



# Busting myths and building knowledge around SARS-CoV-2, COVID-19, and COVID-19 vaccinations for young people living with and affected by HIV:

The Committee of African Youth Advisors and Global Network of Young People Living with HIV

# Do people living with HIV have an increased risk of contracting COVID-19?

COVID-19, coronavirus disease 2019, is a disease caused by the SARS-CoV-2 virus. SARS-CoV-2 is the virus that causes infection, and COVID-19 is the disease that results—just like HIV is the virus and AIDS is the disease. How COVID-19 affects people living with HIV isn't completely understood yet. There does not seem to be an increased risk of being infected with SARS-CoV-2 if you are living with HIV, but there have been some recent findings around how HIV affects COVID-19 disease severity.

#### Here is what we know:

- People living with HIV who are hospitalized are at higher risk of having severe or critical outcomes.<sup>1</sup>
- People living with HIV who are nonadherent to antiretroviral therapy (ART) and have high viral loads and/or low CD4 cell counts are at higher risk of having more serious symptoms if infected with COVID-19.<sup>2-3</sup>
- People living with HIV who are adherent to ART with low viral loads and normal CD4 cell counts may not have worse symptoms than people not living with HIV when ill with COVID-19.<sup>4-5</sup>

Our understanding of the relationship between HIV and COVID-19 continues to evolve, but based on what we know at the moment, people living with HIV may be more likely to get more seriously sick with COVID-19 if they become infected with SARS-CoV-2.6 The studies that have been done looking at the connection between HIV and COVID-19 outcomes have not included adolescents younger than 18, but this association will continue to be monitored and analyzed as data become available. Limited data from South Africa do show that SARS-CoV-2 can infect children and adolescents living with HIV, but due to small numbers,

comparative data on disease severity are not yet available.<sup>7</sup> This link makes it important for people living with HIV to stay adherent and get vaccinated to protect themselves from severe illness, as the vaccines give the same level of protection for people living with HIV and those not living with HIV.

#### What can you do to protect yourself?

- Wear a mask, wash your hands, avoid crowded spaces, stay
  adherent to your ART regimen, and stay engaged in your care—
  continue attending in-person or virtual clinic visits and psychosocial
  support (PSS). All are still recommended ways to reduce SARS-CoV-2
  exposure and infection.
- Know your HIV status. It allows you to take control of your health.
- **Get COVID-19 vaccinated.** It protects you and the people around you.

ART and pre-exposure prophylaxis (PrEP) *do not* protect you from SARS-CoV-2 infection or COVID-19 disease. ART and PrEP do help your body stay healthy. Staying adherent on ART or PrEP helps your body's immune system stay strong, which makes it able to fight any virus or illness it may be exposed to, including SARS-CoV-2. For this reason, it is important to keep taking your medication and staying active in your care. When a COVID-19 vaccine is available—get it! Vaccines are currently the most effective way to protect yourself and the people around you.

#### What types of COVID-19 vaccines are available?

Different types of vaccines have been approved to provide protection against SARS-CoV-2 infection and COVID-19 disease. They were developed by several companies in various countries. Different vaccines are available in different parts of the world. When being developed, vaccines go through a rigorous process of review and testing to make sure they work and are safe for use. There were no shortcuts taken during the development of the COVID-19 vaccines.

It is important to understand that each vaccine has been proven effective at reducing hospitalization and severe COVID-19 disease. It is still possible to get infected with SARS-CoV-2 once you are vaccinated, but because your body builds its immunity after being vaccinated, it is more protected against serious illness and death caused by COVID-19 disease.

