

# Understanding Wounds

A Guide for Patients and Their Families



MEDICAL UNIVERSITY  
OF VIENNA



Vienna Healthcare Group  
University Hospital Vienna

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### **Gender-inclusive spelling with asterisk \***

In this brochure, we write some words with a gender star. This means: We mean all people. Men, women and people who do not quite feel like a man or a woman.

### **Glossary:**

At the end of the brochure, you can find the explanations for difficult words.



Photo: iStock/Dusan Petkovic

## Preface

### **Dear Patient and Family,**

Understanding and Managing your Wound/Wounds can significantly impact quality of life.

In this brochure, you will find information on how to handle your wound and about important measures for wound care. We want to help you deal well with this challenge.

Please note: This brochure is a support for you. Only in a personal conversation, can the medical staff evaluate your very personal situation.

### **Your treatment team**

Professional Advice  
Good Company



## Understanding Wounds: A Brief Guide

Our **skin** is the **largest organ** of our body. It acts as a protective barrier. When the skin is damaged or hurt, it becomes a wound. This can happen for example through abrasions, burns or a surgery. A wound must heal as fast as possible.

A healthy human can do it by itself. There are different kinds of bandage materials to best support the healing. For every phase of the wound healing there are suitable bandage materials. When a wound is delayed or does not heal at all, it is called a **chronic wound**.

With scientific outcomes a **moist (hydro active) wound treatment** should be applied. Moist bandages encourages the natural healing process. It does not get gluey with

the wound area. As a result, there is a lower risk of infection.

Many patients report they feel less pain. The healing is much faster

### Phases of wound healing

The wound healing always happens in three phases:

1. **cleansing**
2. **tissue building**
3. **reparation**

The healing process of a chronic wound is disrupted.



Photo: iStock/Piyapong Thongcharoen

The most common causes for chronic wounds are:

- **Leg ulcer or venous ulcer**  
An ulcerous wound can be caused by a vascular disease. It is a deep, commonly moist wound that develops in the lower area of the leg. It can penetrate deep through multiple skin layers and can even reach the bone.
- **Pressure ulcer (decubitus)**  
A pressure ulcer is caused by continuous pressure on an area of the skin. For example those who are wheelchair users or bedridden people.
- **Wounds on the feet due to diabetes (diabetic foot ulcer)**  
High blood sugar level can damage the blood vessels and the nerve tracts. Therefore, it can often cause wounds on the foot, which can lead to an infection. For treatment of a diabetic foot wound to be successful, a patient's blood sugar level must be reduced to an optimum. That way more damage to the vessels and nerves can be prevented.
- **Wound healing disorder after an operation or injury.**  
Disorders during the wound healing may appear after a surgery or injury.
  - ✓ vascular disease
  - ✓ wound infection
  - ✓ bruise
  - ✓ fluid collection in the tissue
  - ✓ certain medications
  - ✓ malnutrition
  - ✓ loss of kidney function (kidney insufficiency)

## Types of Wounds

### Acute wounds:

These are fresh wounds. They should heal fully with the right treatment within 3 to 4 weeks.

### Chronic wounds:

Are wounds that might not heal even with the right treatment within 4 to 5 weeks. Or do not fully heal within a couple of month.

The most important requirement for the successful treatment of a chronic wound is to identify and treat the cause.

Chronic wounds can have different causes.



Photo: Pixabay/Eliola

## Identification of the cause of the wound

Before a treatment, the cause of your wound must be clearly identified. To do so, your **medical history** and the history of your wound situation must be explained to the medical staff. Often various forms of **examinations** will also need to be carried out. Your general condition, nutritional status and possible **concomitant** illnesses will also be taken into account for the planning of the therapy.

Sometimes **further examinations** are necessary. For example an ultrasound examination (transcranial colour coded duplex sonography), a radiography (angiography = visualization of the vessels with contrast agent) or another imaging procedure such as CT (computed tomography) or MRI (magnetic resonance imaging).

Sometimes **tissue samples** for the examination under the microscope (histology) or for detection of pathogens (microbiology) will be necessary. The goal is to clarify the cause or the reason for the poor healing.

## Treatment goal

The treatment of chronic wounds can be differentiated between three treatment goals:

- **Curative**  
Where the complete healing of a wound is the goal.

- **Non curative**  
In cases where the complete healing of a wound is not possible. This could be the result of personal factors, aspects of the surrounding, underlying illnesses, which cannot be treated.

- **Palliative**  
Where the chronic wounds are no longer curable. In such cases, the central objective are controlling and relieving symptoms such as pain, odour and body image disorder.

