

NOT ALL "ULTRA-PROCESSED" FOOD IS CREATED EQUALLY...

Fact finding & myth busting

2025 / 2026



At Quorn, we firmly believe that the nutritional aspects of a food are the most important indicator of whether it is good for you or not. This view aligns with the <u>UK Scientific Advisory Committee on Nutrition</u> and the <u>British Nutrition Foundation</u>.

Classifying foods according to their level of processing is not helpful to the everyday consumer and we're on a mission to reframe the conversation, help consumers cut through the noise and make informed food choices.

We should not overlook the healthfulness of certain foods simply because of how they make their way to our plates. Meat alternatives are not the enemy of a healthy diet, simply because of how they're made. In fact, quite the opposite! We also cannot ignore the crucial role that processing can play in keeping our food system safe, sustainable and accessible for all.



What does "ultra-processed" actually mean?

There's no globally agreed definition of "ultra-processed foods", which is problematic in itself as it fuels more confusion around the topic.

However, the most commonly used food classification system attempts to group foods into four distinct categories of food processing. The most recent definitions and examples are detailed below:

1

UNPROCESSED/ MINIMALLY PROCESSED FOODS

"Fresh, dried, grounded, chilled, frozen, pasteurised, or fermented staple foods such as fruits, vegetables, pulses, rice, pasta, eggs, meat, fish, or milk." 2

PROCESSED CULINARY INGREDIENTS

"Substances usually extracted from foods, not to be consumed by themselves, but for use in preparing staple foods for consumption such as salt, vegetable oils, butter, and sugar."

3

PROCESSED FOODS

"Canned vegetables with added salt, meat and fish products preserved by salting, cheeses and freshly made unpackaged breads, sugar coated dried fruits, and other products manufactured with the addition of salt, sugar, or other group 2 ingredients."

4

ULTRA-PROCESSED FOODS

"Food that has undergone intense industrial physical, chemical, or biological processes (e.g., hydrogenation, moulding, extruding, pre-processing by frying) or that contains industrial substances not usually found in domestic kitchens (e.g., maltodextrin, hydrogenated oils, or modified starches), cosmetic additives (e.g., dyes, emulsifiers, artificial sweeteners), or flavouring agents. Examples include carbonated soft drinks, chocolate and energy bars, instant noodles, dehydrated soups, fish and chicken nuggets, powdered or "fortified" meals, and meat substitutes containing substances such as protein isolates or additives that modify colour and flavours."

And, what are the challenges and limitations using that scale?



The terms 'processed' and 'ultra-processed' unfairly stigmatise some foods. They ignore the vital role processing plays across the industry in ensuring food safety, accessibility, and sustainability. Because these foods are being assessed on their level of processing alone, it means that the nutritional value of some 'processed' and 'ultra-processed' foods is being overlooked.



Quorn mycoprotein is the key ingredient in all our products.

We use a method of fermentation to create it - the same process used to make bread, beer and yoghurt. More on that coming up...



Under this classification system, foods that are high in fat, salt and sugar (HFSS), like crisps, chocolate and biscuits, are grouped together with foods that are nutritionally sound and many of which form part of the UK Government's Eatwell Guide, such as baked beans, wholemeal bread, tofu and mycoprotein.

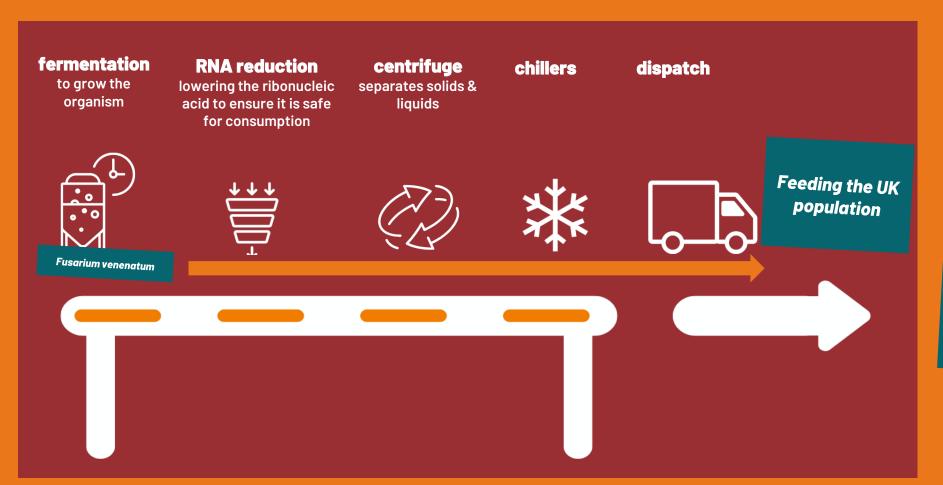


Our mycoprotein is a complete protein. It is high in protein and fibre, low in saturated fat, free from trans-fat and cholesterol and contains all nine essential amino acids. In addition to its positive nutrition profile, a number of positive health outcomes have been reported in clinical trials^{1,2}. This differentiates Quorn from other foods classified as 'ultra-processed'.