Even though most available vaccines are for people older than 18, there are ongoing trials and early results showing some vaccines are effective in adolescents older than 12 years of age.<sup>8-13</sup> Some countries are beginning to vaccinate children 12 to 15 years old—these

include several countries across Europe like France, the United Kingdom, and Austria; the Middle East like Israel and Dubai; Asia and Asia Pacific like Singapore, Japan, and the Philippines; and the Americas like Mexico, Brazil, and the United States. It is expected that other vaccines will be approved for use in younger adolescents once testing has been completed and efficacy has been shown in the coming year. Children younger than 12 are not yet eligible to get vaccinated everywhere, but trials are under way to test the efficacy of the vaccine with this age group. Some places, like Israel, have started to vaccinate children younger than 12. The decision to open eligibility to adolescents younger than 18 also is influenced by vaccine supply—which continues to be a challenge in many countries, including countries across Africa. Vaccine equity—meaning that the vaccines are available everywhere to everyone—has not been achieved for various reasons, but we will continue to advocate for this critical need.

The table below outlines some of the available COVID-19 vaccines around the world.

#### Types of vaccines that are available around the world

Company or organization that makes it	Type of vaccine	Studies completed by age for vaccines*	How many jabs, spacing between them	How well it works in preventing COVID-19
Pfizer-BioNTech	mRNA	Those 12+ years	2 jabs, 21 days apart	95% effective
Moderna	mRNA	Those 18+ years	2 jabs, 28 days apart	94.1% effective
Johnson & Johnson	Adenovirus vector	Those 18+ years	1 jab	72% effective
Oxford- AstraZeneca	Adenovirus vector	Those 18+ years	2 jabs, 4–12 weeks apart	76% effective
Novavax	Protein subunit	Those 18+ years	2 jabs, 3 weeks apart	90% effective
Gamaleya Sputnik V	Adenovirus vector	Those 18+ years	2 jabs, 3 weeks apart	92% effective
Sinopharm	Inactivated SARS- CoV-2	Those 18+ years	2 jabs, 3–4 weeks apart	79% effective
Sinovac (CoronaVac)	Inactivated SARS- CoV-2	Those 18+ years— approved for those 3+ years in China	2 jabs, 2–4 weeks apart	51% effective against symptomatic infection, 100% effective against severe COVID-19

<sup>\*</sup>There are ongoing studies with different age groups including those younger than 12, but they have not been published or approved at this time.

### Can you get vaccinated if you are living with HIV?

COVID-19 vaccines are recommended for people living with HIV. There have not been any safety concerns raised about people living with HIV getting vaccinated. Some studies show that the vaccine creates the same immune response in people living with HIV as in those not living with HIV.<sup>19-21</sup> This means that the vaccine works just as well for those living with HIV to help prevent severe illness if they are infected with SARS-CoV-2. The World Health Organization (WHO) has recommended that people living with HIV be included as a priority group for vaccinations in many countries.

It is extremely rare for severe reactions to occur after vaccination. After being vaccinated, it is likely that you may experience some side effects. The side effects may include fever, chills, headache, and muscle aches. Not having side effects does not mean that the vaccine isn't working. It is different for everyone since everyone's immune system is different. If you do feel ill or your symptoms continue for a long time, it's a good idea to talk to a health provider.

The natural immunity of people who have been infected with SARS-CoV-2 varies, and it is unclear how long it lasts. Therefore, it is important to get vaccinated when vaccines become available even if you tested positive for SARS-CoV-2 or were ill from COVID-19 in the past.

It takes a couple weeks after getting the final jab (or just one if it is a single-jab vaccine) to be considered fully vaccinated.



Resource about how the vaccines work:

How COVID-19 Vaccines Work: Vaccines Explained: Explainers (who.int)

## **Frequently Asked Questions**

#### What about pregnant young girls and women living with HIV?

Pregnant women are more at risk of developing severe COVID-19 if infected with SARS-CoV-2, and getting the vaccine prevents serious COVID-19 disease for people who want to get pregnant, women who are pregnant or breastfeeding, and their families. WHO recommends the COVID-19 vaccines for pregnant women.

