

# Influenza vaccination: 2021 review of indications

No. 2021/39, The Hague, 20 September 2021

## Executive summary

---

Health Council of the Netherlands



Flu is a common infectious disease caused by the influenza virus. For most people, flu is not serious, but for the elderly and people with certain conditions, flu can lead to serious complications or even death. Every year, these risk groups are offered vaccination against influenza as part of the Dutch National Influenza Prevention Programme (NPG). At the request of the State Secretary for Health, Welfare and Sport, the Health Council of the Netherlands has assessed whether the current state of science gives cause to modify the risk groups and to use other types of vaccines. This advisory report has been drawn up by the permanent Committee on Vaccinations.

### **Continue to use current vaccines**

There are several vaccines available against influenza. The influenza virus is reviewed every year and its composition is determined about 6 months before the flu season, based on the flu

viruses circulating at that time. The match between the vaccine and the flu viruses that end up circulating during flu season can differ from one year to the next. Various efforts are being made to increase the effectiveness of vaccines. For example, researchers are investigating vaccines with an added adjuvant, which serves to ensure that the vaccine elicits a better immune response. Research is also being done on vaccines with an increased dose of antigen – the substance that triggers the immune system to make antibodies. The committee has assessed these new types of vaccines, but there is not yet enough scientific data available to make a conclusive statement about whether they have any added value over the vaccines that are currently in use in the Netherlands.

### **Keep vaccination timing unchanged**

The committee has also examined vaccination timing. Flu epidemics usually begin in December

or January, but the start of flu season and how long it lasts can vary from one year to the next. Vaccination in late October/early November appears to offer protection against both early and late epidemics. Studies of influenza epidemics in recent decades suggest that the peak in the number of infections, which is usually around February, may be shifting to later in the year. According to the committee, however, there is not yet enough evidence to delay vaccination and risk insufficient protection in the event of an early epidemic.

### **Keep current risk groups, making several adjustments**

There are no signs in the scientific literature that major changes are needed with regard to the current groups eligible for vaccination within the NPG. However, for some risk groups, the target groups could be defined more specifically or be expanded. The committee recommends that



patients who have suffered lung damage as a result of COVID-19 should also be included in the risk group ‘patients with conditions and functional disorders of the airways and lungs’.

Table 1 provides an overview of the recommended adjustments.

### **Keep the age limit unchanged and do not set an upper limit**

In the committee’s opinion, the age limit for vaccinating healthy elderly people can stay at 60 years. The committee also recommends not introducing a maximum age for flu vaccination. There is insufficient evidence that the effectiveness of influenza vaccination decreases in people aged 80 years and older, as is the case with pneumococcal vaccination, which the Health Council previously advised.

### **Add several medical risk groups**

The committee recommends adding several medical risk groups to NPG, because there is evidence in the scientific literature that certain health factors may lead to increased risk of

significant disease burden from influenza. For example, people with morbid obesity (BMI  $\geq 40$ ) are at increased risk of hospitalisation, admission to an intensive care unit (ICU) or death from influenza.

The committee also believes that dementia should be added as a medical risk, as it has been shown to be a risk factor for death from flu and pneumonia.

People with implantable hearing aids are also a medical risk group according to the committee. They are at risk of contracting meningitis from flu, which is often preceded by an acute middle ear infection.

### **Do not include healthy children in NPG**

The committee sees no reason to include healthy children between 6 months and 18 years of age in NPG because the disease burden on children is relatively low. Although flu is common, serious complications are rare. The risk-benefit ratio of vaccination (acceptability) is not favourable for children.

### **Include pregnant women in NPG**





In children between 0 and 6 months (infants), the flu can be serious. It can lead to breathing difficulties and can, at times, lead to hospitalisation. Infants cannot be vaccinated against flu. However, vaccinating the mother during pregnancy can offer protection, which is why the committee recommends including healthy pregnant women in NPG. Getting a flu shot will also benefit pregnant women themselves, as they are hospitalised due to influenza more often than non-pregnant women. Vaccination can help prevent this. The flu shot can be offered from the 22nd week of pregnancy, during the annual flu shot drive and during the epidemic.



### All adjustments and additions at a glance

Table 1 lists the existing risk groups for annual flu vaccination that can remain in the NPG, with or without any adjustments, and the target groups to be added.

**Table 1** Recommended target groups for flu vaccination

<b>Unchanged target groups</b>	
Patients with chronic heart dysfunction	
Patients with diabetes	
Patients who have recently undergone a bone marrow transplant	
Patients infected with HIV	
Children and adolescents from 6 months to 18 years undergoing long-term treatment with salicylates	
People with impaired resistance to infections	
Residents of nursing homes	
People over 60s	
<b>Expanded or restricted target groups</b>	
Patients with chronic renal insufficiency	
People with intellectual disabilities living in residential facilities	
Patients with conditions and disorders of the airways and lungs	
Family members/household members of people at very high risk of serious illness and death due to influenza*	
<b>Target groups to be added</b>	
People with morbid obesity (BMI $\geq 40$ )	
People with dementia (under 60s)	
People with cochlear implants	
Pregnant women from 22 weeks of pregnancy	
<b>Target groups that have been considered but have not been included</b>	
Children	

\* This group has not been included in the National Influenza Prevention Programme, although this was recommended by the Health Council in 2007



The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity. The reports are available to the public.

This publication can be downloaded from [www.healthcouncil.nl](http://www.healthcouncil.nl).

Preferred citation:

Health Council of the Netherlands. Influenza vaccination: 2021 review of indications.

The Hague: Health Council of the Netherlands, 2021; publication no. 2021/39.

All rights reserved

