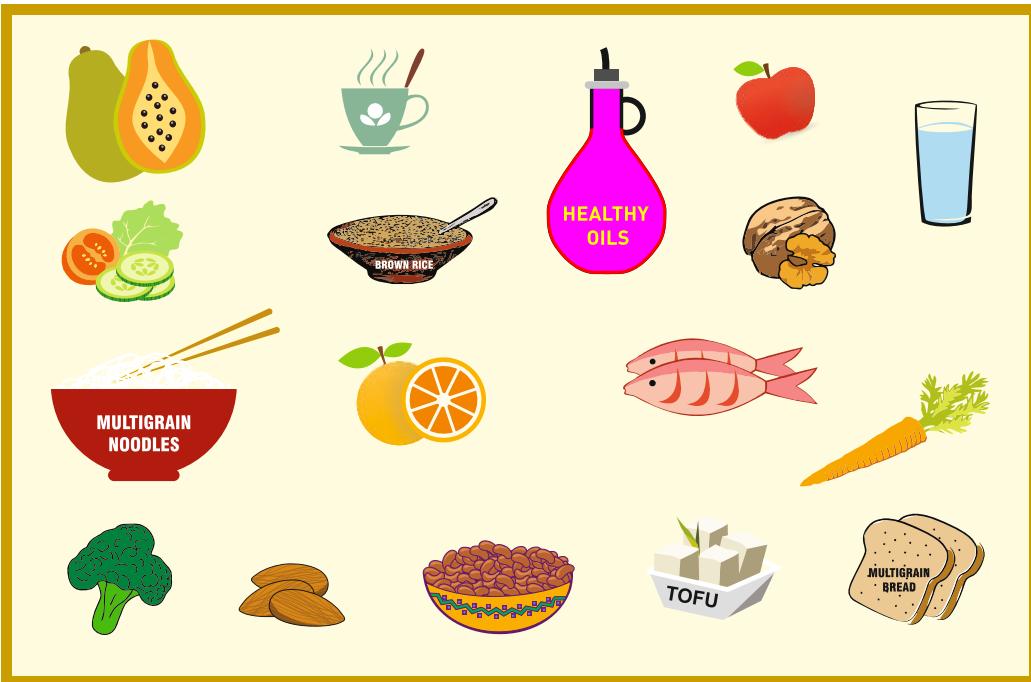


# Healthy diet



**Developed by**

WHO Collaborating Centre for Capacity Building and Research in Community-based Noncommunicable Disease Prevention and Control

Centre for Community Medicine, All India Institute of Medical Sciences (AIIMS), New Delhi, India

## Lifestyle management : healthy diet



Increase fruit  
and vegetable  
consumption



Maintain healthy/  
appropriate  
weight



Reduce  
salt and fat  
intake



FOR PATIENTS

# Lifestyle management : healthy diet

- Managing your diet is very important for good health.
- Methods include reducing salt and saturated fat intake and consuming adequate amounts of vegetables and fruits to maintain a healthy weight.
- When a patient with hypertension eats food high in salt, the sodium in the salt increases blood volume, resulting in higher blood pressure.
- It is very important to reduce salt intake to 5 grams per day.



FOR HEALTH CARE PROVIDER

## Tips for healthy eating

- Eat a wide variety from all food groups such as pulses, cereals and dairy products.
- Eat adequate amounts of fruits and vegetables.
- Reduce fats.
- Reduce salt.



FOR PATIENTS

# Tips for healthy eating

- Eat a wide variety from all food groups such as pulses, cereals and dairy products.
- Eat adequate amounts of healthy carbohydrates.
- Reduce saturated fats and trans fats.
- Reduce salt.



## Tips for healthy eating

- Eat a wide variety from all food groups such as pulses, cereals and dairy products.
- Eat adequate amounts of fruits and vegetables.
- Reduce fats.
- Reduce salt.

