

## Pressure Ulcers (pressure sores)

Pressure ulcers (also known as pressure sores) occur when the skin and surrounding tissue is damaged by medical devices or the weight of the body pressing down. This restricts blood flow and the delivery of oxygen and nutrients to the area. They often develop where bones are close to the skin such as on the lower back/spine, hips, heels and elbows. Having a poor nutrient and fluid intake can increase the risk of pressure ulcers.

The risk increases in those who are underweight or overweight. Maintaining a healthy weight and eating a balanced diet can reduce the risk of developing pressure ulcers.

This is because:

- Being overweight can reduce mobility and increase the weight bearing load through pressure areas such as the bottom.
- Being underweight can mean there is less natural padding on bony areas such as the bottom and hips.
- The skin needs a good supply of fluid and nutrients to maintain its circulation and keep it supple.

### Nutrition and pressure damage

Once a pressure ulcer has developed, nutrition plays a vital role in the healing process. This is because the body needs protein, energy (calories), vitamins and minerals (such as vitamin C, iron and zinc), and plenty of fluids to support the wound healing process.

### Protein

Your body may need more protein if you have a pressure ulcer. Foods that are high in protein include meat, fish, eggs, dairy products, nuts, beans and pulses. Try to have at least one of these foods at each meal. Aim to have one pint of milk per day or a variety of milk and dairy foods such as milk



puddings, cheese or yoghurts.

If you are overweight choose low fat versions. They contain the same amount of protein as full fat versions but are lower in calories. There are also some yoghurts, ice cream and milks available that contain higher amounts of protein.

If you use milk substitutes, soya milk contains a similar amount of protein as cow's milk. Oat, rice, hemp and nut based milks contain significantly less protein.

### Iron

Iron is important for the healing process by helping to maintain adequate blood haemoglobin levels. Foods that are good sources of iron include meat, fish and eggs. Iron is also found in other food such as beans, pulses, green vegetables and dried fruit, but these are less easily absorbed.

### Vitamin C

Vitamin C helps with the absorption of iron from your food and also directly with the healing process. Vitamin C is found in a wide variety of fruit and vegetables. It is not stored in the body so a daily supply is needed. Vitamin C is destroyed during the cooking process, so it is important not to overcook your vegetables, or if possible, steam them. Drinking a small glass of fruit juice (150ml) with your meal is a good way to improve your intake. If your vitamin C intake remains low you may need to take a supplement.

### Zinc

Zinc is important for the formation of new skin tissue and to help pressure ulcers to heal. Good sources are lean red meat, shell fish, milk, cheese, bread, lentils, beans and cereal products such as wheatgerm.

## Vitamin and Mineral Supplements

If you cannot eat enough foods containing key vitamins and minerals then you may need to take a supplement. If you are unable to manage a varied diet, or have a poor appetite, an “A to Z” type vitamin and mineral supplement may be necessary and these are available from many high street chemists. If you are managing to eat a full and varied diet then there is no benefit in taking high levels of vitamins and mineral supplements: in fact, this can be harmful.

## Fluid

Dehydrated skin can become dry and fragile. It is important that your skin is kept moist from the inside. You should aim for 1.5 to 2 litres per day (6-10 mugs). This could include any liquid (tea, coffee, milk, water, juice) but not alcohol. If you are overweight avoid drinks that contain sugar, choosing sugar free alternatives or using low-calorie sweeteners in hot drinks.

## Body weight

### If you are overweight

Losing weight could help to reduce the risk of pressure ulcers and protect a newly healed pressure ulcer. However, if you restrict your intake too much whilst a pressure ulcer is healing it could delay the healing process.

It is important that you maintain a balance to your diet so that your body continues to get all the nutrients it needs. Simple changes that you could make to your diet if you are overweight are:

- Cutting out sugar from hot drinks or using a sweetener.
- Using low fat cooking methods such as grilling, baking, microwaving or steaming rather than frying.
- Opting for snacks that are lower in energy and fat such as low fat yoghurts and fruit.
- Remember to have meals that are balanced. Try not to miss meals.
- Aim to lose an average of no more than 0.5 to 1kg a week.

### If you are underweight

Pressure ulcers need a lot of nutrients to help them heal. If you are underweight you may not have enough nutrient stores in your body so you will need extra nutrition from your diet. Without nutrients the healing process may take longer. Some changes that could help to increase your intake are:

- Ensure that you have regular meals. If you find it difficult to prepare and cook meals then there are a wide variety of tinned, chilled or frozen ‘ready meals’ available. Frozen or tinned vegetables can also be useful.
- Try to have three small meals and two-three nourishing snacks throughout the day (such as yoghurts, cheese, nuts and biscuits).
- If your appetite is poor, try to also include two nourishing drinks each day such as: milk, malted milk drinks, fruit juice or powdered supplement drinks which are available from your local chemist or supermarket.

## Oral Nutritional Supplements (sip feeds)

If your food intake remains low, it may not be enough to help heal the pressure ulcer. If this is the case, it may be necessary for you to have some prescribed oral nutritional supplements. These types of drinks provide a rich source of energy, protein and other nutrients. A dietitian may be available to discuss with you the most appropriate one and how many you will need. You should not take additional vitamins and mineral supplements if you are taking three or more oral nutritional supplements per day.

## If you have diabetes

Poorly controlled diabetes can delay healing. Diet and medication may need to be adjusted to achieve good diabetic control. Speak to your GP, nurse or dietitian if you require help with this.

## Summary

Eating a balanced diet and having a healthy body weight will help to reduce the risk of developing a pressure ulcer. If you have a pressure ulcer, eating and drinking well will help it to heal.

If you are overweight then it would be beneficial to try to lose weight gradually. If you are underweight then weight gain will help improve the padding over the bones. This can be best achieved by eating small and frequent meals and snacks.

### Further information:

Food Fact Sheets on other topics including Weight Loss, Malnutritive Fluid, Skin Health, Healthy Eating and Diabetes are available [bda.uk.com/foodfacts](http://bda.uk.com/foodfacts)



This Food Factsheet is a public service of The British Dietetic Association (BDA) intended for information only. It is not a substitute for proper medical diagnosis or dietary advice given by a dietitian.

If you need to see a dietitian, visit your GP for a referral or: [www.freelancedietitians.org](http://www.freelancedietitians.org) for a private dietitian.

To check your dietitian is registered check [www.hcpc-uk.org](http://www.hcpc-uk.org)

This Food Fact Sheet and others are available to download free of charge at [www.bda.uk.com/foodfacts](http://www.bda.uk.com/foodfacts)

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The information sources used to develop this fact sheet are available at [www.bda.uk.com/foodfacts](http://www.bda.uk.com/foodfacts)

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