In all cases, patients and their families will be provided with care and guidance appropriate to their circumstances.



Photo: pixabay/Bru-nO

## Treatment of chronic wounds

### Guidelines for wound cleansing

The definition of **wound cleansing** (*debridement*) usually means to remove dead tissue from the wound surface. This form of wound cleansing is always the first step in the treatment. Wound cleansing is essential for the healing process.

### Wound cleansing can be carried out using various methods.

- **Bio surgical:** This procedure involves the insertion into the wound of a sterile bag containing specially-bred fly maggots. The secretion of maggots contains enzymes that turn the dead tissue into liquid. The maggots then take in the liquid as food and therefore clean the wound.
- **Autolytic:** hydro gel moisturises the wound and supports the body's own degradation process.
- **Mechanical or physical:** Any debris in the wound is wiped away or removed through the application of anti-bacterial bandaging of the wound surface.
- **Osmotic:** For this procedure, medical honey is used. It has a bacterial reducing effect and removes fluid from the surrounding tissue. This reduces swelling and stimulates wound healing.
- **Enzymatic:** Active ingredients containing enzymes in the form of ointments and gels slowly support the removal of debris.

### The selection of the suitable bandage

Before a bandage is selected, the wound has to be examined. It is vital to identify in which phase the wound currently is: either the cleaning phase, tissue building phase or reparation phase. That is why it is referred to as a phase-oriented local therapy.

Moist wound treatment has prevailed because it speeds up wound healing. In a moist milieu, the cells are more vital and are better taken care of. Therefore, there are different bandages available. For example superabsorber, transparent adhesive bandages, hydrocolloid bandage, hydrogel and more. These bandages provide the best possible support in moist wound treatment.

For disinfection of the wound, there is a broad palette of solutions. For some wounds, a negative pressure wound therapy can be used.

### There are three key factors considered for a selection of wound dressings:

- **Reduction of bacterial contamination:** Bacterial contamination in the wound can lead to infection hence it must be reduced by using the suitable bandages.
- **Seeping fluid:** fluids come out of the wound. Suitable bandages can absorb this fluid.
- **Regularly wound cleansing:** This has a positive effect on the whole healing process.



## Treatment of the underlying condition(s)

In order to heal chronic wounds, the underlying condition must be treated first.

- **Venous disease in a leg ulcer**, varicose veins (ulcus cruris venosum) could be surgically removed. Compression therapy is required if the weakness in the leg veins emerged due to a thrombosis. Such therapy uses compression stocking or compression bandages.
- **Leg ulcer as a result of narrowed or clogged arteries** (ulcus cruris arteriosum), arterial supply can be improved through stretching the vessels or through a bypass surgery.
- **Certain pressure** relief must be provided to relieve **pressure ulcer** (decubitus).

- **Diabetic foot** ulcer requires an optimal blood sugar level and/or an improvement in blood circulation.

## Surgically closing a wound

After treatment of the underlying condition and the removal of any dead tissue, most wounds show a significant improvement towards the healing. Moist (hydro active) bandages support the wound healing — in the most cases even until the wound completely closed.

In certain situations, however a wound has to be surgically closed.

For example, if it is expected that an closed (or open) wound is not stable enough for example, pressure or bed sores.

Or if a very large wound is expected to involve a very long treatment time, for example a large area ulcer on the leg.

## How do you recognize an infection?

There are bacteria on every chronic wound that can affect it differently. Certain bacteria have little or no effect on the wound healing. This is also the case with a low bacterial load. However, higher bacterial loads and certain bacteria can lead to a wound infection.

**An infection can be recognized by clear inflammation signs such as:**

- redness
- swellings
- warmth: the area around the wound feels warmer
- pain
- function restriction in the wound area

Additional signs of a inflammation are: **more wound fluids, no progression on the wound healing, infection signs** like fever, chills or high inflammatory level in the blood.

In case of an infection, local antiseptic measures directly on the wound may not be enough. An **antibiotic** (tablets or infusion) may needs to be taken.



Photo: iStock/DNY59

**Why local antibiotics should not be used for a wound infection?**

Local antibiotics like ointment, crème or solutions lead in many cases to an antibiotic resistance. This means, the bacteria becomes immune against antibiotics. It does not die off.

Another problem is the appearance of allergies. Most often in the form of allergic contact dermatitis which is an acute inflammatory reaction of the skin.



Photo: Pixabay/Sasin Tipchai



## What can you do yourself to help heal wounds?

### Movement

Movement improves circulation. Therefore, ensure regular exercise or sporting activity within the range of your physical ability. Talk to your treatment team about this. Even small movements can be helpful.

