

Food as Treatment

Eating for Wound Healing

How do wounds occur?

Wounds occur when the skin is broken or damaged through injury or surgical incision. The skin can be damaged in a variety of ways depending on the cause of the injury e.g. trauma (puncture wounds, scalds); pressure or friction (pressure ulcers, abrasions). The lower limbs in particular can be prone to diabetic and venous ulcers which may have started with trauma (e.g. stubbing a toe, stepping on a nail) or through repeated irritation (e.g. tight fitting shoes, hot water bathing) which combined with poor blood circulation results in skin damage.

What are pressure ulcers?

Pressure ulcers are a type of wound caused by prolonged pressure being applied to an area of skin which starves the blood supply. This leads to damage of the skin and tissues below. Pressure ulcers commonly affect people that are bedbound or immobile and so are often called bed sores, pressure sores or pressure damage.

Nutrition and wound healing

Wounds can occur in people who have poor nutrition, who are not consuming enough fluid, energy, protein, vitamins and minerals which can delay healing and increase the risk of complications. Sometimes wounds occur in people who are eating well. However, it might be that they still need extra nutrients to help the wounds to heal.

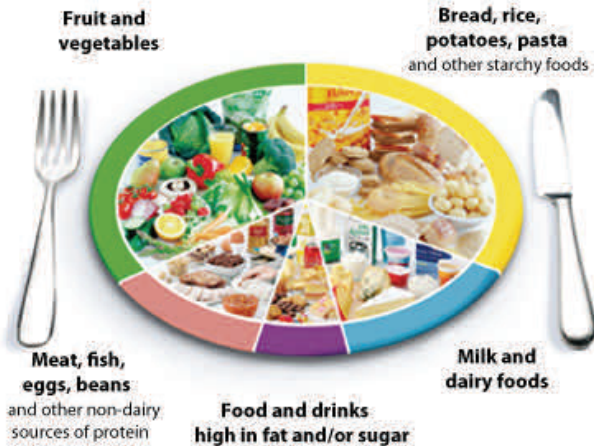
Are you getting the nourishment you need?

All people with wounds should aim to have a healthy, well balanced diet (as depicted on the plate overleaf) which provides all the nutrients we need.

This includes:

- Starchy carbohydrates e.g. bread, pasta, rice, potatoes and breakfast cereals

- Protein e.g. meat, fish, eggs, beans, lentils, soya products
- Milk and dairy foods e.g. yoghurts, fromage frais, crème fraiche and hard / cream cheeses
- Fruit and vegetables
- Fluid



Protein:

Include a high protein food at each meal, such as:

- Meat or meat products e.g. beef, lamb, pork, bacon, sausages
- Poultry e.g. chicken, turkey, duck
- Fish e.g. cod, mackerel, pilchards, sardines, tuna, salmon
- Vegetarian protein options e.g. tofu, soya mince, Quorn
- Eggs
- Dairy or dairy products e.g. milk, cheese, yoghurts, milk puddings
- Nuts and seeds
- Beans and pulses.



Vitamins, minerals and trace elements:

Fruit and vegetables contain vitamins, minerals and trace elements that are required for wound healing. Aim for five portions of fruit and vegetables each day to help meet your daily needs.

Below are some ways in which you can incorporate fruit or vegetables into your meals:

- Add chopped fruit (fresh or dried) to porridge, yogurt or cereals
- Have a glass of fruit juice each day
- Have fresh, tinned or dried fruit as a snack
- Have vegetables in soup or with hot meals
- Have salad with sandwiches or baked potatoes
- Add vegetables to stews or casseroles.



Should I take a vitamin and mineral supplement?

If you find it hard to eat five portions of fruit or vegetables each day, a vitamin and mineral supplement may be beneficial, so discuss this with your doctor or ask to be referred to a dietitian.

Fluid:

Try to drink 6-8 glasses (1.5 to 2 litres) of fluid each day which will support wound healing and is important for your general health.

- Water, tea, coffee, squash, juices, fizzy drinks, milk and milky drinks all count as fluids
- Milky drinks such as hot chocolate, latte, malted drinks and milkshakes are particularly good as they contain both calories and protein.

Energy:

You may struggle to eat enough energy (calories) if you have a poor appetite.

Here are some tips which will help you improve your intake:

- Choose full fat or high energy food varieties e.g. whole milk, thick and creamy yoghurts. Avoid low calorie options e.g. skimmed milk, diet yoghurts, light hot chocolate
- Eating 4 to 6 smaller meals or snacks may be easier than the traditional 3 larger meals per day
- Avoid drinking before you eat as this will fill you up
- If you are struggling to prepare foods use convenience foods or ready meals
- Try fortifying your diet by adding extra protein and calories to foods (see table on page 6 for ideas)
- Include extra snacks between meals
- Have regular nourishing drinks and try fortified milk.

Fortified Milk:

This is higher in calories and protein than ordinary cows milk and can be used as a drink, in tea / coffee / hot chocolate / Ovaltine/ Horlicks, on breakfast cereals, or added to your recipes e.g. sauces and puddings

Calorie and protein content:

1 pint full cream milk: 386kcal, 19g protein

1 pint fortified milk (using recipe below): **630kcal, 35g protein**

How to Make Fortified Milk

1 pint full cream milk

5 tablespoons (about 32g) milk powder

Mix the milk powder with a small quantity of milk to make a smooth runny paste, add this to the remainder of the milk and mix thoroughly.

