

Coronavirus vaccine - separating fact from fiction and busting 13 big myths

With thanks to Azeem Majeed, Professor of Primary Care and Public Health at Imperial College London.

Based on an article by Matt Roper at The Daily Mirror 3.12.20

<https://www.mirror.co.uk/news/uk-news/coronavirus-vaccine-separating-fact-fiction-23106597>

1 MYTH: “A vaccine produced so quickly can’t be safe”

FALSE. There has been unprecedented worldwide scientific collaboration and funding to create a Covid vaccine. This global effort has allowed scientists to work at record speed, and complete years of work in months.

Covid-19 vaccines have to go through the same rigorous process of approval as other vaccines. Funding was generous, made available immediately and studies were set up rapidly.

2 MYTH: “The mRNA vaccine will get into my own DNA / genetic material”

FALSE. The mRNA vaccine (messenger RNA) is an exciting new type of vaccine - it simply tells your body how to create a protein that is found on the surface of the Coronavirus. Your own immune system is then able to recognise and produce antibodies against that protein, which means you are ready to fight off a Covid-19 infection. mRNA cannot infiltrate your own DNA.

More info here <https://www.bbc.co.uk/news/54893437>

3 MYTH: “I might be allergic but won’t know until I get it”

FALSE. “Allergies to vaccines are very rare,” says Prof Majeed. “They are given safely to millions of people every year.

The odds you’ll have a severe reaction to a vaccine is about one in 760,000.

The odds of being struck by lightning next year is higher at one in 700,000.

Although very rare, most vaccine reactions are because someone is severely allergic to some other component of the vaccine, such as egg protein.

Covid-19 mRNA vaccines are NOT produced using egg products - so they are even safer, and the chances of a reaction to Covid vaccine are extremely low (this is why they are deemed safe for community pharmacy and vaccination centres).

4 MYTH: “It’s better to be immunised by catching Covid”

FALSE. We have no idea how long or how strong the immunity is from catching Covid. We have seen patients infected more than once. Furthermore, there is also a significant risk of death among older people who contract Covid-19.

We do know that the immune response from vaccinations tends to be stronger and safer. We also know that Covid infection causes long term problems (labelled as 'Long Covid') in many young previously healthy patients.

In addition if you catch Covid you are likely to infect many others - some of whom might become ill, infect others, have Long Covid - or at worst die.

5 MYTH: "Vaccines can overload your immune system"

FALSE. In 2018, the myth was debunked by American researchers who examined the medical records of more than 900 infants from six hospitals.

They found no link between vaccines given before the age of two and other infections in the following years.

"Vaccines do not overload your immune system," says Prof Majeed. "On the contrary, they generate an immune response that helps reduce the risk of infection, complications and death."

Let's look at the benefits - apart from clean running water vaccines have saved more lives than any other health intervention.

6 MYTH: "The vaccine could actually give me coronavirus"

WRONG. Although some other vaccines are called 'live' - in the case of a coronavirus vaccine, "none that are in development contain a live coronavirus," assures Prof Majeed, "and they therefore can't give you a coronavirus infection".

7 MYTH: "If everyone around me is immune, I don't need a vaccine"

"It's essential to achieve high vaccine coverage so we create herd immunity," says Prof Majeed. "If people refuse to be immunised, we will continue to get outbreaks of Covid-19.

"If you decline to be immunised, you may get infected and also infect the people you come into contact with."

8 MYTH: "There haven't been enough tests for people with underlying conditions"

Prof Majeed says: "There are many vaccine trials taking place and they are being tested in people with different characteristics, such as age, sex, ethnicity and medical history.

"Results show they are safe in all groups they have been tested in."

As the vaccines are rolled out, we will get more and more information from surveillance studies of vaccine recipients.

9 MYTH: "Vaccinated children experience more allergic, autoimmune and respiratory diseases"

FALSE. This is another unfounded claim that has led some parents to delay or withhold vaccinations. Vaccines have far more benefits than risks

Studies examining many vaccines have failed to find a link with allergies or autoimmune disease.

“Vaccines protect against many diseases and substantially reduce the risk of illness and death in children,” says Prof Azeem.

10 MYTH: “Some of those taking part in trials died”

FALSE. Stories that Dr Elisa Granato, one of the first participants in the human trials of the Oxford vaccine, died shortly after being injected, were shared millions of times. The news was false and she gave a BBC interview saying she was feeling “absolutely fine”.

“Only one death has been reported among people taking part in trials,” says Prof Majeed.

João Pedro Feitosa, a doctor in Brazil, was given the placebo rather than the vaccine and died of Covid-related complications.

11 MYTH: “The swine flu vaccine left people with side effects, so why would this one be safe?”

Prof Majeed says: “Covid-19 vaccines have been carefully tested in a large number of volunteers and found to be very safe.

“Once they are more widely used, there will be monitoring of people who have received the vaccines to identify any future problems.”

Of course there are potentially rare side effects, but the huge benefits are known.

More info <https://www.nhs.uk/news/medication/swine-flu-jab-narcolepsy-risk-is-very-small/>

12 MYTH: Vaccines cause autism

FALSE. The idea that vaccines cause autism has long been disproved but the claims have recently been doing the rounds again.

Last year a massive study from Denmark found no association between being vaccinated against measles, mumps and rubella, and developing autism.

It is the latest of many studies that have tried and failed to find a link. Prof Majeed says: “No evidence has ever been found that vaccines cause autism in children.”

13 MYTH: “The Spanish Flu vaccine led to 50 million deaths”

FALSE. During the 1918 pandemic, having no vaccine is one of the reasons experts think that Spanish flu infected a third of the world’s population.

In the 1930s scientists found out that Spanish flu was caused by a virus. The first vaccine developed a decade later.