

# life

## Transition away from trans fat

When the ban on partially hydrogenated oils kicks in, which oils should we use instead? **Joyce Teo** susses out the best options. **D2**



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# Switch to healthier fats

With the ban on trans fats taking effect in June 2021, consumers can look forward to wider usage of healthier options, such as olive oil, soya bean oil and canola oil



Joyce Teo

Trans fat is the worst type of dietary fat and it will become easier to avoid it from June 2021 when the ban on partially hydrogenated oils, the main source of artificial trans fats, as an ingredient in all foods sold here, comes into effect.

Eating trans fat increases your risk of developing heart disease and stroke, as well as Type 2 diabetes. The question is, what do you replace it with? If it is replaced with unsaturated oils rather than saturated oils, the benefit to consumers will be greater.

The Health Promotion Board says palm oil is a good substitute. Dr Dimitrios Spanos, an assistant professor and programme director of the Singapore Institute of Technology's new degree programme in dietetics and nutrition, thinks the ban could lead to higher use and consumption of palm oil as an alternative source of fats.

Professor Walter Willett, a Harvard nutritionist and one of the United States' foremost voices on nutrition, believes Singapore can have a "double win" by banning trans fat and replacing it with healthier fats.

He said: "If it is mostly replaced by industrial palm oil, there will still likely be a benefit, but not as much as could be achieved by replacing trans fats with the more unsaturated fats." Palm oil is high in saturated fats.

In the US, the areas that first adopted a trans fat ban had a more rapid decline in heart disease compared with areas that banned trans fat later, he said.

Blood cholesterol fractions also improved with the ban on trans fat in their national surveys, though many cities and states banned it long before it was banned nationally, he added.

The problem with trans fat or trans fatty acids is that it does not just increase your bad cholesterol and triglyceride levels, it lowers



Almond, walnut, sunflower and olive oils are healthy choices to use in cooking and as salad dressing. PHOTO: ISTOCKPHOTO

good cholesterol as well.

The reason it is found in many processed and convenience foods such as biscuits, pie crusts and frozen pizza is that it is inexpensive and lasts a long time.

Many food outlets use trans fats to deep-fry foods because oils with trans fats can be used many times in commercial fryers.

Refined palm oil is also a popular cooking oil due to its low cost. It is used as an ingredient in many food products, including margarine, confectionery, chocolate, ice cream, instant noodles and infant formulas.

Studies have shown that adults who consume fried foods – which contain trans fat – four to six times a week are 23 per cent more likely to develop coronary artery disease, said Professor Tan Huay Cheem, a senior consultant at the Cardiac Department of the National University Hospital.

And palm oil consumption raised cholesterol levels by nearly 15 per cent, when compared with the consumption of regular soya bean and canola oils, he said.

"Palm oil contains 50 per cent saturated fat, and saturated fat boosts 'bad' LDL cholesterol and

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**DR DIMITRIOS SPANOS**, programme director of the Singapore Institute of Technology's degree programme in dietetics and nutrition, on how consumers can avoid buying products with trans fat

triglycerides, which are both risk factors for heart disease," said Prof Tan, adding that the overall cardiovascular risk of a person is always dependent on multiple factors and diet is one aspect.

Dr Spanos said there is now research that supports a direct link between palm oil and heart disease mortality in developing countries, but there is still a lack of strong evidence.

"Therefore, it is recommended that we aim for an overall healthy diet to protect our heart from cardiovascular diseases and use vegetable oils that are naturally liquid at room temperature," he said.

"Palm oil is semi-solid at room temperature, but it can be processed into a liquid cooking oil. Therefore, olive oil and canola oil can be better choices."

Olive and canola oils are unsaturated fats, of which there are two types – polyunsaturated and monounsaturated fats.

Polyunsaturated fats are the best sources of fats. "They are either omega-3 or omega-6 (also called N-3 or N-6) fatty acids, and both are essential and beneficial," said Prof Willett.

"Polyunsaturated fats can help reduce bad cholesterol levels in your blood, which can lower your risk of heart disease and stroke."

Plant oils that are high in polyunsaturated fats include corn oil, soya bean oil, sunflower oil, peanut oil and grapeseed oil.

