

## DEFINITION

- Patient believes they are having a reaction to a COVID-19 vaccination (immunization).
- Questions about the COVID-19 vaccine.
- Questions about being up-to-date on vaccination.

Notes:

- **Local Reaction:** Local injection site symptoms such as pain, redness, and swelling usually last 1 to 3 days.
- **Local Reaction - COVID Arm:** Some people get a red rash in their arm at the vaccine shot site that starts 3 to 14 days (most commonly 8 days) after the vaccine. This mainly happens with the Moderna vaccine, but can occur with the Pfizer vaccine.
- **Systemic Reaction:** Systemic reaction symptoms such as chills, fatigue, fever, joint pain, headache, and muscle aches usually last 1 to 2 days.
- The following symptoms are NOT from a vaccine reaction: cough, difficulty breathing, loss of taste or smell, runny nose, sore throat.
- *Up-to-date on vaccination* means that a person has received all doses in the primary series and got all recommended booster shots. For people with moderately to severely weak immune systems up-to-date means they received all recommended primary shots and boosters. Depending on the person's age and the vaccine given, this group may require an extra primary shot (e.g., third shot) and booster.

**Updated:** September 7 2022 (version 8)

## INITIAL ASSESSMENT QUESTIONS

1. MAIN CONCERN OR SYMPTOM: "What is your main concern right now?" "What question do you have?" "What's the main symptom you're worried about?" (e.g., fever, pain, redness, swelling)
2. VACCINE: "What vaccination did you receive?" (e.g., none; AstraZeneca, J&J, Moderna, Pfizer, other) "Is this your first, second shot, or booster?" (e.g., first, second, booster)
3. SYMPTOM ONSET: "When did the \_\_\_\_\_ begin?" (e.g., not relevant; hours, days)
4. SYMPTOM SEVERITY: "How bad is it?"
5. FEVER: "Is there a fever?" If Yes, ask: "What is it, how was it measured, and when did it start?"
6. PAST REACTIONS: "Have you reacted to immunizations before?" If Yes, ask: "What happened?"
7. OTHER SYMPTOMS: "Do you have any other symptoms?"

## TRIAGE ASSESSMENT QUESTIONS (TAQs)

### Call EMS 911 Now

[1] Difficulty breathing or swallowing AND [2] starts within 2 hours after injection

*R/O: anaphylactic reaction*

*CA: 40, 1189, 1188, 1*

Sounds like a life-threatening emergency to the triager

CA: 40, 1

### See More Appropriate Guideline

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] within 14 days of EXPOSURE (close contact) with diagnosed or suspected COVID-19 patient

*Go to Guideline: COVID-19 - Diagnosed or Suspected (Adult)*

[1] Symptoms of COVID-19 (e.g., cough, fever, SOB, or others) AND [2] within 14 days of being at a crowded indoor or outdoor event (e.g., concert, festival, rally, wedding)

*Go to Guideline: COVID-19 - Diagnosed or Suspected (Adult)*

Typical COVID-19 symptoms (e.g., cough, difficulty breathing, loss of taste or smell, runny nose, sore throat) that are NOT expected from vaccine

*Go to Guideline: COVID-19 - Diagnosed or Suspected (Adult)*

[1] COVID-19 exposure AND [2] no symptoms, or symptoms not typical of COVID-19

*Go to Guideline: COVID-19 - Exposure (Adult). Note: If symptoms, triager will likely want to use both the COVID-19 - Exposure guideline and a symptom guideline.*

### Go to ED Now (or PCP triage)

Fever > 104 F (40 C)

*R/O: severe reaction*

CA: 42, 1002, 1005, 1

Sounds like a severe, unusual reaction to the triager

CA: 42, 1

### See HCP (or PCP Triage) Within 4 Hours

[1] Redness or red streak around the injection site AND [2] started > 48 hours after getting vaccine AND [3] fever

*R/O: cellulitis, lymphangitis*

CA: 43, 31, 32, 1001, 1004, 89, 1

[1] Fever > 101 F (38.3 C) AND [2] age > 60 years AND [3] started > 48 hours after getting vaccine

*R/O: bacterial infection*

CA: 43, 31, 32, 1002, 1005, 89, 1

[1] Fever > 100.0 F (37.8 C) AND [2] bedridden (e.g., CVA, chronic illness, recovering from surgery) AND [3] started > 48 hours after getting vaccine

*R/O: bacterial infection*

CA: 43, 31, 32, 1002, 1005, 89, 1

[1] Fever > 100.0 F (37.8 C) AND [2] diabetes mellitus or weak immune system (e.g., HIV positive, cancer chemo, splenectomy, organ transplant, chronic steroids) AND [3] started > 48 hours after getting vaccine

*R/O: bacterial infection*

CA: 43, 31, 32, 1002, 1005, 89, 1

### **See PCP Within 24 Hours**

[1] Fever > 100.0 F (37.8 C) AND [2] present > 3 days (72 hours)

*R/O: bacterial superinfection or other acute illness. Note: COVID-19 vaccine-related fever occurs most often during the first 2 days after the vaccination.*

CA: 44, 31, 32, 1002, 1005, 89, 1

### **Call PCP Within 24 Hours**

[1] Fever > 100.0 F (37.8 C) AND [2] healthcare worker

*Reason: Healthcare worker should contact employee health. May need to be excluded from work pending further evaluation, including consideration for COVID-19 testing.*

CA: 50, 27, 4, 1002, 1005, 89, 1

[1] Redness around the injection site AND [2] started > 48 hours after getting vaccine AND [3] no fever (Exception: red area < 1 inch or 2.5 cm wide)

*R/O: bacterial superinfection, COVID arm*

CA: 50, 31, 1142, 1001, 1004, 1127, 1126, 1105, 1106, 7, 1

[1] Pain, tenderness, or swelling at the injection site AND [2] over 3 days (72 hours) since vaccine AND [3] getting worse

*R/O: low-grade infection, COVID arm*

CA: 50, 31, 1142, 1001, 1004, 1127, 1126, 1105, 1106, 7, 1

### **See PCP Within 3 Days**

[1] Pain, tenderness, or swelling at the injection site AND [2] lasts > 7 days

*R/O: low-grade infection*

CA: 45, 34, 1001, 1004, 6, 7, 1

[1] Lymph node swelling (i.e., armpit or neck on side of vaccine) AND [2] lasts > 3 weeks

CA: 45, 1113, 89, 1

### **See PCP Within 2 Weeks**

[1] Requesting COVID-19 vaccine AND [2] healthcare worker (e.g., EMS first responders, doctors, nurses)