Though the effectiveness of the COVID-19 vaccines in pregnant women is still being understood, the data suggest that getting vaccinated significantly outweighs other potential risks from SARS-CoV-2 infection/COVID-19 disease during pregnancy.<sup>22</sup>

The available data show that there have not been any safety concerns for pregnant women who have been vaccinated or for their babies. Mothers being vaccinated during pregnancy could help their babies stay protected against COVID-19 and may

share built-up antibodies with their baby. Antibodies are also found in the breast milk of breastfeeding mothers who were vaccinated.<sup>23</sup>

#### What about variants?

As with other types of viruses, including HIV, it is possible that mutations or changes in the nature and behavior of the virus can happen. These mutated viruses are called variants. For example, one variant that has made its way around the world is called the Delta variant. This mutation changes the way the virus can attach to different cells in the body, allowing it to replicate itself better. This is probably one of the reasons it can spread faster. It is not clear whether this variant may cause more severe illness.<sup>24</sup>

The available vaccines provide substantial protection against the variants. It is still a good idea to get vaccinated. In early trials, people who are vaccinated are more protected against serious illness even if they get infected with a variant form of the virus. Research is being done to learn more about this, and any changes that may come about will be monitored.

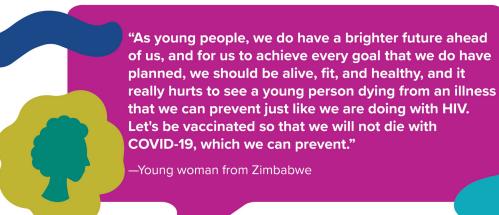
## Why would I get vaccinated? Insights from young people living with HIV who are fully vaccinated

Young people are taking center stage in encouraging others to get vaccinated. Take, for example, a doctor in Ecuador<sup>25</sup> who is giving jabs to young people in a youth-friendly way. We are encouraged by young people like this and want to encourage you to get a vaccine when they become available in your country. Other young people infected with and affected by HIV have gotten their jabs and want to share some of their advice and experiences to encourage others to take responsibility for their health and get vaccinated to protect their current and future health and dreams:



"The truth is, even though you see some people recovering from coronavirus, you don't know if your body can handle it. So the safest way is for you to avoid getting it. Observe all COVID-19 prevention measures, and get vaccinated today. Got all my jabs done!"

—Young man from Zimbabwe



"The vaccine is safe and healthy, and it is good to be vaccinated as it is the only way to be safe from COVID-19."

—Young man from Uganda



**#YourHealthYourResponsibility** 

**#Vaccinatedontwait** 

#COVID-19isReal

#maskup and #staysafe

We know there are a lot of myths and misconceptions around the SARS-CoV-2 virus, COVID-19, and COVID-19 vaccinations that make it hard to know what is true sometimes. Young people living with HIV, including members of the Committee of African Youth Advisors, have shared some myths that they have heard in their communities about the SARS-CoV-2 virus, COVID-19, and COVID-19 vaccines. It's always a good idea to talk about anything that may concern you about this—as it affects your health now and in the future—so let's bust some myths!

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COVID -19	People living with HIV are more likely to get COVID-19.	Actually, people living with HIV are just as likely as anyone else to get infected with SARS-CoV-2 and become ill with COVID-19.
	People living with HIV who get infected with SARS-CoV-2 and ill with COVID-19 will not survive, because their immune systems are weak.	Research has been done to look into any differences in how people living with HIV are affected by COVID-19. People living with HIV may be more likely to get seriously sick if infected with SARS-CoV-2, especially if they are not receiving ART and have a high viral load and low CD4 cell count. Taking your medication consistently (to help your body's immune system stay strong) and getting vaccinated are important steps to prevent experiencing serious illness if you are infected in the future.
	You can catch COVID-19 only if you have a weak immune system.	Anyone can get infected with SARS-CoV-2 and ill with COVID-19. It depends on whether you are exposed to it. To stay safe, it is smart to take precautions like wearing a mask, washing your hands, and staying away from crowds.
	A person with a low viral load can never get COVID-19.	Anyone, including someone who has a low viral load, can get infected. SARS-CoV-2 is transmitted by inhaling small particles that contain the virus or coming into contact with it via your eyes, nose, or mouth.
	People with a certain blood type die easier from COVID-19.	Blood type has not been found to be linked to people's having more severe complications, including death, from COVID-19. <sup>26</sup> Blood type has not been found to be a risk factor for getting SARS-CoV-2 infection.
	Only people 60+ years old can get COVID-19; young people don't get it because they have stronger immunity.	Both older and younger people can get infected with SARS-CoV-2 and ill with COVID-19 and experience serious debilitating symptoms. Even if you as a young person do not have any symptoms, if you get infected with SARS-CoV-2, you can still pass it on to other people who may be more vulnerable. A lot of young people who get infected may not have any symptoms, but some do get seriously ill.

