COVID-19 Vaccine Provider Training

2022
Part 3: COVID-19 Vaccine Products
Storage, Handling, Preparation
Modules

• Moderna
• Pfizer BioNTech
• Janssen (Johnson & Johnson)
Moderna “Spikevax”

- Messenger ribonucleic acid (mRNA) vaccine
- Approved by the Federal Drug Administration (FDA) for people 18 years and older
- 2 dose primary series: 0.5mL
  - Administered 28 days apart
- Multi-dose vials have a red cap and label with a light blue border
Moderna “Spikevax” Additional and Booster Dose

• Additional (3rd) dose for immunocompromised individuals: 0.5mL
  • Administered 28 days after 2nd dose
• Booster dose: 0.25mL (half dose)
• Multi-dose vial contains:
  • 10 primary doses (0.5mL)
  • 20 booster doses (0.25mL)
Moderna 5 (Blue Cap)

- mRNA vaccine
- Intended for booster dose administration ONLY - available late 2022.
- FDA Emergency Use Authorized (EUA) for people 18 years and older
- Booster dose: 0.5mL
- Multi-dose vials have a dark blue cap and a label with a purple border, containing 5 doses each
Moderna Storage and Handling

Vaccine will arrive *frozen* between -50°C and -15°C (-58°F to 5°F).

**Unpunctured Vials:**
- May be stored in the freezer between -50°C and -15°C (-58°F to 5°F) through the expiration date.
- May be stored in the refrigerator between 2°C and 8°C (36°F to 46°F) for up to 30 days.
  - If storing in the refrigerator, use beyond-use date labels.

![Modern COVID-19 Vaccine](https://example.com/moderna-vaccine-card)
Moderna Storage and Handling

• During storage, minimize exposure to room light and avoid exposure to direct sunlight and ultraviolet light.

• **Frozen vaccine must be thawed before using.**

• The amount of time needed to thaw vaccine varies based on the temperature and number of vials.
  - *In the refrigerator:* Up to 3 hours
  - *At room temperature:* Up to 1 hour and 30 minutes

• Thawed vaccine storage in the refrigerator or at room temperature:
  - **Refrigerator:** Between 2°C and 8°C (36°F to 46°F) for up to 30 days.
  - **Room Temperature:** Between 8°C and 25°C (46°F and 77°F) for up to 24 hours

• Use vials in the refrigerator before removing vials from the freezer.

• Do NOT refreeze thawed vaccine.

Investing for tomorrow, delivering today.
1190 S. St. Francis Drive • Santa Fe, NM 87505 • Phone: 505-827-2613 • Fax: 505-827-2530 • nmhealth.org
Moderna Preparation

• If removing the vial from the refrigerator, let stand at room temperature for 15 minutes.

• Check the expiration and beyond-use date/time.
  • Never use vaccine past the expiry date or beyond-use time.

• With the vial upright, gently swirl the vaccine. Do NOT shake.
  • If the vial is shaken, contact the manufacturer.
  • Note: Gently swirl the vaccine before withdrawing subsequent doses.

• Examine the vaccine. It should be white to off-white in color and may contain white particles.
  • Do NOT use if liquid contains other particulate matter or is discolored.

• Using a new, sterile alcohol prep pad, cleanse the stopper of the multidose vaccine vial.
Modern Preparation

- Withdraw the correct dosage of the vaccine into the syringe.
  - Moderna **red cap**:
    - 0.5mL for the primary and additional doses
    - 0.25mL for booster doses
  - Moderna **blue cap**:
    - 0.5mL for booster doses

- Ensure the syringe is not cold to the touch.
- Discard vial when there is not enough vaccine to obtain a complete dose.
  - Do **NOT** combine residual vaccine from multiple vials to obtain a dose.
  - Dispose the vial and residual vaccine as medical waste.
Moderna Preparation

- Note the date *and* time the vial was first punctured.
- Keep the vaccine between 2°C and 25°C (36°F and 77°F) for up to 12 hours.
  - *Discard any unused vaccine after 12 hours.*
  - *Do NOT refreeze.*
- **DO NOT** puncture Moderna red cap vial stopper more than 20 times.
- Label the syringe with the vaccine name.
Pfizer BioNTech (Gray Cap)
“Comirnaty”
Pfizer 12+ (Gray Cap)

