Information for patients about COVID vaccination

Your surgeon is providing you with this current scientific information about Coronavirus Disease (COVID) so you can accurately make the best decision for yourself.

Q: Why should surgical patients get vaccinated?
A: Because it’s the safest and most effective way for patients to protect themselves from COVID infection. Wearing masks and social distancing do reduce the spread of the virus, but those methods may not protect you as well as being vaccinated. Also, vaccinated people have lower rates of severe disease and hospitalization if they still become infected.

Q: How do I know if the COVID vaccine is safe?
A: COVID vaccines are safe and effective. Beginning in early 2021, the Food and Drug Administration (FDA) began reviewing and approving COVID vaccines after clinical trials concluded in tens of thousands of patients. More than 200 million people in the US and 10 billion worldwide have been fully vaccinated as of February 8, 2022. All COVID vaccines have met rigorous standards and continue to undergo intensive monitoring to ensure continued safety.

Sources: https://usafacts.org/visualizations/covid-vaccine-tracker-states/
https://covid19.who.int [select “vaccination” in the drop-down menu]

Q: What are the different types of vaccines? Are there age requirements?
A: The FDA has now approved three COVID vaccines in the US for adults and one vaccine for children over age 5. Booster vaccines are also being recommended as immunity fades over time and new variants continue to be a cause for concern.

The CDC has updated its recommendations for COVID vaccines with a preference for mRNA (Pfizer-BioNTech or Moderna) vaccines. Learn more about the updated guidance on use of the Janssen (Johnson & Johnson) COVID-19 vaccine.

Source: www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html
In terms of age requirements and timing, here are recommendations from the CDC:

### When Are You Up to Date?

You are up to date with your COVID-19 vaccines when you have followed the current recommendations listed below. The recommendations will be different depending on your age, your health status, what vaccine you first received, and when you first got vaccinated.


<table>
<thead>
<tr>
<th>Pfizer-BioNTech</th>
<th>Pfizer-BioNTech</th>
<th>Moderna</th>
<th>Johnson &amp; Johnson’s Janssen</th>
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<tr>
<td><strong>Ages Recommended</strong></td>
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<td><strong>On May 5, 2022, the U.S. Food and Drug Administration announced</strong> that it has “limited the authorized use of the Janssen COVID-19 Vaccine to individuals 18 years of age and older for whom other authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, and to individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine.”</td>
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<tr>
<td><strong>Primary Series</strong></td>
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<td><strong>For those who received the Janssen vaccine before this announcement, the recommended booster schedule appears here.</strong></td>
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<tr>
<td>2 doses</td>
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<td>2 weeks after final dose in primary series</td>
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<td>Booster Dose</td>
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| • One recommended at least 5 months after the final dose in the primary series  
  - Pfizer-BioNTech vaccine | • One recommended at least 5 months after the final dose in the primary series  
  - Pfizer-BioNTech COVID-19 vaccine for teens ages 12-17 years  
  - Either Pfizer-BioNTech or Moderna COVID-19 vaccines for people ages 18+ years  
  • Adults ages 50+ can choose to receive a second booster at least 4 months after their first booster | • One recommended at least 5 months after the final dose in the primary series  
  - Either Pfizer-BioNTech or Moderna COVID-19 vaccines  
  • Adults ages 50+ can choose to receive a second booster at least 4 months after their first booster | • One recommended at least 2 months after the first dose of a J&J/Janssen COVID-19 vaccine  
  - Either Pfizer-BioNTech or Moderna COVID-19 vaccines  
  • Anyone who received a J&J/Janssen COVID-19 vaccine for both their first dose and booster may receive a second booster at least 4 months after their first booster  
  - Either Pfizer-BioNTech or Moderna COVID-19 vaccines  
  • Adults ages 50+ can choose to receive a second booster at least 4 months after their first booster | • Adults ages 50+ can choose to receive a second booster at least 4 months after their first booster, regardless of what type of booster they received |

### Up to Date

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<td>2 weeks after getting the primary series since a booster is not recommended for this age group at this time</td>
<td>Immediately after getting first booster&lt;sup&gt;[2]&lt;/sup&gt;</td>
<td>Immediately after getting first booster&lt;sup&gt;[2]&lt;/sup&gt;</td>
<td>Immediately after getting first booster&lt;sup&gt;[2]&lt;/sup&gt;</td>
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<sup>[1]</sup>Talk to your healthcare or vaccine provider about the timing for the second shot in your primary series.

- **People ages 12 through 64 years, and especially males ages 12 through 39 years**, may consider getting the second dose of an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna) 8 weeks after the first dose. A longer time between the first and second doses may increase how much protection the vaccines offer, and further minimize the already rare risk of heart problems, including myocarditis and pericarditis.

- **People ages 5 through 11 years, people ages 65 years and older, people more likely to become very sick from COVID-19, or anyone wanting protection due to high levels of community transmission** should get the second dose of Pfizer-BioNTech COVID-19 vaccine 3 weeks (or 21 days) after the first dose, or the second dose of Moderna COVID-19 vaccine 4 weeks (or 28 days) after the first dose.

