTLY?

- ... For **dry, brittle skin** you can make improvements yourself through care measures and applying cream.
- ... In case of moist skin through **sweating**, rinse your feet several times a day and wear fresh cotton socks or stockings every day.
- ... In case of **slight horny skin development**, remove it carefully with a pumice stone. Never use a metal file or horny skin plaster!
- ... For **strong horny skin development** and corns, professional foot care by a pedicurist with additional qualifications for “diabetic foot” is recommended. Discuss this during the next appointment with your doctor!
- ... If you have **blisters, wounds or injuries**, use sterile compresses and consult your doctor without delay – even if you have no pain! Walk as little as possible until the wound has healed. Help necessary outings using **special pressure-relieving shoes**.
- ... **Infections** are usually combatted with antibiotics in a tablet form. This decision may only be made by the treating doctor.
- ... In case of **swelling, pronounced redness, heat, pain (signs of inflammation)** please consult your doctor!
- ... If there are **foot malpositions and pressure sores**, an orthopaedic shoemaker can help with suitable inserts and orthopaedic shoes.
- ... Any suspicion of **nail fungus** should be confirmed by your GP who can recommend further treatment if required.
- ... In case of **cold feet**, it should be medically established whether there is vascular damage. It is recommended to wear warm woollen socks that do not press. Massages, alternating baths and foot gymnastics can help! Never try to warm the feet with hot foot baths or radiant heaters. If there is a nerve disorder this can lead to serious burns! Visits to the sauna are only permitted after consulting your doctor.

Treat your feet right, because they carry you for a lifetime.

# DAILY FOOT CARE



- 1** Bathe your feet daily in lukewarm water (max. 37°C) but for no longer than 5 minutes! Use a mild soap.
- 2** Dry your feet carefully with a soft towel or disposable towel. Do not forget between the toes.
- 3** Treat calluses and horny skin only with a pumice stone, never with files or sharp blades! Brushing and massage gloves can cause skin irritations.
- 4** Always file your toenails straight. Do not use scissors, because of the risk of injury.
- 5** If there are corns, ingrown nails or significant calluses, have these removed by a medical pedicurist.
- 6** Always apply cream thoroughly to your feet, avoiding between the toes.
- 7** Never walk barefoot to avoid injuries.
- 8** Change your socks daily and ensure they fit without creases. Socks/stockings made of wool or with a high cotton content are preferable.
- 9** Check your shoes for foreign objects before putting them on.
- 10** Make sure that the shoes fit well and do not press.



## Professional foot care

In foot care for diabetics, hygiene and cleanliness are very important. Ensure that your pedicurist always works with disinfected instruments. Horny skin is removed exclusively with filing machines and not with surgical scalpels or other metal objects.

## The right shoes are worth gold!

Shoes that are too tight are the most common cause of foot problems. You should therefore always ensure that footwear fits well.

- ... A good shoe provides your foot with adequate space in its length, width and height. It has a firm sole, a flat heel, soft outer material. Wooden clogs, rubber boots and shoes with thick seams and eyelets are unsuitable.
- ... It is best to purchase shoes in the afternoon, as the feet usually swell a little over the course of the day. You can also buy optimal shoes at a sports shop, as jogging shoes fulfil all the suitable shoe requirements.
- ... If you have already had a foot wound, special shoe types e.g. with a special footbed may be necessary.
- ... In case of foot malpositions or toe amputations, customised orthopaedic shoes are usually required.

In Austria, all pedicurists trained for treating diabetes have a diploma and a title. The list of names of trained pedicurists is available at all training sites, many outpatient clinics, medical practices and on the Active Therapy website.

- ... Avoid (split) inserts, footbeds or reflexology inserts (danger of pressure sores causing blisters).
- ... Avoid orthopaedic shoes that stimulate circulation with pimples.
- ... Wear bathing shoes with a smooth insole.
- ... Feel inside your shoes before putting them on for any foreign objects.
- ... Always wear socks or stockings in closed shoes!



# KEEP YOUR FEET FIT!

For the following exercises, sit upright on a chair and do not lean. Your legs should stand comfortably on the floor at a right angle. Perform these exercises alternately with each

foot and with each leg. Repeat these approx. 10 times. You should not feel any pain when doing so.



**Exercise 1:**  
Claw and stretch the toes, relaxing in between.



**Exercise 4:**  
Raise the heel, rotate it outwards and then lower it again.



**Exercise 2:**  
Raise the heels and lower them again.



**Exercise 5:**  
Patter forwards with small steps and back again.



**Exercise 3:**  
Raise the front of the foot, rotate it outwards and then lower it again.



**Exercise 6:**  
Pick up a cloth with the toes.

**Exercise 7:**

Raise and stretch a leg, stretch the forefoot, relax it and then lower the leg again slowly.

**Exercise 10:**

Raise and stretch both legs, stretch the tips of the toes alternately, lower the legs again slowly.

**Exercise 8:**

Raise and stretch a leg, draw the tips of the toes towards you, then lower the leg again slowly.

**Exercise 11:**

Scrunch a newspaper up, smooth it again and then try to rip it.

**Exercise 9:**

Raise and stretch both legs, circle the feet and then lower the legs again slowly.

**Exercise 12:**

As a reward: massage/ stroke one foot with the other.



**With daily gymnastics you can stimulate the circulation in your feet.**



“Active Therapy – Managing Diabetes” is a treatment programme for patients with type 2 diabetes mellitus. Ask your doctor about it!

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