

Diet and Blood Pressure

Introduction

A diet high in salt has been shown to **increase** blood pressure. Following a healthy balanced diet and reducing salt intake has been shown to **reduce** blood pressure.

Your doctor may prescribe tablets to help lower your blood pressure.

Dietary changes are also important as they can improve the effect of OR remove the need for medications.

How can you help lower your blood pressure?

1. Follow a healthy balanced diet
2. Aim for at least 5 portions of fruit and vegetables per day
3. Reduce your salt intake
4. Lose weight if you are overweight – even a small reduction of 5kgs (11lbs) can help
5. Increase physical activity levels
6. Reduce your alcohol consumption
7. Stop smoking

Fruit and Vegetables

Fruit and vegetables are good sources of vitamins, minerals and fibre.

Healthy Eating Guidelines recommend eating at least 5 portions of fruit and vegetables.

The Blood Pressure Association recommends that we should be aiming for **5-6 portions** per day.

What is a Portion?

80g (3oz), roughly a handful, of fresh or frozen fruit or vegetables.



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Examples:

- 1 medium fruit, i.e. apple, banana, pear
- 2 small fruits, i.e. plums, satsumas, kiwi
- ½ large fruit, i.e. mango, avocado
- Handful of grapes or strawberries
- 2 tablespoons of vegetables
- 1 dessert bowl of mixed salad
- 1 glass (150ml) of fruit/vegetable juice (limit to one portion per day)
- 1 heaped teaspoon of dried fruit. The portion size for dried fruit is smaller as it is higher in sugar

Potatoes, bread, rice, pasta and other starchy carbohydrates

These are carbohydrate foods and are a good source of energy. They should be included at every meal.

Try to choose higher fibre options where possible as these are more filling and will help to reduce snacking between meals.

Choose:

- Wholemeal/granary breads
- Wholemeal pasta
- Basmati rice
- Wholegrain cereals such as porridge, Weetabix, Shredded Wheat
- Use brown/wholemeal flour in cooking and baking



Dairy and alternatives

Dairy is a good source of calcium and vitamin D which helps to keep bones and teeth healthy. It is also a good source of protein. If you consume dairy alternatives, ensure they are fortified with calcium and vitamin D.

It is important to consume 2-3 portions from this group per day.

Examples of a portion:

- 200ml (1 glass) of milk or milk alternative
- 1 pot of yoghurt (125-150g)
- A small match box size piece (30g) of cheese
- 1 small pot of rice pudding or custard
- Breakfast cereals (30g) fortified with calcium



Try choosing low fat, reduced fat and 'diet' or 'light' varieties if you are trying to lose weight or control your cholesterol levels.

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Beans, pulses, fish, eggs, meat and other proteins

Meat, chicken, fish, eggs, beans, pulses and nuts are all good sources of protein. Protein is necessary for growth and repair.



It is important to aim for 2-3 portions of protein per day.

Examples of a portion:

- 90g of cooked meat (size of a deck of cards)
- 140g cooked white or oily fish (palm of hand)
- 2 medium eggs (120g)
- 4 tablespoons (150g) of beans or pulses such as baked beans, kidney beans, lentils and chickpeas
- 4 tablespoons (100g) tofu or soya plant-based meat alternative
- One small handful or tablespoon (30g) unsalted nuts /seeds or nut butter

These foods can be high in fat. It is important that you try and choose lean sources of these foods where possible.

Examples:

- Fish and lean cuts of meat such as chicken are lower in saturated fat compared to red meat and should be eaten more often
- Remove excess /visible fat from meat
- Remove skin from chicken
- Drain excess fat from minced meat and choose lower percentage fat minced meat

Try to use low fat cooking methods where possible such as steaming, grilling, poaching and baking.

Foods high in fat and sugar

These foods can contribute to weight gain. Animal fats such as butter are high in saturated fat. Reducing your intake of animal fats and choosing unsaturated fats such as olive, rapeseed and sunflower oils can help to reduce cholesterol levels and the risk of heart disease. Unsaturated fats should still be limited if you are trying to lose weight as they are high in calories.



