

Wound healing and wound dressings

The purpose of this leaflet is to give you information and advice on wound healing and wound dressings.

A wound is a break in the skin than can be related to injury, burns (heat/chemical), surgery and many other factors that may affect the body. There are different types of wounds, so it is important to follow the specific advice you receive from your healthcare professional.

Types of wounds

Wounds can be **acute** or **chronic**.

- **An acute wound** is an injury to the skin that occurs suddenly rather than over time. It heals at a predictable and expected rate according to the wound healing process.
- **A chronic wound** is a wound that fails to proceed through the normal stages of wound healing in a timely manner often becoming stuck in the inflammatory or swelling stage of healing. The reasons for delayed wound healing are complex and multiple with many overlapping factors, such as underlying disease, malnutrition, pressure, etc.

Stages of wound healing

Wound healing is a skin repair process which occurs in several stages. There are four stages in wound healing, and nutrition plays a very important role in each stage.

Stage 1 - Haemostasis (a process to stop bleeding)

In this stage, blood vessels constrict (become smaller) and clot forming cells, known as platelets, create substances which prevent blood loss.

Stage 2 - Inflammatory (causing swelling)

In this stage, fragments of dirt (known as debris) and bugs (known as micro-organisms) are removed from the wound. At this stage you will experience heat, pain, swelling and redness. This stage may last for 0 to 3 days.

Stage 3 - Proliferation (formation of new flesh)

New blood vessels and flesh (tissue) are restored. The scar on the body is organised and strengthened. This stage can take 3 to 24 days.

Stage 4: Remodelling (restoration of the body)

End stage of wound healing occurs after your wound has closed up. This can happen from 21 days and may take up to 2 years to be fully healed.

Nutrition and wound healing

Eating a variety of healthy foods is important for wound healing. Your body needs more calories (energy), proteins, vitamins A and C, and the mineral zinc for the wound healing process.

Protein is important for wound healing.

Proteins help you to build and maintain muscles, heal the body, and have a healthy body defence system (immune system). Protein is considered a power food for wound healing. Try to eat protein at each meal and for snacks, e.g. cheese, eggs, milk, yoghurt, poultry, fish and meat.

Vitamins and minerals for wound healing.

- **Vitamin A** is essential for a healthy body defence system (immune system) and cell growth (to restore the body). Vitamin A is found in some animal products and brightly coloured fruit and vegetables, e.g. eggs, liver, cheese, milk, leafy greens, broccoli, pumpkin, mango, red bell pepper.
- **Vitamin C** is an essential nutrient involved in the repair of the body, including formation of collagen (important building block of the skin, tendon, muscle, bone). Examples include broccoli, peppers, strawberries, potatoes, blackcurrants, Brussel sprouts, citrus fruits such as orange and orange juice.
- **Minerals** are most often associated with wound healing.
- **Iron** is important for transporting oxygen through the bloodstream and also through muscle. Dietary iron is found mostly in meat and non-blood iron is in vegetables and fortified cereals.

Calories

Calories refer to the energy people get from food and drink they consume, and the energy they use in physical activity. If your overall energy and protein needs are not met, the body parts such as muscles and ligaments will begin to break down. This will delay wound healing and may cause your recovery to take longer. Examples of calorie-rich foods include:

- **Proteins:** red meats, salmon and other oily fish, chicken, whole milk, eggs, cheese, full-fat yoghurt, beans.
- **Carbohydrates:** potatoes, brown rice, whole grain, pasta, whole grains, whole grain breads.

Hydration/drinking

Water and good hydration levels are important for most favourable wound healing. It is recommended to drink 6-8 glasses/cups of fluid in 24 hours or one day. This includes water, lower-fat milk and sugar free drinks, including tea and coffee.

Photography

A photograph may be required of your wound whilst in our care, our nursing staff are able to take these using an application found on the Trust devices/phones used for Electronic Patient Records (EPR). Alternatively, we might arrange for a clinical photographer to take a photograph using a camera. Your consent is required before this is done; this can be verbal, written or audio recorded.

Infection

Try not to touch your wound as this can make a wound infection much more likely. However, if you have to touch your wound to care for it, always wash your hands before and after touching the wound area. Please note that the inflammatory or swelling process (discussed above in stage 2 of wound healing) can be mistaken for infection.

Dressings

A dressing is a sterile pad or compress applied to the wound to keep it moist and to also promote wound healing. Most wounds will have a dressing applied and left in place for 1-7 days depending on the wound fluid levels. The purpose of a dressing is to:

- Absorb any leakage from the wound.
- Provide ideal conditions for healing.
- Protect the area until the wound is healed.
- Prevent stitches or clips catching on clothing.

Should your wound require ongoing dressings when you are discharged home, the ward and nursing staff will give you a 2-week supply of dressings to take with you.

Please check that these are supplied to you before you leave the ward or department.

If you need more dressings after these, you can obtain them on prescription from either your GP or district nurse. Some patients are referred to the GP, practice nurse or district nurse. Some patients may prefer to care for their wounds themselves or have family/carer look after their wound for them. In this instance, please see below for self-care.

Self-Care to remove and change the dressing:

- Wash your hands with soap and water.
- Open the dressing pack supplied to you making sure not to touch the contents with your hands.
- Carefully take the dirty dressing off and place it in a waste bag. Wash your hands again.
- Put on the sterile gloves found inside the pack and clean your wound and surrounding area using gauze and the wound cleaning solution recommended by your healthcare provider.
- Ensure the skin surrounding your wound is dry.
- Reapply the clean dressing without touching the padded section of the dressing.

Signs of infection

If you experience any of the following symptoms, please contact your GP or practice nurse:

- Rise in body temperature/fever
- Increased redness, pain or swelling around the wound.
- An offensive smell from the wound.
- The wound feels hot.
- Thick yellowy discharge leaking from the dressing.

Useful contact details

East and North Hertfordshire Teaching NHS Trust:

- Website www.enherts-tr.nhs.uk
- Telephone 01438 314333

Leaflet information

You can request this information in a different format or another language; please speak to your doctor or nurse.

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