Healthy lifestyles for patients with hypertension

A noncommunicable disease education manual for primary health care professionals and patients
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The Noncommunicable Disease Education Manual for Primary Health Care Professionals and Patients results from the contributions and hard work of many people. Its development was led by Dr Hai-Rim Shin, Coordinator, and Dr Warrick Junsuk Kim, Medical Officer, of the Noncommunicable Diseases and Health Promotion unit at the WHO Regional Office for the Western Pacific (WHO/WPRO/NCD) in Manila, Philippines.

WHO graciously acknowledges the intellectual contributions of Dr Jung-jin Cho, Co-director, Community-based Primary Care Project Committee and Professor, Department of Family Medicine, Hallym University Sacred Heart Dongtan Hospital, Republic of Korea; Dr Hyejin Lee, Volunteer, WHO/WPRO/NCD (currently PhD candidate, Department of Family Medicine, Seoul National University, Republic of Korea); Ms Saki Narita, Volunteer, WHO/WPRO/NCD (currently PhD candidate, Department of Global Health Policy, Graduate School of Medicine, University of Tokyo, Japan); and Mr Byung Ki Kwon, Technical Officer, WHO/WPRO/NCD (currently Director, Division of Health Promotion, Ministry of Health and Welfare, Republic of Korea).

Many thanks to Dr Albert Domingo, Dr Sonia McCarthy, Ms Marie Clem Carlos, Dr Katrin Engelhardt, Mr Kelvin Khow Chuan Heng and Dr Roberto Andres Ruiz from the WHO Regional Office for the Western Pacific and Dr Ma. Charina Benedicto, Physician-in-Charge, Bagong Barangay Health Center & Lying-in Clinic, Pandacan, Manila, Philippines for reviewing the draft publication.

Financial support for this publication was received from the Korea Centers for Disease Control and Prevention, Republic of Korea.

No conflict of interest was declared.

This is a translation of a manual published by the Ministry of Health and Welfare and Community-based Primary Care Project Committee in the Republic of Korea. Some of the content has been adapted, with permission, to align with current WHO recommendations and policies. However, the views expressed in the manual do not necessarily reflect the policies of the World Health Organization. The source publication was developed under the leadership of Dr Jung-jin Cho (also mentioned above); Mr Hyunjun Kim, Co-director, Community-based Primary Care Project Committee and Director General, Bureau of Health Policy, Ministry of Health and Welfare, Republic of Korea; and Dr Sungmoon Jung, Deputy Director, Division of Health Policy, Ministry of Health and Welfare, Republic of Korea.

All illustrations were provided by the source publication.

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ISBN 978 92 9061 798 3
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Noncommunicable disease education manual for primary health care professionals and patients

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Part 2  Prevention and management of diabetes
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Part 3  Quit smoking
How to use this manual

This book is one of fifteen modules of the “Noncommunicable disease education manual for primary health care professionals and patients”. This manual is intended to provide health information on the prevention and control of hypertension and diabetes.

This will be used in the form of a flip chart for health professionals to educate their patients with either hypertension or diabetes.

FOR PATIENTS
On one side of the flip chart is the ‘For patients’ page. This side has simple images and key messages that are easy to understand. However, health professionals may need to provide education for patients to fully understand the content.

FOR PHYSICIANS
On the other side of the flip chart is the ‘For physicians’ page. This side includes information that the health professional can read out to the patient during counselling. Professional information is also provided for further understanding. A small image of the ‘For patients’ side is included so that the health professional is aware of what the patient is looking at.

This publication is intended to serve as a template to be adapted to national context. Images and graphs that have been watermarked should be replaced with images or graphs that represent the national situation. If assistance is required, or if you have any questions related to the publication, please contact the Noncommunicable Diseases and Health Promotion unit at WHO Regional Office for the Western Pacific (wproncd@who.int).
Module 2

Healthy lifestyles for patients with hypertension

1. Healthy lifestyles for patients with hypertension
2. Eat healthy (low-salt diet)
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4. Eat healthy (high-fibre diet)
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Healthy lifestyles for patients with hypertension

Eat healthy

Be physically active

Stop harmful use of alcohol

Quit smoking

Manage your stress
Healthy lifestyles for patients with hypertension

Patient education

- Maintaining a healthy lifestyle is necessary for patients with hypertension. It is mandatory.
- The following information covers dietary management, exercise, smoking, drinking and stress management.