- mRNA vaccine
- FDA approved for people 16 years and older
- FDA authorized for people 12 through 15 years old
- 2 dose primary series: 0.3mL
  - Administered 21 days apart
- Does NOT require diluent
Pfizer 12+ (Gray Cap) Additional and Booster Dose

- Additional (3rd) dose for immunocompromised individuals: 0.3mL
  - Administered 28 days after 2nd dose
- Booster dose: 0.3mL
- Multi-dose vials have a gray cap and labels with a gray border, each contain 6 doses
Pfizer 12+ (Gray Cap) Storage

Vaccine will arrive at a temperature between -90°C and -60°C (-130°F and -76°F) in a thermal shipping container with dry ice.

- Frozen vials may be stored in an ultra-low temperature (ULT) freezer at -90°C to -60°C (-130°F to -76°F) for up to 12 months from the date of manufacture.
  - Do not store vials at -25°C to -15°C (-13°F to 5°F). Once vials are thawed, they should not be refrozen

- Once received, frozen vials may be immediately transferred to the refrigerator [2°C to 8°C (36°F to 46°F)], thawed and stored for up to 10 weeks.
  - Record the 10-week refrigerated expiry date on the carton at the time of transfer.
  - If received at 2°C to 8°C, they should be stored at 2°C to 8°C.

- Doses that are expired must be disposed as medical waste.
  - NOTE: Contact the manufacturer to verify whether the expiration date has been extended.
Pfizer 12+ (Gray Cap) Storage

Use **beyond use date labels** to track how long the vaccine has been in the refrigerator (up to 10 weeks).
Pfizer 12+ (Gray Cap) Storage

- Store vaccine in the original tray or box and protect from light.
- Vaccine stored in ULTs **must** be thawed before use.
- Thaw vaccine in the refrigerator or at room temperature before use.
  - Unpunctured vials may be stored in the refrigerator for up to 10 weeks.
  - Unpunctured vials may be stored between 8°C and 25°C (46°F and 77°F) for a total of 12 hours prior to first puncture.
- The amount of time needed to thaw vaccine varies based on the temperature and number of vials.
- Use vials stored in the refrigerator before removing vials from ULT storage.
  - Do **NOT** refreeze thawed vaccine.
Pfizer 12+ (Gray Cap)
Preparation

• Check the vial label to ensure it is the correct formulation based on the age of the recipient.

• Check expiration date and beyond-use date/time.
  • Never use vaccine past the expiry date or beyond-use time.
  • Contact the manufacturer for extended expiration dates.

• Allow vaccine to reach room temperature.

• Gently invert the vial 10 times. Do NOT shake the vial.
  • If the vial is shaken, contact the manufacturer.

• The vaccine is white to off-white in color with no visible particles.
  • Do not use if the liquid is discolored or if particulate matter is observed after inverting.

• Use a new, sterile alcohol prep pad for each vial to wipe the stoppers of the vaccine vials.
Pfizer 12+ (Gray Cap) Preparation

- Withdraw 0.3mL of vaccine into a new sterile syringe.
- Remove any significant air bubbles with the needle still in the vial to prevent loss of vaccine.
- Ensure the prepared syringe is not cold to the touch.
- Note the date and time the vaccine was first punctured on the vial.
- Keep punctured vials of vaccine between 2°C and 25°C (36° and 77°F) for up to 12 hours.
- **Discard any unused vaccine after 12 hours.**
  - Do **NOT** combine residual vaccine from multiple vials to obtain a dose.
  - Dispose the vial and residual vaccine as medical waste.
- Label syringe with vaccine **and** age indication.
Pfizer BioNTech (Purple Cap) “Comirnaty”
Pfizer 12+ (Purple Cap)

- mRNA vaccine
- FDA approved for people 16 years and older
- FDA authorized for people 12 through 15 years old
- 2 dose primary series: 0.3 mL
  - Administered 21 days apart
- Diluent required
Pfizer 12+ (Purple Cap)  
Additional and Booster Dose

• Additional dose (3rd dose) for immunocompromised: 0.3 mL  
  • 28 days after 2nd dose
• Booster dose: 0.3 mL
• Multi-dose vials have a purple cap and a label with a purple border, each containing 6 doses
Pfizer (Purple Cap) Storage

Vaccine will arrive at a temperature between -90°C and -60°C (-130°F to -76°F) in a thermal shipping container with dry ice.

