

## No, the COVID vaccine does not make you infertile

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*In Quebec, the COVID-19 vaccination campaign is a great success of which we can all be very proud. As of June 20th, 80% of the population over the age of 12 has received at least one dose of one of the available vaccines, a percentage that reaches 90% among those aged 50-69 and over 95% among those aged 70 years and older. This extraordinary mobilization of Quebecers has made it possible to drastically lower the incidence of the disease in recent weeks and to confidently envision the return to a more normal life in the near future.*

### RELUCTANCE AMONG YOUNG PEOPLE

The only downside is the lower vaccination rate observed among young adults aged 18 to 29, with only 68% of this age group having received at least one dose of a vaccine so far.

This reluctance is probably partly explained by the fact that young people are much less at risk of complications from the disease and therefore feel less urgent to be vaccinated.

Another factor that seems to play a role in a certain segment of this population is the dissemination, via social networks, of certain myths about alleged side effects of vaccines, for example a decrease in fertility (1).

Among the worst examples of these absolutely baseless claims is the myth that sex with a vaccinated man could make a woman infertile or that 97% of those vaccinated will become infertile and that the current vaccination campaign will therefore result in sterilization of an entire generation.

Few people will believe such far-fetched claims, usually propagated by groups who are against any form of vaccination, but it is still important to respond scientifically to these claims to dispel any confusion that may cast doubt on the safety of current anti-COVID vaccines.

### NORMAL SPERM

According to results obtained by a group of American urologists, vaccination has absolutely no negative impact on male fertility (2).

Comparing semen samples collected before vaccination and 70 days after the second dose of mRNA vaccines, the researchers found no reduction in sperm count and motility, two parameters commonly used to estimate male fertility.

These results are not surprising given that these vaccines contain only the mRNA encoding a portion of the virus (and not the virus itself) and that there is no plausible biochemical mechanism that could explain a negative impact of this mRNA on sperm production and / or function.



False beliefs do not stand the test of fact, and these results clearly show that the fear of impaired fertility following vaccination is completely unfounded.

### COUNTERING VARIANTS

Not only are the current vaccines safe, but they remain the only way to prevent a surge in COVID-19 in the coming months.

The forms of the virus currently in circulation are increasingly highly transmissible variants (the Delta variant, for example) which can spread like wildfire in unvaccinated people, as is currently the case in the UK and in parts of the United States.

Young adults are particularly vulnerable to this type of variant because of their active social life, which brings them into contact with a large number of people during friendships or parties.

These gatherings may actually represent important sources of transmission of the virus: for example, a recent study reports that in areas where the virus is circulating, social gatherings linked to birthdays are associated with a 31% increase in incidence of COVID-19 compared to the surrounding population (3).

The only way to celebrate without risking getting infected is to get vaccinated.

- (1) Berry SD et al. Lessons learned from frontline skilled nursing facility staff regarding COVID-19 vaccine hesitancy. *J. Am. Geriatr. Soc.* 2021; 69: 1140-1146.
- (2) Gonzalez DC et al. Sperm parameters before and after COVID-19 mRNA vaccination. *JAMA*, (published online, June 17<sup>th</sup>, 2021)
- (3) Whaley CM et al. Assessing the association between social gatherings and COVID-19 risk using birthdays. *JAMA Intern. Med.* (published online, June 21<sup>st</sup>, 2021)