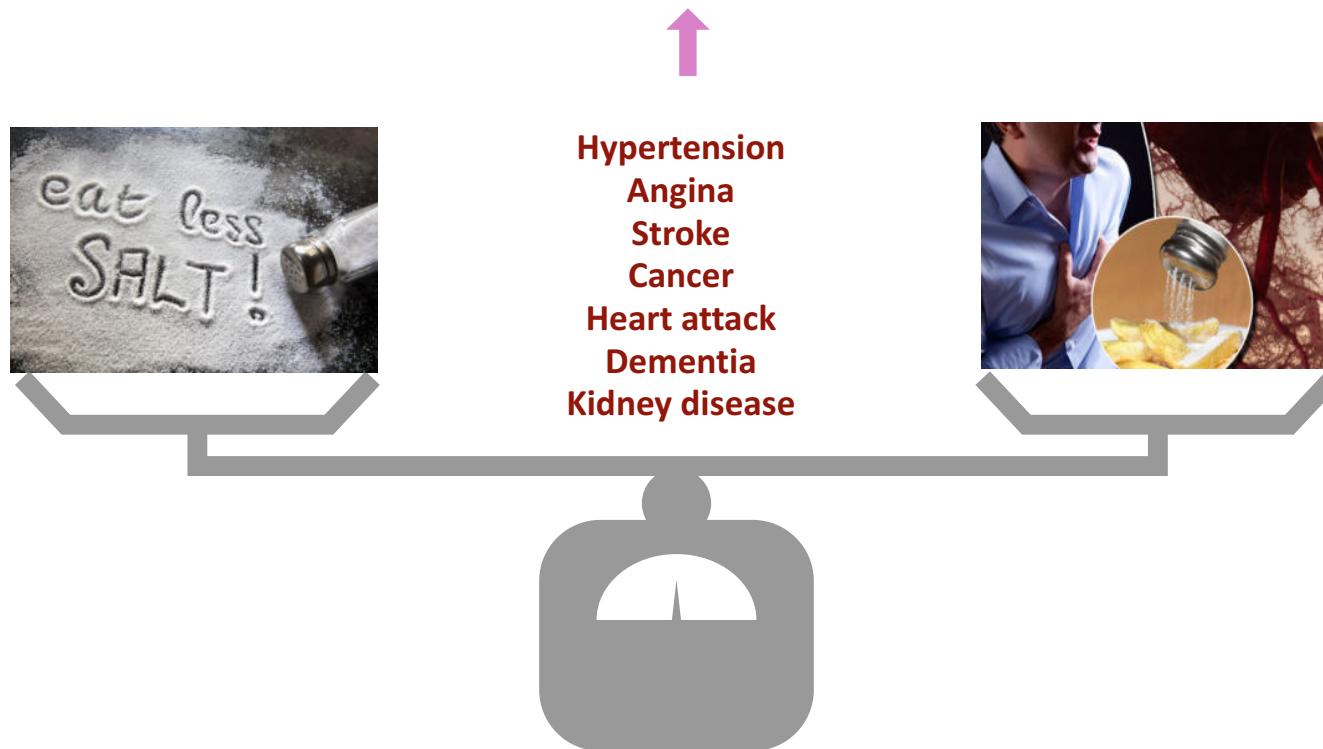


FOR PARENTS

FOR HEALTH CARE PROVIDER

# Why do you need to take less salt in your diet?

high salt intake = high disease burden



FOR PATIENTS

# Health risks of eating too much salt

- Salt is a compound of sodium and chloride. Chloride is what gives the salt its taste but only in combination with sodium.
- Consuming too much salt (sodium) can increase the blood pressure
- Consuming too much salt (sodium) can cause various diseases.
- Salt makes your body hold on to more water.
- This extra stored water raises your blood pressure and puts strain on your kidneys, arteries, heart and brain.
- One gram of salt contains 400 mg of sodium. Thus if we consume 5 gms of salt daily is equal to 2 grams of sodium.



McGuire, Shelley. U.S. Department of Agriculture and U.S. Department of Health and Human Services (United States), Dietary Guidelines for Americans, 2010.  
Advances in Nutrition: an international review journal, 2011, 2.3: 293-294.