- Once received, remove the vial cartons immediately from the thermal container and preferably store in an ULT freezer between -90°C to -60°C (-130°F to -76°F) for up to 12 months from the date of manufacture.
- Unpunctured vials may be stored in a freezer between -25°C and -15°C (-13°F and 5°F) for up to 2 weeks.
- Unpunctured vials may be stored in the refrigerator between 2°C and 8°C (36°F and 46°F) for up to 1 month (31 days).
  - If received at 2°C to 8°C, they should be stored at 2°C to 8°C.
- Doses that are expired must be disposed as medical waste.
  - NOTE: Check the manufacturer webpage to verify whether the expiration date has been extended.
Pfizer (Purple Cap) Storage

Use **beyond-use date labels** to track how long the vaccine has been in the storage unit.

- **Freezer**: Up to 2 weeks between -25°C and -15°C (-13°F to 5°F).

- **Refrigerator**: Up to 1 month (31 days) between 2°C and 8°C (36°F and 46°F)
Pfizer (Purple Cap) Storage

- Store vaccine in the original tray or box and protect from light.
- Frozen vaccine **must** be thawed before using.
- Thaw vaccine in the refrigerator or at room temperature:
  - **Refrigerator**: Between 2°C and 8°C (36°F and 46°F) Unpunctured vials may be stored in the refrigerator for up to 1 month (31 days).
  - **Room temperature**: Up to 25°C (77°F) Unpunctured vials cannot be kept at room temperature for more than 2 hours (including thaw time).
- The amount of time to thaw vaccine varies based on on temperature and number of vials.
- Use vials in the refrigerator before removing vials from ULT or freezer storage.
- **Do NOT refreeze thawed vaccine.**
Pfizer (Purple Cap) Preparation

• Check the vial label to ensure it is the correct formulation based on the age of the recipient.

• Check expiration date and beyond-use date/time.
  • Never use vaccine past the expiry date or beyond-use time.
  • Contact the manufacturer for extended expiration dates.

• Allow vaccine to reach room temperature (vials can be held at room temperature up to 2 hours).

• Gently invert vial 10 times. **Do NOT shake** the vial.
  • If the vial is shaken, contact the manufacturer.

• The vaccine is white to off white in color and may contain opaque particles.
  • Do **NOT** use if liquid is discolored.

• Use a new, sterile alcohol prep pad for each vial to wipe the stoppers of the diluent and vaccine vials.
Pfizer (Purple Cap) Preparation

• Using a 21-gauge (or narrower) needle, withdraw 1.8 mL of 0.9% sodium chloride (normal saline, preservative-free) diluent provided with the ancillary kit into a mixing syringe.
  • Discard diluent vial and any remaining diluent.
  • Do NOT use bacteriostatic normal saline or other diluents to mix.

• Inject 1.8 mL 0.9% sodium chloride diluent into the vaccine vial.

• Using the mixing syringe, remove 1.8 mL of air from the vaccine vial to equalize the pressure in the vaccine vial.
Pfizer (Purple Cap) Preparation

• Gently invert the vial containing vaccine and diluent 10 times.
  • Do **NOT** shake. If the vial is shaken, contact the manufacturer.

• The vaccine will be off-white in color.
  • Do **NOT** use if the vaccine is discolored or contains particulate matter.

• Note the date and time the vaccine was mixed on the vial.

• Keep mixed vaccine between 2°C and 25°C (36°F and 77°F) for up to 6 hours.
  • Discard any unsaved vaccine after 6 hours.
Pfizer (Purple Cap) Preparation

- Cleanse the stopper on the vial of mixed vaccine with a new, sterile alcohol prep pad.
- **Withdraw 0.3 mL** of mixed vaccine into a new sterile syringe.
- Remove any significant air bubbles with the needle still in the vial to avoid loss of vaccine.
- Ensure the prepared syringe is not cold to the touch.
- Keep mixed vaccine between 2°C and 25°C (36°F and 77°F) for up to 6 hours.
- **Discard any unused vaccine after 6 hours.**
  - Do **NOT** combine residual vaccine from multiple vials to obtain a dose.
  - Dispose the vial and residual vaccine as medical waste.
- Label syringe with vaccine name **and** age indication.
Pfizer BioNTech
(Orange Cap)
Pfizer 5-11 (Orange Cap)

