

Module 5 Dietary Intervention

The Dietary Advice to Stop Hypertension eating plan¹

The Dietary Advice to Stop Hypertension (DASH) eating plan, developed by United States National Institute of Health, features plenty of fruits, vegetables, whole grains, and other foods that are heart healthy and lower in salt/ sodium. It is recommended for people with high blood pressure. Please refer to Table 1 for DASH eating plan.

The DASH eating plan has the following characteristics:

1. Rich in fruits, vegetables
2. Rich in potassium, magnesium and calcium
3. Low in cholesterol, saturated and total fat
4. Low in sodium
5. Low in sweets and added sugars

Table 1. The DASH eating plan shown below is based on 2000 calories a day. The number of daily servings in a food group one requires may vary from those listed, depending on the caloric needs.

Food Group	Daily Servings	Examples of Serving Sizes
Grain and grain products	6-8	1 slice bread 1 cup ^{Note} ready-to-eat cereal 1/2 cup cooked rice, pasta, or cereal
Vegetables	4-5	1 cup raw leafy vegetables 1/2 cup cooked vegetables 1/2 cup vegetable juice
Fruits	4-5	1 medium fruit 1/4 cup dried fruit 1/2 cup fresh, frozen, or canned fruit 1/2 cup fruit juice
Low fat or fat free dairy products	2-3	1 cup milk 1 cup yoghurt 1 1/2 ounce cheese
Lean meats, poultry, and fish	6 or less	1 ounce (28 grams) cooked lean meat, skinless poultry, or fish

Food Group	Daily Servings	Examples of Serving Sizes
Nuts, seeds, and dry beans	4-5 per week	1/3 cup or 1 1/2 ounces nuts 1 tablespoon or 1/2 ounces seeds
Fats and oils	2-3	1 teaspoon soft margarine 1 tablespoon low-fat mayonnaise 2 tablespoons light salad dressing 1 teaspoon vegetable oil
Sweets	5 or less per week	1 tablespoon sugar 1 tablespoon jelly or jam 1 cup lemonade

Note: Volume of cup = 240 ml

Specific instructions on dietary intervention (adapted from DASH eating plan)

Salt

Restrict salt intake to less than 5 grams of table salt per day (around 1 teaspoon), as sodium is a main dietary factor for elevated blood pressure. The 5 grams includes all salt and sodium consumed, including that used in cooking and at the table. Please refer to table 2 for practical advice.

Tips to reduce salt and sodium

- Compare nutrition labels and choose prepackaged foods that are lower in sodium.
- Use fresh poultry, fish, lean meat and vegetables. Limit consumption of foods that are high in salt content such as sauces, preserved meat and vegetables, and canned and processed foods like luncheon meat and sausages.
- Cut down on convenient and instant foods, canned soups or broths as they often contain a lot of sodium.
- Cook food with less salt. Use spices instead of salt in cooking and at the table. Limit condiments, such as mustard, ketchup, pickles and soy sauce.
- Use more natural low-sodium seasoning, such as ginger, green onions, garlic, pepper powder, lemon juice, etc. to replace salt or soy sauce in cooking.

Salt substitutes

- A potassium-rich diet may help to reduce blood pressure.
- Potassium should be from food sources, not from supplements.
- Many fruits and vegetables e.g. potato, spinach, tomato, lettuce, banana, orange, apple and some dairy products e.g. yoghurt, and fish are rich sources of potassium.
- However, potassium-rich diet should be avoided in patients with chronic renal failure or taking potassium-sparing diuretics.

