

Information Regarding COVID-19 Vaccines for Patients with Gaucher Disease- May 2021

Physicians caring for patients with Gaucher disease are receiving many inquiries regarding the new COVID-19 vaccines. Here, a panel of physicians from Gaucher centers address your questions:

Should I get the vaccine? It is highly recommended that everyone aged 16 or older receive the vaccine as per FDA emergency use authorization issued December 2020. COVID-19 can be a serious, highly infectious and unpredictable illness, and the risks of the infection far outweigh the risks associated with the vaccine. The disease is still spreading rapidly through communities in the United States and elsewhere. Careful trials of the vaccines indicate that they are safe and effective, and they have gone through a rigorous approval process. To the best of our collective knowledge, there is no reason why patients with Gaucher disease would have additional adverse events from the vaccines. Like most vaccines, the shot can cause mild side effects including a low-grade fever, pain or redness at the site, but these reactions go away after a few days. Additional and serious side effects are extremely rare in our relatively short-term post-vaccination experience. As recommended for anyone receiving such vaccinations, persons with Gaucher disease who have previously had a major allergic reaction (anaphylaxis) to food, or to Gaucher or other medications should alert the healthcare facility providing the injection and should be closely monitored for at least 30 minutes after their injection. If you receive enzyme, we suggest that you do not get vaccinated on the day of or day after your infusion. If you already had COVID-19, you should still get the vaccine. If the vaccine is given in two doses, be sure to get both shots.

Can the vaccine give me COVID-19? Two of the vaccines currently being administered, from Pfizer-BioNTech and from Moderna are what are called mRNA vaccines. The virus itself is **not** being injected into people. Instead, the mRNA clues the body to make the spike protein found on the outside of the virus. Then, the body's own cells react to that protein, training one's own immune cells to fight back any further infection. The Johnson & Johnson Janssen vaccine uses double-stranded DNA instead of RNA to provide the instructions for the spike protein and is given as a single dose. These vaccines will not interact with or affect a person's own DNA in any way.

Can my child with Gaucher disease get the vaccine? Recent trials of the vaccines in adolescents have shown very encouraging results, and the FDA has now authorized the Pfizer-BioNTech COVID-19 Vaccine for administration in children ages 12 and older. More new data is likely to be available soon regarding the effectiveness and safety of the different vaccines in all age groups. We feel that once approved for a given age, the vaccines can also be given to children with Gaucher disease in the same age groups. There is currently no evidence that COVID-19 vaccination causes problems in pregnancy or with fertility.

Should I have priority for vaccination since I have Gaucher disease? Each state decides how they will distribute the vaccine. The official recommendations state that people over age 65 and those who have underlying health risks should get priority over the general population. In our view, Gaucher disease is a chronic medical disorder, and thus our patients would be considered to have an underlying health problem. That being said, our collective experience over the past months indicate that patients with Gaucher disease who do not have other serious health issues do not seem to be more susceptible to COVID-19, nor do they appear to be having more severe cases just because of Gaucher disease. Many, many people have high-risk medical conditions (likely over 100 million people in the USA). Patients with Gaucher disease who are stable on treatment or who haven't suffered complications from their disease generally fall into this large group. However, if you have Gaucher disease and other serious risks, including, but not limited to, heart disease, kidney disease, obesity, chronic lung disease, coagulation or immune problems, you could fall into a higher risk group and you should discuss this with your doctor. We feel that if given the opportunity, patients with

Gaucher disease should get vaccinated as soon as they are able to. The faster the vaccines get into people, the sooner the pandemic will be halted. Meanwhile and after vaccination, continue to social distance, wear masks and wash those hands!

This statement was authored by a panel including: Manisha Balwani MD, Deborah S. Barboth MD, T. Andrew Burrow MD, Robin Ely MD, Edward I. Ginns MD, PhD, Ozlem Goker-Alpan MD, Gregory A. Grabowski MD, Priya S. Kishnani MD, Heather Lau MD, Nicola Longo MD, PhD, Grisel Lopez MD, Gustavo Maegawa MD, PhD, Pramod Mistry MBBS, PhD, Seymour Packman MD, Barry Rosenbloom MD, Tamanna Roshan Lal, MB ChB, Raphael Schiffmann MD, Ellen Sidransky MD, Neal Weinreb MD.