

THIS INFORMATION IS FOR PEOPLE WITH:
**immunocompromised conditions/
weakened immune systems**

KNOW THE RELATIONSHIP BETWEEN A WEAKENED IMMUNE SYSTEM AND COVID-19

COVID-19 spreads fast. In some people it can start with mild symptoms and quickly progress to more severe disease.



What is COVID-19?

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus.¹ If you are infected with the virus, you will most likely experience mild to moderate respiratory illness.¹

Most people can expect to get better without needing special treatment, but some people can become very sick and require medical attention.¹

Are you at increased risk?

3 in 5 (60%)

adults in the United States
have a chronic disease²



The older you are, the greater the chance of having at least one medical condition that can put you at high risk of getting very sick from COVID-19.³

The likelihood of **having one or more such medical conditions** increases by³:

10% for people up to and including age 25 years

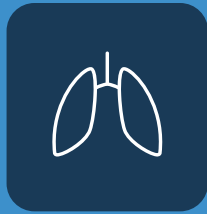
33% for people up to and including age 50 years

66% for people up to and including age 70 years

You are more likely to develop serious illness from COVID-19 if you have a condition or risk factor like⁴:



Heart conditions



Lung disease



Diabetes



Cancer



Racial, ethnic, and socioeconomic disparities



Overweight or obese



Immunocompromised condition



Age

This list does not include all possible conditions.

If you have diabetes, heart disease, lung disease, or cancer and you get COVID-19, **you are more likely to**⁴⁻⁸:

Get very sick

Be hospitalized

Need a machine to help you breathe

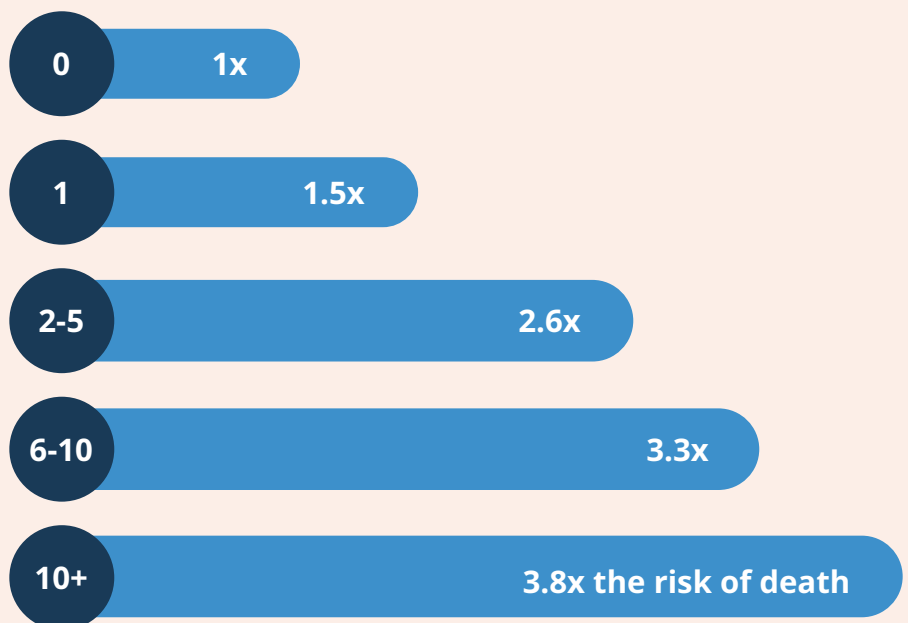
Need intensive care

Die

The number of high-risk medical conditions you have **increases your risk of death** from COVID-19^{4,7}:

● Number of high-risk medical conditions⁷

● Risk of death⁷



COVID-19 and immunocompromised conditions/weakened immune systems



If you are **taking immunosuppressants** due to an organ transplant, they may weaken your immune system. When your immune system is weakened, your **ability to fight infections is low and increases your chance of getting very sick** from COVID-19.⁹



More than 1 out of 100 people with an organ transplant who got COVID-19 **rejected** the transplanted organ.¹⁰

Transplant patients are also **1.6x more likely to be admitted to an intensive care unit** for COVID-19 versus someone who did not receive a transplant.⁹



If you have HIV, the presence of **inflammation** may cause kidney, heart, and nervous system diseases, and can make you very sick from COVID-19.¹¹

People with HIV are **1.5x more likely to be hospitalized** versus someone without HIV.¹¹

If you have or are being treated for certain medical conditions, then you may be **immunocompromised (or have a weakened immune system)**.⁴

Immunodeficiencies may be¹²:



Primary immunodeficiencies (PIs) that are inherited, like chronic granulomatous disease



Secondary immunodeficiencies that are obtained, for example, from HIV infections or from treatment with radiation or immunosuppressive drugs

Both types of immunodeficiencies put you at high risk of getting very sick from COVID-19.⁴

Your immune system may also be weakened if you have⁴:

A condition that requires you to take an oral **corticosteroid** (an anti-inflammatory drug)

A **solid organ transplant**, such as a kidney or heart transplant, and you are taking medicine for the transplant so that your body doesn't reject it

If you have a primary immunodeficiency and get sick with COVID-19^{13,14}:

Some studies have reported a **severe and complicated progression of infection**. PIs can lead to an **increased risk of hospitalization**. Hospitalization rates can also depend on other underlying health conditions.

Some studies also showed that the **rate of death** in someone with a primary immunodeficiency who has COVID-19 can be as high as

8x

versus someone who **does not have a primary immunodeficiency** and has COVID-19.^{13,14}

If you think you have been infected with COVID-19, remember to **ACT** fast.