FOR HEALTH CARE PROVIDER

## How to cut down on sugar?

- Reduce soft drinks, soda and juice.
- Sweeten foods yourself.
- Check labels and opt for low sugar products
- Avoid processed or packaged foods
- Prepare more meals at home
- Reduce the amount of sugar while cooking
- Don't replace fat with sugar



# How to cut down on sugar?

- Reduce soft drinks, soda and juice. Eg, try water with lemon or lime instead.  
Cut down on creamers and sweeteners you add to tea and coffee.
- Don't replace saturated fat with sugar. Low-fat doesn't mean healthy when the fat has been replaced by added sugar.
- Sweeten foods yourself. Buy unsweetened iced tea, plain yogurt, or unflavored oatmeal, for example, and add sweetener (or fruit) yourself. You'll likely add far less sugar than the manufacturer.
- Check labels and opt for low sugar products and use fresh or frozen ingredients instead of canned goods. Be especially aware of the sugar content of cereals and sugary drinks.
- Avoid processed or packaged foods like canned soups, frozen dinners, or low-fat meals that often contain hidden sugar. Prepare more meals at home.
- Reduce the amount of sugar while cooking by  $\frac{1}{4}$  to half. You can boost sweetness with mint, cinnamon, nutmeg, or vanilla extract instead of sugar.



## Cutting down on sugar

- Reduce soft drinks, soda and juice.
- Sweeten foods yourself.
- Check labels and opt for low sugar products
- Avoid processed or packaged foods
- Prepare more meals at home.
- Reduce the amount of sugar while cooking
- Don't replace fat with sugar.



FOR PROVIDERS

FOR HEALTH CARE PROVIDER

## Tips for healthy cooking

- To reduce calories, boil or steam rather than fry.
- Do not overcook starches and vegetables.
- When adding seasonings use mustard, vinegar, pepper, lemon and low-calorie artificial sweetener if sweetness is required.
- Use fresh ingredients rather than processed foods.



FOR PATIENTS

# Tips for healthy cooking

- To reduce calorie intake from oil, boiling or steaming is better than frying.
- Prolonged exposure to heat also destroys fibre and nutrients.
- Fibre slows down digestion, boosts absorption of nutrients and helps control blood sugar levels.
- Adding vinegar or lemon slows the passage of food from the stomach to small intestines.
- When adding sweeteners, use low-calorie sweeteners rather than sugar, honey or syrup to help reduce total calorie intake.
- Choosing fresh ingredients rather than processed foods is beneficial because they are usually lower in calories and contain less salt and sodium.



FOR HEALTH CARE PROVIDER

## Tips when eating out

- Be aware of the **type of food** and **portion sizes** you eat in restaurants.
- Be aware of the **amount of calories** in the food you eat.
- **Do not skip a meal before** eating out.
- Try choosing items with a lot of **vegetables**.
- If you overeat, remember to **burn off the calories** by increasing physical activity.



FOR PATIENTS

# Tips when eating out

- There are times when you have to eat out in the course of your duties, or with friends and family.
- It is important to learn ways to manage your diabetes while eating out.
- First of all, it is important to be aware of the type of food and portion sizes of the restaurant.
- If you are aware of how much food and how many calories you normally eat, it will be easier for you to order accordingly.
- Do not skip a meal before eating out as it will raise your chances of overeating.
- If your meal is later than your regular mealtime, eat a snack.
- Try to choose items with a lot of vegetables.
- When you overeat, remember to burn off the extra calories through physical activity, or by reducing the amount of food you eat at the next meal.



**Tips when eating out**

- Be aware of the **type of food** and **portion sizes** you eat in restaurants.
- Be aware of the **amount of calories** in the food you eat.
- **Do not skip a meal before** eating out.
- Try choosing items with a lot of **vegetables**.
- If you overeat, remember to **burn off the calories** by increasing physical activity.

