

# COVID-19 Vaccine

Quick Reference Guide for  
Healthcare Professionals



The table below provides basic information on the proper storage, preparation, and administration of the currently authorized COVID-19 vaccine products in the United States. For additional information and detailed clinical guidance go to the manufacturers' website and CDC's webpages listed.

## General Information

	Pfizer-BioNTech	Moderna	Janssen
<b>Authorizations and Approvals</b>	<a href="http://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/pfizer-biontech-covid-19-vaccine">www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/pfizer-biontech-covid-19-vaccine</a>	<a href="http://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/moderna-covid-19-vaccine">www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/moderna-covid-19-vaccine</a>	<a href="http://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/janssen-covid-19-vaccine">www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/janssen-covid-19-vaccine</a>
<b>CDC Vaccine Information</b>	<a href="http://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html">www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html</a>	<a href="http://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html">www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html</a>	<a href="http://www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html">www.cdc.gov/vaccines/covid-19/info-by-product/janssen/index.html</a>
<b>Manufacturer Contact Information</b>	<b>Website:</b> <a href="http://www.cvdvaccine.com">www.cvdvaccine.com</a> <b>Medical information:</b> 800-438-1985 <b>Customer service:</b> 800-879-3477	<b>Website:</b> <a href="http://www.modernatx.com">www.modernatx.com</a> <b>Medical Information:</b> 866-663-3762	<b>Website:</b> <a href="http://www.vaxcheck.jnj">www.vaxcheck.jnj</a> <b>Medical information:</b> 800-565-4008

## Storage & Handling

	Pfizer-BioNTech		Moderna	Janssen
	Ages 5 through 11 years	Ages 12 years and older		
<b>How Supplied</b>	<b>Multidose vial:</b> 10 doses	<b>Multidose vial:</b> 6 doses	<b>Multidose vial:</b> Maximum of 15 primary-series doses or 20 booster doses. Do not puncture the vial stopper more than 20 times.	<b>Multidose vial:</b> 5 doses
<b>Diluent</b>	0.9% sodium chloride (preservative-free, normal saline) provided in the ancillary kit. Do NOT use other diluent.		None	None
<b>Storage Temperatures: Before Puncture</b>	<b>Between:</b> -90°C and -60°C (-130°F and -76°F) until the expiration date 2°C and 8°C (36°F and 46°F) for up to 10 weeks 8°C and 25°C (46°F and 77°F) for a total of 12 hours prior to dilution Do NOT freeze or store in a standard freezer	<b>Between:</b> -90°C and -60°C (-130°F and -76°F) until the expiration date -25°C and -15°C (-13°F and 5°F) for up to 2 weeks 2°C and 8°C (36°F and 46°F) for up to 1 month (31 days)	<b>Between:</b> -50°C and -15°C (-58°F and 5°F) until the expiration date 2°C and 8°C (36°F and 46°F) for up to 30 days 8°C and 25°C (46° and 77°F) for a total of 24 hours	<b>Between:</b> 2°C and 8°C (36°F and 46°F) until the expiration date 9°C and 25°C (47°F and 77°F) for up to 12 hours
<b>Storage Temperatures: After Puncture</b>	<b>Between:</b> 2°C and 25°C (36°F and 77°F) for up to 12 hours Discard any unused vaccine after 12 hours.	<b>Between:</b> 2°C and 25°C (36°F and 77°F) for up to 6 hours Discard any unused vaccine after 6 hours.	<b>Between:</b> 2°C and 25°C (36°F and 77°F) for up to 12 hours Discard vial and any unused vaccine after 12 hours or after the vial has been punctured 20 times.	<b>Between:</b> 2°C and 8°C (36°F and 46°F) for up to 6 hours 9°C and 25°C (47°F and 77°F) for up to 2 hours Discard any unused vaccine after these time frames.

