

# Five reasons why young people should get a COVID booster vaccine

September 13 2022, by Neil Mabbott



Credit: Sarayut Sridee/Shutterstock

Vaccination has played a substantial role in reducing the impact of COVID across the globe, and allowed life in most countries to gradually return to something like how we remember it before the pandemic. Researchers estimate that <u>tens of millions</u> of lives have been saved thanks to COVID vaccines.

Given immunity to the initial course of vaccines wanes over time,



booster doses are important. As with the original doses, boosters were rightly offered first to the most vulnerable. But a third dose has been available to all adults in the U.K. <u>since December 2021</u>.

Data shows more than 90% of people in England aged over 70 have received a booster or third vaccine dose. But coverage in younger adults is much lower. For example, just over 70% of young adults aged 18–24 have had one vaccine, with only 39% having received a booster.

It's been clear since early in the pandemic that <u>older age</u> and a variety of underlying <u>medical conditions</u> put people at <u>much higher risk</u> of getting very sick or dying from COVID. This contrasts sharply with otherwise healthy young people where the incidence of serious illness, hospitalization and death has been much lower.

Given this, it's reasonable to ask why young adults should bother having a COVID vaccination, let alone additional booster shots. Here are some of the reasons they should.

## 1. Immunity from COVID vaccines wanes over time

Some vaccines, such as the <u>MMR vaccine</u> (measles, mumps and rubella), can provide lifelong protection. In contrast, the effectiveness of COVID vaccines <u>begins to decline</u> in the months afterwards.

Immunity doesn't simply drop off a cliff. It's a more gradual decline, with <u>a typical reduction</u> of about 21% in protection against infection and 10% against <u>severe disease</u> in the six months after vaccination.

Although the decline in immunity can be more pronounced in the elderly and those with weakened immune systems, all age groups are affected. And any notable reduction in immunity will provide opportunities for increased virus transmission, and ultimately be reflected in increased



incidence of serious illness, hospitalization and death.

Fortunately, protection can be <u>effectively restored</u> after a booster with <u>an mRNA vaccine</u>.

# 2. Protecting other people

Vaccination doesn't only provide protection to the person being vaccinated. COVID vaccination also indirectly protects the population as a whole by reducing onward spread of the disease.

Many young adults live in households with, or meet regularly with, elderly or clinically vulnerable relatives or friends. They might have partners who are pregnant. People who are not fully vaccinated have a higher likelihood of being infected with COVID and passing it on to their close contacts.

This is clearly illustrated in <u>Israeli research</u> which found that children in households with two vaccinated parents were much less likely to catch COVID.

# 3. Reducing the impact of long COVID

Many people of all ages continue to report symptoms of COVID for months after the original infection, termed "long COVID." Long COVID can be debilitating, and has been reported even after relatively mild infections. It may occur in <u>up to 30%</u> of people who get COVID, though estimates have varied.

It remains unclear why some people are affected while others are not. But fortunately, research shows that vaccination reduces the risk of long COVID. One study suggests a reduction of about 15%, while another suggests the risk is halved. Having a booster may further reduce this risk.



Whatever the precise level of protection, given continually high numbers of COVID infections, even a 15% reduction will lead to significantly fewer long COVID cases.

### 4. Fewer days off work or study

For <u>young adults</u> in employment or education, the increased protection provided by being fully vaccinated will mean fewer days off work or interruptions to education due to illness with COVID or long COVID. At a time of increasing financial pressure, for some this may mean fewer days of income lost.

#### 5. COVID vaccines are safe

Over the past two years, billions of <u>COVID vaccine doses</u> have been administered across the globe. COVID vaccines have proven to be very effective and, importantly, safe.

Some <u>serious side effects</u> were identified on very rare occasions, such as a certain type of <u>blood clot</u> and myocarditis (inflammation of the heart muscle). But through careful monitoring, we have been able to identify potential risk factors for these rare side effects, and determine which vaccines and doses are most appropriate for which groups.

Certain people have <u>expressed concerns</u> that repeated use of vaccines could weaken the immune system. This is not true. We have been administering annual flu vaccinations for decades with no evidence that this negatively affects our immune systems.

Vaccines also don't harm <u>fertility</u>. On the contrary, they may well protect against the <u>sexual dysfunction</u> reported by some people with long



COVID. They are also safe for use <u>during pregnancy</u>.

It's true that infection itself can also confer some immunity against future infection. But vaccination is a much more precise and safe way of providing this.

## Preparing for what's to come

COVID infections in the U.K. have begun to <u>gradually decline</u> over the summer months. But what might happen next is uncertain. There is concern that as we approach the winter, a new variant could cause infections and hospitalizations to skyrocket, especially if it has mutations that help it to evade <u>vaccine</u> protection.

With this in mind, <u>updated vaccines</u> designed to provide broader protection against omicron, the currently dominant COVID variant, <u>will be deployed</u> in the U.K. this autumn to older and vulnerable groups now eligible for a fourth dose.

Meanwhile, it's crucial that younger people who haven't yet had their initial vaccines or booster shot come forward. Acting now will see us better prepared for future waves of infections as we enter the winter months, and help to reduce the impact the pandemic has on our health, society and an already pressured health service.

This article is republished from <u>The Conversation</u> under a Creative Commons license. Read the <u>original article</u>.

#### Provided by The Conversation

Citation: Five reasons why young people should get a COVID booster vaccine (2022, September 13) retrieved 9 July 2023 from <a href="https://medicalxpress.com/news/2022-09-young-people-covid-">https://medicalxpress.com/news/2022-09-young-people-covid-</a>



#### booster-vaccine.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.