

## **Vaccination of children aged 5 to 11 against Covid-19: don'thesitate any longer**

Press release of the French National Academy of Medicine and the French Academy of Sciences

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The spread of the Omicron variant and its high level of circulation throughout the world raise fears of the emergence of other variants or sub-variants in the absence of a sufficiently high herd immunity. Genetically very different from previous variants, Omicron has modified this pandemic wave of Covid-19 by two essential characteristics: a transmissibility 3 times higher than that of the Delta variant and a lower virulence. Another striking fact, observed over the past two months, is the high incidence of infection among children favoring transmission in schools and families. As in the United States, this phenomenon is accompanied by a significant increase in daily pediatric hospitalizations: during the second week of 2022, 979 children from 0 to 9 years old were hospitalized (source GEODES), nearly 80% of them without any comorbidity [1], and 9 deaths have occurred since January 1 (source GEODES).

It is of course necessary to distinguish between children hospitalized "for Covid" and children hospitalized "with Covid" but for another reason. However, the share of the former remains higher and includes a significant proportion of pediatric multi-systemic inflammatory syndromes (PIMS) whose onset is delayed compared to the infection (3 to 12 weeks later) and generally attributable to the Delta variant [2].

Vaccination in the 5–11year group was initially recommended only for children with comorbidities at risk of severe disease [3], then from December 20, 2021 onwards, for all children, although not mandatory [1].

The low vaccination coverage of children under 11 years old (1.9% in 5-9 years old and 6% in 10–11years-old) [4] preferentially exposes this age group to a high level of circulation of the highly contagious Omicron variant, particularly among primary school children.

The only currently licensed formulation for children from 5 to 11 years old is the Comirnaty BioNTech-Pfizer 10 micrograms Child vaccine, whose efficacy and safety have been confirmed by real-life studies in the US and Israel, now involving more than 10 million children. The benefit/risk ratio of healthy children vaccination, long disputed because of the low rate of severe forms of Covid-19 before the age of 12, is largely positive on an individual level [2].

The individual benefit must be clearly explained to parents: it is an undeniable direct benefit through the induction of an immunity stronger than that induced by the infection alone, or it will reinforce this immunity and protect the children by reducing the risk of severe forms linked

to new variants, in the short and medium term. The rarity of post-vaccination adverse events must be weighed against the existence of severe forms (PIMS, myocarditis, long Covid), whose frequency is likely to increase with the resurgence of symptomatic cases currently observed in children.

The collective benefits of vaccinating children must also be recalled in several conditions (school, family, psychological and social status, etc.), as well as the strengthening of collective immunity, necessary to reduce the spread of viruses and limit the possible emergence of new variants.

To prevent the individual and collective risks linked to the unpredictable evolution of the pandemic, **the Academies recommend to accelerate the vaccination of children aged from 5 to 11 years old against Covid-19 in order to reach a good vaccination coverage as soon as possible:**

- by increasing the vaccination offer, i.e. the number of centers allowing vaccination for children (currently 300 compared to 1500 for adults);
- by diversifying the people authorized to vaccinate children;
- by reducing the administrative obstacles that limit children's access to vaccination;
- by promoting vaccination appointments for school children;
- by organizing vaccination sessions at school, by mobile teams, in consultation with school medicine;
- by “reaching out” children with co-morbidities not yet vaccinated to convince their parents of the need to vaccinate them given the risk of severe forms;
- by using all the means of information and communication devoted to health education in order to convince and reassure hesitant parents.

1. Haute autorité de santé " Stratégie de vaccination contre la Covid-19 - Place du vaccin à ARNm COMIRNATY® chez les 5-11 ans ", December 20, 2021
2. Santé Publique France. What is the epidemiological situation related to Covid-19 in 0–17-year-olds? January 13, 2022
3. Press release of the French National Academy of Medicine " Should children be vaccinated against Covid-19?", November 15, 2021
4. Santé Publique France. COVID-19 point épidémiologique, n°99, January 20, 2022,