2. Shahid M (2023) Am J Clin Nutr 118(1):141-150.

So, what is Quorn and how is it 'processed'?

Quorn's mycoprotein is a nutritious complete protein source* that is made from a naturally occurring fungus called *Fusarium* venenatum. The fungus is sourced from the soil and cultivated with nutrients made from maize, wheat and essential minerals. We use the process of fermentation – the same process used to create bread, beer and yoghurt.



Just 2g Fusarium
venenatum has the
potential to feed the
whole of the UK its
protein requirement for
the day, which is just one
of the reasons we call it
our super protein.



^{*}Provides the nine main essential amino acids;

Not only is this a tried and trusted sustainable process, but there's more...



Over 90% of the Quorn portfolio is considered as non-HFSS; (High Fat, Sugar, and Salt).



Quorn mycoprotein is low in total and saturated fat and contains no cholesterol².



Quorn mycoprotein is a rich source of protein and a complete protein.



94% of our products are a source of or high in fibre.
Quorn mycoprotein contains
6g of fibre per 100g.



Quorn mycoprotein produces 80% less greenhouse gas emissions than rearing livestock¹.



Quorn mycoprotein's land requirement is 60% lower than rearing livestock².



Quorn mycoprotein's water footprint is 33 times lower than average UK beef production².

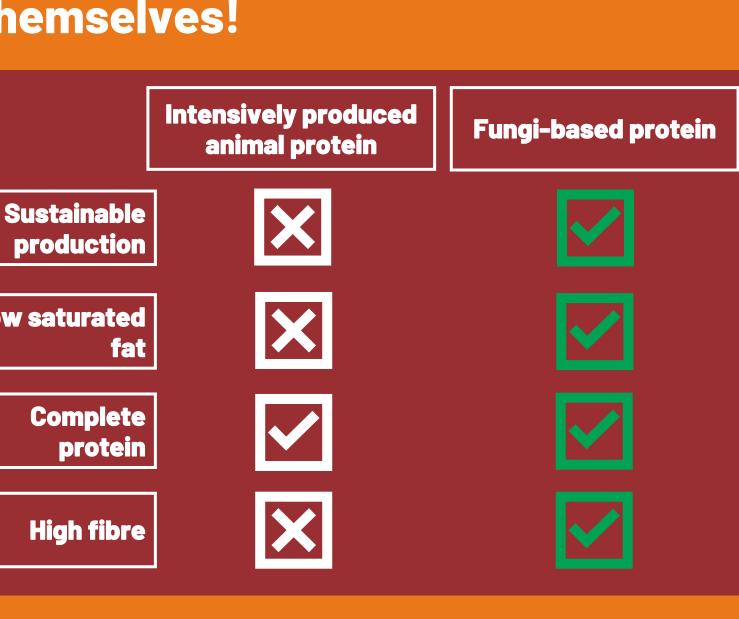


Eating 2 Quorn Sausages instead of 2 average pork sausages will remove at least 5g of saturated fat from your diet.

1 It contains less than 3g of fat and less than 1.5g saturated fat per 100g

The comparisons speak for themselves!

Low saturated





But we know you may not recognise a few things on our ingredients lists

At Quorn, we only use additives where absolutely necessary to carry out specific functions, such as improve texture and preservation.

We only use ingredients in Quorn products which have been deemed safe to eat by the appropriate regulatory bodies.

The UK Food Standards Agency only approves a food additive "if it has been tested and proved to be safe for its intended use; there is a justifiable technological need to use it; and its use does not mislead the consumer".

We understand that not knowing what these things are can add to food uncertainty.

Here are the most common artificial ingredients that you'll see on our packaging and what their purposes are...

Calcium chloride and calcium acetate

They help us create a meat-like texture. These ingredients are also used in many other popular household staples, such as crumpets and jam.

Ammonium carbonate

Similar to baking powder and found in home baking products. This is commonly used as a raising agent and helps give the coating on some of our products a perfectly crispy texture.

Potassium sorbate

This is a preservative, which helps to increase the shelf-life on some of our products and avoid wastage. You will also see this in some cheeses, yoghurts and baked goods.

