



Another reason to have the shingles vaccine, especially for older patients

Read time: 2 minutes

There is already strong evidence that the shingles vaccine is associated with a lower risk of dementia. But a review of available studies suggests that it may also be associated with a reduced risk of heart disease and stroke. This comes from a presentation at a recent cardiology conference, and it should be noted that the research appears to have been funded by a vaccine manufacturer. To be fair though, the results apply to both the older live-attenuated vaccine (Zostavax) and the newer recombinant formulation (Shingrix).

How it works

The proposed mechanism is that by preventing reactivation of the varicella-zoster virus (herpes zoster), there is reduced vascular damage and inflammation in the arteries—both key contributors to cardiovascular disease. The virus can cause ongoing low-grade inflammation that affects blood vessel walls, so preventing its reactivation may have protective effects beyond just avoiding the painful rash of shingles.

Broader implications for vaccination

Tantalisingly, these effects may go beyond the shingles vaccine to a wide range of immunisations in older people. The theory is that vaccination provides stimulation and perhaps even rejuvenation of the immune system, offering benefits beyond the specific disease being targeted. This concept, sometimes called “trained immunity,” suggests vaccines may have broader health impacts than we traditionally understood.

The clinical message

This emerging evidence reinforces the importance of maintaining recommended vaccinations throughout life, not just in childhood. For healthcare professionals, it provides additional rationale when discussing adult vaccination with patients who may be hesitant. For eligible patients (generally those aged 65 and over, or 50 and over with certain risk factors) the shingles vaccine offers multiple layers of protection worth considering.

References:

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Taquet, M., Dercon, Q., Todd, J.A. *et al*. The recombinant shingles vaccine is associated with lower risk of dementia. *Nat Med* **30**, 2777–2781 (2024). <https://doi.org/10.1038/s41591-024-03201-5>

National Lung Cancer Screening Program

Read time: 3 minutes

Information packs for the National Lung Cancer Screening Program (NLCSP) have just been distributed to general practices across Australia. While the program launched in July, these resources provide practical guidance for identifying and referring eligible patients for screening, particularly those with Chronic Obstructive Airways Disease (COPD) and significant smoking histories, to find lung cancer and save lives.

Target population

The NLCSP is a screening program using low dose computed tomography (low-dose CT) scans to look for lung cancer in high-risk individuals (aged 50-70 years) without any symptoms, and targets:

- Current and former smokers with chronic obstructive pulmonary disease (COPD/emphysema)
- Patients with significant smoking history (typically 20+ pack years)
- Those within the eligible age range as specified in the program guidelines

Patients with COPD face substantially elevated lung cancer risk due to cumulative tobacco-related lung damage, making them a priority cohort for early detection.

The evidence for screening

Low-dose CT screening in high-risk populations has demonstrated mortality reduction of up to 20% in major international trials, including the US National Lung Screening Trial and the NELSON study in Europe. Early detection enables curative intervention before symptoms emerge, when treatment outcomes are significantly better.

Lung cancer remains one of Australia's leading causes of cancer death, predominantly due to late-stage diagnosis. Screening offers an evidence-based opportunity to shift detection earlier in the disease trajectory.

Implementation in practice

The screening process involves low-dose CT chest scans – quick, non-invasive imaging that can be completed in minutes. Practices should consider:

- Reviewing patient lists to identify those meeting eligibility criteria
- Raising screening during routine COPD reviews and respiratory consultations
- Discussing the program during smoking cessation conversations with current and former smokers
- Incorporating screening discussions into health assessments for eligible age groups

Program resources

Detailed eligibility criteria, referral pathways, and patient information resources are available through Cancer Australia. The information packs sent to practices include decision-support tools to assist with patient conversations about screening benefits and limitations.

Clinical considerations

As with any screening program, shared decision-making is essential. Patients should understand both the potential benefits (early cancer detection) and considerations (false positives, anxiety, radiation exposure from CT). The program materials include resources to support these conversations.

For patients with COPD who meet eligibility criteria, lung cancer screening represents an important secondary prevention strategy alongside smoking cessation support and optimal COPD management.

Further information: Cancer Australia – www.canceraustralia.gov.au

Is Running Bad for Your Knees?

Read time: 1 minute

It's a widely held belief that running grinds your knee joints to dust over time, eventually leading to a knee replacement.

This is largely a myth. Running on healthy, uninjured knees is actually good for joint health. The repetitive impact strengthens bone density, builds leg strength and stability, and helps maintain a healthy weight—all protective factors for your knees.

Injury is the real problem

What is bad for your knees is injury, particularly ligament and meniscal tears. Sports that involve rapid direction changes, jumping and contact carry significantly higher injury risks. Netball is notorious for knee injuries, as are football and rugby. Leading experts in the field suggest that if we change how young athletes are coached in these sports, by introducing sports-specific neuromuscular training, we could substantially reduce the risk of knee arthritis later in life and the subsequent need for joint replacement surgery.

Certain occupations also take their toll on knee health. Farming, with its repetitive kneeling, heavy lifting and awkward positioning, is particularly associated with increased knee stress and cumulative joint damage.

What the evidence shows

A comprehensive review of the evidence found that recreational runners had one third of the prevalence of knee arthritis compared to non-runners. So, if you've been putting off running due to concerns about your knees. and you're currently injury-free – get back on your feet!

Reference:

The Association of Recreational and Competitive Running With Hip and Knee Osteoarthritis: A Systematic Review and Meta-analysis
Eduard Alentorn-Geli, Kristian Samuelsson, Volker Musahl, Cynthia L. Green, Mohit Bhandari, and Jón Karlsson
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