

Allergy to Quorn

The aim of this article is to help people who are allergic to Quorn, or think they may be allergic, to better understand and manage their allergy.

Allergic reactions to Quorn products are usually caused by an allergy to its mycoprotein content – a fungal protein derived from the fungus *Fusarium venenatum*.

What are the symptoms?

The symptoms of food allergy can come on rapidly. These may include nettle rash (otherwise known as hives or urticaria) anywhere on the body, swelling around the mouth or eyes (known as angioedema) or a tingling or itchy feeling in the mouth.

More serious symptoms may include:

- Swelling in the throat
- Difficulty breathing
- Severe asthma
- Severe abdominal (stomach) pain and sickness
- Feeling faint, dizzy, or very sleepy

The term for this more serious form of allergy is anaphylaxis. In extreme cases there could be a dramatic fall in blood pressure (known as anaphylactic shock). The person may become weak and floppy and may have a sense of something terrible about to happen. This may lead to collapse and unconsciousness.

Most healthcare professionals consider an allergic reaction to be anaphylaxis when it involves difficulty in breathing or affects the heart rhythm or blood pressure. Click [here](#) to read our Anaphylaxis factsheet for further information.

How can I get a diagnosis?

We recommend you see your GP if you suspect you may have an allergy to Quorn. Your GP may refer you to an allergy clinic where allergy tests (such as skin prick tests or blood tests) may be performed as part of your diagnosis. Your GP can locate an allergy clinic by visiting

the website of the British Society for Allergy and Clinical Immunology (BSACI):
<https://www.bsaci.org/find-a-clinic/index.htm>

How is an allergic reaction treated?

Antihistamines can be used to treat mild allergic reactions. However, in rare cases anaphylaxis may occur and if your doctor believes this is a risk, they are likely to prescribe adrenaline auto-injectors.

An adrenaline auto-injector should be used as soon as a serious reaction is suspected. In all cases of anaphylaxis, someone must dial 999 and the emergency service operator must be told the person is suffering from anaphylaxis (pronounced ana-fill-axis). Read our Adrenaline factsheet for further information.

<https://www.anaphylaxis.org.uk/fact-sheet/adrenaline/>

Antihistamines cannot be relied upon to treat anaphylaxis, even if the symptoms are in their early stages. Adrenaline is always the first line of defence in the treatment of anaphylaxis.

Avoiding Quorn

Marlow Foods, the manufacturers of Quorn products, have told us that mycoprotein is found only in Quorn branded products, not in any other food products on the UK market.

Quorn is used by many restaurants and take-away outlets as part of their vegan and vegetarian ranges, as a meat substitute. For instance, the Greggs vegan sausage roll is made with mycoprotein. Other examples include (but are not limited to): Pizza Express, Wasabi, Pizza Hut, Wetherspoons, KFC, Costa Coffee, Wimpy and Harvester.

Meat alternatives are not always made with Quorn, as they may be from other sources such as soya, pea or wheat. If you have an allergy to mycoprotein, it is important to check ingredients when ordering vegan and vegetarian dishes.

Other ingredients of Quorn

Quorn products contain a variety of ingredients other than mycoprotein. Some contain other potential allergens such as egg, milk and wheat. In some cases, allergic reactions to Quorn could be caused by these other ingredients. Allergy tests will help determine whether one of these may be the cause of your allergy instead of mycoprotein.

What else might I react to?

People who are allergic to Quorn may also experience allergy symptoms when they are exposed to mould spores. This is because of a process called cross-reactivity – where the proteins in one food or substance are similar to the proteins in another food or substance.

There are some reports of mould sensitised patients reacting to Quorn. For example, a 27-year-old female reported angioedema and shortness of breath a few minutes after eating a Quorn burger. The study team found she was allergic to both Quorn and mould. They concluded that patients who are allergic to mould might react adversely to inhaled or ingested mycoprotein.

Another study reported the case of a nine-year-old girl who suffered nettle rash, asthma and stomach pain a few minutes after eating Quorn. The study team found she was allergic to both Quorn and mould. They concluded:

“Physicians should be aware that Quorn mycoprotein may cause food allergic reactions in mould-sensitised patients and should think of this allergen especially in vegetarian people.”

