COVID-19 Vaccine Webinar for Healthcare Providers

Update on COVID-19 Vaccines Across the Age Span

July 1, 2022

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Division of Epidemiology
New York State Department of Health
Webinar Agenda

• COVID-19 epidemiology updates
• General vaccine information and updated recommendations
• Clinical considerations for special groups
• Talking to children and parents about the COVID-19 vaccine
• Training resources for vaccine delivery in pediatric patients
• COVID-19 vaccine provider requirements
• Additional resources
• Where to direct questions

The information in this document is current as of June 28 and is subject to change as guidance is updated!
Updates on COVID-19 Epidemiology
New York State Timeline
Reported COVID-19 Cases
COVID-19 Cases by Age Group, New York State
Prevalent COVID-19 Hospitalizations in New York State
COVID-19 Hospitalization and Vaccine Status

New hospitalizations, by vaccination status: All Adults Age 18+

[Graph showing new hospitalizations per 100,000 by vaccination status over time]

- **Hospitalizations per 100,000: Fully-vaccinated**
- **Hospitalizations per 100,000: Unvaccinated**

Daily Trends in Number of COVID-19 Deaths, United States

January 22, 2020 – June 16, 2022
Deaths: 1,008,196

7-day average: 266 deaths

https://covid.cdc.gov/covid-data-tracker/#trends_dailycases
https://covid.cdc.gov/covid-data-tracker/#trends_dailymortgages
https://covid.cdc.gov/covid-data-tracker/#trends_dailydeaths
Percent of People in New York State with COMPLETE Vaccination Series, by Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Vaccination Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-11</td>
<td>37.3%</td>
</tr>
<tr>
<td>12-17</td>
<td>71.6%</td>
</tr>
<tr>
<td>18-25</td>
<td>75.2%</td>
</tr>
<tr>
<td>26-34</td>
<td>78.1%</td>
</tr>
<tr>
<td>35-44</td>
<td>85.1%</td>
</tr>
<tr>
<td>45-54</td>
<td>81.8%</td>
</tr>
<tr>
<td>55-64</td>
<td>89.4%</td>
</tr>
<tr>
<td>65-74</td>
<td>95.0%</td>
</tr>
<tr>
<td>75+</td>
<td>85.1%</td>
</tr>
</tbody>
</table>
Call to Action

• Trusted health care providers are uniquely positioned to discuss and provide COVID-19 vaccination with patients and families.

• Talk with your patients and parents about the importance of getting vaccinated.

• **Ways you can do your part:**
  • Enroll in the NYS COVID-19 Vaccination Program
    • You do NOT need an ultra-low temperature freezer
  • Discuss and strongly recommend vaccination to your patients and family members who have not yet been vaccinated
  • Facilitate vaccination appointment scheduling, if you cannot administer the vaccine directly
COVID-19 Vaccine
General Information
and Updated CDC
Recommendations
**As of June 24, 2022 Moderna COVID-19 vaccine has been authorized by FDA and recommended by CDC for use in children ages 6 months – 17 years**

*Age-appropriate mRNA COVID-19 vaccines are preferred over Janssen COVID-19 Vaccine for primary and booster vaccination. Janssen COVID-19 Vaccine should only be used in limited situations. See [https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-usa.html#considerations-Janssen](https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-usa.html#considerations-Janssen)*

*2nd booster dose for some groups*
Vaccine Efficacy of mRNA vaccines in young children

- Pfizer BioNTech (3ug dose, 6m-4 years)
  - Phase 2/3 trial showed similar immune response to 16-25yo population
  - Estimated vaccine efficacy against *symptomatic* lab-confirmed SARS-CoV-2 infection: ~80%
  - Well-tolerated; no new safety signals

- Moderna (6m-5 years)
  - Estimated vaccine efficacy against *symptomatic* lab-confirmed SARS-CoV-2 infection:
    - 6 to 23 months ~51%
    - 2 to 5 years ~46%
  - Immunogenicity studies indicate likely high level of protection from severe illness
  - Well-tolerated; no new safety signals
# Pfizer-BioNTech COVID-19 Vaccine Formulations

<table>
<thead>
<tr>
<th>Description</th>
<th>Dilute Before Use</th>
<th>Do Not Dilute</th>
<th>Dilute Before Use</th>
<th>Dilute Before Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 years and older</td>
<td>12 years and older</td>
<td>5 through 11 years</td>
<td>6 months through 4 years</td>
<td></td>
</tr>
<tr>
<td>12 years and older³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 through 11 years⁴</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Age 5y to &lt;12y</em> on vial label</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vial Cap Color</strong></td>
<td>Purple</td>
<td>Gray</td>
<td>Orange</td>
<td>Maroon</td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td>30 mcg</td>
<td>30 mcg</td>
<td>10 mcg</td>
<td>3 mcg</td>
</tr>
<tr>
<td><strong>Dose Volume</strong></td>
<td>0.3 mL</td>
<td>0.3 mL</td>
<td>0.2 mL</td>
<td>0.2 mL</td>
</tr>
<tr>
<td><strong>Amount of Diluent Needed per Vial</strong></td>
<td>1.8 mL</td>
<td>NO DILUTION</td>
<td>1.3 mL</td>
<td>2.2 mL</td>
</tr>
<tr>
<td><strong>Doses per Vial</strong></td>
<td>6 doses per vial</td>
<td>6 doses per vial</td>
<td>10 doses per vial</td>
<td>10 doses per vial</td>
</tr>
<tr>
<td><em>(after dilution)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*ONLY use sterile 0.9% Sodium Chloride Injection, USP as the diluent. Do not use bacteriostatic 0.9% Sodium Chloride Injection or any other diluent.

**Information about Storage Conditions on next page.**

**References:**
Modern COVID-19 Vaccine Formulations

The Moderna COVID-19 Vaccine vial labeled “BOOSTER DOES ONLY” is also authorized to provide Primary Series Doses (0.5 mL each) for individuals 6 through 11 years of age. Please see the Dear HCP Letter for more information.

