



Vaccine Safety: Anaphylaxis and COVID-19 vaccinations^{1,2}

The CDC Advisory Committee on Immunization Practices has issued [interim recommendations](#) for the [Pfizer-BioNTech](#) and [Moderna](#) COVID-19 vaccines for prevention of COVID-19 in the US. Anaphylaxis is a severe, life-threatening allergic reaction which occurs rarely after vaccination and has been reported with the Pfizer-BioNTech COVID-19 vaccine.

During December 14–23, 2020, monitoring by the Vaccine Adverse Event Reporting System (VAERS) detected 21 cases of anaphylaxis after administration of a reported 1,893,360 first doses of the Pfizer-BioNTech COVID-19 vaccine (11.1 cases per million doses); 71% of these occurred within 15 minutes of vaccination. **Appropriate medical treatment for severe allergic reactions must be immediately available in the event that an acute anaphylactic reaction occurs following administration of an mRNA COVID-19 vaccine.**

Medications and Supplies for Assessing and Managing Anaphylaxis³ (should be available at all sites, at minimum)

- Epinephrine prefilled syringe or autoinjector (≥ 3 doses)
- Blood pressure cuff
- Timing device to assess pulse
- H1 antihistamine (e.g., diphenhydramine)
- Stethoscope

Contraindications & Precautions²

CDC considers a history of the following to be a contraindication to vaccination with both COVID-19 vaccines:

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose of an mRNA COVID-19 vaccine or its components
- Immediate allergic reaction of any severity to a previous dose of an mRNA COVID-19 vaccine or its components (including polyethylene glycol [PEG])*
- Immediate allergic reaction of any severity to polysorbate (due to potential cross-reactive hypersensitivity with the vaccine ingredient PEG)*

**These persons should not receive mRNA COVID-19 vaccination at this time unless they have been evaluated by an allergist-immunologist and determined that the person can safely receive the vaccine.*

CDC considers a history of any immediate allergic reaction to any other vaccine or injectable therapy as a precaution but not a contraindication to vaccination for both COVID-19 vaccines.

Triage of persons presenting for mRNA COVID-19 vaccination⁴

MAY PROCEED WITH VACCINATION	PRECAUTION TO VACCINATION	CONTRAINDICATION TO VACCINATION
<p>ALLERGIES</p> <ul style="list-style-type: none"> • History of allergies that are unrelated to components of an mRNA COVID-19 vaccine, other vaccines, injectable therapies, or polysorbate, such as: • Allergy to oral medications (including the oral equivalent of an injectable medication) • History of food, pet, insect, venom, environmental, latex, etc., allergies • Family history of allergies <p>ACTIONS</p> <ul style="list-style-type: none"> • 30-minute observation period: Persons with a history of anaphylaxis (due to any cause) • 15-minute observation period: All other persons 	<p>ALLERGIES</p> <ul style="list-style-type: none"> • History of any immediate allergic reaction to vaccines or injectable therapies (except those related to component of mRNA COVID-19 vaccines or polysorbate, as these are contraindicated) <p>ACTIONS:</p> <ul style="list-style-type: none"> • Risk assessment • Consider deferral of vaccination and/or referral to allergist-immunologist • 30-minute observation period if vaccinated 	<p>ALLERGIES</p> <ul style="list-style-type: none"> • History of the following are contraindications to receiving either of the mRNA COVID-19 vaccines: • Severe allergic reaction (e.g., anaphylaxis) after a previous dose of an mRNA COVID-19 vaccine or any of its components • Immediate allergic reaction of any severity to a previous dose of an mRNA COVID-19 vaccine or any of its components (including polyethylene glycol) • Immediate allergic reaction of any severity to polysorbate <p>ACTIONS</p> <ul style="list-style-type: none"> • Do not vaccinate • Consider referral to allergist-immunologist

References:

1. CDC MMWR. [Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine — United States, December 14–23, 2020](#). January 6, 2021.
2. CDC ACIP. [Interim Clinical Considerations for Use of mRNA COVID-19 Vaccines Currently Authorized in the United States](#). December 30, 2020.
3. CDC ACIP. [Interim considerations: preparing for the potential management of anaphylaxis after COVID-19 vaccination](#). Accessed January 3, 2021.
4. CDC Clinical Outreach and Communication Activity Webinar. [Update on Allergic Reactions, Contraindications, and Precautions](#). December 30, 2020.