

You are what

What these terms mean

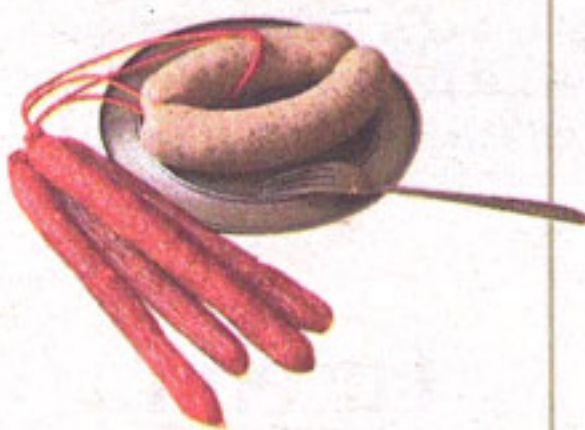
Additive

A substance added to foods to improve colour, texture, flavour or shelf life. It can be natural (salt and sugar) or synthetic (artificial sugars, preservatives, colouring and MSG). Some synthetic additives are said to be harmful to health.



Antioxidant

A substance that inhibits oxidation, protecting cells from damage by free radicals. Examples are catechins found in green tea, lycopene in tomatoes (above), and vitamins C and E.



Carcinogen

A substance that causes cancer by turning normal cells into cancer cells. It is believed that nitrites, when added to meat during processing such as when sausages (above) are made, may result in the formation of carcinogenic compounds.

Collagen

A fibrous protein that is a major component in connective tissues like skin, ligaments and tendons.

Foods that age you

Think twice before you reach for that can of fizzy drink. It is not just about your waistline. Think about the lines on your face too. That is because carbonated drinks can age you, nutritionists say.

Other well-loved foods like pastries, potato chips, sausages, coffee, red meat, white rice and bread can also cause premature ageing. The reason? Most of these foods are high in fat or sugar, which are not healthy for the body, said Ms Magdalin Cheong, chief dietitian and senior manager of Dietetic and Food Services at Changi General Hospital.

Foods that age us include:

■ **Carbonated drinks** which are high in sugar and have no nutrients. They have "empty calories", said Ms Teo Kiok Seng, a nutritionist at Nutrition Network Services.

"The sugar in these drinks can lead to obesity, which increases your risk of hypertension, diabetes, heart disease and stroke," she said.

A nutritional study by the Harvard School of Public Health found that a can of carbonated drink a day can cause one to pile on 7kg in a year.

■ **Sausages** can increase the risk of colorectal cancer, a recent European study found, Ms Teo added.

The culprits are the carcinogenic N-nitroso compounds, which are formed when nitrite preservatives are added to processed meat, she said.

Ms Jaclyn Reutens, a dietitian at Aptima Nutrition & Sports Consultants, added that sausages are usually made with fatty meat.

Chemicals and additives are also added so a person's liver has to do more work to detoxify them. "As we age, our organs do not work as efficiently so some people may get into trouble," said Ms Reutens.

■ **Coffee** has caffeine. What most people may not know is that caffeine makes stress hormones shoot up and stay at an abnormally high level for hours after consumption.

"One of the biggest contributors to premature ageing is the powerful stress hormone called cortisol," said Ms Teo. "High levels of cortisol wear down the muscles, leading to muscle wasting." Excessive caffeine is also dehydrating, said Ms Reutens.



■ **Potato chips and fries** are deep fried at high temperatures, giving rise to the formation of trans-fat.

Diets high in trans-fat are linked to an increased risk of coronary heart disease, said Ms Teo. "However, if palm oil is used, no trans-fat will be produced," she added.

■ **Sugary pastries** contain a lot of sugar, which can lead to obesity. What is worse is that pastries are often made with hydrogenated oils, which contain trans-fat.

Hydrogenated oils are made by adding hydrogen to liquid oils to turn them into solids for easier storage. However, this chemical process produces trans-fat. An example would be margarine.

Trans-fat increases the risk of heart disease more than saturated fat does, said Ms Teo, as it lowers good cholesterol and increases bad cholesterol in the bloodstream.

In addition, the combination of sugar and trans-fat is bad news for

our liver and pancreas, said Ms Reutens. "It's dangerous to overwork our organs as it means we are more exposed to free radicals."

Free radicals are unstable particles caused by chemical reactions in the body. Antioxidants are needed to fight them, she added. "If our intake of anti-ageing foods is insufficient to combat free radicals, we age faster and have a higher risk of diseases."

■ **Red meat** has protein, which is essential for tissue repair, but too much animal protein may cause calcium loss from bones. This increases the risk of osteoporosis, said Ms Teo.

Studies have shown that a high protein intake in middle-aged adults is linked to inflammatory polyarthritis, where inflammation occurs in more than one joint.