Foods high in sugar provide 'empty' calories leading to weight gain. It is important that you limit your intake of these foods. Choosing 'sugar free' and 'reduced sugar' varieties of foods/drinks will help to lower your sugar intake and help with weight loss.

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Facts about salt

75% of salt is hidden in foods. Processed and convenience foods often have a high salt content.

Examples:

- Ready meals
- Savoury snacks such as crisps, Bombay mix and salted nuts
- Tinned or packet products such as instant and tinned soups
- Processed meats such as ham, bacon and sausages and cured meats

How to reduce the salt in your diet

Foods to limit	Suitable alternatives
Processed meats such as bacon, ham, sausage, corned beef, tongue, luncheon meat, tinned meats, meat paste	Fresh cuts of beef, lamb, pork, chicken, turkey, eggs
Smoked fish or shellfish such as kippers, yellow haddock, cockles, prawns and mussels and fish paste	Unsmoked fish such as plaice, cod, haddock, salmon and tinned tuna in spring water
Salted butter	Unsalted butter, margarine and lower fat spreads
Limit cheese such cheddar, edam, stilton and brie to a small match box size piece per week and processed cheese spreads	Cream cheese and cottage cheese
Salted savoury biscuits such as Ritz and Tuc, crisps and salted nuts	Cream crackers, water biscuits, unsalted nuts
All Bran, Cornflakes, Rice Krispies	Weetabix, porridge, puffed wheat, shredded wheat
Ready meals, meat pies, pasties, pizza, packet and tinned soups, takeaways	Homemade pies, pasties and soup without salt
Tinned vegetables and pulses in salted water	Tinned vegetables and pulses in unsalted water
Avoid: marmite, Bovril, gravy salt, soy sauce, celery salt, garlic salt, horseradish, onion salt, combined spices such as 'all-purpose seasoning' and 'jerk' seasoning	Lower salt /'light' soy sauce should be limited as it is still high in salt Single spices such as chilli powder, paprika, cumin, turmeric

Flavourings in moderation

1-2 teaspoons of pickles, chutney, piccalilli, Worcestershire sauce, ketchup, brown sauce, BBQ sauce, mayonnaise or salad cream.

Stock cubes can be used sparingly to make soups, stocks and gravy.

Very Low salt stock cubes should be used, for example:

- 'Boots baby organic stock cubes' (0.01g salt/100ml)
- 'Kallo very low salt organic stock cubes' (0.1g salt/100ml)
- 'Oxo reduced salt stock pots' (0.5g salt/100ml) or cubes (0.6g salt/100ml)

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Alternative salt free flavourings

To make food cooked without salt taste less bland, try to use some of the alternative flavourings listed below:

Basil	Nutmeg
Bay leaf	Onion
Cardamom	Oregano
Chilli powder	Paprika
Chives	Parsley
Cinnamon	Pepper (green/red)
Cumin	Pepper (black/white)
Coconut	Pimento pepper
Coriander	Peppermint oil
Curry powder	Rosemary
Dill	Saffron
Garlic	Sage
Garam Masala	Sesame seeds
Ginger	Tarragon
Lemon juice	Thyme
Marjoram	Turmeric
Mint	Vanilla extract
Mustard powder	Vinegar

The above herbs and spices may be used fresh, dried or frozen.

Some ideas for using salt free flavourings

Dishes	Flavours
Pork and fish	Apple and cinnamon
Stews and casseroles	Bouquet garni
Meat or vegetable curry	Curry powder
Mashed potatoes	Nutmeg (grated), black pepper
Meat or vegetable chilli	Chilli powder
Lamb or new potatoes	Mint
Fish or salads	Lemon juice
Meat in sauces and casseroles	Garlic
Lamb	Rosemary
Chicken	Oregano, basil

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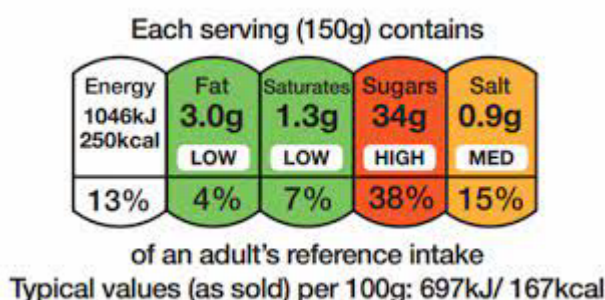
Food Labelling

Limit foods high in salt. You can do this by checking food labels for the salt content. When checking food labels you should look at section 'per 100g' serving.