CA: 46, 29, 10, 11, 12, 13, 14, 15, 21, 90, 1

[1] Requesting COVID-19 vaccine AND [2] resident of a long-term care facility (e.g., nursing home)

CA: 46, 30, 10, 11, 12, 13, 14, 15, 90, 1

Requesting COVID-19 vaccine

CA: 46, 8, 9, 10, 11, 12, 13, 14, 15, 90, 1

## Home Care

COVID-19 vaccine, injection site reaction (e.g., pain, redness, swelling), questions about

CA: 48, 1114, 1202, 1143, 1001, 1004, 1105, 1106, 3, 1

COVID-19 vaccine, systemic reactions (e.g., fatigue, fever, muscle aches), questions about

CA: 48, 225, 4, 5, 1143, 1003, 1006, 24, 3, 1

COVID-19 vaccine, Frequently Asked Questions (FAQs)

CA: 48, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 33, 1104, 36, 1105, 1106, 1113, 1144, 2, 1369, 1370, 90, 1

Up-to-date on COVID-19 vaccination and exposure to COVID-19, Frequently Asked Questions (FAQs)

*Note: Information about masking, quarantine, and testing.*

CA: 48, 10, 36, 1104, 1371, 90, 1

COVID-19 Prevention and Healthy Living, questions about

*Note: How to protect you and your family; keeping yourself healthy.*

CA: 48, 1047, 1048, 1371, 1050, 90, 1

## CARE ADVICE (CA)

1. **Care Advice** given per COVID-19 - Vaccine Questions and Reactions (Adult) guideline.
2. **FAQ - Who Needs a Booster of the COVID-19 Vaccine?**
  - Everyone **5 years and older** should get a **booster shot** (vaccination). Booster shots are especially important for groups at higher risk.
  - Recommendations for the timing and total number of vaccine shots depend on what type of COVID-19 vaccine a person initially got, a person's age, and whether a person is healthy or has a weak immune system. Either the Pfizer or the Moderna mRNA vaccines can be used as a booster.
  - For **U.S. information** and the most up-to-date criteria, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html>.
  - In **Canada** see <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.
3. **Call Back If:**
  - Fever lasts over 3 days
  - Pain at injection site not improving after 3 days
  - Swollen lymph node lasts over 3 weeks
  - You become worse

4. **COVID-19 Vaccine - Common Reactions:**
  - Local pain, redness, or swelling at injection site
  - Feeling tired (fatigue)
  - Fever and chills
  - Headache
  - Muscle aches or joint pain
  - *Symptoms usually last 1 to 2 days.*
5. **COVID-19 Vaccine - Severe Allergic Reactions:**
  - Rarely, a **severe allergic reaction** (anaphylactic reaction) of the body's immune system may occur after a COVID-19 vaccination. This is a severe and sometimes life-threatening overreaction (allergic reaction) of the body's immune system.
  - *Symptoms:* Symptoms of an anaphylactic reaction include breathing difficulty, dizziness, face and throat swelling, fast heart beating, rash all over the body, and weakness.
  - *Onset:* Most allergic reactions to vaccines occur within minutes to two hours of getting the vaccine injection.
6. **Local Heat for Pain:**
  - Apply a warm wet washcloth or a heating pad for 20 minutes 4 times a day for pain relief.
7. **Call Back If:**
  - Fever occurs
  - You become worse
8. **Alternate Disposition - Department of Health:**
  - Your local, state, or provincial Department of Health can help you get the COVID-19 vaccine.
  - Visit their website to see your best options for vaccination.
9. **Alternate Disposition - Local Drug Store (Pharmacy):**
  - Your local drugstore will be able to help you get the COVID-19 vaccine.
  - Visit their website to see your best options for vaccination.
10. **Note to Triager - Frequently Asked Questions (FAQs):**
  - Select the FAQ(s) that best addresses the caller's main question or concern.
  - Briefly provide this care advice and health information to the caller.
  - You can direct the caller to national, state, or province websites for additional information.
  - *US Centers for Disease Control and Prevention (CDC):* Frequently Asked Questions about COVID-19 Vaccination. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>.
  - *Public Health Agency of Canada (PHAC):* COVID-19 Drugs and Vaccines. <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html>.

11. **FAQ - Why Should I Get the COVID-19 Vaccine (and the Booster)?**
- **Protect Yourself:** The COVID-19 vaccine and staying *up-to-date* on your vaccination will reduce the chance of you getting COVID-19. If you get COVID-19, the COVID-19 vaccine will decrease the chance of you becoming severely sick or needing to be hospitalized. Boosters can target new variants of COVID-19. This can help protect you from new versions of the virus.
  - **Protect Others:** You can help protect your family and your community by choosing to get the COVID-19 vaccine.
12. **FAQ - How Is the Vaccine Given?**
- The vaccine is given as an injection (shot) into the muscle of the upper arm.
  - For adults all but one of the vaccines (Johnson & Johnson) need two doses to work best for your **initial (primary) vaccination**.
  - Everyone 5 years and older should also get a **booster shot** (vaccination). Booster shots are especially important for groups at higher risk. Recommendations for the timing and total number of vaccine shots depend on what type of COVID-19 vaccine a person initially got, a person's age, and whether a person is healthy or has a weak immune system. Either the **Pfizer** or the **Moderna** mRNA vaccines can be used as a booster.
  - *Write down the following information when you get your vaccinations:* (1) the name of the vaccine, (2) the date you got it, (3) when you are due for your next dose or booster.
13. **FAQ - Is the COVID-19 Vaccine Safe?**
- Yes. The vaccine is safe.
  - The side effects are similar to other vaccines, such as the flu shot (influenza), tetanus, or shingles.
  - Like all vaccines there is always a chance of a more serious side effect. However, serious side effects, such as an allergic reaction, are rare.
14. **FAQ - What Are the Most Common Side Effects of the COVID-19 Vaccine?**
- The most common side effects are feeling tired, fever, headache, muscle aches, and pain at the site of the injection.
  - Side effects are normal. They mean your immune system is working and building antibodies.
  - While they can be unpleasant, they are not serious. They do not lead to any risks to your health.
  - Side effects usually last 1 to 3 days.
  - Side effects may be worse after the second vaccine shot.
15. **FAQ - What Are the Symptoms of a Severe Allergic Reaction to the COVID-19 Vaccine?**
- COVID-19 vaccines are considered safe. They help prevent serious COVID-19 infections and death. Serious side effects from the vaccine are rare and vaccine benefits continue to outweigh potential risks.
  - Severe allergic reactions to vaccines occur within minutes to two hours of getting the vaccine injection.
  - Symptoms of a severe allergic reaction include breathing difficulty, dizziness, face and throat swelling, fast heart beating, rash all over the body, and weakness.

