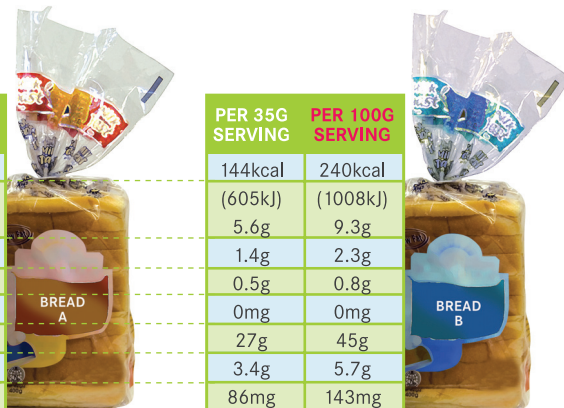




**FAT**  
MATTERS

For more information, call  
**Health Promotion Board's HealthLine** at **1800 223 1313**  
to speak to our experienced nurse advisors.

- Read the Nutrition Information Panel (NIP) on food labels to compare the amount of fat in food products. Look at the 'per 100g column' to compare between different brands of food product in the same category.

	PER 60G SERVING	PER 100G SERVING		PER 35G SERVING	PER 100G SERVING
Energy	103kcal (633kJ)	294kcal (1235kJ)		144kcal (605kJ)	240kcal (1008kJ)
Protein	3.8g	11.1g		5.6g	9.3g
Fat	1.5g	4.1g		1.4g	2.3g
Saturated Fat	0.7g	2g		0.5g	0.8g
Cholesterol	0mg	0mg		0mg	0mg
Carbohydrate	19.9g	56.7g		27g	45g
Dietary Fibre	2.6g	7.4g		3.4g	5.7g
Sodium	49mg	140mg		86mg	143mg

As shown in the example above, it would be difficult to compare the fat content of Bread A and Bread B by just looking at the 'per serving' column because the serving sizes differ. However, using the 'per 100g serving' column, it is clear that Bread A contains almost twice the amount of total fat and saturated fat compared to Bread B.

*Note: Products lower in fat or even those with the HCS may not necessarily mean that they are low in calories. It is important to eat all food in moderation.*

Now that you know more about fat, do make a conscious effort to eat wisely. Choosing and preparing food with less fat, especially saturated and trans fats is a step towards achieving a healthy and balanced diet.

It is also important to ensure that your diet is rich in a variety of fruit, vegetables and wholegrains (e.g. brown rice, wholemeal bread). Choose food with less salt and sugar too as part of a balanced diet.



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# FAT FACTS

Most of us probably know that we should not eat too much fat. While this is certainly true, there are other important facts about fat we should know.

Some commonly asked questions on fat:

- Should we avoid fat completely in our diet?
- How much fat is too much?
- Which types of fat are better for me?

Read on for answers to these questions and more.

## When eating out

- Choose dishes prepared without coconut cream or coconut milk.
- Replace fried noodles with soup noodles occasionally.
- Limit deep-fried food to no more than twice a week.
- Consume high-fat bakery products (e.g. pastries, cakes and cookies) less often.
- Remove visible fat and skin from meat and poultry.
- Ask for less oil and gravy in food.

## When grocery shopping

- Choose products with the **Healthier Choice Symbol (HCS)** as they are lower in total fat and saturated fat compared to other products in similar categories. These products also have no trans fat or negligible amounts of it per serving of food.
- Read the ingredient list to identify products that contain vegetable shortening and hydrogenated or partially hydrogenated oils, as they are high in saturated and trans fat. Choose these products less often.



# TAKE ACTION TODAY!

As part of a healthy diet, aim to consume fat in moderate amounts. Limit intake of saturated fat and trans fat. Substitute saturated and trans fats in your diet with monounsaturated and polyunsaturated fats.