■ **White rice and white bread** have very little fibre, making them "high glycemic index" foods.

"Such foods are digested and absorbed into the bloodstream very quickly, causing a sudden spike in blood sugar level," said Ms Teo.

This can lead to cell changes that accelerate ageing and increase the risk of chronic diseases, she added. These include Type 2 diabetes, gall bladder and heart diseases, Alzheimer's disease and certain types of cancers.

Other high glycemic index foods include mashed potatoes, processed grains and sugary cereals.

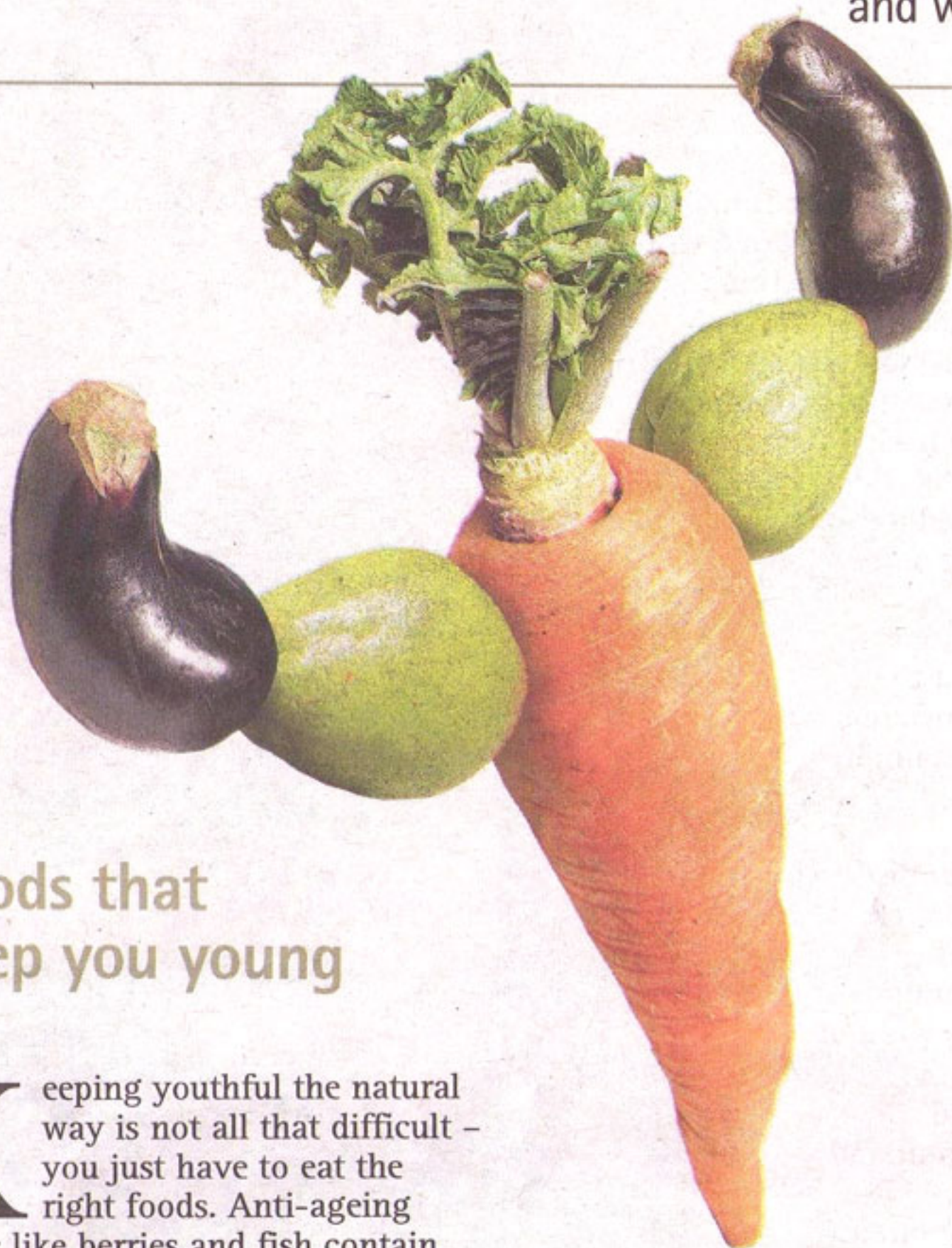
A can of carbonated
drink a day can add

7 kg

to a person in one year

you eat

Foods that are high in fat or sugar can cause premature ageing. POON CHIAN HUI finds out which foods cause damage and which can help keep us youthful



Foods that keep you young

Keeping youthful the natural way is not all that difficult – you just have to eat the right foods. Anti-ageing foods like berries and fish contain powerful ingredients that can help keep you in the pink of health from inside out.

