

Headline: [VIDEO] Anatomy 101: What COVID does to your heart

Blurb: Reports of a rare heart condition linked to the Pfizer COVID vaccine should not deter teens from getting the jab.

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South Africa's teenagers can get both shots of Pfizer's two-dose COVID vaccine.

Between 20 October and 8 December 2021, people aged 12 to 17 were only given one dose as more data about rare side-effects of the jab rolled in.

There are some concerns about the safety of the jab in younger people.

One side effect possibly worrying parents is heart inflammation. This has been reported more often in teen boys than girls.

But it's still worth getting your shot.

Teens are six times more likely to develop heart inflammation from COVID-19 than from Pfizer's vaccine.

How does your heart work?

Your heart is [made of three different muscles](#).

1. The [myocardium](#) is the middle layer of your heart and also the biggest. It is in charge of pumping your heart.
2. The pericardium forms a protective layer on the outside of the heart muscle. This tissue helps to protect your heart from infection, and it also keeps it in place in your chest.
3. The [endocardium](#) on the inside of the heart muscle helps to keep the blood inside the heart's chambers separate from the blood that's fuelling the function of the heart muscle itself.

When any of these three muscles become infected, they become inflamed.

The ensuing condition is called myocarditis, pericarditis or endocarditis.

This infection is most [commonly caused by viruses](#), but bacteria, fungi and medicines can also lead to these conditions.

SARS-CoV-2 is a virus that can cause myocarditis or pericarditis.

Heart inflammation is also a rare side effect of the Pfizer COVID vaccine.

How serious is heart inflammation?

[Myocarditis normally resolves on its own](#), with most people recovering without treatment or lasting damage.

When a virus infects your heart, your immune system will jump in to eradicate the virus.

This will cause inflammation and can possibly damage the heart muscle.

Vaccines trigger the same immune response as the reaction your body would have when it's infected by the actual virus.

It's still too early to say the exact cause of these vaccine-related myocarditis cases.

The condition seems to be happening more frequently in boys between the [ages of 12 and 17](#) after receiving their second dose of Pfizer's jab.

Symptoms tend to [appear within the first three days post-vaccination](#), with most people completely recovering within a few days.

What is the risk of heart inflammation post-vaccination?

In short: Heart inflammation after one jab of Pfizer is extremely rare.

An [extremely rare side effect](#) happens in less than one person for every 10 000 people immunised or fewer than 0.01% of those who get the jab.

In the US, there were three reports of heart inflammation for every million people between the ages of 12 and 15 years who received their first Pfizer shot.

Boys aged 16 to 17 were at the highest risk — with 72 cases per million people who received two doses of the Pfizer jab.

The chances of developing heart inflammation from COVID, however, are much higher.

Up to [20% of patients who developed myocarditis as a result of COVID, had damage to their hearts](#).

COVID patients who develop heart problems are also more likely to need hospitalisation or possibly die.

Because vaccines protect you from developing severe COVID, they are still the safer alternative.

Tips for parents

People with myocarditis may experience any of the following symptoms

Chest pain

Trouble breathing

Irregular heartbeat

Fever

Or, they might not show any symptoms.

Concerned parents of teenagers should visit a doctor if their child is feeling unusually tired or if they have chest pains.

Parents could also stop teens from doing sports or heavy exercise for four to five days after their vaccination.

What about children who have underlying heart conditions already?

It's even more important for them to get vaccinated.