

High calorie, high protein eating in diabetes

Dietetics

Patient information

What is this information about?

This information is about having a diet which is high in calories and protein. It explains:

- Why you may need a high calorie, high protein diet.
- Why the diet may be right for you now even though you have been advised before to have a low calorie, low fat diet because you have diabetes.
- How you can have more calories and protein in your diet even if you have a small appetite.
- How you can have a balanced diet if you have diabetes.
- What you can drink to give you extra calories and protein.
- How nutritional supplements might help.
- Handy tips to help you with high calorie, high protein eating.
- How ready prepared meals can help and where you can get them.

Why have I been given this information?

You have been given this information because your dietitian or another health professional thinks that a high calorie, high protein diet could:

- Help you to get enough nutrition.
- Prevent you from losing weight.
- Help you to gain weight if you need to.

Following the advice in this leaflet can help you to stay healthy and well nourished if, for example:

- You have been losing weight due to an illness.
- You are only able to eat small amounts.
- You are recovering from an operation or other medical procedure.

How might the high calorie, high protein diet help me?

The high calorie high protein diet can:

- Help with wound healing and speed up recovery after an operation.
- Help you regain muscle strength that you may have lost.
- Help increase your weight if you have lost weight due to being unwell.
- Help your body to be able to fight infections.
- Make you stronger so that you are less likely to have an injury if you have a fall.

Why is the high calorie, high protein diet different to the diet that I have been advised to follow before because of my diabetes?

Please note in this information and your appointments we may refer to 'blood glucose' or 'glucose'. This means the same as 'blood sugar' or 'sugar'.

You may have been told to follow a low fat, low calorie diet in the past, especially if you have Type 2 diabetes. It can be difficult to understand why that needs to change. This is because when your body needs to 're-fuel' following an illness or weight loss or you are unable to eat much, it is very important to get enough calories and protein to keep you well nourished.

It is possible to eat high calorie foods, whilst avoiding foods high in sugar, so that your blood glucose levels are not affected.

Do try to include more protein rich foods or foods that are high in heart healthy unsaturated fats. This will help to make sure

you get enough calories and protein without causing your blood glucose levels to rise.

Once your appetite or weight (or both) is back to normal, you can gradually return to your usual diet.

Be aware

If you are worried that your blood glucose is too high do contact your GP surgery or Diabetes Specialist Nurse for advice.

What can I do if I have a small appetite?

When you have a small appetite:

- You may only feel like eating small amounts at mealtimes. This means it is important to have some snacks or high calorie drinks between meals.
- It can be difficult to increase the amount of food you eat at meals. Instead of eating more food you can 'fortify' or add 'extras' to meals, so you have more calories or protein (or both).

Do try to eat and drink something every 2 to 3 hours.

Examples of high calorie, high protein extras to fortify your meals:

- Add olive oil or butter to potatoes and vegetables.
- Use rapeseed oil or butter to fry meat, fish or eggs.
- Add grated cheese to pasta dishes, omelette, soups, salads, potatoes, vegetables or use as a topping. For example, on shepherd's pie.
- Add cream to scrambled egg, soup, sauces, puddings and fruit.
- Add mayonnaise, cream cheese or peanut butter to sandwiches, bread, toast, crumpets or crackers.

- Mix nuts or seeds (ground or whole) to full fat Greek yoghurt, soups or porridge.
- Add nut butters to porridge.
- Have low sugar nut butter, hummus, cream cheese or avocado on toast instead of butter or margarine spread, or a high sugar option like jam or marmalade.

Ideas for high energy, high protein light meals and snacks include:

- Cheese and crackers.
- Nourishing drink.
- Banana.
- 1 or 2 slices of toast with baked beans, cheese, mackerel, avocado, eggs or low sugar nut butter.
- 3 to 4tbsp Greek yoghurt with 1 handful berries.
- Ham or cheese (or both) omelette.
- A handful of nuts or almonds.
- Sandwich made with granary bread, wholemeal pitta or wrap with a high protein filling For example: ham, cheese, chicken, egg, fish, hummus or low sugar nut butter.
- Meat or chicken based 'cream of' soup or pulse (lentil, split pea) based soup with a slice of granary or rye bread, or a bread roll with olive oil based spread.
- Hot chocolate made with cocoa powder and full fat milk.
- Low sugar malted milk drink.
- Nut butter on oatcakes.
- Cream cheese on rye crackers.
- Mini cheese.
- Lean cooked meats.
- Olives.

What is a balanced high calorie, high protein diet for diabetes?

A balanced diet for diabetes should include carbohydrates, proteins and fats.

Carbohydrates

You do not need to cut these out of your diet when you have diabetes, but you must be aware of portion sizes and the type of carbohydrate foods that you have.

Foods that contain carbohydrates include:

- **Starches:** breads (including wraps, pitta, chapatti, roti) rice, pasta, potatoes, cereal, couscous, quinoa, bulgar wheat.
- **Foods with added sugars:** cakes, biscuits, drinks, ready made sauces or soups, chutney, ketchup, BBQ sauce, desserts, non-diet fizzy drinks.
- **Fruit (fructose):** all fruits, dried fruit, fruit juice or smoothies.
- **Milk sugars (lactose):** all milk, yoghurts.