On the horizon...
## COVID-19 Vaccines: 6m - 4(or 5) yo without immunocompromise*

<table>
<thead>
<tr>
<th>Info</th>
<th>Pfizer-BioNTech</th>
<th>Moderna</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age indication</strong></td>
<td>6 months through 4 years**</td>
<td>6 months through 5 years</td>
</tr>
<tr>
<td><strong>Total number of doses</strong></td>
<td>3 doses</td>
<td>2 doses</td>
</tr>
<tr>
<td><strong>Minimum Intervals</strong></td>
<td><em>Dose 1-2: 3-8 weeks</em></td>
<td><em>Dose 1-2: 4-8 weeks</em></td>
</tr>
<tr>
<td></td>
<td><em>Dose 2-3: 8 weeks</em></td>
<td></td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td>3 micrograms/0.2mL</td>
<td>25 micrograms/0.25mL</td>
</tr>
<tr>
<td><strong>Dilution</strong></td>
<td>2.2 mL (diluent provided in ancillary kit)</td>
<td>Not required</td>
</tr>
<tr>
<td><strong>Vial caps/labels</strong></td>
<td>Maroon cap and vial labels with maroon border</td>
<td>Blue cap vial with vial labels with magenta border</td>
</tr>
<tr>
<td><strong>Shipping</strong></td>
<td>-80° C</td>
<td>-20° C</td>
</tr>
<tr>
<td><strong>Storage after received</strong></td>
<td>Up to 12 months from manufacture date at ultra-cold temperatures of -90°C to -60°C OR Up to 10 weeks at refrigerated temperatures of 2°C to 8°C (36°F to 46°F). NOTE: NO standard freezer storage is approved for this formulation.</td>
<td>Until expiration at standard freezer temperatures -50°C to -15°C (-58°F to 5°F). Expiration dates found at <a href="https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup">https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup</a> OR Up to 30 days at refrigerated temperatures of 2°C to 8°C (36°F to 46°F)</td>
</tr>
<tr>
<td><strong>Packaging configuration</strong></td>
<td>10-dose vials</td>
<td>10-dose vials</td>
</tr>
<tr>
<td><strong>Post-puncture</strong></td>
<td>Use/discard within 12 hours**</td>
<td>Use/discard within 12 hours</td>
</tr>
</tbody>
</table>

* As of June 24, 2022

** information in EUA fact sheet supersedes information on Pfizer-BioNTech vial labels and cartons
# COVID-19 Vaccines: 5 (or 6) to 11yo without immunocompromise *

<table>
<thead>
<tr>
<th>Info</th>
<th>Pfizer-BioNTech</th>
<th>Moderna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age indication</td>
<td>5 to 11 years</td>
<td>6 to 11 years</td>
</tr>
<tr>
<td>Total number of doses</td>
<td>3 doses</td>
<td>2 doses</td>
</tr>
<tr>
<td>Minimum Intervals</td>
<td><strong>Dose 1-2: 3-8 weeks</strong>&lt;br&gt;<strong>Dose 2-3: 5 months</strong>*</td>
<td><strong>Dose 1-2: 4-8 weeks</strong></td>
</tr>
<tr>
<td>Dose</td>
<td>10 micrograms/0.2mL</td>
<td>50 micrograms/0.5mL</td>
</tr>
<tr>
<td>Dilution</td>
<td>1.3 mL (diluent provided in ancillary kit)</td>
<td>Not required</td>
</tr>
<tr>
<td>Vial caps/labels</td>
<td>Orange cap and vial labels with orange border</td>
<td>Blue cap vial with vial labels with purple border</td>
</tr>
<tr>
<td>Shipping</td>
<td>-80° C</td>
<td>-20° C</td>
</tr>
<tr>
<td>Storage after received</td>
<td>Up to 12 months from manufacture date at ultra-cold temperatures of -90°C to -60°C&lt;BR&gt;OR Up to 10 weeks at refrigerated temperatures of 2°C to 8°C (36°F to 46°F).&lt;BR&gt;<strong>NOTE: NO standard freezer storage is approved for this formulation.</strong></td>
<td>Until expiration at standard freezer temperatures -50°C to -15°C (-58°F to 5°F).Expiration dates found at <a href="https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup">https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup</a>&lt;BR&gt;OR Up to 30 days at refrigerated temperatures of 2°C to 8°C (36°F to 46°F)</td>
</tr>
<tr>
<td>Packaging configuration</td>
<td>10-dose vials</td>
<td>5-dose vials</td>
</tr>
<tr>
<td>Post-puncture</td>
<td>Use/discard within 12 hours**</td>
<td>Use/discard within 12 hours</td>
</tr>
</tbody>
</table>

* As of June 24, 2022  ** information in EUA fact sheet supersedes information on Pfizer-BioNTech vial labels and cartons
### COVID-19 Vaccines ≥12yo without immunocompromise *

