UKHSA review shows vaccinated less likely to have long COVID than unvaccinated

The UK Health Security Agency (UKHSA) has undertaken a rapid evidence review looking at the effects of vaccination against long COVID or post-COVID symptoms. The review includes 15 UK and international studies that were undertaken up until January 2022.

An estimated 2% of the UK population have reported symptoms of long COVID or post-COVID syndrome, which can last for more than 4 weeks after their initial infection. The 3 most common symptoms are fatigue, shortness of breath and muscle or joint pain.

Eight of the studies in the review looked at the effect of vaccinations administered before infection. Most of these studies suggest that vaccinated people (one or 2 doses) were less likely to develop symptoms of long COVID following infection compared with unvaccinated people – in the short term and long term (4 weeks up until 6 months after infection).

The data from some of the studies included in the review suggests that:

- people with COVID-19 who received 2 doses of the Pfizer, AstraZeneca, or Moderna vaccines or one dose of the Janssen vaccine, were about half as likely as people who received one dose or were unvaccinated to develop long COVID symptoms lasting more than 28 days
- vaccine effectiveness against most post-COVID symptoms in adults was highest in people aged 60 years and over, and lowest for younger participants (19 to 35 years)

The remaining studies looked at the effects of vaccination among people who already had long COVID symptoms.

Four studies specifically compared long COVID symptoms before and after vaccination. Three of these studies suggested that more people with COVID-19 reported an improvement than a worsening in symptoms after vaccination, either immediately or over several weeks.

Another 3 studies of unvaccinated people with long COVID compared ongoing symptoms in those who either went on to receive a vaccination or remained unvaccinated. These studies suggested that those who were vaccinated were less likely to report long COVID symptoms after vaccination than people who remained unvaccinated over the same period.

One study looked specifically at the timing of vaccination after COVID-19 infection and suggested that people with COVID-19 who were vaccinated sooner after diagnosis were much less likely to report long COVID symptoms than people who were vaccinated later after diagnosis. All studies were

observational, so results may be from differences other than vaccination.

In one study, of those participants who reported having long COVID, a greater proportion of vaccinated participants said their symptoms improved compared to unvaccinated participants (23.2% compared to 15.4% respectively).

Dr Mary Ramsay, Head of Immunisation at UKHSA, said:

> These studies add to the potential benefits of receiving a full course of the COVID-19 vaccination. Vaccination is the best way to protect yourself from serious symptoms when you get infected and may also help to reduce the longer-term impact.
>
> For most people symptoms of long COVID are short-lived and resolve overtime. But for some, symptoms can be more severe and disrupting to their daily lives.
>
> If you're experiencing unusual symptoms particularly for longer than 4 weeks after infection, you should consider contacting your GP.

The review concluded that people who received 2 doses of a vaccine against COVID-19 were less likely to develop long COVID symptoms or experience symptoms for a shorter time, compared with those unvaccinated.

Individuals who received a vaccination after being infected with COVID-19 also reported that the duration of post-COVID symptoms was less than for those who were unvaccinated. Two doses of the COVID-19 vaccination provide a high level of protection against long COVID, compared to one dose or no doses.