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<b>Transport Temperatures: Before Puncture</b>	A tray containing vaccine vials between -90°C and -60°C (-130°F and -76°F) or Individual vials between 2°C and 8°C (36°F and 46°F)	A tray of vaccine vials between t -90°C and -60°C (-130°F and -76°F) or Individual vials between -25°C and -15°C (-13°F and 5°F) or individual vials at 2°C to 8°C (35°F to 46°F) for up to 12 hours.	<b>Between:</b> -50°C and -15°C (-58°F and 5°F) or 2°C and 8°C (36°F and 46°F) for up to 12 cumulative hours, once or multiple times	<b>Between:</b> 2°C and 8°C (36°F and 46°F)
<b>Transport Temperatures*: After Puncture</b>	Punctured vials <b>CANNOT</b> be transported	<b>Between:</b> 2°C to 25°C (36°F to 77°F) for up to 6 hours.	<b>Between:</b> 2°C and 25°C (36°F and 77°F) for up to 12 hours.	<b>Between:</b> 2°C and 8°C (36°F and 46°F) for up to 6 hours

## Vaccine Administration

	Pfizer-BioNTech		Moderna	Janssen
	Ages 5 through 11 years	Ages 12 years and older		
<b>Type of Vaccine</b>	mRNA		mRNA	Viral vector
<b>Age Indications</b>	5 through 11 years of age (orange cap)	12 years of age and older (purple cap)	18 years of age and older	18 years of age and older
<b>Primary Series Schedule<sup>†</sup></b>	2-doses, separated by 21 days; both doses must be the appropriate Pfizer-BioNTech Vaccine formulations for recipient's age		2 doses, separated by 28 days; both doses must be Moderna Vaccine	1 dose
<b>Additional Primary Dose<sup>†</sup></b>	At least 28 days after completion of the primary series, an additional primary dose for moderately to severely immunocompromised people 12 years of age and older		At least 28 days after completion of the primary series, an additional primary dose for moderately to severely immunocompromised people 18 years of age and older	Not authorized as an additional primary dose. See booster dose schedule.
<b>Booster Schedule<sup>†</sup></b>	<ul style="list-style-type: none"> <li>A booster dose at least 6 months after the completed primary series (or additional primary dose for moderately or severely immunocompromised) <b>should</b> be given for:                             <ul style="list-style-type: none"> <li>» People aged 50 years and older</li> <li>» Residents 18 years of age and older in long-term care settings</li> </ul> </li> <li>A booster dose at least 6 months after the primary series (or additional primary dose for moderately or severely immunocompromised) <b>may</b> be given for:                             <ul style="list-style-type: none"> <li>» All other people 18 years of age and older based on their individual risks and benefits</li> </ul> </li> <li>Use of heterologous (mix and match) booster doses is allowed.</li> </ul> <p>For moderately and severely immunocompromised persons, the booster dose may be given after an additional (3rd) primary dose (for a total of 4 doses) For additional information, see Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Approved or Authorized in the United States <a href="https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html#considerations-covid19-vax-immunocompromised">https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html#considerations-covid19-vax-immunocompromised</a></p>			<ul style="list-style-type: none"> <li>A booster dose at least 2 months (8 weeks) after the primary Janssen single dose should be given to all people who received the Janssen COVID-19 Vaccine.</li> <li>Use of heterologous (mix and match) booster doses is allowed. For example, if a Moderna COVID-19 booster is administered, it should be a 0.25 mL dose.</li> </ul> <p>A moderately or severely immunocompromised person who received a primary Janssen COVID-19 Vaccine should not receive more than 1 booster dose (total of 2 doses)</p>

\* CDC recommends following manufacturer's instructions for transporting vaccine.

† COVID-19 vaccines and other vaccines may be administered without regard to timing, including simultaneous administration.