<table>
<thead>
<tr>
<th>Info</th>
<th>Pfizer-BioNTech (GRAY CAP)</th>
<th>Moderna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age indication</td>
<td>12+</td>
<td>12+</td>
</tr>
<tr>
<td>Total number of doses</td>
<td>3 doses</td>
<td>2 doses</td>
</tr>
<tr>
<td></td>
<td>4 doses (over age 50)</td>
<td>3 doses (≥18 yo); 4 doses (≥50 yo)</td>
</tr>
<tr>
<td>Minimum Interval</td>
<td><em>Dose 1-2: 3-8 weeks</em>*</td>
<td><em>Dose 1-2: 4-8 weeks</em>*</td>
</tr>
<tr>
<td></td>
<td>*Dose 2-3: 5 months</td>
<td>*Dose 2-3: 5 months (≥18 yo)</td>
</tr>
<tr>
<td></td>
<td>*Dose 3-4: 4 months (≥50 yo)</td>
<td>*Dose 3-4: 4 month (≥50 yo)</td>
</tr>
<tr>
<td>Dose</td>
<td>30 micrograms/0.3mL</td>
<td>50 micrograms/0.5mL</td>
</tr>
<tr>
<td>Dilution</td>
<td>Not required</td>
<td>Not required</td>
</tr>
<tr>
<td>Vial caps/labels</td>
<td>Gray cap and vial labels with gray border</td>
<td>Red cap with vial labels with blue border</td>
</tr>
<tr>
<td>Shipping</td>
<td>-80° C</td>
<td>-20° C</td>
</tr>
<tr>
<td>Storage after received</td>
<td>Up to 12 months from manufacture date at ultra-cold temperatures of -90°C to -60°C OR Up to 10 weeks at refrigerated temperatures of 2°C to 8°C (36°F to 46°F). **NOTE: NO standard freezer storage is approved for this formulation.</td>
<td>Until expiration at standard freezer temperatures -50°C to -15°C (-58°F to 5°F). Expiration dates found at <a href="https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup">https://eua.modernatx.com/covid19vaccine-eua/providers/vial-lookup</a> OR Up to 30 days at refrigerated temperatures of 2°C to 8°C (36°F to 46°F)</td>
</tr>
<tr>
<td>Packaging configuration</td>
<td>6-dose vials</td>
<td>10-dose vials</td>
</tr>
<tr>
<td>Post-puncture</td>
<td>Use/discard within 12 hours</td>
<td>Use/discard within 12 hours</td>
</tr>
</tbody>
</table>

* As of June 24, 2022 ** An 8-week interval between 1\(^{st}\) and 2\(^{nd}\) doses may reduce the risk of myocarditis/pericarditis particularly in males ages 12-39 years
EUA Fact Sheets

- [EUA Fact Sheet for Vaccination Providers – Pfizer - Ages 12+ purple cap](#)
- [EUA Fact Sheet for Vaccination Providers – Pfizer - Ages 12+ gray cap](#)
- [EUA Fact Sheet for Vaccination Providers – Pfizer - Ages 5-11 orange cap](#)
- [EUA Fact Sheet for Vaccination Providers – Pfizer – Ages 6m-4y maroon cap](#)
- [EUA Fact Sheet for Vaccination Providers – Moderna – Ages 12+](#)
- [EUA Fact Sheet for Vaccination Providers – Moderna – Ages 6-11](#)
- [EUA Fact Sheet for Vaccination Providers – Moderna – Ages 6m-5y](#)
- [EUA Fact Sheet for Vaccination Providers – Moderna – 18+ booster](#)
Clinical Considerations for Children <12 yrs

- Children should receive the **age-appropriate dosing regardless of their weight**
- Dosage should depend on the child’s age at the day of vaccination, for each dose
  - Example: If a child is 4 at the time of dose #1 then turns 5 before dose #2, they should receive the 6m-4yo dosage for dose #1 and 5-11yo dosage for dose #2
    - However, the FDA EUA *allows* children who will turn from 4 to 5 years of age between doses to receive, for either dose, either the formulation for 6 m-4 years or the formulation for 5-11 years.
  - These are NOT considered vaccine administration errors and do not need to be reported to the Vaccine Adverse Event Reporting System (VAERS)

*Pfizer-BioNTech COVID-19 Vaccine: For Children who Transition from a Younger to Older Age Group (cdc.gov)*
*Moderna COVID-19 Vaccine: For Children who Transition from a Younger to Older Age Group (cdc.gov)*
Potential Administration Errors

- Administration errors do occur!
- Report adverse events and administration errors to CDC through VAERS: https://vaers.hhs.gov/reportevent.html
- CDC recommendations regarding vaccine administration errors can be found here:

  https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#appendix-c~:text=Appendix%20C.%20Vaccine%20administration%20errors%20and%20deviations
Clinical Considerations for Special Groups
Clinical Considerations: Immunocompromised

- Description of moderately to severely immunocompromising conditions on CDC website: [link](https://www.cdc.gov/vaccines/covid-19/images/COVID19-vaccination-schedule-immunocompromised.png)
- Primary series doses* authorized for children in this group:
  - Pfizer: 3-dose primary series
  - Moderna: 3-dose primary series
- Booster doses* authorized for children in this group:
  - Pfizer
    - 5-11 years: 1 booster
    - 12 years and older: 2 boosters
  - Moderna: 18 years and older: 2 boosters

*Additional primary doses are dose administered to people who likely did not mount a protective immune response after initial vaccination. *Booster doses are administered to enhance or restore protection by the primary vaccination which might have waned over time.
Clinical Considerations: Prior COVID-19 infection

- COVID-19 vaccination should be given regardless of history of prior COVID-19 infection
  - Clinical trials and the COVID-19 vaccine experience to date have demonstrated the safety of mRNA COVID-19 vaccines in people with a history of prior COVID-19 infection
  - Serologic testing for prior COVID-19 infection is not recommended prior to vaccination
- Vaccination should be deferred in persons currently ill with COVID-19 until they have recovered and met criteria to end isolation
  - Note: CDC guidelines updated to include an option of 3-month deferral
- If the patient has received passive antibody products:
  - Can be vaccinated at any time
  - COVID-19 vaccination does not need to be delayed following receipt of monoclonal antibodies or convalescent plasma

*Link to CDC website here*
Clinical Considerations: Multisystem Inflammatory Syndrome in Children (MIS-C)

• Rare syndrome reported w/in 4 weeks of SARS-CoV-2 infection
  • 1 in 3000 children with lab-confirmed COVID-19
  • Presentation: fever, laboratory evidence of inflammation, and evidence of clinically severe illness requiring hospitalization, with multisystem (>2) organ involvement

• The benefits of COVID-19 vaccination are likely to outweigh the potential and known risks in children with a history of MIS-C before COVID vaccination if:
  o Clinical recovery has been achieved, including a return to normal cardiac function; and
  o It has been ≥ 90 days since diagnosis of MIS-C; and
  o They are in an area of high or substantial community transmission of SARS-CoV-2, or otherwise have an increased risk for SARS-CoV-2 exposure and transmission

o Persons with a history of MIS-C onset after a prior COVID-19 vaccination should discuss subsequent doses with their doctor
Multisystem Inflammatory Syndrome in Children (MIS-C) Resources

Information about MIS-C in NYS:


Resources for parents:

- [https://www.cdc.gov/mis/mis-c.html](https://www.cdc.gov/mis/mis-c.html)

AAP resources on MIS-C

Clinical Considerations: Co-administration

• COVID-19 vaccines may be administered without regard to timing of other vaccines*
  • Includes simultaneous administration of COVID-19 vaccine and other vaccines on the same day
  • If multiple vaccines are administered at a single visit, administer each injection in a different injection site.