- mRNA vaccine
- FDA authorized for ages 5-11 years
- 2 dose primary series: 0.2mL
  - Administered 21 days apart
- Additional dose (3rd dose) for immunocompromised: 0.2mL
  - Administered 28 days after 2nd dose
- A booster dose is not recommended at this time
- Multi-dose vials have an orange cap and label with an orange border, each containing 10 doses
- Diluent required
Pfizer (Orange Cap) Storage

Vaccine will arrive at a temperature between -90°C and -60°C (-130°F to -76°F) in a thermal shipping container with dry ice.

- Frozen vials may be stored in an ULT freezer at -90°C to -60°C (-130°F to -76°F) for up to 12 months from the date of manufacture.
  - Do not store vials at -25°C to -15°C (-13°F to 5°F).
  - Once vials are thawed, they should not be refrozen
- Once received, frozen vials may be immediately transferred to the refrigerator 2°C to 8°C (36°F to 46°F), thawed and stored for up to 10 weeks.
  - Record the 10-week refrigerated expiry date on the carton at the time of transfer.
  - If received at 2°C to 8°C, they should be stored at 2°C to 8°C.
- Doses that are expired must be disposed as medical waste.
  - NOTE: Contact the manufacturer to verify whether the expiration date has been extended.
Pfizer (Orange Cap) Storage

Use beyond-use date labels to track how long the vaccine has been in the refrigerator (up to 10 weeks).
Pfizer (Orange Cap) Storage

- Store vaccine in the original tray or box and protect from light.
- Vaccine stored in ULTs must be thawed before use.
- Thaw vaccine in the refrigerator or at room temperature before use.
  - Unpunctured vials may be stored in the refrigerator for up to 10 weeks.
  - Unpunctured vials may be stored between 8°C and 25°C (46°F and 77°F) for a total of 12 hours prior to first puncture.
- The amount of time needed to thaw vaccine varies based on the temperature and number of vials.
- Use vials stored in the refrigerator before removing vials from ULT storage.
  - *Do NOT* refreeze thawed vaccine.
Pfizer (Orange Cap) Preparation

- Check the vial label to ensure it is the correct formulation based on the age of the recipient.
- Check expiration date and beyond-use date/time.
  - Never use vaccine past the expiry date or beyond-use time.
  - Contact the manufacturer for extended expiration dates.
- Allow vaccine to reach room temperature.
- Gently invert vial 10 times. Do **NOT** shake the vial.
  - If the vial is shaken, contact the manufacturer.
- The vaccine is white to off white in color and may contain opaque particles.
  - Do **NOT** use if liquid is discolored.
- Use a new, sterile alcohol prep pad for each vial to wipe the stoppers of the diluent and vaccine vials.
Pfizer (Orange Cap) Preparation

• Using a 21-gauge (or narrower) needle, withdraw 1.3 mL of 0.9% sodium chloride (normal saline, preservative-free) diluent provided with the ancillary kit into a mixing syringe.
  • Discard diluent vial and any remaining diluent.
  • Do NOT use bacteriostatic normal saline or other diluents to mix.
• Inject 1.3 mL 0.9% sodium chloride diluent into the vaccine vial.
• Using the mixing syringe, remove 1.3 mL of air from the vaccine vial to equalize the pressure in the vaccine vial.
Pfizer (Orange Cap) Preparation

• Once the diluent is added, gently invert the vial containing vaccine and diluent 10 times.
  • Do NOT shake. If the vial is shaken, contact the manufacturer.

• The vaccine will be off-white in color.
  • Do NOT use if discolored or contains particulate matter.

• Note the date and time the vaccine was mixed on the vial.

• Keep mixed vaccine between 2°C and 25°C (36°F and 77°F) for up to 12 hours.