16. **FAQ - When Can I Get the COVID-19 Vaccine?**
- Now! Several vaccines are now available and approved for use. This includes the Pfizer - BioNTech, Moderna, Novavax, and Johnson & Johnson (J&J) COVID-19 vaccines.
  - Everyone **6 months of age and older** is now eligible to get a COVID-19 vaccination.
  - Get a vaccine as soon as you can.
17. **FAQ - Where Can I Get the COVID-19 Vaccine?**
- You can get the COVID-19 vaccine at the same places you currently get your other immunization shots.
  - This includes doctors' offices, retail pharmacies, hospitals, and federally qualified health centers.
18. **FAQ - Who Should Get the COVID-19 Vaccine?**
- Everyone **6 months of age and older** is now eligible to get a COVID-19 vaccination.
  - Get a vaccine as soon as you can.
19. **FAQ - Who Should NOT Get the COVID-19 Vaccine?**
- **Prior Severe Reaction:** You should not get the COVID-19 vaccine if you have had a severe allergic reaction after the first dose of this vaccine. Tell your doctor (or NP/PA) if you have ever had a bad allergic reaction to a vaccine or other injected medicine. Your doctor will advise you if it is OK.
  - **Current COVID-19 Infection:** Vaccination should be **postponed** until you are feeling well and the isolation period is over.
  - **Recent Exposure:** Vaccination should be **postponed** until after the quarantine period is over.
  - **Antibody Therapy:** If you had antibody therapy for COVID-19, the vaccine should be postponed at least 90 days. Discuss this with your doctor.
21. **FAQ - Can I Get the COVID-19 Vaccination if I Am Pregnant or Breastfeeding?**
- COVID-19 vaccination is recommended for all people age 6 months and older, including people who are **pregnant, breastfeeding**, trying to get pregnant now, or might become pregnant in the future.
  - Pregnant and recently pregnant people are more likely to get severely ill with COVID-19 compared with non-pregnant people. Pregnant people are also more likely to have pregnancy related problems such as needing a C-section, delivering your baby early, having high blood pressure, bleeding, or other types of infection.
  - Getting a COVID-19 vaccine can protect you from severe illness from COVID-19. The vaccine also protects newborns from getting very ill.
  - *Source:* CDC 06.26.2022.
22. **FAQ - Can I Get My Child Vaccinated Against COVID-19?**
- COVID-19 vaccination is recommended for all people age **6 months and older**, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.
  - Get a vaccine as soon as you can.

23. **FAQ - Which COVID-19 Vaccine Should I Get?**
- Any COVID-19 vaccine that has been approved means it is effective and safe.
  - Follow the recommendation of your doctor (or NP/PA) or drugstore pharmacist.
24. **FAQ - Can I Get COVID-19 From the Vaccine?**
- No.
  - There is no living COVID-19 virus in the vaccine. It is impossible to get COVID-19 from the vaccine.
25. **FAQ - If I Already Had COVID-19, Should I Get the Vaccine?**
- Yes. A test for prior infection is not needed to decide if you should get the vaccine.
  - The CDC states that the vaccines should be offered to those with a history of COVID-19 infection.
  - If you are sick with COVID, the vaccination should be postponed until you are feeling well and the isolation period is over.
  - You are unlikely to catch COVID-19 again within 90 days of a proven prior infection (tested positive). Therefore, you may choose to postpone the vaccine until after this 90-day period.
26. **FAQ - How Can I Report a Bad Reaction to the COVID-19 Vaccine?**
- Anyone, including parents and patients, can report a bad reaction.
  - **Canada:** In Canada use the **Reporting Adverse Events Following Immunization (AEFI)** system. The reporting form can be found at: <https://www.canada.ca/en/public-health/services/immunization/reporting-adverse-events-following-immunization/form.html>.
  - **United States:** The best way to report is to use the **Vaccine Adverse Event Reporting System (VAERS)** website. There is an online form at: <https://vaers.hhs.gov/reportevent.html>.
27. **Alternate Disposition - Call Employee Health at Your Workplace Within 24 Hours:**
- You need to call and discuss this with the Employee Health Department for your workplace within the next 24 hours.
29. **Alternate Disposition - Call Employee Health at Your Workplace Within 2 Weeks:**
- Healthcare workers have priority for getting the COVID-19 vaccine.
  - Your hospital or healthcare organization will have a plan for vaccinating their staff.
  - You need to call and discuss this with the Employee Health Department for your workplace within the next 2 weeks.
30. **Alternate Disposition - Long-Term Care Facility:**
- Residents of long-term care facilities have priority for getting the COVID-19 vaccine.
  - Your facility will have a vaccination plan.
  - Talk with the nurse or medical leadership at the facility in the next 2 weeks.

31. **Alternate Disposition - Call Telemedicine Provider Now:**
- Telemedicine may be your best choice for care during this COVID-19 outbreak.
  - You should call a telemedicine provider now, if your own doctor (or NP/PA) is not available.
32. **Note to Triager - If NO PCP, Have Other HCP Re-triage the Patient, if Available:**
- During this COVID-19 pandemic, the medical community is trying to prevent unnecessary referrals to the emergency department (ED). Some patients are fearful of being exposed to COVID-19 in a medical setting. Second-level triage (re-triage) by a physician has been shown to reduce ED referrals. Here are resources that may be available in your community.
  - **PCP Second-level Telephone Triage:** Some PCPs (primary care providers) want to provide re-triage before any of their non-emergent patients are referred to an ED. This requires their approval.
  - **Telemedicine:** Telemedicine is often a preferred source of second-level triage and care during this pandemic. Many practices and some hospitals now offer a telemedicine (virtual visit) service. There are also many national telemedicine companies that are delivering COVID-19 care.
33. **FAQ - Can the COVID-19 Vaccine Change My DNA (Genes)?**
- No.
  - They cannot change a person's DNA. Instead, they work with a person's immune system to fight the virus.
34. **Alternate Disposition - Call Telemedicine Provider:**
- Telemedicine is often a good choice for care during this COVID-19 pandemic.
  - You can talk to a telemedicine provider, if your own doctor (or NP/PA) is not available.
36. **FAQ - Do I Still Need to Quarantine After COVID-19 Exposure If I Am Up-To-Date on COVID-19 Vaccinations?**
- **Get Tested:** Get tested at least 5 days after your last exposure to someone with COVID-19. When counting days, remember that day 0 is the day you were last exposed. Day 1 is the next full day after the day you were exposed.
  - **Wear a Mask:** Wear a well-fitted mask for 10 full days any time you are around others inside your home or in public. Do not go to places where you are unable to wear a mask.
  - **Watch for Symptoms:** Watch for symptoms of COVID-19 until 14 days after you last had close contact with someone with COVID-19.
  - **No Quarantine:** You do not need to stay home unless you develop symptoms.
  - *Up-to-date on vaccination* means that a person has received all doses in the primary series and got all recommended booster shots. For people with moderately to severely weak immune systems up-to-date means they received all recommended primary shots and boosters. Depending on the person's age and the vaccine given, this group may require an extra primary shot (e.g., third shot) and booster.