• Best practices for multiple injections
  • Label each syringe with the name and the dosage (amount) of the vaccine, lot number, initials of the preparer, and exact beyond-use time, if applicable.
  • Separate injection sites by 1 inch or more, if possible.
  • Administer the COVID-19 vaccine and vaccines that may be more likely to cause a local reaction in different limbs, if possible.

*Link to CDC Website
Talking to Parents and Children about the COVID-19 Vaccine
COVID-19 Disease, by Age Group

Cases by Age Group:
Data from 76,365,726 cases. Age group was available for 75,604,080 (99%) cases.

Deaths by Age Group:
Data from 860,267 deaths. Age group was available for 859,477 (99%) deaths.

Source: https://covid.cdc.gov/covid-data-tracker/#demographics
Benefits: mRNA COVID-19 vaccine, 6m-4yo

• Young children are at risk of severe COVID-19
  • >1400 COVID-19 hospitalizations in this age group from March 2020 – January 2022
  • Children with underlying medical conditions at highest risk*
  • Multisystem inflammatory syndrome in children (MIS-C)
  • Post-COVID conditions have been reported in children
  • Children <18 years who have had COVID-19 are up to 2.5 times more likely to be newly diagnosed with diabetes 30 days or more after infection

• Secondary transmission in household, childcare and school settings
  o Leads to missed school/childcare for themselves and classmates, missed work for parents
  o Potential for transmission to high-risk individuals and siblings <6 months of age
  o Mental health benefits of being a part of your community and child development benefits

*including genetic/neurologic/metabolic conditions, congenital heart disease, obesity, diabetes, asthma, chronic lung disease, sickle cell disease, immunosuppression
Safety of mRNA COVID-19 Vaccines

• Key points when talking to parents
  • COVID-19 mRNA vaccines were developed using science that has been around for decades.
  • COVID-19 vaccines are safe - much safer than getting COVID-19.
  • COVID-19 vaccines are effective at preventing severe COVID-19 illness and limiting the spread of virus that cause it.

• Based on what we know from phase 2/3 trials, and experience in 5-11 yo group:
  • Common adverse events
    • Local symptoms: Pain, swelling, and redness at injection site
    • General symptoms: fever, fatigue, headache, chills, myalgia, arthralgia, lymphadenopathy
    • Similar to (or milder than) those in older children and adults
  • Rare adverse events: anaphylaxis, myocarditis/pericarditis
Safety considerations: Anaphylaxis

- 5 anaphylaxis cases per one million COVID-19 vaccine administered
  - People with history of severe allergic reaction to COVID-19 vaccine or a component are at highest risk
- Most common after first dose and within 30 minutes of vaccination
- Management in infants and young children (require standing orders)
  - Patients <7.5kg (16.5lbs): Autoinjectors not authorized; use aqueous epi
  - Patients 7.5-14kg (16.5-32lbs): Autoinjector (e.g., AUVI-q) 0.1mg
  - Patients 15-29kg (33-65lbs): Autoinjector (e.g., EpiPen Jr) 0.15mg
  - Patients >30kg (66lbs): Autoinjector (e.g., EpiPen) 0.3mg

Management: https://www.cdc.gov/vaccines/covid-19/clinical-considerations/managing-anaphylaxis.html
Lab testing after anaphylaxis: https://www.cdc.gov/vaccines/covid-19/clinical-considerations/testing-after-allergic-reaction.html
## Appendix B: Triage of people with a history of allergies or allergic reactions

### CONTRAINDICATION TO COVID-19 VACCINATION

<table>
<thead>
<tr>
<th>History of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a COVID-19 vaccine¹,²</td>
</tr>
<tr>
<td>• Known (diagnosed) allergy to a component of a COVID-19 vaccine³</td>
</tr>
</tbody>
</table>

### PRECAUTION TO COVID-19 VACCINATION

<table>
<thead>
<tr>
<th>Among people without a contraindication, a history of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Any immediate allergic reaction³ to other vaccines (non-COVID-19) or injectable therapies⁴</td>
</tr>
<tr>
<td>• Non-severe, immediate (onset &lt;4 hours) allergic reaction⁵ after a previous dose of COVID-19 vaccine⁶</td>
</tr>
</tbody>
</table>

**Note:** People with a contraindication to mRNA COVID-19 vaccines have a precaution to Janssen COVID-19 Vaccine, and vice versa⁵.

