

# RARE, BUT SEVERE, SIDE EFFECTS FOLLOWING COVID-19 VACCINATION

**Thrombosis with thrombocytopenia syndrome (TTS)** occurs when a person develops blood clots in association with a low platelet count. TTS can be life threatening. It has been identified rarely following receipt of the adenovirus-vector-based COVID-19 vaccine.

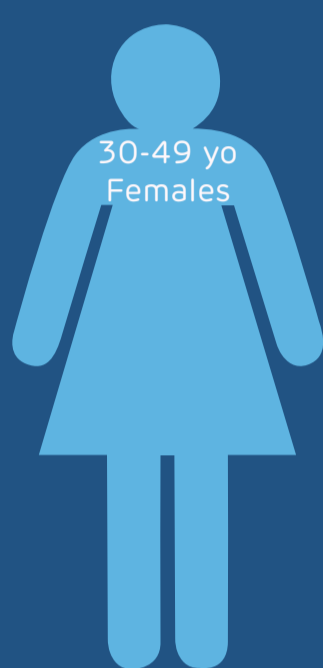
**Guillain-Barre syndrome (GBS)** occurs when the immune system attacks the nervous system, causing muscle weakness that can last for months or years. GBS can occur after an infection or more rarely, after receipt of some vaccines, such as the adenovirus-vector-based COVID-19 vaccine.

**Myocarditis** is an inflammation of the heart, which can occur after an infection, such as COVID-19, or more rarely, after receipt of the mRNA-based COVID-19 vaccine.

## Who is most at risk for these side effects?

While anyone can experience one of these rare, but severe, side effects, each tends to be more likely to occur in a specific subgroup of people. Interestingly, the three side effects are more likely in different subgroups:

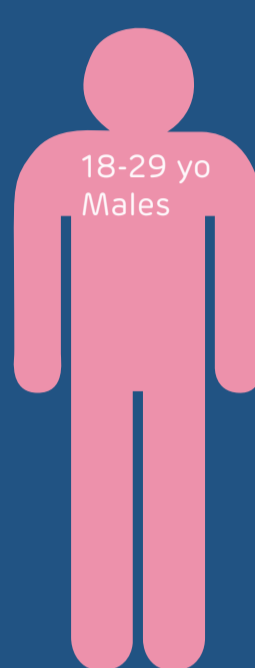
### TTS



### GBS



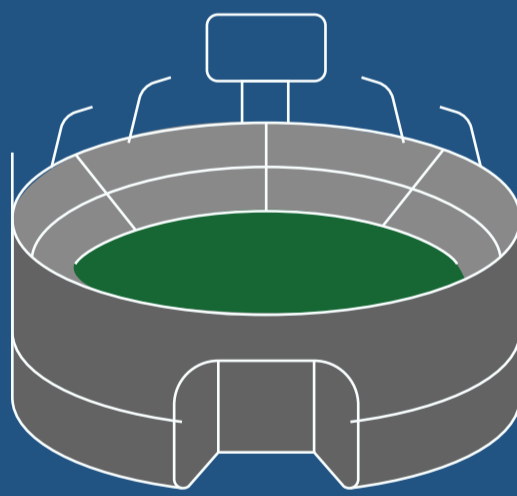
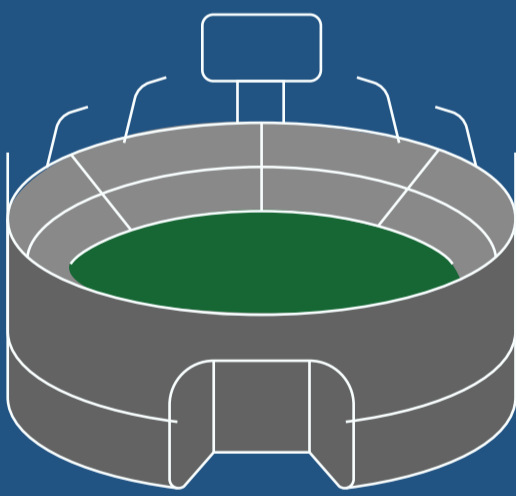
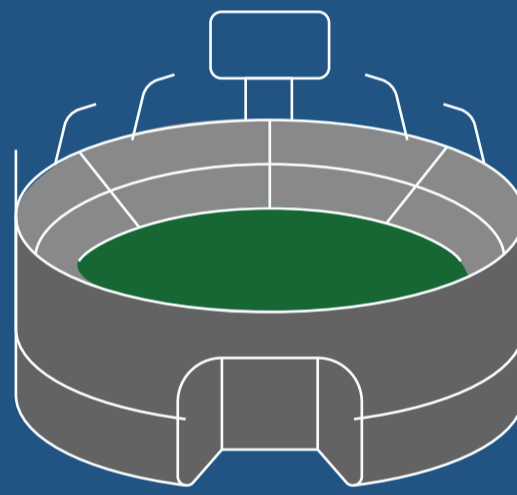
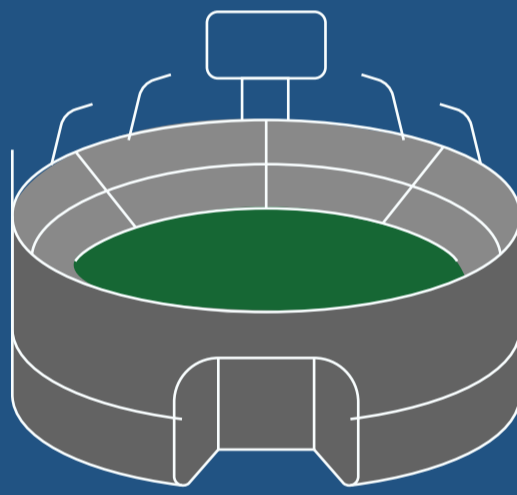
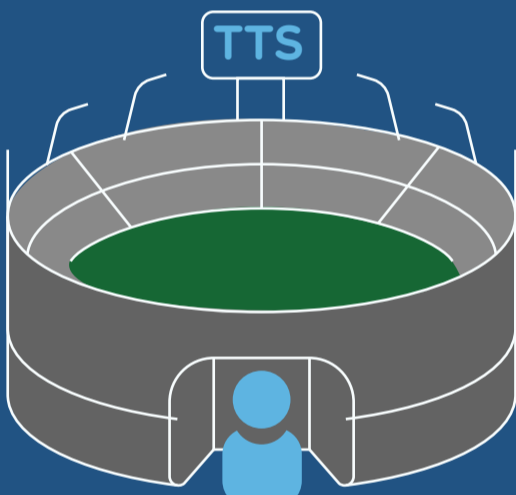
### Myocarditis