REFERENCES:
Healthy lifestyles for patients with hypertension

Eat healthy (low-salt diet)

- Eat less soup broth
- Eat less pickled and processed food
- Eat fresh, local food
Eat healthy (low-salt diet)

Patient education

- A balanced diet is very important for people with hypertension. It is also vital to eat less salt.
- For example, instead of drinking the soup broth, eat only the ingredients in the soup.
- Also cut back on pickled and processed foods like ketchup, sausage and ham.
- It is highly recommended to eat fresh and healthy local food.

- Eat less soup broth
- Eat less pickled and processed food
- Eat fresh, local food

REFERENCES:
Eat healthy (low-fat diet)

- Meat: remove skin, trim fat, reduce processed meat intake
- Reduce liver, intestine intake.
- Milk, dairy products: eat low-fat or fat-free milk
Eat healthy (low-fat diet)

Patient education

• It is important to cut down on fat because many patients with hypertension have dyslipidaemia and need to control their weight.
• When you eat meat, trim the fat.
• Reduce liver, intestine and processed meats consumption.
• Choose low-fat or fat-free dairy products.

- Meat: remove skin, trim fat, reduce processed meat intake
- Reduce liver, intestine intake.
- Milk, dairy products: eat low-fat or fat-free milk

REFERENCES:
National Institutes of Health, and National Heart, Lung, and Blood Institute (United States). Your guide to lowering blood pressure. NIH publication, 2003, 03-5232.
Eat healthy (high-fibre diet)

Dietary fibre

- prevents cholesterol absorption and production.
- reduces the absorption rate of carbohydrates.
- reduces the incidence of complications and cancer.
- aids the digestive process.
- is abundant in vegetables, fruits, grains and seaweeds.
Eat healthy (high-fibre diet)

Patient education

- Fibre also prevents absorption and production of cholesterol and has the positive effect of reducing the absorption rate of carbohydrates, as well as the incidence of constipation and cancer.
- Foods high in fibre are fruits, vegetables, oats, dry beans, seaweeds and grains.
- Eating fibre has benefits, such as aiding weight loss, even if it does not reduce blood pressure directly.
- Some studies report a decrease in blood pressure as a result of eating more dietary fibre, but this needs more research.

Dietary fibre

- prevents cholesterol absorption and production.
- reduces the absorption rate of carbohydrates.
- reduces the incidence of complications and cancer.
- aids the digestive process.
- is abundant in vegetables, fruits, grains and seaweeds.

REFERENCES:
Choose healthy carbohydrates

- Excessive carbohydrates $\rightarrow$ increase in triglycerides
- Accumulation of fatty acids $\rightarrow$ obesity, arteriosclerosis
- Instead of white rice, instant noodles and white bread, choose brown rice, rye bread and potatoes.
Choose healthy carbohydrates

Patient education

- Moderate intake of carbohydrates is recommended because they can increase serum triglyceride, obesity and arteriosclerosis.
- It is recommended to eat brown rice and whole grain bread rather than carbohydrates with a high glycemic index such as white rice, instant noodles and white bread.

- Excessive carbohydrates → increase in triglycerides
- Accumulation of fatty acids → obesity, arteriosclerosis
- Instead of white rice, instant noodles and white bread, choose brown rice, rye bread and potatoes.