And we're listening!

As a leader in our category, we keep a very close eye on what our consumers want from us. It has become increasingly clear that people are still looking for less artificial ingredients in the products they know and love.

In September 2025, we removed all artificial ingredients from our core frozen range to create our first 'no artificial ingredients, high in protein' range.

These are the first and only products to carry this claim in the meat free category, and we're not stopping here!

We are on a mission to break down barriers and start new, meaningful conversations around nutrition.



Quorn Mince now with just 4 ingredients

Mycoprotein, Rehydrated Free Range Egg White, Pea Fibre and Gluten Free Barley Malt Extract.



Quorn Pieces now with just 3 ingredients

Mycoprotein, Rehydrated Free Range Egg White, Natural Flavouring.

Don't just take our word for it!

Jenny Chapman, Churchill Fellow and author of Processing the discourse over plant-based meat:

"Recently, public discourse has focused on the "ultraprocessed" nature of plant-based meat, which has led to widespread misunderstanding that plant-based meat products are unsafe and unhealthy. Such concerns are not rooted in science. They discourage consumers from eating safer and more nutritious foods and jeopardise progress towards meeting climate and biodiversity goals." Rhiannon Lambert, Registered Nutritionist and author of The Unprocessed Plate:

"It's important to recognise that not all processed foods are unhealthy. In the case of meat alternatives, evidence shows they can offer benefits for both health and the environment compared with meat. There is also currently no universal definition of what qualifies as "ultra-processed',' which only adds to the confusion for consumers. What really matters is the nutritional quality of a food, and Quorn's mycoprotein is a great example: it is a complete protein containing all nine essential amino acids. It is also naturally high in fibre, low in saturated fat, and supported by a growing body of scientific research. The decision to remove artificial ingredients from the frozen range gives consumers greater confidence in what they are eating and reinforces that these products are a nutritious alternative. With so much confusion around the term "ultra-processed', bringing nuance to the conversation is essential if we want people to make informed, balanced choices."

Appendix

- https://www.gov.uk/government/publications/processed-foods-and-health-sacns-rapid-evidence-update/processed-foods-and-health-sacns-rapid-evidence-update-summary
- https://media.churchillfellowship.org/documents/JChapman_-_Processing_the_discourse.pdf
- https://pan-int.org/knowledge-hub/position-paper-on-plant-based-meat-products?rq=Plant%20based%20paper
- https://gfieurope.org/wp-content/uploads/2023/11/Final_GFI-Europe_Plant-based-meat-and-Nutrition_Nov232023.pdf
- https://www.publicsectorcatering.co.uk/news/bnf-survey-findsultra-processed-foods-can-be-part-healthy-diet
- https://www.greenqueen.com.hk/ultra-processed-foods-plant-based-meat-guide-research-faq/
- https://onlinelibrary.wiley.com/doi/10.1111/nbu.12617

Research into Quorn mycoprotein



Participants who ate Quorn products, a popular meat alternative made from mycoprotein, experienced a significant 10-percent drop in "bad" LDL cholesterol in comparison to those who consumed red and processed meats¹.

A growing body of science also links mycoprotein consumption with muscle/myofibrillar protein synthesis² and improved cardiometabolic (principally lipid) markers³.

Northumbria University
NEWCASTLE

Swapping meat for Quorn's mycoprotein may promote the growth of beneficial gut bacteria and contribute to lifestyle-based colorectal cancer prevention⁴.

Quorn Foods has undertaken a comprehensive research programme over the last 40+ years, working with universities and other academic institutions in the UK and beyond, to understand the effects of mycoprotein consumption on health: many of the studies undertaken have been randomised controlled trials, the gold standard in clinical trials.

Academic research⁵ has shown that mycoprotein (and those Quorn products tested) may have a beneficial effect on:

- Heart and metabolic health (including cholesterol reduction)
- Muscle/myofibrillar protein synthesis
- Insulin regulation

1. Pavis GF Clinical Nutrition 43(3): 649-59; 2. Monteyne AJ J Nutr 153(6): 1680-95; 3) Derbyshire EJ J Nutr Sci 12: e44; 4. Farsi DN Eur J Nutr 62(3): 1479-92; 5. Derbyshire EJ J Nutr Sci 2023 12: e44.

FAQS

Frequently
Asked
Questions



Quorn





Is it safe to eat Quorn as part of a healthy diet?

With most foods we consume, the best advice is always to aim for balance and variety and to strive for a diet that's rich in wholegrains, fruit and vegetables as per the UK Eatwell Guide. Quorn products can be enjoyed regularly alongside a range of other nutritious and delicious foods to hit optimum recommended nutrition. We're bridging the gap for shoppers who are seeking great tasting, healthier and more sustainable alternatives to meat.