40. **Call EMS 911 Now:**
- Immediate medical attention is needed. You need to hang up and call 911 (or an ambulance).
  - *Triager Discretion:* I'll call you back in a few minutes to be sure you were able to reach them.
41. **Go to ED Now:**
- You need to be seen in the Emergency Department.
  - Go to the ED at \_\_\_\_\_ Hospital.
  - Leave now. Drive carefully.
42. **Go to ED Now (or PCP Triage):**
- **If No PCP (Primary Care Provider) Second-Level Triage:** You need to be seen within the next hour. Go to the ED/UCC at \_\_\_\_\_ Hospital. Leave as soon as you can.
  - **If PCP Second-Level Triage Required:** You may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the provider on-call now. If you haven't heard from the provider (or me) within 30 minutes, go directly to the ED/UCC at \_\_\_\_\_ Hospital.
43. **See HCP (or PCP Triage) Within 4 Hours:**
- **If Office Will Be Open:** You need to be seen within the next 3 or 4 hours. Call your doctor (or NP/PA) now or as soon as the office opens.
  - **If Office Will Be Closed and No PCP (Primary Care Provider) Second-Level Triage:** You need to be seen within the next 3 or 4 hours. A nearby Urgent Care Center (UCC) is often a good source of care. Another choice is to go to the ED. Go sooner if you become worse.
  - **If Office Will Be Closed and PCP Second-Level Triage Required:** You may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again. **Note:** If on-call provider can't be reached, send to UCC or ED.
- Note to Triager:**
- Use nurse judgment to select the most appropriate source of care.
  - Consider both the urgency of the patient's symptoms AND what resources may be needed to evaluate and manage the patient.
- Sources of Care:**
- **ED:** Patients who may need surgery or hospital admission need to be sent to an ED. So do most patients with serious symptoms or complex medical problems.
  - **UCC:** Some UCCs can manage patients who are stable and have less serious symptoms (e.g., minor illnesses and injuries). The triager must know the UCC capabilities before sending a patient there. If unsure, call ahead.
  - **OFFICE:** If patient sounds stable and not seriously ill, consult PCP (or follow your office policy) to see if patient can be seen NOW in office.

44. **See PCP Within 24 Hours:**
- **If Office Will Be Open:** You need to be examined within the next 24 hours. Call your doctor (or NP/PA) when the office opens and make an appointment.
  - **If Office Will Be Closed:** You need to be seen within the next 24 hours. A clinic or an urgent care center is often a good source of care if your doctor's office is closed or you can't get an appointment.
  - **If Patient Has No PCP:** Refer patient to a clinic or urgent care center. Also try to help caller find a PCP for future care.
- Note to Triager:**
- Use nurse judgment to select the most appropriate source of care.
  - Consider both the urgency of the patient's symptoms AND what resources may be needed to evaluate and manage the patient.
45. **See PCP Within 3 Days:**
- You need to be seen within 2 or 3 days.
  - **PCP Visit:** Call your doctor (or NP/PA) during regular office hours and make an appointment. A clinic or urgent care center are good places to go for care if your doctor's office is closed or you can't get an appointment. **Note:** If office will be open tomorrow, tell caller to call then, not in 3 days.
  - **If Patient Has No PCP:** A clinic or urgent care center are good places to go for care if you do not have a primary care provider. **Note:** Try to help caller find a PCP for future care (e.g., use a physician referral line). Having a PCP or "medical home" means better long-term care.
46. **See PCP Within 2 Weeks:**
- You need to be seen for this ongoing problem within the next 2 weeks.
  - **PCP Visit:** Call your doctor (or NP/PA) during regular office hours and make an appointment.
  - **If Patient Has No PCP:** A primary care clinic is where you need to be seen for chronic health problems. **Note:** Try to help caller find a PCP (e.g., use a physician referral line). Having a PCP or "medical home" means better long-term care.
47. **Home Care - Information or Advice Only Call.**
48. **Home Care:**
- You should be able to treat this at home.
49. **Call PCP Now:**
- You need to discuss this with your doctor (or NP/PA).
  - I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again.
50. **Call PCP Within 24 Hours:**
- You need to discuss this with your doctor (or NP/PA) within the next 24 hours.
  - **If Office Will Be Open:** Call the office when it opens tomorrow morning.
  - **If Office Will Be Closed:** I'll page the on-call provider now. **Exception:** from 9 pm to 9 am. Since this isn't urgent, we'll hold the page until morning.

51. **Call PCP When Office Is Open:**
- You need to discuss this with your doctor (or NP/PA) within the next few days.
  - Call the office when it is open.
52. **Go to L&D Now:**
- You need to be seen.
  - Go to the Labor and Delivery Unit or the Emergency Department at \_\_\_\_\_ Hospital.
  - Leave now. Drive carefully.
89. **Call Back If:**
- You become worse
90. **Call Back If:**
- You have more questions
225. **Note to Triager - Discussing Common vs. Rare Reactions:**
- Discuss the **Common Reactions** with the caller. Reassure the caller that these reactions are generally harmless.
  - Discuss **Rare Reactions** only if the caller specifically asks.
1001. **Pain Medicines:**
- For pain relief, you can take either acetaminophen, ibuprofen, or naproxen.
  - They are over-the-counter (OTC) pain drugs. You can buy them at the drugstore.
  - **Acetaminophen - Regular Strength Tylenol:** Take 650 mg (two 325 mg pills) by mouth every 4 to 6 hours as needed. Each Regular Strength Tylenol pill has 325 mg of acetaminophen. The most you should take is 10 pills a day (3,250 mg total). *Note:* In Canada, the maximum is 12 pills a day (3,900 mg total).
  - **Acetaminophen - Extra Strength Tylenol:** Take 1,000 mg (two 500 mg pills) every 6 to 8 hours as needed. Each Extra Strength Tylenol pill has 500 mg of acetaminophen. The most you should take is 6 pills a day (3,000 mg total). *Note:* In Canada, the maximum is 8 pills a day (4,000 mg total).
  - **Ibuprofen (e.g., Motrin, Advil):** Take 400 mg (two 200 mg pills) by mouth every 6 hours. The most you should take is 6 pills a day (1,200 mg total).
  - **Naproxen (e.g., Aleve):** Take 220 mg (one 220 mg pill) by mouth every 8 to 12 hours as needed. You may take 440 mg (two 220 mg pills) for your first dose. The most you should take is 3 pills a day (660 mg total). *Note:* In Canada, the maximum is 2 pills a day (one every 12 hours; 440 mg total).
  - Use the lowest amount of medicine that makes your pain better.