FOR PATIENTS

SOURCE:

Ordering Tips. American Diabetes Association. 2016.

(<http://www.diabetes.org/food-and-fitness/food/what-can-i-eat/food-tips/eating-out/ordering-tips.html>, accessed 28 September 2016).

FOR HEALTH CARE PROVIDER

# Choose healthy carbohydrates

## Good carbohydrates ✓



## Bad carbohydrates ✗

- Pastries
- White pasta
- Ice-creams
- Energy drinks
- Candies
- Sugary drinks



FOR PATIENTS

# Choose healthy carbohydrates

Carbohydrates, found in many of the foods we eat, are digested and turn into glucose, which is an important fuel for our bodies.

## Types of carbohydrates

There are three main types of carbohydrates:

- **Sugar** - Sugar is the simplest form of carbohydrate and occurs naturally in some foods, including fruits, vegetables, milk and milk products. Types of sugar include fruit sugar (fructose), table sugar (sucrose) and milk sugar (lactose).
- **Starch** - Starch is a complex carbohydrate, meaning it is made of many sugar units bonded together. Starch occurs naturally in vegetables, grains, and cooked dry beans and peas.
- **Fiber** - Fiber also is a complex carbohydrate. It occurs naturally in fruits, vegetables, whole grains, and cooked dry beans and peas.



Source :

American Diabetes Association. Standards of medical care in diabetes—2015. Diabetes Care, 2015.

International Diabetes Federation.

Global guideline for type 2 diabetes. Brussels: IDF Clinical Guidelines Task Force, 2012.

FOR HEALTH CARE PROVIDER

# Low-fat diet: choosing healthy fats

Reduce saturated fat (BAD FATS),  
Replace with unsaturated fat (GOOD FATS)



**GOOD FATS**  
**vs.**  
**BAD FATS**



FOR PATIENTS

# Low-fat diet: choosing healthy fats

- Substituting unhealthy fat (saturated) with healthy fat (unsaturated) is better than reducing total fat itself.
- If you cut fat intake just because you think “fat is bad” and instead eat more carbohydrates such as sugar, white bread, white rice and potatoes, you will gain more weight and your blood triglyceride levels will increase.
- While excess energy intake through too much fat causes obesity, it is still important to eat an adequate amount of the right kind of fat (unsaturated).

Low-fat diet: choosing healthy fats

Reduce saturated fat (BAD FATS),  
replace with unsaturated fat (GOOD FATS)

**GOOD FATS** v.s.  
**BAD FATS**

FOR PATIENTS

The infographic features two rows of images. The top row, labeled 'GOOD FATS', shows a slice of whole grain bread, a salmon fillet, a bowl of nuts, and a ripe avocado. The bottom row, labeled 'BAD FATS', shows a plate of fried chicken wings, a cupcake, a bowl of macaroni and cheese, and a slice of buttered bread. A small 'FOR PATIENTS' label is at the bottom right.

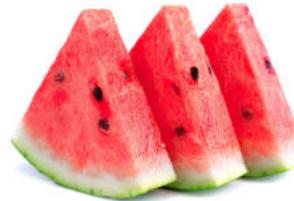
McGuire, Shelley. U.S. Department of Agriculture and U.S. Department of Health and Human Services (United States). Dietary Guidelines for Americans, 2010.  
Advances in Nutrition:an international review journal, 2011, 2.3: 293-294.

FOR HEALTH CARE PROVIDER

# Low-fat diet : more fibre

## 1. Eat two servings of fruit

What is a serving?



One medium sized banana, one apple, one mango

One cup (diced) apple, pineapple, mango, watermelon etc

## 2. Eat three servings of vegetables.

Get your 3 servings from colorful vegetables such as the ones below.

What is a serving?



Half a Cup

beans, celery, cucumber, green leafy vegetables, onion, corn

One Whole

carrot, capsicum, spring onion, tomato

1 serving of fruits and vegetables = 80 gram weight.