REFERENCES:
Dietary management

Caution in caffeine intake

- Abundant in coffee, black tea, caffeinated sodas and energy drinks, and dark chocolate
- Caffeine temporarily increases blood pressure
- Not more than two cups of coffee per day
- Intake of caffeine before exercise is not advised
**Dietary management**

**Patient education**

- Caffeine is abundant in most teas, caffeinated sodas, energy drinks and chocolate.
- Caffeine temporarily increases blood pressure, so it is better to reduce consumption.
- It is normally recommended to drink no more than two cups of coffee per day.
- Caffeine intake should be avoided before exercising because it raises blood pressure dramatically in a short time.
- This can result in light-headedness, dizziness or fainting, and these effects can be much worse if a person already has high blood pressure or another heart condition.

**Caution in caffeine intake**

- Abundant in coffee, black tea, caffeinated sodas, and energy drinks, and dark chocolate
- Caffeine temporarily increases blood pressure
- Not more than two cups of coffee per day
- Intake of caffeine before exercise is not advised

REFERENCE:
Effect of physical activity on hypertension

- Reduced blood pressure
- Controlled body weight
- Less stress
- Decreased cardiovascular disease
Effect of physical activity on hypertension

Patient education

- Adequate exercise is helpful in reducing blood pressure, weight reduction and stress relief, and reduces risk of cardiovascular disease.
- Therefore, regular exercise is as important as antihypertensive drugs.

- Reduced blood pressure
- Body weight control
- Decreased cardiovascular disease
- Less stress

REFERENCES:
National Institutes of Health, and National Heart, Lung, and Blood Institute (United States). Your guide to lowering blood pressure. NIH publication, 2003, 03-5232.
Before you start physical activity

If you have any of the following, consult your doctor:

- Heart disease
- Bone or joint problems that could be made worse with vigorous physical activity
- Chest pain
- Dizziness
- Age of 65 years or older
- Uncontrolled hypertension
- Any other reasons why you should not do physical activity
Before you start physical activity

Patient education

• If you have been diagnosed with heart disease or musculoskeletal disorder (such as injuries or pain in your tendons or joints), consult your doctor before beginning any exercise.
• If you have chest pain or frequent dizziness, or if you are over 65, you should also discuss this with your doctor.
• If you have uncontrolled hypertension and any other reasons why you should not engage in physical activity, please consult your doctor.

If you have any of the following, consult your doctor:
• Heart disease
• Bone or joint problems that could be made worse with vigorous physical activity
• Chest pain
• Dizziness
• Age of 65 years or older
• Uncontrolled hypertension
• Any other reasons why you should not do physical activity

Professional information

• The previous patient education section is from Canada’s Physical Activity Readiness Questionnaire (PAR-Q), designed to identify those who have health problems before exercising.
• The Physical Activity Readiness Medical Examination (PARmed-X) is an updated version. (http://icord.org/wp-content/uploads/2015/08/PARmed-X.pdf)
Good exercises for patients with hypertension

Aerobic exercise

- Strengthens heart and lung function
- Strengthens joints and increases body flexibility
- Strengthens bones and muscles

Examples of recommended exercises

- Walking/Jogging
- Running
- Cycling
- Swimming
Good exercises for patients with hypertension

Patient education

- There are particular exercises that are recommended for patients with hypertension.
- Aerobic exercise, such as brisk walking, jogging, running, cycling, swimming or other simple physical exercises are beneficial.
- Exercise 5–7 days a week for at least 30 minutes each day.
- Benefits of aerobic exercise – see below.

Aerobic exercise

- Strengthens heart and lung function
- Strengthens joints and increases body flexibility
- Strengthens bones and muscles

Examples of recommended exercises

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- Running
- Cycling
- Swimming

REFERENCES:
National Institutes of Health, and National Heart, Lung, and Blood Institute (United States). Your guide to lowering blood pressure. NIH publication, 2003, 03-5232.
Exercises to avoid
Exercises to avoid

Patient education

- Avoid weightlifting that requires explosive strength, or rowing and diving requiring the head to be positioned low – these could be harmful to patients with uncontrolled hypertension.
- Sudden straining is hazardous.

REFERENCE:
Smoking and hypertension

Smoking is

the most important risk factor for chronic lung disease, cancer, cardiovascular disease, stroke and peripheral vascular disease.