1002. **Fever Medicines:**

- For fevers above 101° F (38.3° C) take either acetaminophen or ibuprofen.
- They are over-the-counter (OTC) drugs that help treat both fever and pain. You can buy them at the drugstore.
- The goal of fever therapy is to bring the fever down to a comfortable level. Remember that fever medicine usually lowers fever 2 degrees F (1 - 1 1/2 degrees C).
- **Acetaminophen - Regular Strength Tylenol:** Take 650 mg (two 325 mg pills) by mouth every 4 to 6 hours as needed. Each Regular Strength Tylenol pill has 325 mg of acetaminophen. The most you should take is 10 pills a day (3,250 mg total). *Note:* In Canada, the maximum is 12 pills a day (3,900 mg total).
- **Acetaminophen - Extra Strength Tylenol:** Take 1,000 mg (two 500 mg pills) every 6 to 8 hours as needed. Each Extra Strength Tylenol pill has 500 mg of acetaminophen. The most you should take is 6 pills a day (3,000 mg total). *Note:* In Canada, the maximum is 8 pills a day (4,000 mg total).
- **Ibuprofen (e.g., Motrin, Advil):** Take 400 mg (two 200 mg pills) by mouth every 6 hours. The most you should take is 6 pills a day (1,200 mg total).

1003. **Pain and Fever Medicines:**

- For pain or fever relief, take either acetaminophen or ibuprofen.
- They are over-the-counter (OTC) drugs that help treat both fever and pain. You can buy them at the drugstore.
- Treat fevers above 101° F (38.3° C). The goal of fever therapy is to bring the fever down to a comfortable level. Remember that fever medicine usually lowers fever 2 degrees F (1 - 1 1/2 degrees C).
- **Acetaminophen - Regular Strength Tylenol:** Take 650 mg (two 325 mg pills) by mouth every 4 to 6 hours as needed. Each Regular Strength Tylenol pill has 325 mg of acetaminophen. The most you should take is 10 pills a day (3,250 mg total). *Note:* In Canada, the maximum is 12 pills a day (3,900 mg total).
- **Acetaminophen - Extra Strength Tylenol:** Take 1,000 mg (two 500 mg pills) every 6 to 8 hours as needed. Each Extra Strength Tylenol pill has 500 mg of acetaminophen. The most you should take is 6 pills a day (3,000 mg total). *Note:* In Canada, the maximum is 8 pills a day (4,000 mg total).
- **Ibuprofen (e.g., Motrin, Advil):** Take 400 mg (two 200 mg pills) by mouth every 6 hours. The most you should take is 6 pills a day (1,200 mg total).

1004. **Pain Medicines - Extra Notes and Warnings:**

- Follow these dosing instructions unless your doctor (or NP/PA) has told you to take a different dose.
- Acetaminophen is thought to be safer than ibuprofen or naproxen in people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different maximum dosage instructions for Tylenol in Canada than in the United States. Bayer, the company that makes Aleve, has different dosage maximum instructions for Aleve in Canada and the United States.
- **Caution:** Do not take acetaminophen if you have liver disease.
- **Caution:** Do not take ibuprofen or naproxen if you have stomach problems, kidney disease, are pregnant, or have been told by your doctor to avoid this type of anti-inflammatory drug. Do not take ibuprofen or naproxen for more than 7 days without consulting your doctor.
- *Before taking any medicine, read all the instructions on the package.*

1005. **Fever Medicines - Extra Notes and Warnings:**

- Follow these dosing instructions unless your doctor (or NP/PA) has told you to take a different dose.
- Acetaminophen is thought to be safer than ibuprofen or naproxen in people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different maximum dosage instructions for Tylenol in Canada than in the United States. Bayer, the company that makes Aleve, has different dosage maximum instructions for Aleve in Canada and the United States.
- **Caution:** Do not take acetaminophen if you have liver disease.
- **Caution:** Do not take ibuprofen or naproxen if you have stomach problems, kidney disease, are pregnant, or have been told by your doctor to avoid this type of anti-inflammatory drug. Do not take ibuprofen or naproxen for more than 7 days without consulting your doctor.
- *Before taking any medicine, read all the instructions on the package.*

1006. **Pain and Fever Medicines - Extra Notes and Warnings:**

- Follow these dosing instructions unless your doctor (or NP/PA) has told you to take a different dose.
- Acetaminophen is thought to be safer than ibuprofen or naproxen in people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different maximum dosage instructions for Tylenol in Canada than in the United States. Bayer, the company that makes Aleve, has different dosage maximum instructions for Aleve in Canada and the United States.
- **Caution:** Do not take acetaminophen if you have liver disease.
- **Caution:** Do not take ibuprofen or naproxen if you have stomach problems, kidney disease, are pregnant, or have been told by your doctor to avoid this type of anti-inflammatory drug. Do not take ibuprofen or naproxen for more than 7 days without consulting your doctor.
- *Before taking any medicine, read all the instructions on the package.*

1047. **COVID-19 - How to Protect Your Family and Yourself From Getting Sick:**

- **Get the COVID-19 vaccine.** It is your best protection against this serious infection.
- Avoid close contact with people known to have COVID-19.
- Try to stay at least 6 feet (2 meters) away from anyone who is coughing.
- Wash hands often with soap and water. Alcohol-based hand cleaners are also effective.
- Avoid touching the eyes, nose or mouth. Germs on the hands can spread this way.
- Do not share eating utensils (e.g., spoon, fork).