Not sure how to go about doing that? Here are some practical tips for you:

## At home

- Use less oil in cooking. Choose oils higher in unsaturated fat such as sunflower, soybean, canola or olive oil. Avoid re-using cooking oils more than twice.
- Remove visible fat and skin from meat and poultry.
- Adopt healthier cooking methods (e.g. steaming, baking) more often.
- Replace coconut milk or coconut cream in cooking with low fat milk.
- Use fat spreads (e.g. peanut butter, margarine, butter, kaya) sparingly.
- Choose low fat dairy products, lean meat, fish and skinless poultry.
- Consume fish at least twice a week. Replace meat in dishes with beans and bean products (e.g. tofu) on some days.



## FAT – WHAT & WHERE?

Fat is one of the main nutrient groups in food that supply energy. Some food, such as most fruit and vegetables, have almost no fat. Others such as butter, meat and nuts contain a high amount of fat.

Fat is also often added during cooking and in the manufacturing of food products.

Look out for both visible and ‘hidden’ sources of fat. For example, fat can be seen as oil floating on curries or in the skin of poultry. Fat can also be ‘hidden’ in food such as pastries, cakes and snacks.



## DO WE NEED FAT?

Yes. Our body needs some fat to function properly. The main roles of fat in our body are as listed below:

- Fat acts as a carrier for the fat-soluble vitamins A, D, E and K and helps in their absorption by the body.
- Fat is a source of essential fats (such as omega-3 and omega-6) which cannot be made in the body and must be obtained through food.
- Fat is a good source of energy.
- Fat deposits act as a cushion for important organs in our body.



## FAT – THE DIFFERENT TYPES



**Saturated fat, monounsaturated fat, polyunsaturated fat** and **trans fat** are 4 different types of fat found in the food we eat.

Fat and oil in food contain a mixture of these different types of fat. However, there is usually a higher proportion of a particular type of fat in the mixture. For example, the major type of fat found in most nuts is monounsaturated fat, while the major type found in butter is saturated fat.

## WHY MODERATE FAT INTAKE?



Regardless of the type, fat give us more than twice the amount of calories per gram of fat (9 kcal/g) than either carbohydrate or protein (both 4 kcal/g).

Having a diet high in fat will give you excess calories. If you consistently take in more calories than you burn through physical activity, you will gain weight and may become overweight. Being overweight increases your risk of diabetes, heart disease, high blood pressure, stroke and some forms of cancer.

# WHAT ABOUT CHOLESTEROL?

Cholesterol is **NOT** a type of fat. Cholesterol has a different chemical structure from fat and performs different functions in the body.

The liver makes most of the cholesterol our body needs. In our diet, cholesterol is only found in food or beverages of animal origin and not in plant food. Fruit, vegetables, grains and nuts do not contain any cholesterol.

The major sources of cholesterol in the local diet are:

- egg-based dishes
- organ meat
- shellfish.

A diet high in cholesterol tends to increase blood cholesterol levels. However, the total fat, especially saturated and trans fats, in your food choices has a more significant effect on blood cholesterol levels than cholesterol in food alone.

The recommended allowance for cholesterol is **less than 300 mg a day**. Have no more than 4 egg yolks a week and limit consumption of organ meat and shellfish to no more than twice a week.

There is no 'good' or 'bad' cholesterol in food. The terms 'good' and 'bad' actually refer to the cholesterol carried in your blood.

# HOW MUCH FAT CAN I HAVE?

Now you know that consuming too much fat can provide excess calories and lead to weight gain. You have also learned that a diet high in saturated and trans fats increases your risk of heart disease and stroke.

So, how much is too much? The estimated daily allowance for total fat, saturated fat and trans fat for the average Singaporean is as shown below:

	MALE	FEMALE
<b>Total fat</b>	70g	56g
<b>Saturated fat</b>	21g or less	17g or less
<b>Trans fat</b>	Less than 2g*	

\* This amount is only a guide. Consumption of trans fat should be kept to a minimum.