If you have Type 1 diabetes you should adjust your insulin according to how much carbohydrate you have at each meal.

If you have Type 2 diabetes do try to limit carbohydrates to no more than 1 fist size portion per meal.

Do choose high fibre carbohydrates that are broken down more slowly. For example:

- Wholemeal pasta.
- Granary or rye bread.
- Wholemeal wraps or pitta.
- Other grains such as quinoa, buckwheat, couscous.

- Sweet potatoes.
- Boiled potatoes with skin on.
- Oats.
- Oat or rye crackers.

Do try to:

- Limit foods with added sugars.
- Avoid fruit juice.
- Keep fruit to 1 handful at a time.



Do have some carbohydrate at each meal if you take any of these medications:

- Gliclazide tablets.
- Insulin that you take twice a day, such as NovoMix 30, Humalog Mix 25 or 50, Humulin M3.

You **do not** need to have carbohydrate at every meal if:

- If you take other tablets.
- If you are on insulin that you only take once per day.
- You are on insulin that can be adjusted to the food you eat.

Please speak to your nurse, doctor or dietitian if you are not sure about this.

Protein

It is important to include protein in your diet to help maintain or repair muscles. Protein does not make your blood glucose levels rise.

Do try to include one source of protein at each meal.

These include:

- Meat.
- Fish.
- Chicken.
- Eggs.
- Cheese.
- Beans and pulses.
- Tofu, Quorn, tempeh, seitan.

Fats

Do include healthy fats if you have a small appetite and you need to gain weight. They can provide lots of extra calories which can help with gaining weight.

Do try to include some healthy fats with meals or as snacks such as:

- Nuts and nut butters including almonds.
- Seeds. These can be added whole or ground up to salads, soups or porridge.
- Olive oil. This can be used on salads.
- Avocado. Try in salads or spread on toast.

Avoid

- Fats in processed foods e.g. cakes, pastries, pies, processed meats.
- Cooking with less healthy fats like lard, butter or ghee.

Can I use drinks to help me get extra calories in my diet?

Yes. Drinks can be a useful way to get some extra calories.

In place of some of your usual drinks do try to have a glass of milk or soup.

Do try to have a pint (568 ml) of full fat (blue top) milk each day. You can have it:

- As a drink on its own.
- As a milkshake.
- Added to hot drinks, sauces or milky puddings.

To increase the calories and protein, add 4 tablespoons of skimmed milk powder to 1 pint of milk. This is known as 'fortified milk'.

Soup can be a comforting and nutritious drink. Thicker, creamy soups with some beans, dumplings or croutons provide some extra energy. 'Cupasoup' type soups or broths are usually lower in calories.

Should I have nutritional supplement drinks?

Start with everyday foods and nourishing drinks. If you find you are not managing to have enough food or enough variety of foods you can try supplement drinks. Have them between meals or as part of a meal.

You can buy supplement drinks that do not need a prescription in pharmacies and some supermarkets. They include drinks such as Complan, Build Up and Meritene. They are high in calories and protein and have added vitamins and minerals.

You can get them in sweet milkshake style flavours and savoury soup-style flavours.

These drinks and 'soups' come as a sachet of powder to add milk or water to. Do add milk rather than water as this provides for calories and protein.

Do choose soup type drinks instead of milkshakes if you want to have a lower sugar option.

If you are unsure what option is best then ask your dietitian, nurse or doctor.

Might I need nutritional supplement drinks on prescription?

Yes. You may need these if:

- You are on the high calorie, high protein diet but still losing weight.
- You are unable to follow the advice on changing your diet for any reason.

Your dietitian can tell you about the best options for you and arrange for your GP to give you a prescription.

What tips can help me with my diet?

Prepare meals in advance when you feel like cooking. Make and freeze extra portions that can be used when you do not have the energy to cook.

- Have ready-made meals on days when you do not feel like cooking. Do choose options that are low in sugar (less than 5g per 100g).

- If you rely on others to help to prepare your meals keep a flask of nourishing drink and a snack nearby to have between meals.
- Avoid filling up on large drinks with your meals. Do try having a drink half an hour before or after your meals.

Can ready meal providers and meal delivery services be useful?

Yes. If you are feeling unwell or do not have the strength to cook it can be useful to have ready-made meals.

You could try:

Ready prepared meals which you can heat up at home.

- These can be bought from most shops.

These companies deliver frozen ready prepared meals to your home. You can phone them to ask for information on prices and their range of meals or for a brochure:

Wiltshire Farm Foods: phone 01444 881 926

Sussex FarmHouse Meals: phone 0845 070 2222

Oakhouse Foods: phone 0845 643 2009

Ready prepared meals which are delivered hot and ready to eat

- Your local council may provide 'Meals on Wheels' deliveries of hot meals. Contact them to ask for details.
- This company also delivers hot meals:
Martins (Shoreham, Worthing Littlehampton, Findon Valley)
phone **01903 202 525**

Who can I contact if I need any further information or support after I have read this information?

Contact the dietitians:

St Richard's Hospital

01243 831 498

uhsussex.chichesterdietitians@nhs.net

Worthing and Southlands Hospitals

01903 286 779

uhsussex.whdietadmin@nhs.net

This information is intended for patients receiving care in St.Richard's hospital Chichester, Worthing, Brighton & Hove and Haywards Heath.

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