• If you quit smoking, antihypertensive drugs become more effective.
• The risk of cardiovascular disease halves after a year of not smoking.
• The risk of cardiovascular disease becomes similar to non-smokers after 15 years of not smoking.
Smoking and hypertension

Patient Education

• It is best to stop smoking.
• Smoking increases the risk of lung diseases, cancer and cardiovascular diseases such as angina and stroke.
• If you wish to stop, but have failed, you can visit any clinic or doctor to get help.

Smoking is

the most important risk factor for chronic lung disease, cancer, cardiovascular disease, stroke and peripheral vascular disease.

• If you quit smoking, antihypertensive drugs become more effective.
• The risk of cardiovascular disease halves after a year of not smoking.
• The risk of cardiovascular disease becomes similar to non-smokers after 15 years of not smoking.

REFERENCES:
Alcohol and hypertension

Harmful use of alcohol could cause:

• blood pressure to rise
• drug effectiveness to weaken
• unwanted side-effects of medication to increase
• malnutrition
• body weight to increase
Alcohol and hypertension

Patient education

- Drinking alcohol lowers the effect of antihypertensive drugs and causes more side-effects.
- Alcohol also supplies many calories without any nutrition, disturbing body-weight management, so cutting alcohol intake is important.
- It is recommended that men limit drinking to less than two glasses a day and women limit drinking to less than one glass a day.

Harmful use of alcohol could cause:

- blood pressure to rise
- drug effectiveness to weaken
- unwanted side-effects of medication to increase
- malnutrition
- body weight to increase

REFERENCES:
Stop harmful use of alcohol

Maximum recommended daily amount of alcohol consumption

One “standard drink” = 10 grams of pure alcohol
Healthy lifestyles for patients with hypertension

Stop harmful use of alcohol

Patient education

• The recommended limit of alcohol consumption is half of that recommended for people without hypertension.
• For men, daily alcohol consumption should be less than two glasses of alcohol.
• For women, consumption should be limited to under one glass per day.

Professional information

• Men are recommended to limit consumption to less than two drinks (20 grams) of alcohol and women less than one drink (10 grams) of alcohol per day.

Maximum recommended daily amount of alcohol consumption

250 ml of beer = 100 ml of wine = 25 ml of whisky

One “standard drink” = 10 grams of pure alcohol

REFERENCE:
How to stop harmful use of alcohol

- Drink no more than twice a week.
- Choose alcoholic beverages with low sugar.
- Avoid drinks with high alcohol level.
How to stop harmful use of alcohol

Patient education

- It is best to drink no more than twice a week and to choose lower-calorie drinks (those with less sugar) – wine or beer rather than champagne and cocktails.
- Avoid strong liquor and drinking on an empty stomach.

- Drink no more than twice a week.
- Choose alcoholic beverages with low sugar.
- Avoid drinks with high alcohol level.

REFERENCE:
National Hypertension Center, Republic of Korea.
Managing your stress

Stress

increases blood pressure and the risk of cardiovascular disease.

The following can help manage stress:

• avoiding situations that cause stress
• regular exercise and adequate sleep
• 10-minute meditation
• finding a friend or a relative you can talk with.
Managing your stress

Patient education

• Stress is harmful to those living with hypertension.
• Avoid stressful situations.
• Exercising regularly and regular 10-minute meditation are helpful in managing stress.
• It is also a good idea to find a friend you can talk over any issues with.

Stress

increases blood pressure and the risk of cardiovascular disease.

The following can help manage stress:
• avoiding situations that cause stress
• regular exercise and adequate sleep
• 10-minute meditation
• finding a friend or a relative you can talk with.

REFERENCES:
Healthy lifestyles for patients with hypertension

**Take-home message**

**Eat healthy**
- Eat less salt
- Eat a low-fat diet

**Be physically active**
- More than 150 minutes a week walking, cycling, swimming

**Stop harmful use of alcohol**
- Maximum of one or two drinks per day

**Quit smoking**

**Manage your stress**