1048. **COVID-19 - Face Masks for Prevention:**

- Face masks are important for reducing the spread of COVID-19. They also reduce the spread of influenza (flu). People with COVID-19 can have no symptoms, but still spread the virus.
- Because of the Omicron variant (and other possible future variants) recommendations for wearing masks are pretty much the same for people who are vaccinated or unvaccinated. Mask wearing is even more important if you have a weak immune system.
- **People Who Are Well (Not Sick With COVID-19) Should Wear Masks If:**
  - ... Masks are recommended by your local health department.
  - ... You are in an indoor public space or crowded outdoor event in an area of high community spread.
  - ... You want extra protection (e.g., people at risk for severe disease). Those at risk for severe disease should talk to their doctor (or NP, PA) about how to stay safe.
  - ... You want extra protection while traveling on a plane, bus, train, or other form of public transportation or in transportation hubs such as airports and stations.
  - ... You must be around someone who has symptoms of COVID-19 or has tested positive for COVID-19.
- **People Who Are Sick With COVID-19 Should Wear Masks If:**
  - ... You are around other people or animals (such as pets).
- **Exceptions:**
  - ... Face mask or covering is optional if outdoors and you can avoid being within 6 feet (2 meters) of other people. Some examples are an outdoor walk or run.
  - ... Face coverings also are not recommended for children under 2 years.
- **How to Select and Use a Face Mask:** Make sure your mask fits well (without gaps) and fully covers your nose and mouth. More information on how to select and use a mask is available at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.

1050. **Keep Your Body Strong:**

- Keep your body strong, healthy, and ready to fight the COVID-19 virus.
- Get enough sleep.
- Stay physically active. Walk or exercise every day. Take the stairs.
- Stay well hydrated.
- Eat healthy meals. Avoid overeating to deal with your fears.
- Avoid the over-use of anti-fever medicines. Fever helps fight infections and ramps up your immune system.

1104. **FAQ - Do I Still Need to Wear a Face Mask If I Am Up-To-Date on COVID-19 Vaccinations?**

- Yes.
- The COVID-19 vaccine is highly effective. However, there is a chance that you can get the Omicron variant (or other future variants) and spread it to others.
- Protect yourself and others. **Wear a mask if:**
  - ... Masks are recommended by your local health department.
  - ... COVID-19 is at high levels in your community.
  - ... You want extra protection (e.g., people at risk for severe disease). Those at risk for severe disease should talk to their doctor (or NP, PA) about how to stay safe.
  - ... You must be around someone who has symptoms of COVID-19 or has tested positive for COVID-19.

1105. **FAQ - What Is COVID Arm?**

- Some people get a red rash in their arm at the vaccine shot site that starts 3 to 14 days (most commonly 8 days) after the vaccine. This mainly happens with the Moderna vaccine but can occur with the Pfizer vaccine.
- The rash can be quite large. It looks like a red oval or circle about 2 to 4 inches (5 to 10 cm) wide.
- It can also feel itchy, slightly painful, or puffy.
- It usually goes away in about a week and there are no long-term problems.
- This minor vaccine side effect is called "COVID arm".
- If the rash is painful, you can take a pain medicine like acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Advil or Motrin). If the rash is itchy, you can take an antihistamine medicine. These are medicines that you can get over-the-counter at the drugstore. *Before taking any medicine, read all the instructions on the package.*
- Some people find that a cold pack helps with pain and itching. Apply a cold pack or ice in a wet washcloth to the area for 20 minutes. Antibiotics are not needed.

1106. **FAQ - I Had COVID Arm With My First Shot, Should I Get the Second Shot?**

- Yes.
- You should get the second shot at the recommended time.
- Tell the person who is giving you the shot that you had "COVID arm". They may want to give you the second shot in your other arm.
- You may or may not get COVID arm with your second shot. With the second shot, these symptoms may be milder and happen sooner after getting the shot.

1113. **FAQ - When Can I Get a Screening Mammogram After Receiving the COVID-19 Vaccine?**
- Vaccines of all types can result in temporary swelling of the lymph nodes. This is one sign your vaccine is working and strengthening your immune system.
  - The COVID-19 vaccine can sometimes cause temporary lymph node swelling. This can interfere with the correct interpretation of a screening mammogram.
  - The Society of Breast Imaging recommends scheduling your mammogram either before your first dose of the COVID-19 vaccine or **about four to six weeks after completing the COVID-19 vaccine series**. If that's not possible, it's important to keep both your scheduled screening and your vaccine appointment and **let the mammography technician know when you had your vaccine**.
  - If you feel a lump or have any concerns, you should proceed with imaging and inform the mammogram technician of the date of your last vaccine.
1114. **Reassurance and Education - Local Vaccine Reaction:**
- A **local reaction** can occur at the injection site after a COVID-19 vaccination. These symptoms usually last 1 to 3 days. Side effects are more frequent after the second vaccine shot. These are signs that your vaccine is working and triggering your immune system.
  - Lymph node swelling in armpit of injection (12%)
  - Pain at injection site (84-92%)
  - Redness at injection site (6%)
  - Swelling at injection site (9%)
  - *Here is some more care advice that should help.*
1126. **Antihistamine Medicines - Extra Notes and Warnings:**
- Antihistamine medicines can be used to treat allergic reactions, allergies, hay fever, hives, and itching.
  - Diphenhydramine (Benadryl) is a **first generation antihistamine** medicine. It can make you more sleepy than the newer second generation antihistamine medicines. The adult dose of Benadryl is 25 to 50 mg by mouth. You can take it up to 4 times a day.
  - **Second generation antihistamines** such as cetirizine, fexofenadine, and loratadine, have fewer side effects than first generation antihistamines. They tend to make you less sleepy.
  - **Caution:** Antihistamine medicines can make you sleepy. Do not drink alcohol, drive, or operate dangerous machines while taking this drug. It can also worsen dry eyes by decreasing natural tearing.
  - *Before taking any medicine, read all the instructions on the package.*