If you are sensitised to mould, it is important to remember that it can form anywhere: from window frames to decaying food. Try to reduce your exposure if possible. Click [here](#) to read our Allergy to Mould article for further information.

Prevalence of Quorn Allergy

Precise statistics are not available. Based on our experience and on the knowledge gained via our helpline, we believe that allergy to Quorn is rare in the UK and this is supported by members of our clinical panel.

Self-reports of adverse reactions after consuming Quorn were reported in 2018. Analysis of these 1,752 self-reported reactions found that Quorn caused allergic and gastrointestinal symptoms, with some people experiencing both. It was reported that allergic reactions occurred within 4 hours of eating Quorn in 312 people and gastrointestinal symptoms within 8 hours of eating Quorn in 1,692 people.

We recommend that self-reported data should be treated with caution. There is an assumption that any adverse reactions are caused by mycoprotein, and the results are likely to be an overestimation. Analysis of the Marlow Foods database of reported illnesses over

the 15-year period from 2003–2017 found the rate of allergic reactions to Quorn is extremely low.

It may not be allergy

Many people who believe that Quorn is causing unpleasant physical symptoms may not actually have an allergy. Some Quorn products contain ingredients that can be associated with symptoms of food intolerance, for example lactose, wheat, onion and garlic. These symptoms would be delayed onset gut symptoms, such as bloating, stomach pain and wind.

In January 2011, Marlow Foods convened a one-off independent expert panel in London to discuss consumer reports of adverse symptoms caused by mycoprotein. Panel members comprised respected international experts including Prof. Steve Taylor, Director of the Food Allergy Research and Resource Program in Nebraska, USA. The panel concluded:

The number of reported adverse reactions to mycoprotein is very low and it is likely that most of these incidents relate to the high fibre content. Mycoprotein provides around 5.5g of dietary fibre in 100g of Quorn mince or pieces. The Panel hypothesised that, in certain individuals or under certain conditions, consuming mycoprotein could speed up the normal transit of foods from the small to the large intestine. This could, in turn, cause the fibre in mycoprotein to be fermented very rapidly in the large intestine, leading to symptoms of gastro-intestinal distress of the type reported by some consumers. The small numbers of consumers at risk from this type of gut response may have an imbalance in their normal gut bacteria, an unusual dietary intake of fibre (too low or too high) or may suffer from Irritable Bowel Syndrome.

In a 2019 laboratory study, mycoprotein fibre was found to be easily fermented by gut bacteria. Although the effect has not been studied in humans, some people are sensitive to fermentable carbohydrates and may experience gut symptoms after eating mycoprotein.

If you have experienced symptoms suspected to have been triggered by Quorn consult your GP for a proper diagnosis. It may not be an allergy.

Feedback

Please help us to improve our information resources by sending us your feedback at: -

<https://www.anaphylaxis.org.uk/information-resources-feedback/>

Sources

All the information we produce is evidence-based or follows expert opinion and is checked by our clinical and research reviewers. If you wish to know the sources we used in producing any of our information products, please contact info@anaphylaxis.org.uk and we will gladly supply details.

Reviewers

This article has been peer-reviewed by Hannah Hunter, specialist allergy dietitian at Guy's and St Thomas' Hospital, London.

Disclosures

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Disclaimer

The information provided in this article is given in good faith. Every effort is taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About Anaphylaxis UK

Anaphylaxis UK is the only UK-wide charity solely focused on supporting people at risk of serious, life-threatening allergic reactions. We provide information and support to people living with allergies through our free national helpline and local support groups. We also campaign and fundraise to achieve our ultimate aim, to create a safer environment for all people at risk of serious allergies. Visit our website www.anaphylaxis.org.uk and follow us to keep up-to-date with our latest news. We're on Facebook @anaphylaxixUK, LinkedIn, Instagram @anaphylaxisUK, Twitter @AnaphylaxisUK and YouTube.