

Teetotaller? You could still have a fatty liver

About 40 per cent of Singapore's population could have non-alcoholic fatty liver disease



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Mr Gabriel Ng, 39, does not like alcohol, so he was surprised to learn that he had a fatty liver that put him at risk of further organ damage.

He did not even have any symptoms to alert him that he had non-alcoholic fatty liver disease.

"I got to know by accident," says the supply chain manager. "It's a silent condition, so many don't know about it until they get to a bad state."

In 2021, he contracted a viral infection that gave him diarrhoea and left him so dehydrated that he had to go to the hospital.

The blood tests at that time indicated elevated levels of liver enzymes, which required further investigation.

A biopsy done later found that he had fibrosis or scarring of the liver, which put him at increased risk of developing liver cancer or other complications of the organ.

The good news is that weight loss, diet and exercise can help control or even reverse non-alcoholic fatty liver disease.

After his diagnosis, Mr Ng cut down on eating fried and fatty foods, and increased his physical activity. He also takes the GLP-1 agonist liraglutide to help suppress his appetite.

He has lost some weight and his doctor says his prognosis is good if he continues to sustain his weight loss.

Mr Ng is now committed to a healthy lifestyle, despite the challenges. He is working while doing a master's degree in business administration and caring for his two daughters, aged four and six. His wife works in quality control.

"Having to eat the kids' leftovers is disrupting my diet," he says with a laugh.

TWO IN FIVE IN SINGAPORE COULD HAVE THIS DISEASE

An estimated 40 per cent of the Singapore population has non-alcoholic fatty liver disease,

according to some studies, and the prevalence is estimated to rise.

It is diagnosed when there is evidence of steatosis or fat build-up in the liver not attributable to alcohol consumption, medications or other causes of chronic liver disease.

In 2023, this disease was renamed "metabolic dysfunction-associated steatotic liver disease" (MASLD).

Dr Sara Cheo, consultant gastroenterologist at Ng Teng Fong General Hospital, says that this was to emphasise the association with metabolic syndrome, which is a group of conditions that increases the risk of cardiovascular disease, such as heart attack or stroke.

Dr Margaret Teng, a consultant specialist from Alexandra Hospital's division of gastroenterology and hepatology, says patients are diagnosed when blood tests show elevated liver enzymes or abdominal imaging, such as an ultrasound, shows a fatty liver.

Patients range from having simple steatosis or fat in the liver to inflammation of the liver because of excess fat. The latter is known as metabolic dysfunction-associated steatohepatitis (MASH). MASH leads to advanced fibrosis or cirrhosis, which refers to hardening of the liver.

Up to a quarter of patients with MASLD develop MASH. About a quarter of patients with MASH may develop advanced fibrosis or cirrhosis, says Dr Teng.

"MASLD is usually asymptomatic until patients develop cirrhosis," she adds.

A HIDDEN CONDITION

Two years ago, retired businessman Joseph Lim, 66, did not think he was unhealthy. At that time, he weighed 71kg and worked out several times a week. A left knee injury led him to favour weight training over cardio activities.

At 1.67m tall, his BMI of 25.5 was higher than what is recommended for Asians – less than 23 – but he



Retired businessman Joseph Lim discovered he had metabolic dysfunction-associated steatotic liver disease – or non-alcoholic fatty liver disease – two years ago, while getting treated for a bacterial infection. The fitness buff took steps to lower his weight to 66kg from over 70kg, and his liver enzyme levels have returned to normal. ST PHOTO: GIN TAY

was muscular.

While under treatment for a bacterial infection, his tests revealed elevated liver enzymes. Further investigation led to a diagnosis of MASLD.

"That was really an eye-opener for me," says Mr Lim, who is married and has three grown children. "I was doing resistance training for a long time, but still developed fatty liver disease."

He started taking long walks with his wife, who used to support the family business in media, and trained on an elliptical machine.

He focused on strengthening the muscles around his knee to support his new cardio habit, racking up 10,000 steps a day.

In May, he became interested in pickleball. He and his family now play the racket sport up to five times a week.

He is down to 66kg now and his liver enzyme levels are normal.

Like Mr Lim and Mr Ng, patients with MASLD are often diagnosed when being screened or treated for other conditions.

There is no consensus on screening for MASLD. However, Dr Teng says that screening for advanced liver fibrosis is recommended in patients with type 2 diabetes, obesity with other medical complications, a family history of cirrhosis and significant alcohol use.

Reflecting the need to address the hidden risk of MASLD, non-profit organisation 365 Cancer

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MR JOSEPH LIM, who was working out several times a week when he discovered he had non-alcoholic fatty liver disease

Prevention Society organised Singapore's first free fatty liver disease screening for at-risk lower-income individuals from July 1 to Aug 31.

