

## Department of Nutrition and Dietetics

# Dietary Information to Promote Wound Healing

Nutrition is a vital part of recovery especially in the healing of traumatic injuries, surgical wounds or pressure sores after injury. Your body needs extra protein, zinc and vitamins (especially vitamins C and D) to help heal bones and skin. A good protein intake can also help improve your muscle strength for physiotherapy.

| Key nutrients    | Reason   | Examples  |
|------------------|--|---|
| <b>Protein</b>   | Helps to maintain and repair body tissues.   | Meat, poultry, fish dairy foods such as milk, yoghurt, cheese and eggs, vegetarian alternatives such as Soya, Quorn® or Tofu, nuts and seeds, pulse vegetables e.g. Beans, chickpeas and lentils.   |
| <b>Iron</b>      | Iron is important for the healing process by helping to maintain adequate blood haemoglobin levels.  | 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. If you drink tea, do so between meals rather than with your meals as tea contains tannins, which reduce the absorption of iron.  |
| <b>Vitamin C</b> | Vitamin C helps with the absorption of iron from your food and also directly with the healing process. It is not stored in the body so a daily supply is needed. | Vitamin C is found in a wide variety of fruit and vegetables. 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. |



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| <b>Key nutrients</b> | <b>Reason</b>  | <b>Examples</b>   |
|----------------------|--|---|
| <b>Zinc</b>          | Zinc is important for the formation of new skin tissue and to help wounds to heal. | Red meat, shellfish, milk, cheese, bread, lentils, beans, pumpkin seeds and cereal products such as wheat germ. |

## Vitamin and Mineral Supplements

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 chemists.

## Whilst you are in hospital

Whilst in hospital you will be served three meals and two snacks every day. Your protein intake can be increased significantly dependent on your menu options.

Your friends or family can bring food in to hospital for you. Please note that it is not possible to reheat food on the ward.

### To increase the protein in your main meals try having:

- A high protein source with every meal: meat, fish, beans or egg along with a salad or soup.
- A cooked breakfast – this can be ordered by a Dietitian or Dietetic Assistant for patients requiring a high calorie or high protein diet.
- Milky puddings such as custard or rice pudding instead of ice cream or fruit.
- Extra milk, cheese sauce or cheese, for example: extra cheese with beans in a baked potato.
- A glass of milk or a milk-based hot drink such as hot chocolate or Horlicks instead of a cup of tea, coffee or water.

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### **Choose protein rich snacks from the snack trolley including:**

- Yoghurt
- Rice pudding
- Cheese and Crackers
- Custard pot

### **Ward staff can provide you with milkshake drinks or soups if your intake is less than normal:**

- Meritene Milkshake available in Strawberry, Chocolate and Vanilla. These are supplements which do not have to be prescribed and can be given by ward staff.
- Meritene soup available in Vegetable and Chicken flavour.

## **Nutritional supplements on prescription**

You should be weighed in hospital on admission, and weekly thereafter. If your body mass index (weight compared to your height) is low, you have lost a significant amount of weight in the last 3-6 months, or your intake is insufficient for 5 or more days, you will be prescribed nutritional supplements. You may be referred to a Dietitian if your nutritional status does not improve or if your wound is not healing with this nutritional plan.

- Supplements come in a variety of flavours; ask to try different ones as you may prefer one flavour to another.
- There is milk and non-milk based supplements available.
- If preferred: Milky supplements can be diluted with milk and non-milk ones diluted with water, lemonade, tonic or similar.
- Supplements with a larger volume can be taken gradually through the day, however we recommend avoiding taking them around meal times to prevent feeling full.
- You may prefer the supplements cold; ask the nursing staff to get one from the fridge.
- Recipe cards are available for some nutritional supplements, ask your dietitian for more information.

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### Need any extra help?

If you are having difficulty using cutlery, cutting up your food or feeding yourself ask ward staff to help. An occupational therapist can advise the availability of adapted cutlery in hospital and at home.

If you have a sore mouth or lips and this is affecting your eating, speak to your nurse or doctor about treatments that may help.

If you are having trouble swallowing your food and/or drink, speak with your nurse or doctor who can refer you to a Speech and Language therapist who can assess your swallow.

### Do you struggle to open your bowels?

Some medications and reduced activity levels can make you may find it difficult for you to open your bowels. Eating foods higher in fibre and drinking plenty of fluids can help your bowel function.

Choose the following high fibre foods to keep your bowels regular (\*some options not available on hospital menu but can be bought in): fruit, dried fruits, vegetables, \*Bran flakes®, Weetabix®, muesli, Ready Brek®, jacket potatoes (skin on), wholemeal bread, \*nuts, beans and pulses.

If you need further information on fibre an additional information sheet “How to eat more fibre” is available from your dietitian.