How to Add Extra Protein and Calories to your Food

<p>To soups ADD</p> <ul style="list-style-type: none"> Cream Beans or lentils Grated cheese Milk powder Evaporated milk Croutons Rice or pasta Dumplings Barley/Couscous 	<p>To bread, toast, cracker, crumpets ADD</p> <ul style="list-style-type: none"> Thickly spread butter or margarine Soft cheese Jam, honey, chocolate spread or lemon curd Mashed banana Peanut butter 	<p>To breakfast cereals ADD</p> <ul style="list-style-type: none"> Jam, honey or syrup Sugar Yoghurt (full fat) Fruit Nuts Cream Evaporated milk
<p>To vegetables & salads ADD</p> <ul style="list-style-type: none"> Olive oil / olive oil based spread Salad cream Mayonnaise Chopped hard boiled egg Sauces e.g. cheese, white, gravy Grated cheese Margarine or butter Yoghurt 	<p>To sauces ADD Cheese</p> <ul style="list-style-type: none"> Margarine or butter Yoghurt (full fat) Cream Crème fraiche Evaporated milk Fortified milk 	<p>To puddings also ADD</p> <ul style="list-style-type: none"> Custard Ice cream Crème fraiche Sorbet Cream Jam, honey or syrup Sugar Fruit or nuts Evaporated milk
<p>To potato ADD</p> <ul style="list-style-type: none"> Cream Crème fraiche Margarine or Butter Fortified milk Grated cheese Pesto Olive oil 	<p>To sandwiches ADD</p> <ul style="list-style-type: none"> Mayonnaise Butter Chutney Cheese Peanut Butter Jam 	<p>To pasta & rice ADD</p> <ul style="list-style-type: none"> Butter Oil Full fat margarine
<p>To casseroles ADD</p> <ul style="list-style-type: none"> Double cream Oil (if a stock-based casserole) 	<p>To potato-topped pies ADD</p> <ul style="list-style-type: none"> Grated cheese Butter 	<p>To baked dishes (e.g. pasta bake) ADD</p> <ul style="list-style-type: none"> Cheese

Sample menu

Breakfast

- Porridge made with fortified whole milk / cream with honey or fruit
- Cereal with full fat milk and sugar or dried fruit
- Scrambled eggs on toast/ Beans on toast (fortified with butter, cream or fortified milk)
- Buttered roll with egg, bacon, sausage or cheese
- Fruit juice or Smoothie
- Whole (thick and creamy) yoghurt.

Mid-morning

- Cheese and crackers
- Milkshake, hot chocolate or coffee made with fortified milk.

Lunch

- Quiche and salad (for extra energy add mayonnaise, salad cream or chutney)
- Sandwich with cheese / meat / tuna / eggs / hummus and salad
- Jacket potato with beans or cheese
- Egg on toast (enriched with butter, cream or fortified milk)
- Creamy soup with buttered bread roll
- Whole fruit yoghurt or tinned fruit with double cream
- Rice pudding, semolina, ice-cream, crumble and custard or cream.

Mid-afternoon

- Milky drink
- Slice of cake
- Evening meal
- Serving of red meat, poultry, fish, soya or pulses (for extra energy add gravy or a white / cheese sauce)
- Potato, pasta, noodles or rice
- Vegetables or salad (add extra butter or grated cheese).

Supper

- Milky drink e.g. Horlicks, Ovaltine.

Ideas for nourishing puddings:

- Milk puddings such as rice pudding, custard and semolina with added dried, canned or stewed fruit
- Sponge puddings with custard, ice-cream or cream
- Full fat yoghurts, mousse or trifle
- Fruit pie or crumble with cream, custard or ice-cream.

Ideas for nourishing snacks:

- Cheese and crackers
- Slice of cake, 2-3 biscuits or a sweet pastry
- Fresh or dried fruit, mixed nuts with raisins
- Teacake, hot cross bun, crumpet or scone with butter, jam, honey or peanut butter
- Hummus or avocado on toast
- Crisps
- Small pork pie, scotch egg or sausage roll.

Ideas for nourishing drinks:

- Full cream milk
- Milky tea or coffee
- Hot milky drinks such as hot chocolate or malted drinks made with full cream milk, cream and sugar
- Milkshakes
- Fruit juices, yoghurt drinks or smoothies.



Nutritional supplements

If you are still struggling with your appetite or if you are losing weight there are a variety of nutritional supplements available over the counter or on prescription that may be helpful. Please discuss this with your doctor or ask for a referral to a registered dietitian.

What if I am overweight?

Being overweight puts more pressure on your body, especially if you are not able to move around very much. However, trying to lose weight whilst you have pressure ulcers may slow down healing so you may want to delay starting a low calorie dietary plan.

What if I am diabetic?

High blood sugars can make it harder for your wounds to heal and keeping blood sugars within a healthy range can also prevent wound complications, such as infection, occurring.

It is therefore important to check your blood sugar levels regularly if you are diabetic or have a history of raised blood sugars. Please speak to your nurse or doctor if you are not currently checking your own blood sugar levels.

Disclaimer

The information in this leaflet is for guidance purposes only and is in no way intended to replace professional clinical advice by a qualified practitioner.