### MAY PROCEED WITH COVID-19 VACCINATION

<table>
<thead>
<tr>
<th>Among people without a contraindication or precaution, a history of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Allergy (including anaphylaxis) to oral medications (including the oral equivalent of an injectable medication)</td>
</tr>
<tr>
<td>• History of food, pet, insect, venom, environmental, latex, etc., allergies, including anaphylaxis</td>
</tr>
<tr>
<td>• Family history of allergies</td>
</tr>
</tbody>
</table>

### Actions:

<table>
<thead>
<tr>
<th>CONTRAINDICATION TO COVID-19 VACCINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do not vaccinate</td>
</tr>
<tr>
<td>• Consider referral to allergist-immunologist</td>
</tr>
<tr>
<td>• Consider other vaccine alternative if age appropriate¹,⁵</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRECAUTION TO COVID-19 VACCINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Risk assessment</td>
</tr>
<tr>
<td>• 30-minute observation period if vaccinated (see footnotes 5 and 6 for information on vaccination setting)</td>
</tr>
<tr>
<td>• Consider referral to allergist-immunologist</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAY PROCEED WITH COVID-19 VACCINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 30-minute observation period: people with history of anaphylaxis (due to any cause)</td>
</tr>
<tr>
<td>• 15-minute observation period: all other people</td>
</tr>
</tbody>
</table>

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[Link:](https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#appendix-e)
Safety considerations: Myocarditis/Pericarditis

- Inflammation in/around heart muscle
- Highest risk: males 12-29 yo, 2nd dose, <1 week of vaccination
  - 5-11 years: 20 verified reports after 18,405,693 doses administered
  - 12-15 years: 348 verified reports after 23,231,892 doses administered
  - 16-17 years: 297 verified reports after 12,653,820 doses administered
- The risk after vaccination is lower than the risk associated with COVID-19 disease
- Most patients with myocarditis after mRNA COVID-19 vaccination have been hospitalized for short periods, with most achieving resolution of acute symptoms
- Extending the interval between the first and second mRNA vaccine dose to 8 weeks might reduce the risk.

https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#recommendations
After Vaccination: Talking to Parents

• Positive reinforcement for parents
  o Praise them for getting their child vaccinated!

• Getting eligible children vaccinated against COVID-19 can help keep them:
  o From getting COVID-19
  o From getting really sick if they do get COVID-19
  o Safer when they attend school or daycare
  o More safely participating in sports, playdates, and other group activities.

• Remind them to make a note of their child’s next vaccine appointment to make sure they are fully vaccinated and fully protected

• Remind them of the most common side effects after getting vaccinated

Link: Before, During, and After Your Child’s Shots | CDC
Addressing Vaccine Hesitancy

- New York State specific resources for **Public Education**
  - Dedicated communications effort to **promote vaccine confidence** and quickly **address misinformation** that may spread on social media and in other media forms
    - [Frequently Asked Questions](#) - Answers to common questions about the COVID-19 vaccine.
    - [Get the Vax Facts](#) - Campaign to counter misinformation and disinformation with [downloadable toolkits](#)
  - [Myths and FACTS about COVID-19](#)
  - [12 COVID-19 Vaccination Strategies for Your Community](#)
  - [How to Address COVID-19 Vaccine Misinformation](#)
V-SAFE program

Promoting v-safe in Practice – We Need Your Help!

- How immunization programs can promote v-safe:
  - Encourage discussion of v-safe at the vaccination visit
    o For youngest children, ideally prior to vaccination
  - Ask sites to display posters of v-safe
  - Ask sites to provide v-safe information sheet to patients

Training Resources for Staff or Clinics New to Pediatric Vaccination
## Overview of Vaccine Administration in Infants and Young Children

<table>
<thead>
<tr>
<th>Infants 6-12m</th>
<th>Children 1-2 years</th>
<th>Children 3-4 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needle gauge and length</td>
<td>1”</td>
<td>5/8”-1” (arm) 1”-1.25” (thigh)</td>
</tr>
<tr>
<td>Injection site</td>
<td>Thigh</td>
<td>Thigh (preferred) Arm (if adequate muscle mass)</td>
</tr>
<tr>
<td>Restraint technique(s)</td>
<td>Caregiver embrace (side)</td>
<td>Caregiver embrace (side) Straddle restraint</td>
</tr>
<tr>
<td>Useful distractions</td>
<td>• Distract and comfort  • Cuddle, Sing, or talk softly.  • Comfort with a favorite toy, book or blanket.  • Hold your child firmly on your lap, whenever possible.  • Breast feeding, bottle, pacifier</td>
<td>• Distract with book, phone, stories, or interesting things in the room  • Support your child if he or she cries.  • Never scold a child for not “being brave.”  • Breast feeding, bottle, pacifier</td>
</tr>
</tbody>
</table>

*General Vaccine administration techniques: [https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/administration.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/administration.html)*
CDC Videos for IM injections for Children

- “Intramuscular (IM) Injection: Supplies (Children Birth Through 18 years of Age)”  
  6 minutes

- “Intramuscular (IM) Injection: Sites”  
  5:10 minutes

long. The deltoid muscle in the upper arm can also be used if the muscle mass is adequate.
Resources for Pediatric Vaccination

• Positioning the pediatric patient:
  – You Call The Shots - Vaccine Administration: Intramuscular (IM) Injection Infants 11 months of age and younger (cdc.gov)
  – https://www.cdc.gov/vaccines/parents/visit/holds-factsheet.html
  – How to hold your child during a vaccination (state.mn.us)
CDC Videos: Comfort & Restraint Techniques

“Comfort and Restraint Techniques”

Hold child on lap turned to the side
Secure child's arm
Place one arm around child
Vaccinating in Special Situations

Vaccinating kids with disabilities

What to avoid

• Shoulder injury related to vaccination administration (SIRVA)
  • Unintentional injection of vaccination into tissues/structures lying underneath the deltoid muscle
  • Manifests as shoulder pain and limited motion after administration of vaccine
  • Musculoskeletal injury (not neurological)
  • Reportable to VAERS
Example Check List for Training New Staff on Pediatric Vaccination

- Preparing the child and guardian for the vaccine
- Reviewing protocols: screening & consent
- Avoiding errors/dispensing
- Dispensing supplies: needle size etc.
- Talking to parents
- Preparing the workspace
- Pediatric restraint techniques
- Positioning and anatomic landmarks
- Shoulder Injury from Vaccine (SIRVA)
- Mock vaccination routine
- After vaccine comfort
- Waiting time
- Reporting errors and adverse events
COVID-19 Vaccine Provider Requirements
COVID-19 Vaccination Program Enrollment

• Provider locations must be enrolled in the COVID-19 vaccination program with a signed CDC Provider Agreement in order to receive or administer COVID-19 vaccine.