"All of these are good choices, but of these, soya bean oil is the only one with substantial amounts of omega-3 fatty acids, so it would be good to include this or another fat with a good amount of omega-3 fatty acids, such as canola (rapeseed) or mustard oil, as part of the mix of fats that we use," said Prof Willett.

Fish, walnuts, flaxseed or fortified foods are also good sources of omega-3 fatty acids. Monounsaturated fats, said Prof Willett, are also beneficial, but not essential. Plant oils high in monounsaturated fat include olive oil, avocado oil, rice bran oil, canola oil and safflower oil.

Among these, olive oil is popularly thought to be the best oil option, though the rest may not pale in comparison.

Prof Willett said: "We have the best evidence of benefit from long-term studies for olive oil, but the others may be similarly beneficial."

Oils high in saturated fats include palm oil and coconut oil.

"We don't have good studies on the long-term effects of red (or

unrefined) palm oil, but it is almost certainly better than the industrial palm oil and it is a good source of vitamin A," said Prof Willett.

"We also don't have long-term studies on coconut oil, but it is very likely not as good as the less saturated oils."

He added: "Given the evidence that we have, it is best to use the more unsaturated oils as primary fats, and use coconut oil or red palm oil when we want their special flavours."

Some people, such as Mr Ken Hickson, consciously avoid palm oil for health and environmental reasons.

"Massive deforestation in the tropics is due to converting rainforests to grow oil palm plantations," said the chairman of Sustain Ability Showcase Asia, a Singapore sustainability consultancy business.

"At home, we use only olive oil and canola oil, never palm oil and never other vegetable oil, unless we are sure it is not palm oil disguised."

His advice for those who wish to avoid palm oil is to look for "vegetable oil" in the ingredient list.

As for trans fat, these are worse than palm oil and best avoided.

Dr Spanos said: "Even if a product states that it has 0g trans fats, consumers should still check if the list of ingredients includes 'partially hydrogenated oils'."

Ms Alyssa Chee, a dietitian at the Singapore Heart Foundation, said consumers should also cut down on the consumption of deep-fried foods and avoid reusing oils.

"Most deep-fried foods are likely to contain trans fat and the repeated usage of oils, especially in high temperatures, can promote the formation of trans fat," she said.

She added that some people might overconsume unsaturated fats, thinking that it is appropriate since it is an unsaturated fat.

"However, both saturated and unsaturated fats are equally dense in energy, and overconsumption can lead to weight gain and other related health issues."

Prof Tan said people may think that there is no harm in consuming bad fats once in a while, without realising that they are consuming far larger amounts of saturated fat – which should be less than 5 per cent of total calories – and trans fat compared with the recommended daily allowances.

"Many heart patients should be consuming less trans fat or saturated fats like palm oil," he said.

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### Cooking oils and smoke points

Oil is 100 per cent fat, but some oils are healthier than others. Generally, it is best to choose an oil that is higher in unsaturated fat than saturated fat.

However, a healthy oil for cooking is not just defined by its composition of bad fats (saturated and trans fats) and good fats (monounsaturated and polyunsaturated fats).

It is also defined by the oil's smoke point or the cooking temperature that causes the oil to start breaking down and burn, which leads to the creation of harmful free radicals, said Dr Dimitrios Spanos, an assistant professor and programme director of the Singapore Institute of Technology's new degree programme in dietetics and nutrition.

Cooking at home is the best way to control the type and amount of oil used in meals, he added.

"Deep-frying, generally, is not healthy and is not recommended as a method of cooking, no matter what type of oil is used," he said.

Here is a look at the oils that can be used for food preparation:

Oils with a high smoke point can be used for high temperature cooking, such as grilling or stir-frying foods. These include:

- Peanut oil;
- Rice bran oil;
- Soya bean oil;
- Extra light olive oil; and
- Avocado oil.

Oils with a moderately high smoke point can be used for general cooking such as baking and stir-frying. They include:

- Sunflower oil;
- Canola oil;
- Corn oil;
- Olive oil; and
- Macadamia oil.

Oils with a low smoke point can be drizzled over salads.

- These include:
- Extra virgin olive oil;
- Flaxseed oil;
- Walnut oil; and
- Grapeseed oil.