



MUSICAL COUPLE
David Foster and Katharine McPhee performing together here | **C4**

life

DOC TALK
Liquid biopsy a promising cancer-screening tool | **C2&3**

ART ACQUISITION
Robert Zhao's work acquired by UK's Tate collection | **C5**



Vaccination matters

He lost his immunity, then got Covid-19

Losing vaccine-conferred immunity increases the risk of getting diseases and conditions such as long Covid

Mr Ting Chew Thai (above) contracted Covid-19 before he could begin revaccination treatment, as chemotherapy had wiped out the immunity conferred by previous vaccinations. He also developed graft versus host disease, in which the transplanted bone marrow began attacking his body, and had blisters and scarring on his skin (below). ST PHOTOS: EUGENE TAN



Akshita Nanda
Correspondent

In 2022, Mr Ting Chew Thai received high-dose chemotherapy as part of cancer treatment. It saved his life but, as a result, he lost all the immunity that vaccinations had conferred on him since childhood.

While immunocompromised, the retired engineer also contracted Covid-19.

The effects of Covid-19 were mitigated by a monoclonal antibody treatment. After recovering from the virus, he had to limit social activities until he was cleared to start a revaccination programme.

He would avoid crowds and everyday pleasures, such as going out with friends or eating at the foodcourt. "Without immunity, the first thing on my mind when I saw a crowd was to run away," he says.

The revaccination programme involved him retaking the Covid-19 vaccinations as well as vaccines usually taken in childhood to protect against diseases such as diphtheria, tetanus, measles, mumps and rubella.

After several shots to the arm, he now feels more confident about going out with friends. "Vaccines give you an advantage and there's no harm in taking them," he says. "I feel more comfortable and relaxed now, even in a crowd."

ADULT VACCINATIONS AND IMMUNITY

The Ministry of Health's (MOH) National Adult Immunisation

Schedule recommends vaccines for people aged 18 and above to take to protect themselves against certain diseases.

Currently, the schedule recommends vaccines that protect against 11 diseases - influenza, pneumococcal disease, human papillomavirus, tetanus, diphtheria, pertussis, measles, mumps, rubella, hepatitis B, and varicella (chickenpox). Influenza shots are recommended annually, but others, like the hepatitis B vaccine, have a longer-term effect.

Covid-19 vaccinations are not on the national schedule, but a certain number of doses are recommended to protect against severe disease and minimise the risk of transmission.

According to the MOH website, those aged five and up should receive the minimum protection as follows - three doses of Pfizer-BioNTech/Comirnaty, Moderna/Spikevax or Novavax/Novavaxovid, or four doses of Sinovac-CoronaVac.

MOH statistics show that 81 per cent of the population here has the minimum protection.

Meanwhile, demand for flu and pneumococcal vaccines has gone up with increased awareness of the impact of these diseases, says Dr Edwin Chng, medical director at Parkway Shenton.

However, he adds: "Many Singaporeans are not aware of the importance of vaccination or which vaccines they should be taking."

Vaccines activate "memory" cells of the immune system, which later respond quicker to an infection in the body. The effects of vaccination can be lifelong, thanks to these memory cells.

In Mr Ting's case, however, chemotherapy that was given ahead of a bone marrow transplant killed his memory cells and



Without immunity, the first thing on my mind when I saw a crowd was to run away.

MR TING CHEW THAI, who lost all the immunity that vaccinations had conferred on him since childhood, after receiving high-dose chemotherapy as part of cancer treatment

thus wiped out vaccine-conferred immunity.

This can happen after the intensive chemotherapy required for a stem cell transplant, says Dr Daryl Tan, a haematologist at Mount Elizabeth Novena Hospital. He did not treat Mr Ting.

Other types of chemotherapy do not completely wipe out the immune system's memory, says Dr Tan.

He adds that patients recovering from stem cell transplants are usually put on a revaccination programme. "These vaccinations

"I feel safe now," he says, on being vaccinated again for Covid-19. "There's no stress even if somebody nearby is coughing."

LONG COVID AND VACCINATIONS

Covid-19 vaccinations are vital in reducing the severity and spread of infection. They also reduce the risk of developing "post-Covid-19 condition" or "long Covid".

The World Health Organisation (WHO) explains long Covid as a condition in which people have continuing symptoms, or develop new symptoms, three months after the initial Covid-19 infection.

Long Covid is diagnosed after doctors rule out other medical explanations for these symptoms, which include fatigue, shortness of breath and cognitive dysfunction. A variety of other symptoms have been reported, including heart palpitations and sleeplessness, which can affect a person's ability to carry out everyday activities.

MOH does not track the number of long Covid patients here, according to a Parliamentary reply in April 2022.

Some doctors who treat long Covid patients in Singapore report fewer new patients in 2023 compared with 2022.

In November 2022, the long Covid clinic at the National Centre for Infectious Diseases (NCID) had five to 10 patients a week, says Associate Professor Barnaby Young, head of the Singapore Infectious Disease Clinical Research Network at the centre.

Numbers are falling in 2023, he adds, since more people are vaccinated against Covid-19 and long Covid is more common in the unvaccinated. "Long Covid was more common with the pre-Omicron Sars-CoV-2 variants, which have not circulated since 2021," he adds. Reinfections tend to be milder

than the first infection and less likely to induce long Covid. There are also more treatments available for infected patients now, such as the antiviral drug Paxlovid.

"With previous waves of Covid-19, we would see an increase in referrals to the long Covid clinic about one to two months later. So far, we have not seen this increase from the wave that peaked in May this year," adds Prof Young.

A long Covid clinic at the National University Hospital had 250 patients in 2022 and 130 so far in 2023.

Fewer new cases of long Covid are being seen, says Dr Lim Jeong Hoon, senior consultant, division of rehabilitation medicine at the hospital's department of medicine.

Dr Adrian Chan, a respiratory physician at Mount Elizabeth Novena Hospital, is still seeing long Covid patients with respiratory symptoms such as breathlessness, chest tightness and rhinitis. While he is no longer keeping track of the numbers, his colleague Dr Edgar Tay, a cardiologist at Mount Elizabeth Hospital, saw about one patient a week with long Covid in 2022 and now sees up to two patients a month.

"Most of these patients have symptoms lasting about six months. Around 10 per cent take about a year," says Dr Tay. "Those who restart graduated exercise tend to improve faster than those who are sedentary. Some with palpitations benefit from medications prior to exercise."

Treatments for long Covid are individualised and based on managing symptoms, says NCID's Prof Young. "For some patients, an exercise or rehabilitation programme can help, for others, finding ways to reduce stress or improve sleep can be sufficient."

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