

COVID-19 Vaccinations and Allergies FAQ

Do you have questions about the new COVID-19 vaccines and your allergy? We have compiled a list of the most frequently asked questions with answers compiled with the assistance of our clinical panel and members of the British Society for Allergy and Clinical Immunology.

There are three vaccines currently authorised for supply in the UK, The **Pfizer/BioNTech vaccine**, the **AstraZeneca vaccine** and the **Moderna vaccine**

You can access the **Pfizer/BioNTech COVID-19** vaccination Patient Information Leaflet [here](#)
The Information for Healthcare Professionals is available [here](#)

You can access the **Vaccine AstraZeneca** Patient Information Leaflet [here](#)
The Information for Healthcare Professionals is available [here](#)

The **Green Book** has the latest information on vaccines and vaccination procedures, for vaccine preventable infectious diseases in the UK. The latest update on COVID-19 vaccinations was released on 31st December 2020 and can be found [here](#).

The Moderna vaccine was approved for use on 8th January 2021

You can access the **Moderna** Patient Information Leaflet [here](#)
The Information for Healthcare Professionals is available [here](#)

FREQUENTLY ASKED QUESTIONS

1) I am allergic to penicillin. Can I have a COVID-19 vaccination?

Yes, allergy to penicillins is not a contraindication to the Pfizer/BioNTech or AstraZeneca COVID-19 vaccine or Moderna vaccine.

If you have a history of immediate onset anaphylaxis to *multiple classes of drugs* or *unexplained anaphylaxis* – please also refer to the additional information at the end of these FAQs.

2) I had some patches of itchy skin after my first dose of COVID-19 vaccination (but no systemic symptoms). Should I still get my second dose?

In the [Green Book](#) the British Society for Allergy and Clinical Immunology (BSACI) has advised that:

‘Individuals with a localised urticarial (itchy) skin reaction (without systemic symptoms) to the first dose of a COVID-19 vaccine should receive the second dose of vaccine with prolonged observation (30 minutes) in a setting with full resuscitation facilities (e.g. a hospital)’

3) I have a latex allergy. Will the vaccine syringe contain latex?

No, according to the manufacturer, neither the Pfizer/BioNTech COVID-19 or AstraZeneca or Moderna vaccine vial contains latex.

The Pfizer/BioNTech vaccination is supplied in vials that have a stopper made from Bromobutyl. This is a synthetic form of rubber which does not contain any dry natural rubber (latex). Pfizer have confirmed that latex is not used at all in the raw materials used to produce the vaccine.

The AstraZeneca vaccination is supplied in vials that have a stopper made from Halobutyl which is also a synthetic form of rubber which does not contain any dry natural rubber (latex)

The Moderna vaccination is supplied in vials that do not contain any dry natural rubber (latex)

It is important to let your Healthcare Provider know about your latex allergy so they can ensure they do not use any latex containing products whilst treating you.

4) I have a severe food allergy. Does this mean I am unable to have a COVID-19 vaccine?

The latest information in the [Green Book](#) states:-

‘Following close surveillance of the initial roll-out, the MHRA has advised that individuals with a history of anaphylaxis to food, an identified drug or vaccine, or an insect sting CAN receive any COVID-19 vaccine, as long as they are not known to be allergic to any component (excipient) of the vaccine. All recipients of the Pfizer BioNTech COVID-19 vaccine should be kept for observation and monitored for a minimum of 15 minutes. Facilities for management of anaphylaxis should be available at all vaccination sites.’

If you have a history of immediate onset anaphylaxis to *multiple classes of drugs or unexplained anaphylaxis* – please also refer to the additional information at the end of these FAQs.

5) I have an egg allergy. Do the COVID-19 vaccines contain egg and are they safe to have?

Neither the Pfizer/BioNTech or the AstraZeneca or Moderna vaccine contain any egg proteins and none of the vaccines are contraindicated in egg allergy.

6) I am allergic to house dust mites. Can I have a COVID-19 vaccine?

Yes, allergy to aeroallergens such as house dust mites, pollen or animal allergens is not a contraindication to the Pfizer/BioNTech or the AstraZeneca COVID-19 or the Moderna vaccine.

7) What percentage of the population usually have a severe reaction to a vaccine?

The number of true allergic reaction to vaccines is very low. In the United Kingdom, only 1 case of anaphylaxis per million vaccine doses was reported between 1997 and 2003 (with no fatalities). Data for the rate of true allergic reactions to the Pfizer/BioNTech, AstraZeneca and Moderna vaccines is still being collected but is likely to be low compared to the incidence of anaphylaxis to medicines in general.

Many common side effects of vaccination such as localised pain and swelling at the site of injection or flu-like symptoms can be mistaken for allergy. They are not a reason to avoid the Pfizer/BioNTech or AstraZeneca COVID-19 vaccine or Moderna vaccine.

8) I've read that the ingredients polyethylene glycol (PEG) and Polysorbate 80 are in some vaccines. How rare is it to have an allergy to them and are they contained in all COVID-19 vaccines?

The [Green Book](#) states:-

'The Pfizer BioNTech COVID-19 mRNA Vaccine BNT162b2 contains polyethylene glycol (PEG), which is from a group of known allergens commonly found in medicines and also in household goods and cosmetics. Known allergy to PEG is extremely rare but would contraindicate receipt of this vaccine. (Sellaturay P et al, 2020). Patients with undiagnosed PEG allergy may have a history of unexplained anaphylaxis or of anaphylaxis to multiple classes of drugs. The AstraZeneca vaccine does not contain PEG and is a suitable alternative.

