

Department of Nutrition and
Dietetics

Protein

A guide to getting the
balance right

Information for
patients



What is protein?

Protein is an essential part of our diet, as it is needed for the growth and repair of all parts of the body. Protein is also important to help you stay well and fight infections. Protein is made up of many different building blocks called amino acids. The body can produce some amino acids but not all. This is why it is important to eat a variety of protein foods to make sure you get all the amino acids your body needs.

Where is protein found?

Good sources of protein are meat, poultry, fish, eggs, milk, cheese, Quorn, tofu, and some soya products. Many other foods such as bread, pasta, lentils, pulses and fruit and vegetables contain protein but in smaller amounts.

How much protein do I need?

People with kidney failure who are not receiving dialysis may need to reduce the amount of protein they eat. This is because the kidneys play an important role in the removal of waste products which are formed during the breakdown of protein. When your kidneys are not working properly the waste products can build up and this may make you feel unwell with symptoms such as nausea.

When undergoing haemodialysis or peritoneal dialysis you need to eat more protein. This is because a small amount of protein is lost each time you dialyse.

Your dietitian can calculate how much protein you need.

You should aim to have protein portions per day

Is energy important?

It is important that you eat adequate energy (calories) to enable your body to use the protein for the functions mentioned previously. If you do not eat enough energy, protein will be used as an energy source and over time this will cause weight loss and muscle wasting.

If you are not meeting your energy requirements your dietitian will discuss this with you further and advise you on foods to include.

Do I need nutritional supplements?

If you are not meeting your protein or energy requirements your dietitian may suggest you start taking a nutritional supplement. There are several varieties available and they are prescribed depending on your dietary needs. These include:

- Milk based drinks
- Yoghurt drinks
- High protein powders and puddings
- Juice based drinks
- High energy liquids and powders

These are available from your GP. We do not recommend purchasing over the counter dietary supplements. Please do not hesitate to discuss this with your dietitian.

Other dietary requirements

If you have diabetes, coeliac disease, are following a weight reducing diet or have other dietary needs it is important that these diets continue. The dietitian will discuss this with you.

The following lists show the number of protein portions in some common foods. It will help you count the number of protein portions you have each day.

Dairy foods and alternatives

All the following are equivalent to 1 protein portion.

Food	Household measure
Milk and soya milk	⅓ pint or 200 mls
Egg	1 medium
Hard cheese * e.g. Cheddar	Small matchbox size (30 g / 1 oz)
Cottage cheese	60 g / 2 oz
Quark	1 heaped tablespoon (60 g / 2 oz)
Yoghurt and soya yoghurt	1 small pot (120 g / 4 oz)
Custard	1 cup (210 g / 7 oz)
Milk pudding	1 cup (210 g / 7 oz)

All the foods marked with * are high in salt

Meat and poultry

Food	Household measure	Protein portions
Meat e.g. chicken, lamb, beef, pork, corned beef *, ham *, tongue*	1 small slice (30 g / 1 oz)	1
Wafer thin meat * e.g. ham, chicken, turkey	3 slices (30 g / 1 oz)	1
Bacon *	1 rasher	1
Sausages *	2 thin or 1 thick	2
Beef	Steak (any cut)	
	120 g / 4 oz	3
	150 g / 5 oz	4
	180 g / 6 oz	5
	Minced beef (raw)	
	30 g / 1 oz	1
	120 g / 4 oz	4
Chicken	Medium breast	5
	Leg	3
	Drumstick	2
	Thigh	2
	Wing	1
Lamb	Chop	3
	Cutlet	2
	Steak	5
	(150 g / 5 oz)	
Pork	Chump chop	6
	Loin steak	5

All the foods marked with * are high in salt

When making dishes such as steak pie, lasagne, bolognese, chicken curry and Irish stew, divide the quantity of meat cooked by the number of portions made.

e.g. 500 g minced beef making 4 portions of savoury mince

$$\frac{500 \text{ g}}{4} = 125 \text{ g mince beef / portion} = \text{approximately 4 protein portions}$$

Meat and meat products

Food	Household measure	Protein portions
Quarterpounder *	1 fried or grilled	3
Beefburger (80 % beef)	1 fried or grilled	1
Cornish pasty *	1 medium	2
Chicken burger *	1 fried or grilled	2
Chicken Kiev *	1 individual	4
Sausage roll *	1 medium	1
Meat or chicken pie *	Individual	2
Ready-meals *	1 portion	3

All the foods marked with * are high in salt

Fish and fish products

Food	Household measure	Protein portions
White fish fillet	Small (90 g / 3 oz)	3
	Medium (150 g / 5 oz)	4
	Large (180 g / 6 oz)	5
Oily fish		
Fresh mackerel	½ fish	5
Smoked mackerel *	1 fillet	3
Tinned mackerel		
Sardines, pilchards	1 tin	2 - 3
Salmon	Average fillet	5
Trout	Average fillet	5
Canned tuna or salmon	In sandwich	2
Scampi *	Average portion (150 g / 5 oz)	3
Prawns *	Average portion (60 g / 2 oz)	2
Crab meat	1 heaped tablespoon	1
	1 small can	2
Fish cakes *	1 fried or grilled (90 g / 3 oz)	2
Fish fingers	2 fried or grilled	1
Fish in batter	Average from fish shop	5
Breaded haddock	1 fillet	3
Fish in sauce	"Boil in the bag"	3

All the foods marked with * are high in salt

Pulses and soya products

Food	Household measure	Protein portions
Baked beans *	½ large tin (210 g / 7 oz)	1
Pulses e.g. kidney beans, chick peas, mung beans	¼ large tin (90 g / 3 oz)	1
Lentils	3 tablespoons cooked (120 g / 4 oz)	1
Hummus	½ average tub (90 g / 3 oz)	1
Tofu	90 g / 3 oz	2
Falafel	6 falafel	1
Vegetarian burger	1 baked	1
Quorn	⅓ packet	2
	Sausage	1
	Quarter pounder Burger	3 1
	Mince (90 g / 3 oz)	2
Soya mince	(90 g / 3 oz)	3
Vegetarian ready-meals	1 portion	3

All the foods marked with * are high in salt

Example meal plan

Here is an example of how your protein intake may be distributed.

		Protein portions
Breakfast	Cornflakes with milk Cup of tea with milk	
Mid-morning	2 plain biscuits Cup of tea with milk	
Lunch	Tuna mayonnaise sandwich Apple	2
	Yoghurt Glass of squash	1
Mid-afternoon	Cup of coffee with milk	
Evening meal	2 slices roast beef Mashed potatoes Carrots and broccoli	2
	Rice pudding	1
Supper	Cup of tea with milk Slice of toast with butter	
Total milk intake	200 ml	1
Total protein intake for the day		7

Meal plan

Breakfast:
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Mid-morning:
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Lunch:
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Mid-afternoon:
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Evening meal:
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Supper:
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Total milk intake:

Total protein intake for the day:

Personal notes

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If you have any suggestions or comments regarding this leaflet, please let your dietitian know.

The information contained within this leaflet is intended for your specific needs and should not be passed on to anyone else.

If you have any queries please contact:

Dietitian:

Contact Number:



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