### When you are discharged from hospital

#### Advice when choosing high protein options at home

If directed to continue a high protein diet by your Dietitian or another healthcare professional when you are discharged home, here are some further ideas:

| <b>Meal/ small meal ideas</b>  | <b>Snacks and Nutritious Drinks</b>   |
|--|---|
| <ul style="list-style-type: none"><li>• Sandwich, wrap, roll or pitta with egg mayonnaise, ham, cheese, tuna mayonnaise, coronation chicken, bacon, sausage or nut butter.</li><li>• Jacket potato with cheese, beans, tuna or salmon.</li></ul> | <ul style="list-style-type: none"><li>• Cheese, cheese spread or cream cheese with breadsticks or crackers.</li><li>• Nuts and seeds: add these to salads, soups, cereals and puddings.</li><li>• High protein cereal and nut bars.</li></ul> |

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| Meal/ small meal ideas   | Snacks and Nutritious Drinks  |
|--|---|
| <ul style="list-style-type: none"><li>• Chicken, beef or bean burger.</li><li>• Toast with peanut butter, pate, houmous, and cream cheese.</li><li>• Fish finger sandwiches.</li><li>• Boiled, scrambled, poached or fried egg on toast.</li><li>• Omelette with ham, cheese and mushrooms.</li><li>• Baked beans on toast.</li><li>• Sardines or pilchards on toast.</li><li>• Quinoa, bulgar or spelt in place of rice or pasta served with chilli carne for example.</li><li>• Tuna and crackers.</li><li>• Meat or fish soup with bread.</li></ul> | <ul style="list-style-type: none"><li>• Milk based puddings such as: rice pudding, crème caramel, mousse, trifle and custard. You could try custard with sponge pudding, a banana or tinned fruit.</li><li>• Bread sticks or nachos with houmous/ bean dips.</li><li>• Thick and creamy fruit yoghurt or fromage frais or Quark based desserts.</li><li>• Milkshakes and yoghurt based smoothies.</li><li>• Milk and hot chocolate, milky coffee, malted drinks such as Ovaltine® and Horlicks®.</li><li>• Fortify milk with milk powder (2-4tbsp per pint of milk).</li><li>• Slice of pizza or quiche.</li><li>• Pork pie, sausage roll, scotches eggs.</li></ul> |

REMEMBER: when making meal selections from the above ideas choose higher fibre foods if you are struggling to open your bowels, and include foods rich in Zinc, iron, vitamin C and D to help with wound healing.

For more information on dietary advice for pressure ulcers:

<https://www.bda.uk.com/resource/pressure-ulcers-pressure-sores-diet.html>

If you have experienced weight loss which is not improving:

<https://patientwebinars.co.uk/condition/malnutrition/>

## Choosing a Balanced Diet at Home

If your injuries have healed, your weight is stable and appetite normal, you will not need to follow a high protein diet, but should instead follow a balanced diet following the Eatwell guide on the following page.

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Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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- Eat regularly through the day.
- Base your meals on starchy carbohydrate foods such as bread, potatoes, pasta, rice, breakfast cereals, noodles, chapatti, naan or yam. Wholegrain and higher fibre varieties are better choices unless otherwise indicated.
- A third of your daily intake should be from fruit and vegetables. Aim for five portions a day. Ask for more information from your dietitian or nurse if you are struggling with this. If you are struggling to meet your fruit and vegetable intake, talk to your pharmacist about a multivitamin.
- Eat 2 portions of fish per week one of which is oily (salmon, sardines or pilchards for example)
- Include two servings of dairy foods a day, for example, milk, cheese, yoghurts or calcium fortified soya products daily to keep your bones and teeth strong. Low fat versions will provide less calories.
- Include two servings of protein rich foods a day, for example, meat, poultry, eggs, pulse vegetables, nuts, seeds, Quorn®, TVP or soya alternatives every day.
- Remember to drink plenty of fluids as this will help keep your bowels regular. Aim for at least eight glasses of non-alcoholic drinks a day, for

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example, water, diluted squashes, fruit juice, fizzy drinks (preferably diet to avoid extra calories), tea or coffee.

## Further Notes

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## When to contact the Dietitian?

If you have a poor appetite, are losing weight or require other dietary advice once you have been discharged, please contact your GP or other health professional for further advice, or referral to your local Dietetic Department.

### Your Dietitian is:

### Contact number:

- 024 76966161 (University Hospital)
- 01788663473 (Hospital of St Cross, Rugby)

Produced by UHCW Dietitians, University Hospitals Coventry & Warwickshire NHS Trust, with thanks to BDA author of "Food Fact Sheet: Pressure ulcers (pressure sores) and diet" and Emma Westmancoat, Nottingham Dietitians, Nottingham University Hospitals NHS Trust

The Trust has access to interpreting and translation services. If you need this information in another language or format, we will do our best to meet your needs. Please contact 024 76966161.

The Trust operates a smoke free policy.

### Document History

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