FOR PATIENTS

# Low-fat diet : more fibre

**Potatoes & tubers  
are not included in  
vegetables.**

VEGETABLES (excluding potato)	1 SERVING = 80 gram weight
<b>Raw leafy vegetables</b>	1 cup (80 grams)
<b>Fruits</b>	1 medium size piece Or, 80 gram weight
<b>Other vegetables or fruits, cooked or chopped raw</b>	½ cup
<b>Vegetable juice/ fruit juice</b>	½ cup



**Low-fat diet : more fibre**

1. Eat two servings of fruit.  
What is a serving?

One medium sized banana, one apple, one mango      One cup (diced) apple, pineapple, mango, watermelon etc.

2. Eat three servings of vegetables.  
Get your 3 servings from colorful vegetables such as the ones below.  
What is a serving?

Half a Cup beans, celery, cucumber, green leafy vegetables, onion, corn      One Whole carrot, capsicum, spring onion, tomato

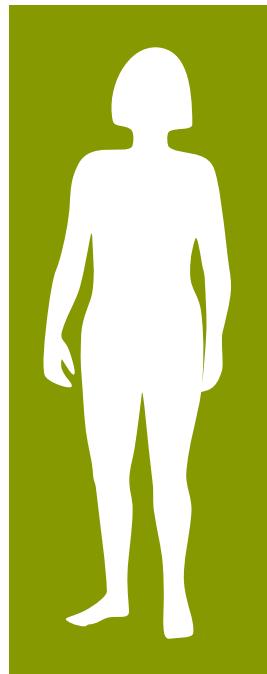
1 serving of fruits and vegetables = 80 gram weight.

FOR HEALTH CARE PROVIDER

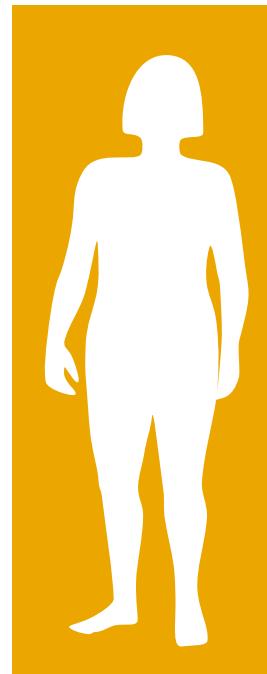
# What is Body Mass Index?

$$\text{BMI} = \frac{\text{weight (kg)}}{\text{height (m)}^2}$$

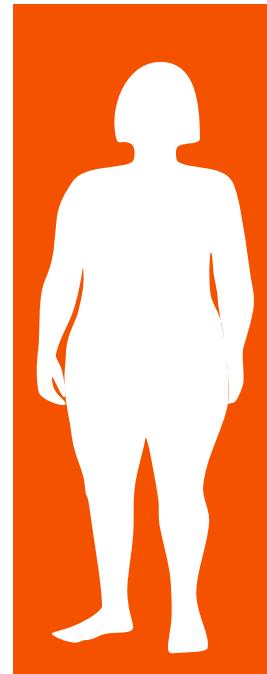
Normal weight  
(BMI 18.5 to 24.9)



Overweight  
(BMI 25 to 29.9)



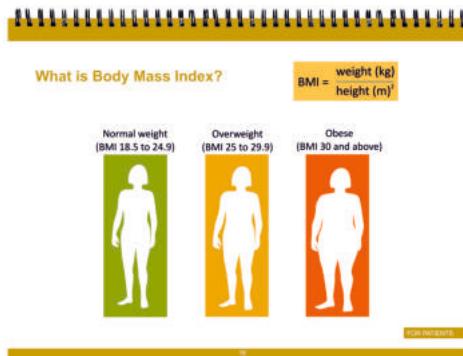
Obese  
(BMI 30 and above)