The remaining total fat allowance should comprise monounsaturated and polyunsaturated fats.

It is easy to exceed the daily allowance if you are not careful with your food choices. Take a look at the following list:

FOOD ITEM	SERVING SIZE	TOTAL FAT	SATURATED FAT	TRANS FAT
<b>French fries (90g)</b>	1 regular serving	14g	6g	1.4g
<b>Curry puff pastry (68g)</b>	1 piece	15g	8g	0.9g
<b>Fried kway teow (300g)</b>	1 plate	30g	23g	0g

Assuming a woman has consumed the above food in a day, she would have exceeded her recommended intakes of total fat, saturated fat and trans fat.

You can find out the total fat content and amount of the different types of fat in food by:

- reading the Nutrition Information Panel on food labels (see page 12)
- logging on to the Food Info Search at [www.hpb.gov.sg](http://www.hpb.gov.sg)
- referring to the wide variety of resources available at the Health Information Centre ([www.hpb.gov.sg/hic/](http://www.hpb.gov.sg/hic/))

# KNOW THE TYPES OF FAT

Different types of fat can affect your health differently.

## SATURATED FAT

A diet high in saturated fat raises the level of LDL-cholesterol ('bad' cholesterol) in the body, which increases the risk of heart disease and stroke.

The main sources of saturated fat are:

- animal fat e.g. fatty meat, skin of poultry, lard
- full-fat dairy products e.g. full cream milk, butter, ghee
- dishes containing coconut milk or coconut cream
- deep-fried food
- food prepared with palm-based vegetable oil.



## TRANS FAT

Trans fat is formed when vegetable oils undergo hydrogenation, which is a commercial process to harden oil for production of fats like shortening and hard margarine. Trans fat raises LDL-cholesterol ('bad' cholesterol) and lowers HDL-cholesterol ('good' cholesterol) in the body. As a result, trans fat increases the risk of developing heart disease and stroke.



The main sources of trans fat in our diet are:

- pastries and cakes
- deep-fried food
- cookies and biscuits
- products containing vegetable shortening and hydrogenated or partially hydrogenated oils (as stated on the ingredient list of food labels).

*Note: Food high in trans fat often contain high amounts of saturated fat.*

Low levels of trans fat also occur naturally in beef, lamb, mutton and dairy products. There is no evidence to show that consumption of trans fat found naturally in food will increase the risk of heart disease, so there is no reason to avoid beef, lamb, mutton or dairy products because they contain trans fat.

A very small amount of trans fat may be produced during the manufacturing process of cooking oils. However, the amount contributed to the overall diet is negligible when oils are used sparingly in food preparation and cooking.



## POLYUNSATURATED FAT

There are two main families of polyunsaturated fat: omega-3 and omega-6.

### Omega-3 fat

Omega-3 fat helps reduce blood clotting in the arteries and protects arteries from hardening. It also reduces the level of triglycerides in the blood which in turn lowers the risk of heart disease.

Sources of omega-3 fat include:

- fish e.g. salmon, sardine, longtail shad (terubok) and Spanish mackerel (tenggiri papan)
- walnuts
- canola oil and soybean oil
- products enriched or fortified with omega-3 e.g. bread and eggs.

### Omega-6 fat

Omega-6 fat helps improve heart health by reducing total and LDL-cholesterol ('bad' cholesterol) levels in the blood.

Sources of omega-6 fat include:

- vegetable oils e.g. corn oil, soybean oil and sunflower oil
- seeds e.g. sunflower seeds and sesame seeds.



## MONOUNSATURATED FAT

Monounsaturated fat tends to lower total and LDL-cholesterol ('bad' cholesterol) levels in the body.

Food rich in monounsaturated fat include:

- vegetable oils e.g. olive oil, canola oil and peanut oil
- most nuts e.g. almonds, cashew nuts and hazelnuts
- avocados.