Foods that keep us young include:

- **Green tea.** It boasts catechins – potent antioxidants that have been shown to prevent cancer, said Ms Jaclyn Reutens, a dietitian at Aptima Nutrition & Sports Consultants.

In addition, Ms Teo Kiok Seng, a nutritionist with Nutrition Network Services, said that a recent report in the European Journal Of Neuroscience suggested that regular consumption of green tea may reduce the risk of age-related degenerative brain disorders, such as Alzheimer's disease.

However, not all forms of green tea carry the same health benefits.

"Green tea packaged in tea bags have gone through numerous processes that may have destroyed its goodness," said Ms Reutens.

It is best to drink loose leaf green tea, she said.

- **Tomatoes** contain lycopene, which helps to reduce wrinkles and fine lines, said Ms Reutens. This is because lycopene hinders the skin's ageing process.

It does this by preventing damage to the DNA in mitochondria, found in cells and which are crucial to cellular growth.

Tomatoes also contain vitamin C, which acts as an antioxidant, helping to strengthen collagen fibres, said Ms Magdalin Cheong, chief dietitian and senior manager of Dietetic and Food Services at Changi General Hospital.

Collagen is a protein essential to healthy skin.

- **Nuts and seeds** are great sources of vitamin E and omega-6 fatty acids, said Ms Reutens.

"These two compounds work hand in hand to keep skin elastic and to reduce the signs of ageing," she said.

That is because vitamin E is an antioxidant, said Ms Cheong.

Antioxidants mop up free radicals – the main cause of skin ageing.

A study published in the American Journal Of Clinical Nutrition in 2005 found that eating almonds together with heart-friendly foods like soya products can significantly reduce cholesterol levels, said Ms Teo.

- **Yogurt** contains calcium, which helps maintain strong bones, and probiotics which prevent bowel diseases.

"As we age, our bones lose calcium," said Ms Reutens. "Calcium is therefore needed in our diet to prevent osteoporosis."

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Osteoporosis is a condition where bones become weak and break easily.

On average, a 150g portion of yogurt contains 220mg of calcium. This amount makes up 30 per cent of our daily recommended intake of 800mg, said Ms Reutens.

Probiotics are bacteria that help improve the balance of good and bad bacteria in the digestive system.

"As we age, this balance needs more effort to be restored. Eating yogurt gives it a boost," she said.

People who are lactose intolerant can eat yogurt too, as the lactose would have already been broken down by the bacteria, said Ms Teo.

- **Salmon and other oily fish** contain heart-friendly omega-3 fatty acids, said Ms Cheong.

Ms Reutens recommends eating these at least twice a week.

"As you age, your arteries may get increasingly clogged, resulting in heart disease," she said. "Omega-3 fatty acids reduce the amount of fats in the bloodstream, hence preventing excessive blood clotting."

- **Berries** come in red, pink, blue, purple and other assorted colours. The pigments determine the types of antioxidants found in them, said Ms Reutens.

A recent antioxidant analysis by the United States Department of Agriculture showed that blueberries, blackberries, cranberries, strawberries and raspberries top the list of 20 foods with the highest levels of antioxidants, said Ms Teo.

In general, the antioxidants in berries help to reduce the likelihood of eye-related diseases, such as cataracts and age-related macular degeneration, said Ms Reutens.

Because different types of berries carry different combinations of antioxidants, we should not limit our diet to one or two kinds.

"Try to eat a wide variety," said Ms Reutens. "Mix them with cereal or enjoy them as a snack or dessert."

- **Olive oil** is rich in monounsaturated fats, which promote a healthy cholesterol level.

It is also good for the heart, thanks to its anti-inflammatory effects that prevent heart diseases. For instance, it strengthens blood vessel walls, thus lowering the risk of internal bleeding.

However, too much olive oil is not recommended due to its caloric content, said Ms Reutens.

What these terms mean

Glycemic index

An indicator of the impact of foods on blood glucose levels. Foods with low glycemic index, like vegetables, have carbohydrates that are digested more slowly. High glycemic index foods, like white bread, have carbohydrates that are broken down into sugars more quickly. This causes a spike in blood glucose levels, which is unhealthy.



Monounsaturated fat

A healthy unsaturated fat found in plants or plant-based foods. It is said to be able to reduce the risk of heart disease. Found in foods like olive oil, avocados (above) and nuts.

Omega-3 fatty acids

Unsaturated fatty acids. Usually found in fish and nuts, they help to lower cholesterol levels to protect the body against heart diseases.



PHOTO: CHRIS TAN

Probiotics

A class of beneficial bacteria that aids digestion, promotes "good" bacteria and reduces "bad" bacteria in the digestive system. Can be found in yogurt (above).