FOR PATIENTS

# What is Body Mass Index?

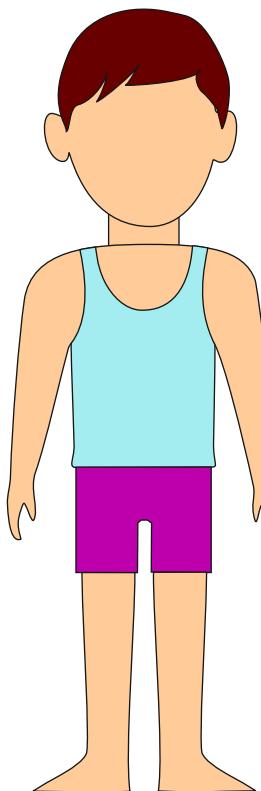
- BMI International Classification: (for adults)
  - Underweight :  $< 18.5 \text{ Kg/m}^2$
  - Normal :  $18.5\text{--}24.9 \text{ Kg/m}^2$
  - Overweight :  $25.0\text{--}29.9 \text{ Kg/m}^2$
  - Obese :  $> 30.0 \text{ Kg/m}^2$



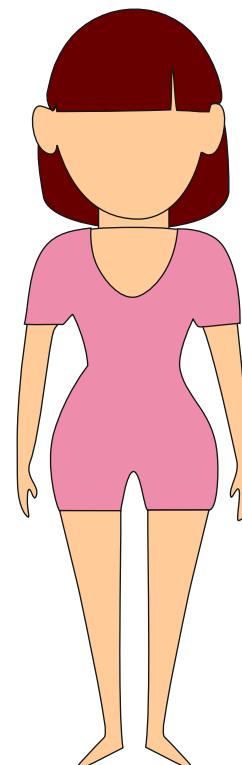
FOR HEALTH CARE PROVIDER

# What is normal waist circumference?

For men



For women



Waist circumference:  
<90 cm or <35 inches

Waist circumference:  
<80 cm or <32 inches

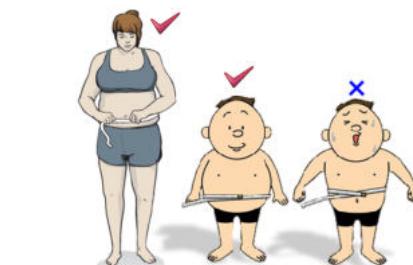
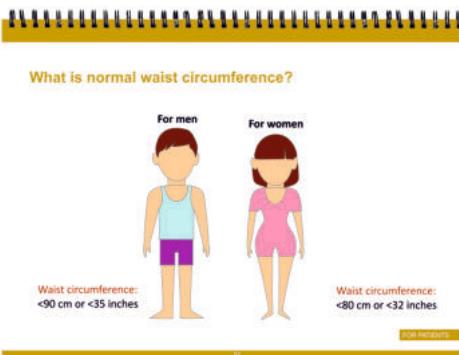
FOR PATIENTS

# Why is waist circumference important?

- Abdominal obesity is associated with increased risk of CVDs and diabetes. Abdominal obesity, commonly known as belly fat or clinically as central obesity, is the accumulation of abdominal fat or visceral fat resulting in an increase in waist size. There is a strong correlation between central obesity and CVD.
- Waist circumference should be measured at the midpoint between the lower margin of the least palpable rib and the top of the iliac crest, using a stretch-resistant tape

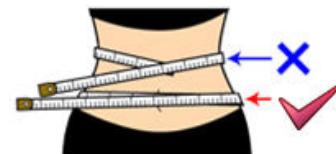
## WAIST CIRCUMFERENCE

- MEN > 90 CM
- WOMEN > 80 CM



### Correct way to measure waist circumference

1. First, stand with your arms hanging naturally by your sides.
2. Relax and breathe out normally.  
Don't pull in your tummy on purpose.
3. Measure **horizontally** around your waist at the **level** of your navel.



### Important points

- Waist circumference is NOT measure around the narrowest part of the waist.
- Measure horizontally around the waist at the level of the navel. Do not compress the skin with the tape.

FOR HEALTH CARE PROVIDER



**World Health  
Organization**  

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**Regional Office for South-East Asia**