Flu vaccination: Long-term protection explained

Let's start with the new Australian research looking at the long-term effects of influenza immunisation. They studied older and younger people immunised to influenza around 30 years ago and looked at their later immune responses to flu viruses later in life.

They found that influenza immunisation primed their immune system to respond to new flu virus strains in the future. To be technical, the strains were influenza B and influenza A of the H1 type. The added good news is that flu vaccination didn't diminish their immune responses.
The bottom line is that flu jabs, in addition to reducing hospitalisation, serious complications and death during the annual flu season, are also an investment in the future.

The viruses in this year's vaccine are strains of H1N1, H3N2 and Influenza B. You might have heard about the Super K variant of influenza, which seems to be easier to catch but with about the same level of danger as other strains. Super K is an H3N2 strain, and while it's evolving, this year's vaccine aims to cover it.

The urgency is real. By the end of April 2025, Australia had recorded over 70,000 laboratory-confirmed flu cases — a 59% increase on the same period in 2024 and the highest on record since national surveillance began. Vaccinated people were around 56% less likely to present to their GP with flu and 49% less likely to be hospitalised.
The exciting new vaccine which is at last available in Australia is the nasal spray for children and adolescents containing what's called live attenuated virus, which provides a good immune response without needing a jab. And remember, if you're older, there's a higher dose vaccine designed to maximise your immunity.

Last year, too many Australians died or were hospitalised unnecessarily. Flu season is here; it's a good time to raise vaccination with anyone who's overdue.

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Dr Norman Swan AM and Dr John Aloizos AM

The vaping cancer risk is real

Nicotine vapes or e-cigarettes have been widely touted as the safe alternative to cigarettes. They can be used as part of quitting, but even despite restrictions, they are popular recreationally, despite evidence that they are a gateway to tobacco smoking.

Researchers and cancer experts have been warning for a while that there's little or no evidence of vapes being safe, and once lung and mouth cancers start to appear in 20 or 30 years, it will be too late. Which is why a group of Australian researchers decided to pull together the available evidence from cell studies, tissue analysis, animal experiments and genetic research published since 2017.

They found that the components of vapes such as flavouring, the nicotine itself, compounds produced by the heat in the device, and even metals produce a significant range of effects which are known to be on the road to cancer. They include oxidative stress (essentially biological rusting and tissue ageing), DNA damage, epigenetic changes (chemical alterations to DNA which change the way genes function), and inflammation, which adds to tissue damage and ageing.

Individually, each of these mechanisms is part of the cancer causation process, but the researchers point out that they're all working together, amplifying the process.

The Australian review, led by UNSW Sydney and published in the journal *Carcinogenesis*, is described by its authors as the most definitive determination to date that people who vape are at increased cancer risk compared to non-users. Supporting animal studies found that 22.5% of mice exposed to e-cigarette aerosol over 54 weeks developed lung adenocarcinoma. Case reports have also documented heavy vapers presenting with aggressive oral cancers in the absence of traditional risk factors such as smoking or viral infection.

The bottom line is that while lung and oral cancers are yet to appear in vape users, there is no basis for calling vapes safe, and there is now good evidence of major risk.

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Dr Norman Swan AM and Dr John Aloizos AM

Tonic Media Network
Level 6, 114 Castlereagh Street Sydney NSW 2000

The prostate treatment that avoids surgery

There comes a point in many men's lives where they become fed up with the symptoms of a benignly enlarged prostate. These include getting up to the bathroom several times during the night, passing urine and then a few minutes later having to go back again (what urologists call an 'encore'), poor stream force, and sometimes infection from having urine left in the bladder.

There are medications which can help but vary in effectiveness and probably don't prevent the eventual need for surgery. There are many surgical techniques for reducing the size of the prostate, from cutting it out from the inside, laser reduction, and even steam. Recovery from these procedures can take a while, with the discomfort of a catheter for a few days.

But there is a non-surgical treatment which can be done as a day case without significant anaesthesia, rarely the need for a catheter afterwards, and fewer potential complications.

It's called prostate artery embolisation, carried out by a specially trained radiologist who guides a catheter through the arterial system from the wrist or thigh to the artery supplying blood to the prostate gland. They then inject tiny beads which block part of the blood supply, and as a result, over a period of days and weeks, the prostate shrinks.

Radiologists in Queensland have been pioneers of the technique and conducted clinical trials, particularly comparing it to medication. The most recent, the P-EASY ADVANCE study from the University of Queensland and I-MED Radiology, compared embolisation directly against combination medical therapy in men who had never been treated before. Across every measure tested, including prostate volume, urinary obstruction, symptom scores and quality of life, embolisation outperformed medication.

Embolisation reduces the size of the prostate more, has fewer side effects including erectile dysfunction, and improves men's symptoms to a much greater extent than medication.
It is reimbursable, and an increasing number of radiologists have been and are being trained in embolisation. The main barrier at the moment is that the clinical guideline on treating prostatic hypertrophy is controlled by urologists, some of whom are still hostile to the idea of this non-surgical approach.

For men fed up with medication and wary of surgery, it's a referral pathway worth knowing about.

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Dr Norman Swan AM and Dr John Aloizos AM