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COVID-19 Vaccines	If you get vaccinated you will test HIV positive in the future.	The COVID-19 vaccines don't have anything to do with HIV. They don't include anything that can increase your risk of getting HIV, would give you HIV, or would make you test positive in the future. The currently available vaccines use a range of primary vaccine components to stimulate the immune system to develop antibody against the SARS-CoV-2 virus, including mRNA (Pfizer-BioNTech, Moderna), viral vector such as adenovirus (AstraZeneca, Johnson & Johnson, Sputnik V), protein/peptides (Novavax), and inactivated virus (Sinovac Biotech, Sinopharm). These primary components all work in different ways to strengthen your body's immune response in case your body comes in contact with the SARS-CoV-2 virus in the future.
	People living with HIV will die within a year of getting vaccinated.	This is not true in any way. The vaccines are meant to stimulate your body to develop antibodies that will prevent SARS-CoV-2 virus from entering and infecting your cells so that if you are exposed to the SARS-CoV-2 virus, your body can fight it more fully. So people (both those living with HIV and those not living with HIV) who get vaccinated would actually be more protected against dying if they were exposed to SARS-CoV-2 in the future.
	The vaccinations actually have the HIV virus in them.	The vaccines don't have any connection to HIV or HIV material in them. Getting vaccinated can't give you HIV now or anytime in the future. HIV can be transmitted only via unprotected sex, from a mother to a child during birth or breastfeeding, through sharing of injection equipment, or via contaminated blood transfusions or organ transplants.
	Getting vaccinated interrupts my ARTs.	Actually, getting vaccinated shouldn't have any interaction or cause any interruptions with your ARTs. The available evidence shows no interaction between ART and vaccine efficacy. It is important to keep taking your ARTs consistently to keep your body healthy now and in the future.
	You will die after getting the jab— it's a plan to finish the African race and a way for governments to embezzle money.	The only goals of the vaccinations are to help people build immunity to SARS-CoV-2 and to prevent COVID-19 disease. The vaccines were developed by scientists all over the world with years of experience for only these purposes—and they are meant for everyone.

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If you get vaccinated your blood will clot and you will die.	There have been very, very rare instances in which a blood clot has occurred after a person got vaccinated—the likelihood is super low: less than a 0.001% chance. The benefits of the vaccine outweigh any potential risks, which would most likely not occur. In addition, COVID-19 disease itself is associated with a risk for blood clots that is many times higher than that seen with the vaccines.
You will be mentally disturbed if you are vaccinated.	Getting the vaccine has NOT been shown to put you at any kind of increased risk of getting any kind of mental health condition.
People living with HIV don't need to be vaccinated since they are already on medication.	Even though it seems like already taking medication should protect you, the COVID-19 vaccine gives you a different protection that your ART can't, just like taking malaria treatment doesn't protect you from HIV. Just like ART is specific to the HIV virus, the vaccine is specific to the SARS-CoV-2 virus. They both help to protect your immune system from a virus—but you can't use one for the other. Taking the vaccine doesn't interrupt your ART either, and it is important to keep taking your ART so that your body stays healthy.
COVID-19 vaccines cause fertility issues in young people.	The vaccines will NOT affect your fertility in any way. There was a false report circulated earlier in the pandemic that talked about how this was the case, but the report confused a type of protein with another one in your body—clinical trials have confirmed that vaccines do not impede fertility. In contrast, getting SARS-CoV-2 infection during pregnancy can potentially have serious effects on both mother and child, so it is important to continue with prevention measures and discuss vaccination availability with your health provider.
COVID-19 vaccines enter your cells and change your DNA.	The vaccines for COVID-19 WILL NOT give you COVID-19, nor will they change your DNA; none of the vaccines have components that permit vaccine elements to enter cell nuclei where your DNA resides. The vaccines tell your cells to start to make a type of protein that is part of the SARS-CoV-2 virus so your body can recognize the virus and fight it if it is ever exposed to it. It is like seeing a Wanted poster for a dangerous man so you will know who to look out for and know he is dangerous if you encounter him. The same is true with your cells—after you receive the vaccine, your cells know the SARS-CoV-2 virus is dangerous and can fight back.