• Discard any unsaved vaccine after 12 hours.
Pfizer (Orange Cap) Preparation

- Cleanse the stopper on the vial of mixed vaccine with a new, sterile alcohol prep pad.
- **Withdraw 0.2 mL** of mixed vaccine into the syringe.
- Remove any significant air bubbles with the needle still in the vial to avoid loss of vaccine.
- Ensure the prepared syringe is not cold to the touch.
- Keep mixed vaccine between 2°C and 25°C (36°F and 77°F) for up to 12 hours.
- **Discard any unused vaccine after 12 hours.**
  - Do **NOT** combine residual vaccine from multiple vials to obtain a dose.
  - Dispose the vial and residual vaccine as medical waste.
- Label syringe with vaccine name **and** age indication.
Janssen
(Johnson & Johnson)
Janssen (Johnson & Johnson)

- Viral vector vaccine
- FDA authorized for people 18 years and older
- 1 dose primary series: 0.5mL
- Additional dose (2nd dose) for immunocompromised: mRNA vaccine (i.e., Moderna, Pfizer purple cap or gray cap)
- Booster dose: 0.5mL
- Multi-dose vials each contain 5 doses
Janssen Storage

Vaccine will arrive refrigerated at a temperature between 2°C to 8°C (36°F and 46°F) in a qualified shipping container.

- Unpunctured vials may be stored in a refrigerator at temperatures between 2°C to 8°C (36°F and 46°F) until the expiration date.
  - Do not freeze.

- Doses that are expired must be disposed as medical waste.
  - Use the Janssen online Expiry Checker to verify the expiration date before disposing. (https://vaxcheck.jnj/)
Janssen Storage

- Punctured vials may be stored in the refrigerator at 2°C and 8°C (36°F and 46°F) for up to **6 hours**.
- Punctured vials may also be stored at room temperature (9°C to 25°C [47°F to 77°F]) for up to **2 hours**.
- Note the date and time the vial was first punctured (beyond-use date) for best practices.
Janssen Preparation

• Check expiration date and beyond-use date/time.
  • Never use vaccine past the expiry date or beyond-use time.
  • Use the online Janssen Expiry Checker or scan the carton’s QR code to verify expiration dates.

• Gently swirl the vial upright for 10 seconds. **Do NOT shake the vial.**
  • If the vial is shaken, contact the manufacturer.

• The vaccine should be colorless to slightly yellow and may contain opaque particles.
  • **Do NOT** use if liquid is discolored or contains particulate matter.

• Use a new, sterile alcohol prep pad for each vial to wipe the stoppers of the vaccine vial.
Janssen Preparation

• Choose the correct needle gauge, length and syringe for the recipient.
• Using a new, sterile needle and syringe, withdraw 0.5mL of vaccine into the syringe.
• Note the date and time the vial was first punctured.
• Keep the vaccine at 2°C and 8°C (36°F and 46°F) for up to 6 hours or at room temperature (maximally 25°C or 77°F) for up to 2 hours.
• **Discard any unused vaccine after 2 hours at room temperature or 6 hours at refrigerated temperature.**
  • Do **NOT** combine residual vaccine from multiple vials to obtain a dose.
  • Dispose of the vial and residual vaccine as medical waste.
# Contact

- NMSIIS Help Desk (833) 882-6454

<table>
<thead>
<tr>
<th>CONTACT INFO</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:COVID.Vaccines@state.nm.us">COVID.Vaccines@state.nm.us</a></td>
<td>COVID-19 Vaccine Record requests; Provider COVID-19 Vaccine Order status; NMSIIS assistance.</td>
</tr>
<tr>
<td><a href="mailto:COVID.Therapeutics@state.nm.us">COVID.Therapeutics@state.nm.us</a></td>
<td>Provider questions regarding COVID oral therapeutics (Molnupiravir and Paxlovid); COVID PrEP (Evuseld); mAB; or Remdesivir</td>
</tr>
<tr>
<td><a href="mailto:COVIDData.compliant@state.nm.us">COVIDData.compliant@state.nm.us</a></td>
<td>COVID-19 vaccine storage and handling questions, temperature log and onboarding Vaccine Plan submissions.</td>
</tr>
<tr>
<td><a href="mailto:COVID.testing-doh@state.nm.us">COVID.testing-doh@state.nm.us</a></td>
<td>For Provider questions on testing and test supplies</td>
</tr>
</tbody>
</table>