<sup>[2]</sup>If you have completed your primary series—but are not yet eligible for a booster dose—you are also considered up to date. Stay up to date by getting a booster when you are eligible. The [CDC now recommends a second (mRNA) booster](https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html) for certain individuals, such as people over 50 or for those with compromised immune systems. People should wait at least four months between booster shots.

**Source:** [https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html](https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html)

### Vaccination Outside the United States

If you received COVID-19 vaccines outside the United States, whether you are up to date depends on which COVID-19 vaccine (and how many doses) you received. Learn more about when [people vaccinated outside the United States are considered fully vaccinated](https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html).
If you had a severe allergic reaction after a previous dose or if you have a known (diagnosed) allergy to a COVID-19 vaccine ingredient, you should not get that vaccine. If you have been instructed not to get one type of COVID-19 vaccine, you may still be able to get another type.

CDC has updated its recommendations for COVID-19 vaccines with a preference for mRNA (Pfizer-BioNTech or Moderna) vaccines. Learn more about the updated guidance on the use of Janssen (Johnson & Johnson) COVID-19 vaccine.

You should get your second shot as close to the recommended 3-week or 4-week interval as possible. You should not get the second dose early.

As with vaccines for other diseases, people who are up to date on their COVID-19 vaccines are optimally protected. Learn more about staying up to date on your COVID-19 vaccines.

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**Q: I’m healthy and in good shape. Since I rarely get sick, why do I need to get vaccinated?**

**A:** Even in young and healthy people, the symptoms of COVID can be severe or long lasting. Vaccination ensures you are less likely to suffer from severe illness and hospitalization due to COVID. Further, being vaccinated helps those around you by reducing the spread of COVID within your household, your workplace, and your community. This point is especially important if you live with vulnerable family or friends with weakened immune systems or other medical conditions who are not as healthy as you.

There’s evidence that if vaccinated patients do get a COVID infection, the vaccine protects them from long-haul COVID symptoms over a longer period of time. Vaccinated people go on to experience better health once they recover from their infection. Not only is COVID vaccination critical to protect against serious COVID infection and hospitalization, it protects you from long-haul COVID symptoms over time.

Other research shows that COVID infection raises a person’s risk for heart and vascular problems for up to a year after diagnosis. And it held true for people young or old, COVID infection made them more likely to experience a stroke, heart attack, or heart failure.

**Sources:**
- [https://www.npr.org/sections/health-shots/2022/03/24/1088270403/long-covid-vaccines](https://www.npr.org/sections/health-shots/2022/03/24/1088270403/long-covid-vaccines)
- [https://www.nature.com/articles/d41586-022-00403-0](https://www.nature.com/articles/d41586-022-00403-0)

**Q: Should I get a booster shot?**

**A:** Due to a reduction in protection over time, the CDC currently recommends that everyone age 12 years and older get a booster shot after completing their primary vaccination series.

Pfizer and Moderna vaccines are given in 2 doses (called the primary series) and have been shown to provide immunity for at least 5 months. Then a booster shot is strongly recommended. Those who received the Johnson & Johnson’s Janssen COVID-19 vaccine in the recommended single primary dose, should get a booster shot at least 2 months after getting their first shot. The CDC now recommends a second (mRNA) booster for certain individuals, such as people over 50 or for those with compromised immune systems. People should wait at least four months between booster shots.

**Source:** [https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html](https://www.cdc.gov/media/releases/2022/s0328-covid-19-boosters.html)
Q: Is it OK to mix COVID booster shots from different manufacturers?  
A: If you got the COVID vaccination from one manufacturer, it is OK to get a booster from a different one. The [FDA has authorized](https://www.fda.gov/vaccines-blood-biologics/coronavirus-covid-19-2019-ncov) the use of mix-and-match booster doses for currently available COVID vaccines based on research results. The FDA notes: “Booster shots are a safe and effective way to extend protection against variants of concern. Mixing vaccines may enhance the immune response, and it increases flexibility for when people need a booster dose but doses of the vaccine they first received are not available.”  

Q: Am I likely to get COVID after I’m fully vaccinated? Do variants affect this?  
A: No vaccine is 100% effective, and “breakthrough cases” are possible, particularly since many people across the US remain unvaccinated. Vaccines have been effective against COVID variants, but infections are still possible.  

There is good evidence that vaccines do lower a person’s chances of severe illness that leads to hospitalization and death should you get a breakthrough infection. A [CDC report](https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html) indicates that during the height of the Omicron variant surge, COVID incidence in Los Angeles County was 3.6 times more likely to occur. Also, hospitalizations were 23 times more likely among unvaccinated people than among vaccinated people with a booster shot, and 2.0 and 5.3 times, respectively, among people fully vaccinated without a booster. During both the Delta and Omicron surges, incidence and hospitalization rates were highest among unvaccinated persons and lowest among vaccinated persons with a booster.  
[https://www.cdc.gov/mmwr/volumes/71/wr/mm7105e1.htm](https://www.cdc.gov/mmwr/volumes/71/wr/mm7105e1.htm)

Q: Can a vaccinated patient with no symptoms still spread COVID-19?  
A: People with vaccine breakthrough infections [may spread COVID-19 to others](https://www.mayoclinic.org/coronavirus-covid-19/fully-vaccinated). However, it appears that vaccinated people spread COVID for a shorter period than do unvaccinated people. Vaccination is the best way to prevent infection and reduce transmission of COVID. Vaccines remain the best tool to prevent severe illness, slow transmission of COVID and its variants, and reduce the likelihood of new variants emerging.  