PEG is also an excipient in the Moderna mRNA COVID-19 vaccine; individuals who have a systemic allergic reaction to the Pfizer-BioNTech vaccine should not be given a dose of the Moderna vaccine, and vice versa.'

The AstraZeneca COVID-19 vaccine contains Polysorbate 80; this additive is found in many vaccines including the influenza vaccine. Although Polysorbate 80 is quite similar in structure to PEG, there are no reports of PEG allergic patients reacting to it e.g. when receiving other vaccines and therefore the AstraZeneca vaccine is recommended as a suitable alternative.

Allergy to Polysorbate 80 is extremely rare but would contraindicate receipt of the AstraZeneca vaccine. Polysorbate 80 allergic patients should discuss their allergy with an allergist/immunologist before receiving the Pfizer/BioNTech or Moderna COVID-19 vaccine.

9) Can patients who do not carry adrenaline and have had previous mild to moderate reactions to foods or drugs still have a COVID-19 vaccine?

Yes, there is no need to avoid the Pfizer/BioNTech COVID-19 or AstraZeneca or Moderna vaccines if you have had a mild to moderate reaction to a food or an identified drug.

If you have a history of immediate onset anaphylaxis to *multiple classes of drugs* or *unexplained anaphylaxis* – please also refer to the additional information at the end of these FAQs.

10) Is there an increased risk for patients with asthma in having a COVID-19 vaccine?

No, there is not. However good asthma control in the weeks before vaccination is important (just like with all other vaccines).

11) Can individuals with a history of venom anaphylaxis have a COVID 19 vaccine?

Yes, allergy to venom is not a contraindication to the Pfizer/BioNTech or the AstraZeneca or Moderna COVID-19 vaccines.

12) I have previously experienced immediate onset anaphylaxis to a food/medicine/vaccine. Can I have a COVID-19 vaccination?

The latest information in the [Green Book](#) states :-

‘Following close surveillance of the initial roll-out, the MHRA has advised that individuals with a history of anaphylaxis to food, an identified drug or vaccine, or an insect sting CAN receive any COVID-19 vaccine, as long as they are not known to be allergic to any component (excipient) of the vaccine. All recipients of the Pfizer BioNTech COVID-19 vaccine should be kept for observation and monitored for a minimum of 15 minutes. Facilities for management of anaphylaxis should be available at all vaccination sites.’

If you have a history of immediate onset anaphylaxis to *multiple classes of drugs or unexplained anaphylaxis* – please also refer to the additional information at the end of these FAQs.

13) I have Alpha-gal allergy and react to medicines containing gelatine. Is there any gelatine in the COVID-19 Vaccinations?

No. The ingredients for each vaccine are listed in the patient information sheet which you should be given to read prior to having your vaccination. There is no gelatine in the Pfizer/BioNTech or AstraZeneca or Moderna vaccines.

14) I am allergic to all fish and have read that squalene, which comes from shark liver oil is used in some vaccines. Do the COVID-19 vaccines contain squalene and does it pose a risk to me?

You are correct that squalene is used in some vaccines. It is highly purified fat that does not contain the proteins which cause the allergic reaction. It is not considered to pose any risk for patients with fish allergy.

Neither the Pfizer/BioNTech or AstraZeneca or Moderna vaccination contain any squalene and there is no reason to suspect that they would cause any problems for someone allergic to fish.

15) I have a food allergy and carry adrenaline auto injectors. Should I bring them to my immunisation appointment just in case?

All people who carry adrenaline should take their two auto injectors with them everywhere they go. Anaphylaxis to a vaccine is extremely rare. Public Health guidelines require anyone responsible for giving a vaccine to receive training on the management of anaphylaxis.

A protocol for the management of anaphylaxis and an anaphylaxis pack which includes adrenaline must always be available whenever vaccines are given.

16) With other new COVID-19 vaccines in development, is there any reason to wait for a different vaccine? Will the other vaccines be suitable for people with allergies?

There are many COVID-19 vaccines in development with several in the final stages of trials and likely to become available over the coming months. Each vaccine is different, and they use a variety of different technologies. Until a vaccine is approved, we will not know exactly what the ingredients are, so it is impossible to comment on their safety or otherwise for people with particular allergies.

Before having any vaccination, it is important that you are given the patient information leaflet to read. This contains vital information about who should receive the vaccine along with a complete list of ingredients.

Additional Information

In the [Green Book](#) the British Society for Allergy and Clinical Immunology (BSACI) has advised that:

‘Individuals with a history of immediate onset-anaphylaxis to multiple classes of drugs or an unexplained anaphylaxis should not be vaccinated with the Pfizer BioNTech vaccine. The AstraZeneca vaccine can be used as an alternative (if not otherwise contraindicated)’

This is because the Pfizer/BioNTech vaccine contains PEG and some people who have a history of unexplained anaphylaxis or of anaphylaxis to multiple classes of drugs could have an undiagnosed PEG allergy. See Question 8 for more information about PEG.

References

Green Book Chapter 14a. 2021. [online] Available at:
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948757/Greenbook_chapter_14a_v4.pdf>