

# Wound healing and diabetes – dietary advice



## **Who is this leaflet for?**

This information has been developed to provide dietary advice to support wound healing for people with diabetes. It provides general advice and aims to answer some common questions. This information is not suitable for people with complex medical conditions such as advanced kidney disease.

## **Why are dietary choices important?**

Nutrients from the food and drinks in your diet play an important role in the healing process. Protein, energy, fluid, vitamins and minerals are all needed to support wound healing.

Poorly controlled diabetes can delay wound healing and dietary changes may help you improve your control.

## **How can I improve my diabetes control?**

Carbohydrates (both sugary and starchy) are broken down into glucose and will have a direct impact on your blood glucose levels.

Carbohydrates are an important energy source and should be included as part of a balanced diet. Try to choose healthier sources such as wholegrain bread, wholewheat pasta, wholegrain cereals, porridge oats, rice (basmati, brown or wild), fruit and vegetables, pulses and some dairy foods. Including some carbohydrate with your meals can help to keep your blood glucose levels steady. However, a large portion of carbohydrate will lead to a larger rise in blood glucose.

Try to avoid refined sugary foods and drinks such as sweets, fruit juice and full sugar soft drinks (unless treating a hypo).

If you have Type 1 Diabetes and are carbohydrate counting, you can be more flexible with your carbohydrate intake providing that you are adjusting your insulin dose accordingly and achieving stable blood glucose levels. Ask a health care professional to refer you for a carb counting refresher if needed.

## **What nutrients are important for wound healing?**

### **Protein**

Protein helps your body heal and repair. Your body may need more protein if you have an open wound. Not eating enough protein can slow down wound healing.

Include at least one source of protein with each meal and include about a pint of milk or a combination of milk, yogurt, cheese or milk puddings. Note that milk alternatives (excluding soya milk) contain much less protein than standard dairy milk.

Protein foods include meat, poultry, fish, meat alternatives (such as tofu and soya), eggs, cheese\*, milk and yogurts\* (try to choose those without added sugar), milk puddings\*, nuts, nut butters, beans and lentils.

\* If you are overweight you may wish to choose reduced fat varieties.

### **Fruit and vegetables**

Fruit and vegetables contain lots of vitamins and minerals which protect from infection and help wounds to heal. Aim for at least five portions of fruit, vegetables or salad a day. Choose a variety of colours as the different coloured fruits and vegetables have different types of nutrients.

Fruits contain a fruit sugar called 'fructose' so it is advisable to only eat one portion of fruit at a time. A portion of fresh fruit tends to be the amount that fits in the palm of your hand. Avoid fruit based drinks such as fruit juice unless treating a hypo.

### **Iron**

Iron is a key nutrient and is used to form the haemoglobin in our red blood cells that carries oxygen around our bodies. It also has an important role in the immune system. Good sources include meat (beef, lamb and pork), poultry, fish and eggs. Iron is also found in other food such as beans, pulses, green vegetables, nuts, seeds and dried fruit, but these are less easily absorbed.

## **Vitamin C**

Vitamin C helps with iron absorption. It also plays an important role in wound healing and forming new tissue. A lack of vitamin C can cause your skin to become fragile and this slows down the healing process.

Good sources include oranges, strawberries, blueberries, raspberries, kiwi fruit, tomatoes, peppers, potatoes (with skin on), broccoli and Brussels sprouts and cauliflower. When fruit and vegetables are cooked for a long time vitamin C is destroyed. Where possible, eat fruit and vegetables raw or use steaming or microwaving cooking methods to maximise the amount of vitamin C.

## **Zinc**

Zinc has a vital role in wound healing. It is needed for tissue repair and is important for a healthy immune system. Good sources include red meat, shellfish, milk, cheese, bread, lentils, beans and cereal products such as wheatgerm.

## **Vitamin A**

Vitamin A plays an important role in all stages of wound healing. Try to eat foods rich in vitamin A each day. Good sources include cheese, eggs, oily fish, cod liver oil, milk, yogurt, fortified margarine and fat spreads (alternatives to butter), liver (avoid if you are pregnant), red bell peppers, sweet potato, carrots and dark green vegetables.

## **Fluid**

Drinking enough fluid is important for wound healing. Dehydrated skin can become fragile. Fluid helps oxygen and nutrients get directly to the site of the wound, where they help with the healing process.

Aim to drink at least 1.5 to 2 litres of fluid per day (8 to 10 cups) unless you have been advised otherwise for medical reasons. If there is a lot of oozing or discharge from your wound, you may need additional fluid to cover these losses.

Water, tea, coffee, no added sugar squash and milk all count toward your fluid intake. Avoid sugary drinks (unless treating a hypo). Choose sugar-free alternative drinks and use low-calorie sweeteners in hot drinks (if required).

## **What if I am overweight?**

Generally, it is recommended that you maintain your weight until your wound has healed. However, if your wound is healing well and you are following a balanced diet, slow weight loss may be appropriate. It is not recommended that you lose more than 0.5 to 1kg (1-2 pounds) a week while wounds are healing.

## **What if I am underweight?**

If you are underweight or you have lost a lot of weight you may need a high energy, high protein diet. Please speak to a health care professional who can refer you to a dietitian for personalised advice.

## **Should I be taking nutritional supplements?**

People with vitamin D deficiency may be more susceptible to infections and everyone should consider taking a daily supplement containing 10 micrograms of vitamin D during the autumn and winter months.

An A-Z style multivitamin and mineral supplements may be useful if your food intake is inadequate or not balanced. However, the benefit of large doses of single nutrient supplements for wound healing remains unclear and is not recommended (unless you have a diagnosed deficiency).

## **Any questions?**

If you would like more information, please speak to your Diabetes Dietitian or visit the Diabetes UK website at:

[www.diabetes.org.uk](http://www.diabetes.org.uk)

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