Q: If I recover from COVID, do I still need to get vaccinated?  
A: Yes, you should get vaccinated even if you have already had COVID.  

Evidence shows that if vaccinated, you have better protection from a second infection. Vaccination provides a strong boost in antibodies for people who have recovered from COVID and reduces your likelihood of getting it again.  

In fact, there’s evidence that unvaccinated adults are more likely to get reinfection with COVID again compared with vaccinated adults who have recovered from it. And it can happen more than once. Reinfection can happen every 16-17 months on average for non-vaccinated persons, and as quickly as 3 months after initial infection for some people.
If you were treated for COVID with monoclonal antibodies or convalescent plasma, the CDC recommends you wait 90 days before getting a COVID vaccine. Check with your physician on how to best time your vaccine based on this recommendation.

Sources: https://www.medpagetoday.com/infectiousdisease/covid19vaccine/97234  

Q: How likely am I to have a severe reaction to the vaccine?  
A: Although some people have had allergic reactions, serious side effects from COVID vaccines are rare. The federal government is now monitoring adverse reactions to the COVID vaccine, which remain uncommon. Anyone who experiences one should contact their health provider so their situation can be reported.

In fact, reactions to the vaccine are far less common and far less severe than are reactions to being infected with COVID. If you are concerned about a reaction, tell your physician about your allergy history to determine if you need an allergy test for a compound that can cause an uncommon reaction in some patients after vaccination.

According to the CDC, “Vaccine ingredients vary by manufacturer. None of the vaccines contain eggs, gelatin, latex, or preservatives. All COVID-19 vaccines are free from metals such as iron, nickel, cobalt, lithium, and rare earth alloys. They are also free from manufactured products such as microelectronics, electrodes, carbon nanotubes, or nanowire semiconductors.”

Sources: https://vaers.hhs.gov  
Frequently Asked Questions about COVID-19 Vaccination | CDC

Q: How long does vaccine immunity last?  
A: Immunity is still being studied to determine how long a COVID vaccine protects you. However, it is known that immunity decreases over time. Pfizer and Moderna vaccines have been shown to provide immunity for at least 5 months and the Johnson & Johnson vaccine offers at least 2 months. Immunity from the vaccine lasts longer than immunity from having a COVID infection.

MASKS

Q: Should vaccinated and unvaccinated people wear masks in public?  
A: There is strong scientific evidence that mask wearing does cut down on the transmission of the virus. However, local guidelines may vary; be sure to check guidelines for your city, county, or state. Follow your local guidance on mask wearing around others to be sure you have protection from infection during COVID surges, which are not over yet.
Q: What’s the best type of mask to use?
A: Different masks offer varying levels of protection:
  • Respirator masks (N95 or KN95) = 83% lower odds of infection
  • Medical procedure mask (ie: a surgical or disposable mask) = 63% lower odds of infection
  • Cloth mask = 56% lower odds of infection

In general, masks should fit snugly around the nose and chin with no large gaps around the sides of the face. Cloth masks should be made of breathable, tightly woven fabric (such as cotton) that does not let light pass through when held up to a light source. Non-cloth masks should have 2 to 4 layers.

Sources: https://www.cdc.gov/mmwr/volumes/71/wr/mm7106e1.htm

FAST FACTS

Q: Is the COVID-19 vaccine safe?
A: Yes! Billions of people throughout the world have now been safely vaccinated. All FDA approved COVID-19 vaccines have met rigorous standards and continue to undergo monitoring to ensure safety.

Sources: https://covid19.who.int/ [select “vaccinations” in drop-down menu]

Q: Why do I need to get vaccinated?
A: Vaccinated people are far less likely to suffer from severe illness or hospitalization due to COVID. And they are not subjected long-haul COVID symptoms related to heart and vascular disease.

Q: How long does a vaccine last?
A: While immunity decreases over time, Pfizer and Moderna vaccines provide protection for at least 5 months and Johnson & Johnson offers at least 2 months.

Q: Why do I need a booster?
A: Because vaccinations experience a reduction in protection over time. The CDC currently recommends a booster shot after completing their primary vaccination series.

Q: Are masks still necessary?
A: There is strong scientific evidence that wearing a mask does cut down on the transmission of COVID-19.

Sources: Science Brief: Community Use of Masks to Control the Spread of SARS-CoV-2 | CDC

For the most updated information on COVID-19, visit https://www.cdc.gov/coronavirus/2019-ncov/index.html

Find a vaccination location near you.
Visit: vaccines.gov
Or call: 1-800-232-0233

This document draws from data and reports available as of 5/20/22.