Is Quorn ultra processed?

Under the current most commonly used classification system, Quorn products are classed as "ultra-processed". However, we would always advise consumers to look at the full nutritional profile of foods. Processing still plays an important role in creating a sustainable food industry chain and not all "ultra processed" foods are equal.

We understand that there is growing interest in the categorisation of ultra-processed foods, and we keep a close watch on the scientific evidence in this space. However, defining foods based on their level of processing, without any consideration of their nutrition value, unfairly stigmatises many foods that can and should be included as part of a healthy, sustainable diet.





If Quorn is an ultra processed food, then does that mean it must be bad for you? Quorn mycoprotein is a complete protein. It is high in protein and fibre, low in saturated fat, free from trans-fat and contains all 9 essential amino acids. Mycoprotein also features in the UK's Eatwell Guide as a protein-rich component of a healthy and balanced diet.

Protein: Protein is an important part of a healthy diet. They are made of amino acids, nine of which are essential, meaning the body can't make them itself. This is why getting protein from the foods we eat is so important – it's essential for growth and maintenance of bone and muscle. Quorn mycoprotein is a complete protein as it contains all nine essential amino acids. Other complete proteins include cow's milk, egg, chicken and fish, but they tend to be higher in saturated fat.

Fibre: If you get your protein from animal products, you'll get far less fibre than you would from Quorn mycoprotein. Eating plenty of fibre is associated with a lower risk of heart disease, stroke, type 2 diabetes and some cancers. Fibre intake is a growing concern for most diets today. Adults should be consuming at least 30g of fibre a day, but research suggests that most of us manage less than 20g. Quorn mycoprotein contains 6g of fibre per 100g making it a remarkably easy source of fibre to help reach your target intake.

Fat: Quorn mycoprotein is low in total and saturated fat and contains no cholesterol. Fat isn't all bad, it contains essential fatty acids that our bodies need and don't make but it's important to keep a balance, especially of saturated fats as they can raise bad cholesterol, increasing the risk of heart disease. Animal meat is often high in saturated fats, so swapping out meat for Quorn mycoprotein is a good choice to lower the amount of saturated fat in your diet. Eating two Quorn Sausages instead of two average pork sausages will remove at least 5g of saturated fat from your diet, which equates to 25% of daily reference intake.





If Quorn is an ultra processed food, then does that mean it must be bad for you?

[...CONTINUED]

Micronutrients: Vitamins and minerals are micronutrients, which means our bodies don't need a lot of them, but they are incredibly important for a whole range of functions. Quorn mycoprotein contains a range of vitamins and minerals including riboflavin, folic acid, zinc, phosphorus, manganese and choline.

We have decades of independent scientific research and ongoing relationships with top UK universities to understand the health benefits of our mycoprotein. Findings include:

- A study published in the American Journal of Clinical Nutrition from the University of Exeter found people who ate Quorn mycoprotein increased their muscle growth rates twice as much as people who had milk protein instead.
- A study published in the European Journal of Nutrition from Northumbria University found that swapping red and processed meat for Quorn's mycoprotein, a fungi-based meat alternative, leads to a significant reduction in intestinal genotoxins—which can cause bowel cancer—and increases healthy gut bacteria.
- A study in the Journal of Nutrition from the University of Exeter found fungi-derived mycoprotein is just as effective at supporting muscle building during resistance training as animal protein.





Do you have plans to remove artificial ingredients from the rest of your range? This initial step with our frozen ingredients range is about progress. It is a complex process, made even more complex by the vast range of products in the Quorn range. We're focusing on making our protein even more accessible than ever before, and this includes looking at ways to reduce the number of ingredients we use in specific sectors of our portfolio, but it won't be the best fit for all of them.

As the leader of the category, we're committed to investing and evolving with consumers and the market. We're proud of the success so far with our frozen ingredients range and look forward to the challenge of continuing this journey. However, at the moment, we are focusing on our vegetarian ingredients range.

Are there any harmful ingredients in Quorn products?

We only use ingredients in Quorn products which have been deemed safe to eat by the appropriate regulatory bodies. The UK Food Standards Agency only approves a food additive "if it has been tested and proved to be safe for its intended use; there is a justifiable technological need to use it; and its use does not mislead the consumer". All ingredients used in our products are declared on the ingredients list on back of pack.

Thank you!

If you have any further queries or would like to speak to Quorn's nutrition team, please contact:

quorn@mtjpr.co.uk



