WHAT IS A BIVALENT COVID-19 BOOSTER?

The bivalent vaccine contains the mRNA protein codes for two specific strains (or variants) of COVID-19. 
- The original COVID-19 virus.
- The Omicron BA.4/5 variant, which has caused the majority of cases in the U.S. recently.

The original COVID-19 vaccine is a monovalent mRNA COVID-19 vaccine.

WHO CAN GET A BIVALENT BOOSTER?

Per the CDC: Everyone ages 12 years and older are recommended to receive one age-appropriate bivalent mRNA booster dose after completion of any FDA-approved or FDA-authorized primary series or last monovalent booster dose.
- People should not get a bivalent booster without first completing a primary series
- Age-appropriate homologous and heterologous boosters are allowed; there is no preference
  - Ages 12 years and older can get a Pfizer bivalent booster
  - Ages 18 years and older can get a Moderna bivalent booster

CAN THE ORIGINAL BOOSTER BE GIVEN?

Bivalent boosters are the only authorized boosters now available. Previously authorized monovalent boosters should not be used. Those 5 to 11 years can still be given the original (monovalent) Pfizer vaccine as a booster.

Note: there are no changes to the COVID-19 vaccine schedules for children ages 6 months through 11 years old.

WHAT IS THE TIMING BETWEEN DOSES?

At least two months since the last COVID-19 vaccine dose (primary or booster).

HAS THE PRIMARY VACCINE CHANGED?

The original monovalent vaccine products have NOT changed. The bivalent vaccine is authorized as a BOOSTER only.

WHAT IS THE TIMING BETWEEN DOSES?

At least two months since the last COVID-19 vaccine dose (primary or booster).

MOST COMMONLY REPORTED SYMPTOMS:

Are similar to monovalent COVID-19 vaccines:
- Muscle pain
- Chills
- Joint pain
- Fever
- Headache
- Pain, redness and swelling at the injection site
- Fatigue

## Storage, Handling and Prep:

<table>
<thead>
<tr>
<th></th>
<th>Pfizer</th>
<th>Moderna</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Indications and Formulation</strong></td>
<td><strong>Single Bivalent Booster Dose 12+</strong></td>
<td><strong>Single Bivalent Booster Dose 18+</strong></td>
</tr>
<tr>
<td><strong>Vial Cap Color</strong></td>
<td>Gray</td>
<td>Dark blue with a Gray label border</td>
</tr>
<tr>
<td><strong>Preparation</strong></td>
<td>Do Not Dilute</td>
<td>Do Not Dilute</td>
</tr>
<tr>
<td><strong>Dose Volume/Dose</strong></td>
<td>0.3 mL/30 mcg</td>
<td>0.5 mL/50 mcg</td>
</tr>
<tr>
<td><strong>Doses per Vial</strong></td>
<td>6 booster</td>
<td>5 booster</td>
</tr>
<tr>
<td><strong>ULT Freezer (-90°C to -60°C)</strong></td>
<td>12 months</td>
<td>DO NOT STORE</td>
</tr>
<tr>
<td><strong>Freezer</strong></td>
<td>DO NOT STORE (-25°C to -15°C)</td>
<td>Until Expiration (-50°C to -15°C)</td>
</tr>
<tr>
<td><strong>Refrigerator (2°C to 8°C)</strong></td>
<td>10 weeks</td>
<td>30 Days</td>
</tr>
<tr>
<td><strong>Room Temperature (8°C to 25°C) including thaw time</strong></td>
<td>12 hours prior to first puncture</td>
<td>24 hours</td>
</tr>
<tr>
<td><strong>After First Puncture (2°C to 25°C)</strong></td>
<td><strong>Discard after 12 hours</strong></td>
<td><strong>Discard after 12 hours</strong></td>
</tr>
</tbody>
</table>

## Why a Bivalent Vaccine?

If Omicron continues to mutate, monovalent would be enough. But, if another variant comes back a bivalent vaccine would provide broader protection. We know COVID-19 has been unpredictable.

## What Safety Data Do We Have?

- Both Moderna and Pfizer have shared data on the safety of the BA.1 bivalent vaccine on over 1,400 adults. The bivalent vaccine that will be available in the US is the BA.5 bivalent vaccine, but the differences between the two (BA.1 and BA.5) is very small.

According to Your Local Epidemiologist, "The difference is a few amino acids or equivalent to a few letter edits on a Word document. We aren’t changing the number of words in the paper (like dosage of RNA), or the content of the paper, or the platform (like Word to Excel). Because of the minimal change, we are confident that BA.1 bivalent safety data will accurately reflect BA.5 safety. The risk of myocarditis after COVID-19 infection (compared to vaccination) is 1.8 - 5.6 times higher among young males."

## More Information:

- Link to the ACIP Presentation Slides: September 1-2, 2022 meeting [here](#)
- Moderna EUA Factsheet for Healthcare Providers [here](#)
- Pfizer EUA Factsheet for Healthcare Providers [here](#)