	LOW Eat Freely	MEDIUM Eat small meals occasionally	HIGH Avoid these completely
SODIUM (per 100g/ml of food)	0.1g or less	0.1-0.6g	0.6g or more
SALT (per 100g/ml of food)	0.3g or less	0.3-1.5g	1.5g or more

Traffic Light System

The traffic light system tells you if a food has high, medium or low amounts of fat, saturated fat, sugars and salt.



Red: Means high. You should consume these foods less often or in smaller amounts.

Amber: Means medium. If a food contains mostly amber, you can eat it most of the time.

Green: Means low. The more green lights a label displays, the healthier the food choice is.

Food Scanner & Food Switch Apps (Download on Apple App Store or Google Play)

Scan barcodes of products to get information on healthier food swaps.

How can you lose weight?

The best way to lose weight is to follow a healthy balanced diet and increase physical activity levels. Consuming foods and drinks low in fat and sugar can help you to lose weight gradually. A steady weight loss of 0.5-1.0kg (1-2lbs) per week is ideal. Start by reducing food intake by 400 calories daily.

Aim for 150 minutes (2 ½ hours) of moderate intensity or 75 minutes of vigorous intensity activity per week. This can be split into sessions of 10 minutes or more. Try and spread

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exercise evenly over 4 to 5 days a week, or every day, and reduce time spent sitting or lying down. Check with your GP first if you are new to exercise or you have existing health conditions.

Moderate intensity is an activity which makes you breathe harder and feel warmer.

Example of moderate intensity activities:

- Brisk walking
- Water aerobics
- Riding a bike
- Dancing
- Doubles tennis
- Pushing a lawn mower
- Hiking
- Rollerblading

Example of vigorous intensity activities:

- Running
- Swimming
- Riding a bike fast or on hills
- Walking up the stairs
- Sports, like football, rugby, netball and hockey
- Skipping
- Aerobics
- Gymnastics
- Martial arts

Aim to do strengthening activities that work all the major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms) on at least 2 days a week.

Examples of muscle-strengthening activities include:

- Carrying heavy shopping bags
- Yoga
- Pilates
- Tai chi
- Lifting weights
- Working with resistance bands
- Doing exercises that use your own body weight, such as push-ups and sit-ups
- Heavy gardening, such as digging and shoveling
- Wheeling a wheelchair
- Lifting and carrying children

If you would like further input/support to help you lose weight please discuss this with your GP who will advise on local weight management services/sessions available to you.

Alcohol

Reducing your alcohol intake can help to improve your blood pressure and cholesterol levels as well as help with weight loss.

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The recommended alcohol intake is a maximum of 14 units per week. Spread these units evenly throughout the week and include a few alcohol free days during the week.

One unit of alcohol is:-

- A half pint of normal strength beer (4%)
- A modest (125mls) glass of normal wine (8%)
- A pub measure (25mls) of spirits (40% alcohol or 80% proof)

Useful Resources:

<https://www.nhs.uk> - search: salt

<https://www.bhf.org.uk> – search: salt

<https://www.bda.uk.com> - search: hypertension and diet

<https://www.bhf.org.uk> – search: heart disease

<https://www.actiononsalt.org.uk>

<https://bloodpressureuk.org> – click: know your numbers

<https://www.bloodpressureuk.org> – click: resources/publications/healthy eating: The African Caribbean Way

Dietitians

For further information please contact the dietitians on Telephone number 0121 424 2673.

This diet sheet was produced by the Specialist Renal Dietetic team as part of the Heartlands Hypertension Service Department of Renal Medicine 0121 424 2000.

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Additional Sources of Information:

Go online and view NHS Choices website for more information about a wide range of health topics <http://www.nhs.uk/Pages/HomePage.aspx>

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You may want to email our Health Information Centre:

Health.Informationcentre@uhb.nhs.uk.

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