1127. **Antihistamine Medicines for Severe Itching:**
- For severe itching, you can take either cetirizine, fexofenadine, or loratadine.
  - They are over-the-counter (OTC) antihistamine medicines. You can buy them at a drugstore or grocery store.
  - **Cetirizine (Reactine, Zyrtec):** The adult dose is 10 mg. You take it once a day. Cetirizine is available in the United States as Zyrtec and in Canada as Reactine.
  - **Fexofenadine (Allegra):** In the United States, the adult dose is one 24-hour tablet (180 mg) once a day. In Canada, the adult dose is one 24-hour tablet (120 mg) once a day. Or, you can take one 12-hour (60 mg) tablet 2 times a day.
  - **Loratadine (Alavert, Claritin):** The adult dose is 10 mg. You take it once a day. Loratadine is available in the United States as Alavert and Claritin; it is available in Canada as Claritin.
1142. **Cold Pack for Pain or Itching at Vaccine Site:**
- Some people find that a cold pack helps with pain or itching.
  - Apply a cold pack or ice in a wet washcloth to the area for 20 minutes.
1143. **Heat Pack for Local Reaction at Vaccine Site:**
- Put a heat pack or warm wet washcloth on the vaccine shot area for 10 to 20 minutes.
  - Repeat as needed for the first 48 hours after the injection.
  - *Reason:* Improve blood flow to the area. Reduce the pain and swelling.
  - *Caution:* Burn. Do not sleep on a heating pad.
  - *Note:* Some pain, redness and swelling at the injection site are NORMAL. It means the vaccine is working. Some people find that a cold pack works better than heat; follow your doctor's advice.
1144. **FAQ - Do I Need to Get Vaccinated If I Have O-Negative Blood Type?**
- People with O negative blood type may have a slightly lower risk of COVID-19 infection and severe COVID-19 illness. More research on this is needed.
  - People with O negative blood type should still continue to wear a mask, social distance, and get vaccinated!
1188. **First Aid Advice for Anaphylaxis - Benadryl:**
- Give antihistamine by mouth **Now** if able to swallow.
  - Use Benadryl (over-the-counter diphenhydramine; adult dose: 50 mg) or any other available antihistamine medicine.
1189. **First Aid Advice for Anaphylaxis - Epinephrine:**
- If the patient has an epinephrine autoinjector, **give it now**. Do not delay.
  - Use the autoinjector on the upper outer thigh. You may give it through clothing if needed.
  - Give epinephrine first, then call 911.
  - Epinephrine is available in autoinjectors under trade names: *EpiPen*, *EpiPen Jr*, and *Auvi-Q* (Allerject in Canada). Auvi-Q has an audio chip and talks patients and caregivers through injection process.
  - You may give a second (repeat) dose of epinephrine 10 to 15 minutes later, IF the person with anaphylaxis does not respond to the first dose AND ambulance arrival takes longer than 10 minutes.

1202. **Reassurance and Education - Enlarged Lymph Nodes After Vaccination:**
- The vaccine can cause swelling of lymph nodes in the armpit or neck on the side you got the shot.
  - This is one sign your vaccine is working and triggering your immune system.
  - This usually happens 2 to 4 days after getting the vaccine.
  - It will usually go away on its own within a couple weeks.
  - If the swollen lymph nodes (lump) does not go away after 3 weeks, or is worsening, you should have it checked by your doctor.
1369. **FAQ - Who Needs an Extra Primary Dose of the Moderna or Pfizer Vaccine?**
- People with **moderately to severely weak immune systems** are at higher risk of severe COVID-19 infection. They also may not respond as well to the standard vaccine series. They should get **an extra dose** as part of their primary vaccine series (recommended in those 5 years and older). Timing of the extra dose depends on which COVID-19 vaccine the person initially got. Besides the extra primary dose they should also get all recommended booster shots.
  - For **U.S. information** and the most up-to-date criteria, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html>.
  - In **Canada** see <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.
1370. **FAQ - What Is the Difference Between a Booster and an Extra Primary Vaccine Dose?**
- **Booster:** Everyone 5 years and older should get a booster shot (vaccination). Booster shots are especially important for groups at higher risk.
  - ... Recommendations for the timing and total number of vaccine shots depend on what type of COVID-19 vaccine a person initially got, a person's age, and whether a person is healthy or has a weak immune system. Either the Pfizer or the Moderna mRNA vaccines can be used as a booster.
  - ... For **U.S. information** and the most up-to-date criteria, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html>.
  - ... In **Canada** see <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.
  - **Extra Vaccine Dose For Those with Weak Immune Systems:** People with moderately to severely weak immune systems are at higher risk of severe COVID-19 infection. They also may not respond as well to the standard vaccine series. They should get an extra dose as part of their primary vaccine series (recommended in those 5 years and older).
  - ... Timing of the extra dose depends on which COVID-19 vaccine the person initially got.
  - ... Besides the extra primary dose they should also get all recommended booster shots.
  - ... For **U.S. information** and the most up-to-date criteria, see the CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html>.
  - ... In **Canada** see <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html#a6.4>.

### 1371. **FAQ - What Masks Are Best to Protect Against COVID-19?**

- There are many types of face masks. Some provide more protection against COVID-19 than others.
- However, it is important to remember **any face mask is better than no face mask**. Also, any mask you use should fit well (snuggly against the face with no gaps) and should be clean and dry.
- ... **Cloth masks** made with several layers of finely woven fabric provide good protection. A single fabric layer is not enough.
- ... Disposable **surgical masks** (procedure masks) provide better protection than cloth masks.
- ... Respirator masks such as the **KN95** and NIOSH-approved **N95 masks** provide the best protection. These are most often used by healthcare workers.
- The CDC recommends that "you wear the most protective mask you can that fits well and that you will wear consistently."
- You can find more information on the CDC website:  
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>.

## FIRST AID



### FIRST AID ADVICE for Anaphylaxis - Epinephrine

- If the patient has an epinephrine autoinjector, **give it now**. Do not delay.
- Use the autoinjector on the upper outer thigh. You may give it through clothing if needed.
- Give epinephrine first, then call 911.

Epinephrine is available in autoinjectors under trade names: *EpiPen*, *EpiPen Jr*, and *Auvi-Q* (Allerject in Canada). *Auvi-Q* has an audio chip and talks patients and caregivers through injection process.

You may give a second (repeat) dose of epinephrine 10-15 minutes later, IF the person with anaphylaxis does not respond to the first dose AND ambulance arrival takes longer than 10 minutes.

### FIRST AID ADVICE for Anaphylaxis - Benadryl

- Give antihistamine by mouth now if able to swallow.
- Use Benadryl (diphenhydramine; adult dose 50 mg) or any other available antihistamine.

## BACKGROUND INFORMATION

### Key Points

- Vaccines are generally safe and effective.
- Side effects such as local pain, fever, and fatigue are common after any vaccination. They are normal symptoms after a vaccination.
- Serious reactions, such as anaphylaxis, are very rare.
- COVID-19 vaccination is recommended for all people age 6 months and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.

### Types of COVID-19 Vaccines

COVID-19 **vaccines** are safe and effective. They reduce the chance of getting COVID-19. If a

vaccinated person becomes infected, the chance of severe illness and hospitalization are less. COVID-19 vaccination is recommended for all people age 6 months and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.

