



## **Should children be vaccinated against Covid-19?**

**Press release from the French National Academy of Medicine**

**November 15, 2021**

Exposed to the 5th epidemic wave of Covid-19 spreading from east to west on the European continent, will the French population be sufficiently protected to escape a new saturation of hospital resources and intensive care beds?

Although the 75% vaccination coverage rate is among the highest in the world, nearly 7 million people over the age of 12 remain unvaccinated, giving SARS-CoV-2 the opportunity to spread once again throughout the country and generate thousands of contaminations. We must therefore expect a resurgence of severe forms of the disease and deaths, which will principally strike vulnerable people due to their age or co-morbidities, mainly those who have not yet been vaccinated.

In at-risk individuals who have already been vaccinated, giving a booster dose six months after the second injection of the vaccine will prolong protection against severe forms, but it will have little impact on the virus circulation. Indeed, if the prevention of severe forms persists for a long time, protection against contamination decreases in less than 6 months [1]. But, it is now in the 20-50 age group that the highest incidence rates are observed.

Two complementary approaches could increase population vaccination coverage above 90%, considered necessary to control the circulation of the Delta variant: (1) the introduction of a vaccination pass making vaccination compulsory for people aged 12 and over, recommended since May 2021 by the French National Academy of Medicine [2]. (2) the extension of vaccination to children aged 5 to 11 years, a measure already approved in the United States and Israel.

In France, the benefits/risks of vaccinating children against Covid-19 cannot be modeled on those taken into account in foreign countries, both at the individual and collective level. A distinction must be made between:

1. the arguments in favor of children vaccination:

- the immunogenicity and safety profile of a vaccination scheme consisting of 2 doses of 10 µg of BNT162b2 vaccine (BioNtech/Pfizer) 21 days apart was considered very satisfactory in children aged 5-11 years in the NCT04816643 trial, with a vaccine efficacy rate of 90.7% [3].

- the direct individual benefit linked to the prevention of severe cases, hospitalizations and prolonged forms of Covid-19, less frequent in children, even though not negligible;
- the potential reduction of virus circulation in the children's family environment and the indirect protection of those at risk who are part of this environment;
- the potential reduction of virus circulation in primary schools, avoiding class closures, learning delays and social and economic costs for families
- the possible depletion of the SARS-CoV-2 reservoir in the child population, from which new epidemic foci and new variants could emerge.

## 2. the arguments against vaccinating children:

- the number of children enrolled in phase 2/3 clinical trials (1517 vaccinated vs. 751 with placebo), still very insufficient to detect possible severe and rare adverse events [3];
- the rarity of severe forms of Covid-19 in children, except in those with co-morbidities (the main one being obesity, significantly more prevalent in the US than in France in the child population);
- the ethical principle that the vaccination of children, who are at low risk of developing severe forms of the disease, should not be used to achieve herd immunity in order to compensate for the refusal of some adults to be vaccinated;
- the speculative advantage of a strategy allowing natural immunity to develop in the population by allowing the virus to circulate in the groups least at risk of developing severe forms of Covid-19.

## Pending further evidence of the vaccine's safety in children, the **French National Academy of Medicine recommends:**

- to extend immunization against Covid-19 with the BNT162b2 vaccine to children at risk of severe forms due to comorbidities, whatever their age, as well as to other children living in their family and school environment;
- to vaccinate children living in the entourage of vulnerable adults, in particular immunocompromised people and people with chronic diseases;
- to strengthen the prevention of transmission in the school environment by maintaining barrier measures, regular ventilation of the premises and periodic use of screening tests.

## References

1. Tartof SY et al. Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study. *Lancet*. 2021, 16; 398 (10309): 1407-16.
2. French National Academy of Medicine press release: "Obligation" is not a foul word when it applies to vaccinating against Covid-19", May 25, 2021

3. Walter EB et al. Evaluation of the BNT162b2 Covid-19 Vaccine in Children 5 to 11 Years of Age. *N Engl J Med*, 2021 Nov 9. doi: 10.1056/NEJMoa2116298.