### Taking medication

When taking your medication, follow the instructions of your treatment team. That way you can successfully help treat your underlying disease.

### Handling bandages

Do not remove your bandages without letting your wound care team know. Do not touch the wound.

### Skin and body care

Pay attention to regularly skin and body care. After speaking with your wound care team, you can carry out your daily personal hygiene as instructed, for example showering. **Attention:** The rinsing of wounds with tap water is generally not recommended.

### Nutrition

Follow the nutrition guidelines of your treatment team. Especially with a known diabetic disease.

### Clothing

Do not wear tight clothes. The clothes should be breathable for example made of cotton, wool and microfiber. Please do not wear socks or stockings with tight cuffs. Also, avoid wearing girdle pants and corsets, as these can reduce blood circulation.



Photo: Pixabay/Mickey Estes

### No smoking

Remember: smoking harms your blood circulation!

### Pay attention to pressure points

Important for people with diabetes. Check your feet daily for pressure spots or damage on the skin. Wear suitable shoes that are not too tight. There are also special orthopaedic shoes that can be prescribed by doctors. In case of a worsening of the wound healing, immediately contact your wound treatment team.

After the wound has healed, please come to the agreed check-up appointments so that a reappearance of the wound can be avoided.

## Discharge with a wound

### Prescriptions and doctor's orders

To ensure that you can take good care of the wound after your stay in the hospital, you will receive the necessary **prescription forms for bandages** in advance of your discharge. With the prescription, you can for example, contact a support specialist. The aim is to ensure that all the necessary materials are available to you at home for the first bandage change.

### Wound care after discharge

Many patients need **further support** with wound care after their discharge from the hospital. This is organised by the ward or the department in which you were taken care of.

In some cases, it can be necessary, to consult a **specialised wound center**.

In the following pages, you can find various places where you can turn to.

Let us set sail together.  
We get your wound healing on track.

## Care and nursing in the wound care – contact points

**Attention!** Please find out whether the health insurance company will cover the costs or whether you will have to pay the treatment costs yourself. The insurance company will not cover the costs for all contact points.

### Vienna

**Hotline number Vienna Social Fund: +43 1 245 24**  
[www.fsw.at](http://www.fsw.at)

#### Clinic Landstraße, Vienna Healthcare Group–wound ambulance

Juchgasse 25, 1030 Vienna  
Phone: +43 1 71165 74155  
Appointments can only be made via phone after an initial appointment at the surgical ambulance clinic in the Clinic Landstraße or with a referral.  
Pre-registration via phone during office hours  
Homepage:  
<https://klinik-landstrasse.gesundheitsverbund.at/leistung/wundambulanz/>

#### Health insurance benefits

#### Wound care centre Vienna 22

Stadlauer Straße 62, 1220 Vienna  
Phone: +43 1 280 26 52  
Pre-registration via phone during office hours  
Homepage: [www.wzw22.at](http://www.wzw22.at)

#### Health insurance benefits

#### Special ambulance for patients with chronic wounds

Göttlicher Heiland Krankenhaus Wien  
Dornbacher Straße 20–30, 1170 Vienna  
Phone: +43 1 400 88 77 00  
Registration via phone: Monday to Friday from 13:00 to 15:00  
E-Mail address: [service@khgh.at](mailto:service@khgh.at)  
**Health insurance benefits**

#### PVE-Meidling Regionalmedizinisches Zentrum Wien

Eichenstraße 48–54, 1220 Vienna  
Phone: +43 1 81 33 593  
E-Mail address: [empfang@pve-meidling.at](mailto:empfang@pve-meidling.at)  
**Health insurance benefits**

#### Wound ambulance

Sensengasse 3, 1090 Vienna  
Phone: 0800 505050  
E-Mail address: [praxis@wundambulanz.at](mailto:praxis@wundambulanz.at)

You can submit fee notes for the wound care together with the wound documentation and a medical prescription to the health insurance company. The health insurance company will decide whether you will get part of the costs reimbursed after checking your documents.

### Lower Austria

**Hotline of federal province Lower Austria: +43 2742 9005-9095**  
[www.noegv.at/noe/Pflege/Pflege.html](http://www.noegv.at/noe/Pflege/Pflege.html)

#### Wound ambulance Baden

Erzherzog-Wilhelm-Ring 1–3, 2500 Baden  
Phone: +43 800 505050  
E-Mail address: [praxis@wundambulanz.at](mailto:praxis@wundambulanz.at)

#### Wound ambulance Korneuburg

Wiener Ring 18, 2100 Korneuburg  
Phone: +43 800 505050  
E-Mail address: [praxis@wundambulanz.at](mailto:praxis@wundambulanz.at)

You can submit fee notes for the wound care together with the wound documentation and a medical prescription to the health insurance company. The health insurance company will decide whether you will get part of the costs reimbursed after checking your document.