Several COVID-19 vaccines have been approved for use in Canada and the United States:

- **AstraZeneca (Oxford)**: Approved for use in Canada in February 2021. More information available at: <https://www.astrazeneca.com/covid-19.html>.
- **Johnson & Johnson (Janssen)**: Approved for use in the US in February 2021. Single shot for the primary series. More information available at: <https://www.jnj.com/coronavirus>.
- **Medicago (Covifenz)**: Approved for use in Canada in February 2022.
- **Moderna**: Approved for use in Canada and US, December 2020. Approved in the US. More information available at: <https://www.modernatx.com/cove-study>.
- **Novavax (Nuvaxovid)**: Approved for use in the US in July 2022. Approved in Canada.
- **Pfizer (BioNTech)**: Approved for use in Canada and US, December 2020. More information available at: <https://www.cvdvaccine.com/>.

Everyone 5 years and older should get one or more **booster vaccine shots**. Booster shots are especially important for groups at higher risk. Recommendations for the timing and total number of booster shots depend on what type of COVID-19 vaccine a person initially got, a person's age, and whether a person is healthy or has a weak immune system. Either the **Pfizer** or the **Moderna** mRNA vaccines can be used as a booster.

Up-to-date on vaccination means that a person has received all doses in the primary series and got all recommended booster shots. For people with moderately to severely weak immune systems up-to-date means they received all recommended primary shots and boosters. Depending on the person's age and the vaccine given, this group may require an extra primary shot (e.g., third shot) and booster.

For U.S. information and the most up-to-date criteria, see the CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html>. In Canada see <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.

## COVID-19 Vaccine Reactions

Three types of reactions can occur after any type of vaccination: *local*, *systemic*, and *anaphylactic*.

A **local reaction** can occur at the injection site after a COVID-19 vaccination. These symptoms usually last 1 to 3 days. Side effects are more frequent after the second vaccine shot.

- Lymph node swelling in armpit of injection (12%)
- Pain at injection site (84-92%)
- Redness at injection site (6%)
- Swelling at injection site (9%)

Some people get a red rash in their arm at the vaccine shot site that starts 3 to 14 days (most commonly 8 days) after the vaccine. This mainly happens with the Moderna vaccine, but can occur with the Pfizer vaccine. This is called **COVID Arm** or **COVID Vaccine Arm**.

- Can also feel itchy, slightly painful, or puffy.
- Usually goes away in about a week and there are no long-term problems.
- It appears to be a minor side effect of an mRNA vaccine. Antibiotics are not needed.

Symptoms from a **systemic reaction** are common and normal after a COVID-19 vaccination. These

symptoms usually last 1 to 2 days. Side effects are more frequent after the second vaccine shot.

- Chills (32-43%)
- Fatigue (63-69%)
- Fever (14-15%)
- Headache (55-63%)
- Joint pain (24-45%)
- Muscle pain (38-60%)

Rarely, a **severe allergic reaction** (anaphylactic reaction) of the body's immune system may occur after a COVID-19 vaccination. This is a severe and sometimes life-threatening overreaction (allergic reaction) of the body's immune system.

- *Symptoms:* Symptoms of an anaphylactic reaction include breathing difficulty, dizziness, face and throat swelling, fast heart beating, rash all over body, and weakness.
- *Onset:* Most allergic reactions to vaccines occur within minutes to two hours after getting the vaccine injection.

Other **very rare** delayed serious complications of the COVID-19 vaccines include blood clots with thrombocytopenia syndrome (TTS), Guillain-Barre' Syndrome, and heart inflammation (myocarditis, pericarditis).

*The following are NOT side effects of the COVID-19 vaccine:* cough, loss of taste or smell, runny nose, shortness of breath, and sore throat. Instead, they may be symptoms of COVID-19 or another infection.

### **Delta, Omicron, and Other COVID-19 Variants**

Viruses change through mutation. New variants of the COVID-19 virus are expected to appear and spread.

In the Summer and Fall of 2021 the **Delta variant** was the most common COVID-19 variant. In the Winter and Spring of 2021-2022 the **Omicron variant** became the most common variant.

The COVID-19 vaccines help protect against the delta and omicron variants.

- Infection with COVID-19 occurs less often in people who are vaccinated.
- When it happens it is called a "breakthrough" infection.
- The risk of serious illness and hospitalization is much lower than if a person was not vaccinated.
- Current evidence suggests that vaccinated people who become infected with COVID-19 can spread the virus to others.

### **Internet Resources**

- *Centers for Disease Control and Prevention (CDC):* Frequently Asked Questions about COVID-19 Vaccination. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>.
- *Centers for Disease Control and Prevention (CDC):* People with Certain Medical Conditions. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>.
- *Health Canada:* Vaccines for COVID-19: <https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/vaccines.html>.
- *The National Academies of Sciences, Engineering, Medicine:* National Academies Release Framework for Equitable Allocation of a COVID-19 Vaccine for Adoption by HHS, State, Tribal, Local, and Territorial Authorities. This news release summarizes the four phases of vaccine distribution:

<https://www.nationalacademies.org/news/2020/10/national-academies-release-framework-for-equitable-allocation-of-a-covid-19-vaccine-for-adoption-by-hhs-state-tribal-local-and-territorial-authorities>.

• *Public Health Agency of Canada (PHAC): COVID-19 Drugs and Vaccines.*

<https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html>.

• *United States Federal Drug Administration (FDA): COVID-19 Vaccine.*

<https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines>.

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## SEARCH WORDS

2019-NCOV  
 ADVERSE REACTION  
 ADVERSE REACTIONS  
 ANTHRAX  
 BOOSTER  
 BOOSTER SHOT  
 CORONAVIRUS  
 CORONAVIRUS EXPOSURE  
 COVID ARM  
 COVID VACCINE ARM  
 COVID19  
 COVID-19  
 COVID-19 ARM  
 COVID-19 EXPOSURE  
 EXPOSURE  
 EXPOSURE QUESTION  
 EXPOSURE QUESTIONS  
 IMMUNIZATION  
 IMMUNIZATION REACTION  
 IMMUNIZATION REACTIONS  
 IMMUNIZATIONS  
 INFECTION EXPOSURE  
 INJECTION  
 INJECTION SITE

INJECTION SITES  
INJECTIONS  
MAMMOGRAM  
NCOV  
NOVEL CORONAVIRUS  
REACTION  
REACTIONS  
SHOTS  
SIDE EFFECT  
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VACCINES

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