## Rates of Severe Side Effects

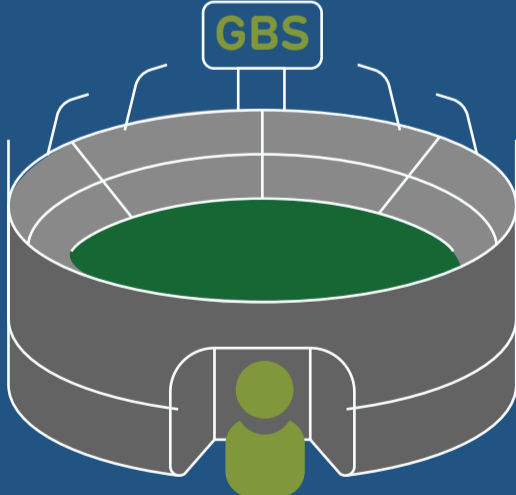
If each stadium seats 100,000 people:

### TTS



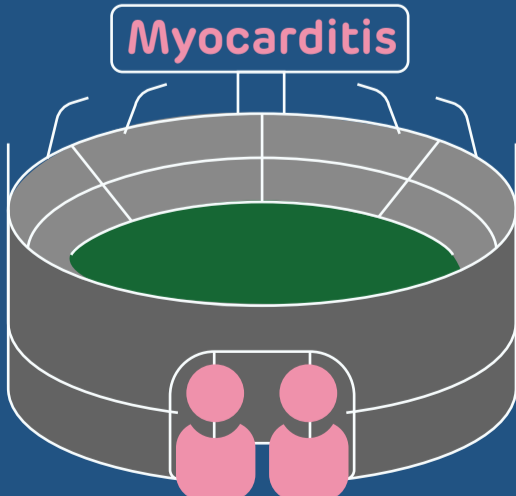
Vaccine type: Adenovirus vector vaccine (J+J)  
Rate: 1 of 500,000 vaccinated people would get TTS.

### GBS



Vaccine type: Adenovirus vector vaccine (J+J)  
Rate: 1 of 100,000 vaccinated people would get GBS.

### Myocarditis



Vaccine type: mRNA vaccine (Pfizer and Moderna)  
Rate: 2 of 100,000 vaccinated people would get myocarditis.

Source: Rosenblum HG, Hadler SC, Moulia D, et al. Use of COVID-19 vaccines after reports of adverse events among adult recipients of Janssen (Johnson & Johnson) and mRNA COVID-19 vaccines (Pfizer-BioNTech and Moderna): Update from the Advisory Committee on Immunization Practices – United States, July 2021. MMWR Morb Mortal Wkly Rep. 2021 Aug 13;70(32):1094-1099.