Table 2. Practical advice for low salt diet

Meals and foods
<p>Breakfast</p> <ul style="list-style-type: none"> • 1 cup oatmeal • 2 slice whole wheat bread • 2 teaspoons of soft margarine • 1 cup low fat or skimmed milk • 1 medium fruit
<p>Lunch</p> <ul style="list-style-type: none"> • 2 cups cooked rice or pasta • 3 ounces (84 grams) of cooked meat, fish or poultry • 1/8 teaspoon of salt in cooking, or equivalent • 1 teaspoon vegetable oil • 1 cup cooked vegetable • 1 medium fruit
<p>Dinner</p> <ul style="list-style-type: none"> • 1 medium baked potato • 1 teaspoon of sour cream • 3 ounces (84 grams) of cooked meat, fish or poultry • 1/8 teaspoon of salt in cooking, or equivalent • 1 teaspoon vegetable oil • 1 cup cooked vegetable • 1 medium fruit

Meals and foods
Snack <ul style="list-style-type: none"> • 1 medium fruit • 1 slice whole wheat bread • 1.5 ounces reduced fat cheddar cheese, low sodium • 1 cup low fat yoghurt
Total salt used per day: 1/4 teaspoon of salt

Note : Salt exchange list: 1/8 teaspoon of salt = 1/2 teaspoon of soya sauce
= 1 oyster sauce
= 1 tablespoon of Ketchup

Carbohydrate intake²

- Carbohydrate should provide half of the total energy intake.
- Meals should contain mostly complex carbohydrates with an emphasis on high-fibre foods such as vegetables, whole grain cereals and fruits.
- Simple sugar including sugar sweetened beverages (e.g. soft drinks, fruit juice) and snacks with high sugar content (e.g. cakes) should provide no more than 10% of total energy intake.

Fruit and Vegetables

- Include 4-5 servings of fruit a day.
- Eat at least 4-5 servings of vegetables a day.
- Choose fruit more often than juice.
- Choose a wide variety of fruit and vegetables.

Protein²

- Protein should provide 15-20% of total energy intake.
- Good sources of protein are fish, seafood, lean meat, chicken, low fat dairy products, nuts and soy bean products which have not been deep-fried.

Fat²

- No more than 30% of total energy intake should come from fat.
- Cut down on foods with high saturated fat.
 - High-fat meat and meat products, such as bacon, spare ribs, sausages, and canned meat like luncheon meat.
 - High-fat poultry parts, such as chicken skin and chicken wings.
 - High-fat dairy products, such as ice-cream, whole milk and cheese made from whole milk.
 - Fat and oil, such as butter, cream, lard and chicken fat.
 - High-fat foods from plants: Palm oil, coconut, and coconut products, such as coconut oil and coconut milk.
- Cut Down on Foods High in Cholesterol. Foods high in cholesterol include:
 - Offal, such as brain, liver and kidney.
 - Seafood, such as octopus, squid, fish head, and roe of shrimp and crab.
 - Egg yolk is high in cholesterol but also rich in nutrients and can be part of a healthy diet. If a person has an egg for breakfast, he/she might want to substitute some vegetarian choices for their other meals of the day.
- Cut Down on Foods that Contain Trans Fat. Foods high in Trans Fat: Hard margarine, cookies, cakes, croissants, French fries, potato chips and doughnuts.
- Use vegetable oil such as canola oil and peanut oil for cooking instead of animal fat.

Alcohol Consumption

- Consumption should be limited to less than 2 standard drinks for men and less than 1 standard drink for women every day.
- Each standard drink contains 10 grams of pure alcohol. Defining one standard drink as 10 grams of pure alcohol, it equates to about 250 ml of regular beer at 5% of alcohol content, one small glass (100 ml) of wine at 12% alcohol content, or one pub measure (30ml) of hard liquor at 40% of alcohol content.

For more information on alcohol screening and brief intervention, please visit the following web page from the Department of Health <https://www.change4health.gov.hk/en/alcoholfails/>

Reference:

1. National Heart, Lung, and Blood Institute. Your Guide to Lowering Your Blood Pressure With DASH. [Internet]. (US): National Heart, Lung, and Blood Institute; c2006[cited 24 May 2011]. Available from:
http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf
2. Department of Health. Heart Healthy Diet. [Internet]. (Hong Kong): Department of Health; c2006 [updated 1 October 2006; cited 24 May 2011]. Available from:
http://www.info.gov.hk/elderly/english/healthinfo/lifestyles/heart_healthy_diet-e.htm