Peer educators, counselors, and health providers are great resources. Ask them questions if you have any concerns or need clarification about whether you should get vaccinated against COVID-19.

#### **COVID-19 Resources**

If you have more questions, here are some resources that may be of interest.

#### Resources about COVID-19 and the COVID-19 vaccines:

- WHO, Vaccines Explained: <u>Explainers (who.int)</u>
- UNAIDS, COVID-19 Vaccines and HIV: <a href="https://www.unaids.org/sites/default/files/media\_asset/covid19-vaccines-and-hiv\_en.pdf">https://www.unaids.org/sites/default/files/media\_asset/covid19-vaccines-and-hiv\_en.pdf</a>
- Variants and Vaccines: <a href="https://www.who.int/emergencies/diseases/novel-coronavirus-2019/media-resources/science-in-5/episode-20---covid-19---variants-vaccines">https://www.who.int/emergencies/diseases/novel-coronavirus-2019/media-resources/science-in-5/episode-20---covid-19---variants-vaccines</a>
- Talking about COVID-19, HIV, and ARVs: <a href="https://d38c7973-2a46-435c-b3a5-g99be5a956eb.filesusr.com/ugd/586349\_411d0bd48278489d8f8e34507593a69e.pdf">https://d38c7973-2a46-435c-b3a5-g99be5a956eb.filesusr.com/ugd/586349\_411d0bd48278489d8f8e34507593a69e.pdf</a>
- COVID-19 Facts: https://bwisehealth.com/covid-19-facts/
- Generation Vaccination Chats: Youth Getting Vaccinated: Are You Ready? Chats with Dr. Musa: https://www.youtube.com/watch?v=IzECeewtcFl
- COVID-19 and HIV: <a href="https://www.yplusglobal.org/resources-covid-19-and-hiv">https://www.yplusglobal.org/resources-covid-19-and-hiv</a>
- COVID-19: Keeping Young People Healthy: <a href="https://www.yplusglobal.org/resources-covid-19-keeping-yp-healthy">https://www.yplusglobal.org/resources-covid-19-keeping-yp-healthy</a>

#### Mental health resources:

- What Are Mental Health Conditions: <a href="https://d38c7973-2a46-435c-b3a5-f99be5a956eb">https://d38c7973-2a46-435c-b3a5-f99be5a956eb</a>. filesusr.com/ugd/586349\_446a22d99ca94c7b814c48ce6682384d.pdf
- COVID-19 and Mental Health: <a href="https://d38c7973-2a46-435c-b3a5-f99be5a956eb.filesusr.com/ugd/586349\_f6925a512feb4d44a3d6fccf7942be0d.pdf">https://d38c7973-2a46-435c-b3a5-f99be5a956eb.filesusr.com/ugd/586349\_f6925a512feb4d44a3d6fccf7942be0d.pdf</a>
- Mental Health: What's The Deal? <a href="https://bwisehealth.com/mental-health-vs-mental-illness-whats-the-deal/">https://bwisehealth.com/mental-health-vs-mental-illness-whats-the-deal/</a>
- Don't Panic: https://one2onekenya.org/articles/anxiety

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