### Wound treatment centre Baden

Grundauerweg 15, 2500 Baden  
Phone: +43 1 934 62 94  
E-Mail address: office@diewundbehandler.at

You can submit fee notes for the wound care together with the wound documentation and a medical prescription to the health insurance company. The health insurance company will decide whether you will get part of the costs reimbursed after checking your documents.

You can find the price list online.

### LISSI MED Ärzte- & Wundzentrum

Eyerspergring 6–8, 2700 Wiener Neustadt  
Phone: +43 2622 39 501  
E-Mail address: ordination@lissimed.at

You can find the price list online.

## Burgenland

**Hotline of federal province Burgenland: +43 57600 1000**  
[www.burgenland.at/themen/pflege/wundmanagement](http://www.burgenland.at/themen/pflege/wundmanagement)

### Wound ambulance Eisenstadt

Bürgerspitalgasse 5, 7000 Eisenstadt  
Phone: 0800 505050  
E-Mail address: office@wundambulanz.at

You can submit fee notes for the wound care together with the wound documentation and a medical prescription to the health insurance company. The health insurance company will decide whether you will get part of the costs reimbursed after checking your documents.

You can find the price list online.

### Wound management Burgenland

Soziale Dienste Burgenland GmbH  
Am Kurplatz 5, 7431 Bad Tatzmannsdorf  
E-Mail address: office@soziale-dienste-burgenland.at

People, who are excused from the prescription fee, will receive 100 % of the treatment costs as funding if:

- the wound treatment has been ordered by the doctor and
- a medical approval by the medical service of the insurance institutions (ÖGK, SVB, SVA, BVAEB) participating in a project has been obtained.

The costs will be charged directly to Soziale Dienste Burgenland GmbH. You do not have to apply.

### Wound management Burgenland locations

#### Oberschützen

Wimmer Platz 1, 7432 Oberschützen  
Phone: +43 5 09 44 53 00  
E-Mail address: wundmanagement@burgenland.at

#### Oberpullendorf

Hauptstraße 79, 7350 Oberpullendorf  
Phone: +43 5 09 44 53 00  
E-Mail address: wundmanagement@burgenland.at

#### Stegersbach

Am Kirchengrund 10/9, 7551 Stegersbach  
Phone: +43 5 09 44 53 00  
E-Mail address: wundmanagement@burgenland.at

#### Klingenbach

Grünberggasse 1/3, 7013 Klingenbach  
Phone: +43 5 09 44 53 00  
E-Mail address: wundmanagement@burgenland.at

#### Gols

Untere Hauptstraße 54, 7122 Gols  
Phone: +43 5 09 44 53 00  
E-Mail address: wundmanagement@burgenland.at

## Glossary

<b>alginate</b>	A wound dressing made out of seaweed. It forms a viscous, thick gel when it is exposed to wound fluid. That way the wound stays moist which is good for the healing.
<b>antiseptic</b>	kills of infectious microorganism
<b>arterial</b>	Artery related. An artery carries blood away from the heart.
<b>autolytic debridement</b>	In this process the dead tissue and wound debris gets moist.
<b>curette</b>	A surgical instrument used to scrape and remove tissue.
<b>debridement</b>	Cleansing of the wound. Dead or dirty tissues will be removed.
<b>decubitus</b>	Skinn ulcer that is caused by sitting or lying down for too long.
<b>diabetic foot ulcer</b>	Wounds on the feet that are caused by diabetes.
<b>enzyme</b>	A protein that speeds up the reactions in the bod.
<b>hydro active</b>	A moist hydro active bandage. It moisturises wound debris and supports the body own wound cleansing.
<b>hydro gel</b>	gel made out of polymer (plastic)
<b>hydrocolloid bandages</b>	encourages the autolytic debridement
<b>edema</b>	fluid collection under the skin
<b>polymer</b>	plastic
<b>post-thrombotic syndrome</b>	Arises when deep vein thrombosis has damaged the vessel walls. The blood then permanently gathers in the vein.
<b>superabsorbent</b>	A bandage that absorbs fluids.
<b>thrombose</b>	A vessel becomes blocked.
<b>venous</b>	Veins related. A vein carries the blood back to the heart.
<b>viscous</b>	Thick, sticky liquid

## Notes:

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

The brochure is available in several  
languages under this QR code:



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