A

Assess for COVID-19 symptoms and your risk factors

C

Confirm that you have COVID-19 with your healthcare professional

T

Talk to your healthcare professional about treatment options

A

Assess for COVID-19 symptoms and your risk factors like a weakened immune system

If you have been exposed to COVID-19, you may start having symptoms 2 to 14 days after exposure.¹⁵ COVID-19 symptoms can be similar to other infections, like the flu.¹⁶

If you have flu-like symptoms, it may be COVID-19.¹⁶
Symptoms of COVID-19 can look like¹⁵:



Congestion or runny nose



Headache



Cough



Muscle or body aches



Sore throat



Nausea or vomiting



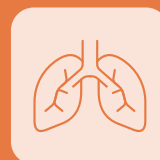
Fatigue



Diarrhea



New loss of smell and/or taste



Shortness of breath or difficulty breathing



Fever or chills

C

Confirm that you have COVID-19 with your healthcare professional

If you have any COVID-19 symptoms or test positive, **talk to your healthcare professional right away.**

If you do not have symptoms but think you've been exposed to COVID-19, wait at least 5 full days after exposure and then test for COVID-19 infection.¹⁷



If you have COVID-19, **do not delay.** Even if your symptoms are mild, treatment must be started within days after you first develop symptoms to be effective.¹⁸



If you find it hard to breathe, get **immediate medical attention.**¹⁹

T

Talk to your healthcare professional about treatment options



Treatment options for COVID-19 can be discussed to see if one is right for you.¹⁸



These treatments must be taken within days if you begin having symptoms.¹⁸



This is why it is so important to contact your healthcare professional as soon as possible.¹⁸

[If you have COVID-19, access care by:

Please fill in which action the patient should take to access care in the system (eg, visiting the website, clicking on the e-form link, calling the telephone number, accessing a test-to-treat site, visiting an urgent care site, visiting the patient portal).]

References

1. World Health Organization. Coronavirus disease (COVID-19). Accessed October 12, 2022. https://www.who.int/health-topics/coronavirus#tab=tab_1
2. Centers for Disease Control and Prevention. Chronic diseases in America. Reviewed May 6, 2022. Accessed October 12, 2022. <https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>
3. Clark A, Jit M, Warren-Gash C, et al. How many are at increased risk of severe COVID-19 disease? Rapid global, regional and national estimates for 2020. Posted April 22, 2020. Accessed October 13, 2022. <https://doi.org/10.1101/2020.04.18.20064774>
4. Centers for Disease Control and Prevention. People with certain medical conditions. Updated September 2, 2022. Accessed October 12, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#:~:text=Older%20adults%20are%20at%20highest,18%2D29%20years>
5. Centers for Disease Control and Prevention. Basics of COVID-19. Updated November 4, 2021. Accessed October 12, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/basics-covid-19.html>
6. European Centre for Disease Prevention and Control. Risk factors and risk groups. Updated January 21, 2022. Accessed October 12, 2022. <https://www.ecdc.europa.eu/en/covid-19/latest-evidence/risk-factors-risk-groups>
7. Centers for Disease Control and Prevention. Underlying medical conditions associated with higher risk for severe COVID-19: information for healthcare professionals. Updated June 15, 2022. Accessed October 12, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html>
8. Gao YD, Ding M, Dong X, et al. Risk factors for severe and critically ill COVID-19 patients: a review. *Allergy*. 2021;76(2):428-455. doi:10.1111/all.14657
9. Gatti M, Rinaldi M, Bussini L, et al. Clinical outcome in solid organ transplant recipients affected by COVID-19 compared to general population: a systematic review and meta-analysis. *Clin Microbiol Infect*. 2022;28(8):1057-1065. doi:10.1016/j.cmi.2022.02.039
10. Vinson AJ, Agarwal G, Dai R, et al. COVID-19 in solid organ transplantation: results of the National COVID Cohort Collaborative. *Transplant Direct*. 2021;7(11):e775. doi:10.1097/TXD.0000000000001234
11. Danwang C, Noubiap JJ, Robert A, Yombi JC. Outcomes of patients with HIV and COVID-19 co-infection: a systematic review and meta-analysis. *AIDS Res Ther*. 2022;19(1):3. doi:10.1186/s12981-021-00427-y
12. Centers for Disease Control and Prevention. Altered immunocompetence. Updated September 8, 2022. Accessed November 8, 2022. <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html>
13. Esenboga S, Ocak M, Akarsu A, et al. COVID-19 in patients with primary immunodeficiency. *J Clin Immunol*. 2021;41(7):1515-1522. doi:10.1007/s10875-021-01065-9
14. Shields AM, Burns SO, Savic S, Richter AG; UK PIN COVID-19 Consortium. COVID-19 in patients with primary and secondary immunodeficiency: The United Kingdom experience. *J Allergy Clin Immunol*. 2021;147(3):870-875.e1. doi:10.1016/j.jaci.2020.12.620
15. Centers for Disease Control and Prevention. Symptoms of COVID-19. Updated August 11, 2022. Accessed October 12, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
16. Centers for Disease Control and Prevention. Similarities and differences between flu and COVID-19. Reviewed September 28, 2022. Accessed October 12, 2022. <https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm>
17. Centers for Disease Control and Prevention. What to do if you were exposed to COVID-19. Updated August 24, 2022. Accessed October 31, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/your-health/if-you-were-exposed.html>
18. Centers for Disease Control and Prevention. COVID-19 treatments and medications. Updated August 5, 2022. Accessed October 12, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/your-health/treatments-for-severe-illness.html>
19. World Health Organization. COVID-19: symptoms and severity. Updated April 18, 2022. Accessed October 12, 2022. <https://www.who.int/westernpacific/emergencies/covid-19/information/asymptomatic-covid-19>