• Locations in New York State outside of the 5 New York City boroughs enroll in the NYS COVID-19 Vaccination Program via an application tool in the Health Commerce System (HCS).

• Requests for vaccine and reporting of doses administered is done through the New York State Immunization Information System (NYSIIS).

• New York City locations enroll via the New York City Department of Health and Mental Hygiene’s Citywide Immunization Registry (CIR).
Enrollment Process For Locations Outside NYC

**Step 1:** Complete the online COVID-19 Vaccine Program Provider Enrollment application located in the Health Commerce System (HCS). There are a set of resource documents to assist you.

The application includes two sections:

- **Section A: Provider Requirements and Legal Agreement** specifies the conditions of participation and must be filled out for the organization (i.e., network, health system, or medical group).
- **Section B: Program Provider Profile Form** must be filled out for every vaccination provider location receiving and administering COVID-19 vaccine.

**Step 2:** Ensure the appropriate individuals have access to the New York State Immunization Information System (NYSIIS).

New users must complete two NYSIIS Trainings in order to obtain NYSIIS accounts.
- Standard User Training, approximately 45 minutes
- Administrative User Training, approximately 20 minutes

NYSIIS is used to submit requests for vaccine, manage vaccine inventory and report doses administered.

**Step 3:** Sign and return a “Memorandum of Understanding (MOU) for the COVID-19 Vaccination Program” to demonstrate commitment to complying with New York State’s directives regarding the COVID-19 Vaccination Program.

The MOU will be emailed to you after you submit an application in the HCS. The MOU is required in addition to the online enrollment application.
Enrollment Process For Locations In NYC

Step 1: Register your facility in the CIR to obtain a CIR facility code. Go to the online registration page to register your facility for the first time or to update an existing registration if your facility has not reported to the CIR in over a year. You will need the National Provider Identifier (NPI) number and NYS medical license number of the provider-in-charge to complete the registration.

Step 2: Create a CIR Online Registry (OR) account. To do so, you must complete the two forms listed below, then scan and email them to cir-reset@health.nyc.gov.

- Security Administrator (User Manager) Confidentiality Statement for Online Access and Acceptable Use Protocol (PDF)
- Security Administrator (User Manager) User ID/Password Request Form (Facilities) (PDF)

Step 3: After you have a facility code and OR account set up, you will be able to access the Vaccination Provider Agreement System (VPAS) from inside the OR. Paper forms are not accepted. NYC is accepting only online enrollments. This agreement is for enrollment in the COVID-19 Vaccination Program; it is not a vaccine order.

Once your VPAS agreement has been approved, you will be notified to order vaccine. Please be sure to complete both Parts A and B in VPAS. Part B will appear as a link in the upper left of the screen after completing Part A. Instructions are attached. For assistance with VPAS, email nycimmunize@health.nyc.gov.

For full instructions, please visit:
COVID-19 Vaccine Ordering

• Providers enrolled in New York State (outside New York City) place orders in NYSIIS (NYC providers order through CIR following NYCDOHMH instructions)
  – COVID-19 vaccine orders should always be placed separately from Vaccines for Children (VFC), Vaccines for Adults (VFA) and flu orders
  – Can be placed any day of the week
  – There is no limit to frequency of COVID-19 vaccine orders. NYSDOH recommends ordering enough doses for a 3-week supply (considering administration and current inventory) to reduce the risk of wastage due to expiration
  – Orders that are approved in NYSIIS ship from Pfizer or McKesson (Moderna and J&J vaccine) and typically deliver within 3-5 business days. Shipment notification emails are sent from Pfizer or McKesson to the primary vaccine coordinator.
## Minimum Ordering Quantities (as of 6/2022)

<table>
<thead>
<tr>
<th>Product</th>
<th>Minimum Order Qty</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfizer 12+ (gray cap)</td>
<td>300 doses</td>
<td>2 boxes; 25 6-dose vials</td>
</tr>
<tr>
<td>Pfizer 5-11 (orange cap)</td>
<td>100 doses</td>
<td>1 box; 10 10-dose vials</td>
</tr>
<tr>
<td>Pfizer 6m-4y (maroon cap)</td>
<td>100 doses</td>
<td>1 box; 10 10-dose vials</td>
</tr>
<tr>
<td>Janssen (J&amp;J)</td>
<td>100 doses</td>
<td>2 boxes; 10 5-dose vials</td>
</tr>
<tr>
<td>Moderna 12+ (red cap)</td>
<td>100 doses</td>
<td>1 box; 10 10-dose vials</td>
</tr>
<tr>
<td>Moderna 6-11 primary/18+ booster</td>
<td>100 doses</td>
<td>2 boxes; 10 5-dose vials</td>
</tr>
<tr>
<td>(blue cap/purple label)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderna 6m-5y (blue cap/magenta label)</td>
<td>100 doses</td>
<td>1 box; 10 10-dose vials</td>
</tr>
</tbody>
</table>

The amounts are set by CDC based upon contract between CDC and manufacturer. NYS does not control minimum order quantities.
Responsible Wastage

- Providers should “take every opportunity to vaccinate every eligible person.”
- As more vaccination opportunities are created, the likelihood of leaving unused doses in a vial may increase.
  - Once a vial of Moderna or Pfizer vaccine is diluted it must be used within 12 hours per the EUA. Any doses not administered within that time period must be reported as Wastage (see Wastage Reporting Guidance).
  - While enrolled providers must continue to follow best practices to use every dose possible, it should not be at the expense of missing an opportunity to vaccinate every eligible person when they are ready to get vaccinated.
Pfizer-BioNTech COVID-19 Vaccine Product Packaging – Thermal Shipper

- Sticker or preprinted: UPON RECEIPT UNPACK IMMEDIATELY
- Keep Upright
- Sticker or preprinted: Do NOT store contents in standard freezer