To be eligible, participants had to be aged 50 to 75; hold blue or orange Community Health Assist Scheme cards; and have at least two of the following risk factors: obesity, type 2 diabetes or a first-degree relative with chronic liver disease. A total of 172 people registered.

Screening has helped Mr Yeo Hock Hin, 70, continue an active and enjoyable retirement. The former development engineer supervisor learnt that he needed treatment for MASLD through his regular check-ups at a polyclinic for his diabetes.

In Mr Yeo's case, the disease has

progressed to liver cirrhosis, which is irreversible. He suffers complications such as swollen blood vessels around the oesophagus. These might burst at any time and cause gastrointestinal bleeding, which can be life-threatening.

Mr Yeo is on medication to reduce the risk of this, and may also have regular procedures to monitor and flatten the blood vessels. He is screened regularly for signs of liver cancer, which is associated with cirrhosis.

His liver condition has stayed stable and does not warrant a transplant, says his specialist, Dr Cheo.

Mr Yeo has adjusted his diet and lifestyle to support his treatment. He tries to hit 10,000 steps a day, usually walking with his wife. The couple might eat breakfast together at a hawker centre, skip lunch and have a simple meal of porridge at night.

They also go on regular overseas holidays, where Mr Yeo enjoys the food and taking long walks in scenic locations. He says: "If you want to live longer, exercise is one of the best medicines. Keep moving."

Screening ensured that his disease was discovered before things could get worse, says Dr Cheo. "I think he is essentially living what most people would deem the ideal life of a senior citizen, despite his medical conditions."

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To better manage his non-alcoholic fatty liver disease, former development engineer supervisor Yeo Hock Hin has adjusted his lifestyle and aims to, among other things, walk 10,000 steps a day.
PHOTO: COURTESY OF YEO HOCK HIN



Healthy diet and exercise go hand in hand

Cutting out fried and fatty foods, and eating a Mediterranean diet instead, can lead to weight loss and help treat or reverse MASLD, formerly known as non-alcoholic fatty liver disease.

PHOTO: ISTOCKPHOTO



FROM C1

WEIGHT LOSS, DIET AND EXERCISE ARE KEY

Dr Eunice Tan, consultant at the National University Hospital's (NUH) division of gastroenterology and hepatology, says that modifying one's diet and lifestyle are key to treating fatty liver disease.

Limit processed food; engage in at least 150 minutes of exercise a week, including both resistance and cardiovascular training; and switch to a Mediterranean diet, she says.

The diet emphasises whole grains over refined carbohydrates, lean proteins (more fish and less red meat), healthy fats and non-

starchy vegetables.

Weight loss is important, adds Dr Tan. "A weight loss goal of 7 to 10 per cent is recommended."

"Most patients who lose 10 per cent of their weight experience no more fat in the liver, decreased inflammation and even a regression of fibrosis," she says.

Eligible patients may be prescribed weight-loss drugs or recommended bariatric surgery.

Dr Lim Su Lin, chief dietitian and head of therapeutics at NUH, has developed a healthy keto diet for weight loss, which limits fat consumption to less than 50 per cent of daily energy (which is tailored to the individual). It emphasises more plant-based options for food than the traditional keto diet.

She says all her patients with MASLD on this diet, who had not yet progressed to liver fibrosis, managed to lose weight and reverse their condition.

One of them is 46-year-old Mr S. Tan, who works in human resources.

The married father of a 13-year-old son also had diabetes, high

cholesterol and hypertension when he started the healthy keto diet in early 2023.

His weight is now between 82kg and 85kg, down from 100kg. At 1.77m tall, that puts him at a BMI of 26 to 27.

His liver condition is under control, he is on the lowest dose of hypertension medication and he is no longer on medication for diabetes as his blood sugar levels have gone down.

"I can play tennis and ball games with my son. I feel more mentally and physically alert," he says.

Food with extra salt and sugar has also become "too extreme" for his taste buds.

CHALLENGES OF TREATING FATTY LIVER DISEASE

Dr Tan says that apart from the initial weight loss, maintaining that lower weight in the long term is essential for liver health.

Doctors know that this is not easy.

Dr Teng treats Mr Ng, who has faced several challenges on his

weight-loss journey. He suffered knee injuries that made it difficult to play sports, his preferred form of physical activity. Instead, he bought himself a stationary bicycle-cum-rowing machine so that he can do cardio at home.

Then there is the temptation of opting for fried or processed food to save time and whet his children's appetites.

Dr Cheo has patients with similar dilemmas. Rather than focusing on dieting, look to increase intake of whole grains, vegetables and fruit, she says.

Carrying a water bottle with lemon-infused water can steer you away from opting for sweetened beverages at the hawker centre or foodcourt.

Retraining your taste buds is also important, she says.

"You have to recalibrate them to get more used to more bland-tasting food. The more sweet stuff you eat, even if it is artificial sweeteners, the more you will crave intense flavours."

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