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<b>Primary Series, Additional Primary, and Booster Dosage</b>	0.2 mL for primary doses An additional primary dose or booster dose is not recommended at this time.	0.3 mL for all doses	0.5 mL (primary series or additional primary doses) 0.25 mL (booster dose)	0.5 mL primary series or booster dose An additional primary dose is not recommended.
<b>Needle Gauge/Length</b>	<b>5 through 18 years of age:</b> 22–25 gauge, 1" <b>19 years of age and older:</b> 22–25 gauge, 1 – 1½"		22–25 gauge, 1 – 1½"	22–25 gauge, 1 – 1½"
<b>Site</b>	Deltoid <sup>‡</sup>		Deltoid <sup>‡</sup>	Deltoid <sup>‡</sup>
<b>Thawing Frozen Vaccine</b>	<b>Between:</b> 2°C and 8°C (36°F and 46°F) or Room temperature up to 25°C (77°F) for 30 minutes. Vials must reach room temperature before dilution. <b>Do NOT</b> refreeze thawed vaccine.		<b>Between:</b> 2°C and 8°C (36°F and 46°F) or 8°C and 25°C (46°F and 77°F) <b>Do NOT</b> refreeze thawed vaccine.	<b>Do NOT</b> freeze.
<b>Mixing Vaccine</b>	Allow vial(s) to reach room temperature before mixing. Mix vaccine with 1.3 mL of 0.9% sodium chloride (preservative-free, normal saline).	Allow vial(s) to reach room temperature before mixing. Mix vaccine with 1.8 mL of 0.9% sodium chloride (preservative-free, normal saline).	<b>Do NOT</b> mix with any diluent.	<b>Do NOT</b> mix with any diluent.
<b>Contraindications/Precautions</b>	<p><b>Contraindications</b> History of:</p> <ul style="list-style-type: none"> <li>• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to component of the COVID-19 vaccine</li> <li>• Known diagnosed allergy to a component of the vaccine (see <a href="https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html#Appendix-C">https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html#Appendix-C</a> for a list of vaccine components)</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Most people determined to have a precaution to a COVID-19 vaccine at their appointment can and should be administered vaccine.</li> <li>• Immediate allergic reaction<sup>§</sup> to any non-COVID-19 or injectable therapy (i.e., intramuscular, intravenous, or subcutaneous vaccines or therapies [excluding subcutaneous immunotherapy for allergies, i.e., "allergy shots"]) <ul style="list-style-type: none"> <li>» This includes non-COVID-19 vaccines and therapies with multiple components and the component(s) that elicited the reaction is unknown</li> </ul> </li> <li>• Immediate (within 4 hours after vaccination) non-severe, allergic reaction to a previous dose of the COVID-19 vaccine</li> <li>• Contradiction to one type of COVID-19 vaccines (mRNA) is a precaution to other types of COVID-19 vaccines (Janssen)</li> <li>• Moderate to severe acute illness</li> </ul>			
<b>Post-Vaccination Observation</b>	<p><b>30 minutes:</b> People with a history of a contraindication to another type of COVID-19 vaccine product, immediate (within 4 hours of exposure) non-severe allergic reaction to a COVID-19 vaccine, immediate allergic reaction of any severity to a non-COVID-19 vaccine or injectable therapies, anaphylaxis due to any cause</p> <p><b>15 minutes:</b> All other persons</p>			
<b>Most Common Adverse Events</b>	<p><b>Injection site:</b> pain, swelling, redness</p> <p><b>Systemic:</b> fatigue, headache, muscle pain, chills, fever, joint pain</p>		<p><b>Injection site:</b> pain, swelling, redness</p> <p><b>Systemic:</b> fatigue, headache, muscle pain, chills, fever, nausea, joint pain</p>	<p><b>Injection site:</b> pain, redness, swelling</p> <p><b>Systemic:</b> fatigue, headache, muscle pain, nausea, fever</p>

<sup>‡</sup> Vastus lateralis muscle in the anterolateral thigh may be used.

<sup>§</sup> For the purpose of this guidance, an immediate allergic reaction is defined as any hypersensitivity-related signs or symptoms such as urticaria, angioedema, respiratory distress (e.g., wheezing, stridor), or anaphylaxis that occur within 4 hours following exposure to a vaccine or medication.