Do NOT store contents in standard freezer
## Storage and Handling – Pfizer Formulations

### Storage Conditions

<table>
<thead>
<tr>
<th>Description</th>
<th>Dilute Before Use</th>
<th>Do Not Dilute</th>
<th>Dilute Before Use</th>
<th>Dilute Before Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vial Cap Color</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultra-Low-Temperature (ULT) Freezer [-80 °C to -60 °C (-196 °F to -76 °F)]</td>
<td>12 months*</td>
<td>12 months†</td>
<td>12 months†</td>
<td>12 months†</td>
</tr>
<tr>
<td>Freezer [-25 °C to -15 °C (-13 °F to 5 °F)]</td>
<td>2 weeks</td>
<td><strong>DO NOT STORE</strong></td>
<td><strong>DO NOT STORE</strong></td>
<td><strong>DO NOT STORE</strong></td>
</tr>
<tr>
<td>Refrigerator [2 °C to 8 °C (35 °F to 46 °F)]</td>
<td>1 month</td>
<td>10 weeks</td>
<td>10 weeks</td>
<td>10 weeks</td>
</tr>
<tr>
<td>Room Temperature [8 °C to 25 °C (46 °F to 77 °F)]</td>
<td>2 hours prior to dilution (including any thaw time)</td>
<td>12 hours prior to first puncture (including any thaw time)</td>
<td>12 hours prior to dilution (including any thaw time)</td>
<td>12 hours prior to dilution (including any thaw time)</td>
</tr>
<tr>
<td>After First Puncture [2 °C to 25 °C (35 °F to 77 °F)]</td>
<td><strong>Discard after 6 hours</strong></td>
<td><strong>Discard after 12 hours</strong></td>
<td><strong>Discard after 12 hours</strong></td>
<td><strong>Discard after 12 hours†</strong></td>
</tr>
</tbody>
</table>
Storage and Handling – Pfizer Formulations

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

Vials are glass and should be handled with care.

Vials should always remain upright in cartons during storage.

Do not touch frozen vials until there is a need to remove them from the carton for use or transfer.

Product should be retained in the original vial cartons until ready for use.

Protective gloves allowing manual dexterity should be worn while handling frozen vials.
Storage and Handling – ALL Moderna Formulations

Frozen Storage

All Moderna COVID-19 Vaccine Presentations can be stored and handled in a consistent way and can be stored frozen until expiration date*

\[-50°C \text{ to } -15°C \quad (-58°F \text{ to } 5°F)\]

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

For more information refer to the Fact Sheets for Healthcare Providers.

*Confirm vaccine expiration date by looking up the lot number at eua.modernatx.com/covid19vaccine-eua.
Storage and Handling – ALL Moderna Formulations

Thaw Each Vial Before Use

- Refrigerator:
  - 2 mL vials: 2 hours
  - 5 mL vials: 2 hours 30 minutes
  - 7.5 mL vials: 3 hours

- Room Temperature:
  - 2 mL vials: 45 minutes
  - 5 mL vials: 1 hour
  - 7.5 mL vials: 1 hour 30 minutes

Let vial sit at room temperature for 15 minutes before administering.

Thawed Shelf Life

- Unpunctured Vial:
  - Maximum times:
    - Refrigerator: 30 days
    - 2°C to 8°C (36°F to 46°F)
    - Cool storage up to room temperature: 24 hours
    - 8°C to 25°C (46°F to 77°F)

- After First Dose Has Been Withdrawn:
  - Maximum time:
    - Refrigerator or room temperature: 12 hours

Never refreeze thawed vaccine.

Vial should be held between 2°C to 8°C (36°F to 46°F). Record the date and time of first use on the vial bottle. Discard punctured vial after 12 hours.
Beyond Use Dates (BUD)

- A shortened calculated use date that applies to certain instances:
  - When Pfizer vaccine is moved to refrigerator: 10-week BUD
  - When Modern vaccine is moved to refrigerator: 30-day BUD
  - When the vial is punctured:
    - Pfizer (gray, orange, and maroon cap) and Moderna (all formulations): 12 hours
    - J&J: 6 hours refrigerated or 2 hours room temperature
- The BUD replaces the manufacturer’s expiration date and should be noted on the label along with the initials of the person making the calculation. Label the carton/vials with BUD at the time you remove from ULT/freezer!
  - Pfizer Gray Cap BUD Tracking Labels
  - Pfizer Orange Cap BUD Tracking Labels
  - Pfizer Maroon Cap BUD Tracking Labels
  - Moderna (red cap) BUD Tracking Labels
  - Moderna PED 6m-5y BUD Tracking Labels
- The BUD must never exceed the expiration date
Temperature Monitoring Requirements

• **Each** vaccine storage unit **MUST** have a digital data logger.
  – Detachable probe that best reflects vaccine temperature
  – Records temperatures at preset intervals, at least every 30 minutes
  – Temperature data can be either downloaded to a computer or retrieved from a website
  – Other features preferred:
    • Alarm for out-of-range temperatures
    • Low-battery indicator
    • Current, minimum and maximum temperature display

• Most freezer DDLs don’t measure cold enough for ULT units (glycol probes will freeze at -59 C). Use a DDL with an air probe or probe designed specifically for ULT

• Must have a current and valid certificate of calibration testing to uncertainty of +/-0.5° C (+/-1° F)
Temperature Excursions

• Any time outside of recommended storage and handling conditions is considered a temperature excursion
• Label vaccines DO NOT USE and call manufacturer for determination on viability
• All excursions must be reported on the New York State COVID-19 Vaccination Program Temperature Excursion Report and submitted to vaccinetempexcursion@health.ny.gov
  – Send data logs with tables and graphs with the Excursion Report
COVID-19 Vaccine Storage and Handling Resources

**Pfizer COVID-19 vaccines**
Storage and handling: [https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/storage.html](https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/storage.html)
Excursion contact: 800-438-1985

**Moderna COVID-19 vaccines**
Storage and handling: [https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/storage.html](https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/storage.html)
Excursion contact: 866-MODERNA or excursions@modernatx.com;
Excursion web tool: [https://tools.modernamedinfo.com/excursion/](https://tools.modernamedinfo.com/excursion/)

**Janssen**

**CDC Storage and Handling Toolkit**: [https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf](https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf)


*Excursion web tools are for single excursions only. Must call for any subsequent excursions.*
Reporting

• Entering vaccination data into NYIIS or CIR (NYC) in an accurate and timely fashion is critical and required per the Provider Agreement.

• Providers are responsible for fixing any data entry errors identified.

• The Excelsior Pass verifies requests for passes against information entered into NYIIS and CIR.
  – If data entered into NYIIS or CIR is incorrect or incomplete – because identity cannot be confirmed, fields are missing, or dates do not show they are fully vaccinated – the person cannot get a pass.
Additional Resources
Vaccine Finder.org

- Direct patients to find the appropriate vaccine type for age

Vaccines.gov: New vaccines listed in search

  - Available M-F, 8am – 8pm ET
  - CARS_HelpDesk@cdc.gov
  - 1-833-748-1979

Training Documentation and Materials:

https://vaccine-resources.gitbook.io/vaccines.gov-provider-resources/
New York State Resources

• For FAQs, NYS Vaccine Tracker, and more information:
  – Covid19Vaccine.health.ny.gov

• For all New York State guidance regarding COVID-19 vaccination:

• New York State COVID-19 Vaccine Hotline
  – 1-833-NYS-4-VAX (1-833-697-4829)
  – The COVID-19 Vaccine Hotline is open 9AM – 6PM, Monday-Friday
Resources

- CDC Vaccine trainings for health care providers and vaccinators:
  - [https://www.cdc.gov/vaccines/covid-19/training-education/index.html](https://www.cdc.gov/vaccines/covid-19/training-education/index.html)
  - [https://www2.cdc.gov/vaccines/ed/covid19/index.asp](https://www2.cdc.gov/vaccines/ed/covid19/index.asp)

- ACIP general resources: ACIP’s General Best Practice Guidelines for Immunization:
  - [https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/administration.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/administration.html)

- Pfizer medical trainings
Resources

• VAERS reporting: Vaccine Adverse Event Reporting System (VAERS) (hhs.gov)

• Immunization Action Committee:
  • https://www.immunize.org/askexperts/experts_cov.asp
  • https://www.immunize.org/vax-and-covid-19/
  • https://www.immunize.org/
  • https://www.immunize.org/dvd/
Public Education (links to many educational resources)

- Dedicated communications effort to **promote vaccine confidence** and quickly **address misinformation** that may spread on social media and in other media forms


- Myths and FACTS about COVID-19 vaccines

- Strategies to address vaccine hesitancy
Resources for addressing vaccine hesitancy relating to pregnancy and/or fertility

- Preliminary Findings of mRNA COVID-19 Vaccine Safety in Pregnant Persons

- COVID Vaccine Hesitancy: Boston Doctors Address Concerns Around Fertility, Pregnancy

- CDC: Information about COVID-19 Vaccines for People who are Pregnant or Breastfeeding

- CDC: COVID-19 Factsheet | Pregnancy
Resources for addressing vaccine hesitancy

- COVID-19 Vaccine Recipient Education (CDC)
  - [https://www.cdc.gov/vaccines/covid-19/hcp/index.html](https://www.cdc.gov/vaccines/covid-19/hcp/index.html)

- From Concern to Confidence: How physicians can build trust in COVID-19 vaccines (De Beaumont Foundation)

- Webinar: Successful COVID-19 Messaging in Rural Communities (Public Health Communications Collaborative)

- An Uncertain Public – Encouraging Acceptance of COVID-19 Vaccines (NEJM Perspective)
Resources for addressing vaccine hesitancy (continued)

- Physicians will play key role building trust in COVID-19 vaccine (American Medical Association)
  [https://www.ama-assn.org/about/leadership/physicians-will-play-key-role-building-trust-covid-19-vaccine](https://www.ama-assn.org/about/leadership/physicians-will-play-key-role-building-trust-covid-19-vaccine)

- COVID-19 vaccine hesitancy: 10 tips for talking with patients (American Medical Association)

- Vaccine Hesitancy: An Evolving Public Health Threat (Commissioner’s Medical Grand Rounds: June 13, 2019)
  [https://www.health.ny.gov/commissioner/grand_rounds/vaccine_hesitancy/](https://www.health.ny.gov/commissioner/grand_rounds/vaccine_hesitancy/)

- Kaiser Family Foundation Vaccine Monitoring Dashboard:
Resources

Videos that can be played on site:

- [https://www.youtube.com/watch?v=vhHpOXJE8Yk](https://www.youtube.com/watch?v=vhHpOXJE8Yk)
- [https://www.youtube.com/watch?v=b0B-agOJ7vw](https://www.youtube.com/watch?v=b0B-agOJ7vw)

Big Bird gets his COVID vaccine: [https://www.youtube.com/watch?v=Kvx0oCvMm8g](https://www.youtube.com/watch?v=Kvx0oCvMm8g)

Rosita gets the COVID vaccine

[https://youtu.be/yPlhRUF2aXA](https://youtu.be/yPlhRUF2aXA)

How do vaccines help babies fight infections? | How Vaccines Work - YouTube
Resources for Older Kids

- General resources for kids and COVID

- Explaining covid to kids
  https://news.umich.edu/new-video-website-explain-coronavirus-for-kids/

- UNICEF video on talking to kids about the COVID vaccine

- Segment with Bill Nye The Science Guy
  https://www.youtube.com/watch?v=i9GpIDZIg5A

- From Boston’s Children’s Hospital
  https://www.youtube.com/watch?v=p7fDNWwWyBE
Questions?

Covid19Vaccine@health.ny.gov

You may continue directing questions to this address after the webinar has concluded.