

## What is mycoprotein?

Mycoprotein is a unique and nutritious protein source that can contribute to a healthy and balanced diet. Mycoprotein is made by fermentation of the naturally occurring fungus *Fusarium venenatum* and replicates the taste and texture of meat - providing us with a great tasting meat alternative, meaning we don't have to miss out on the meals we love.

Mycoprotein is high in fibre and protein, low in fat, contains no cholesterol and is a good source of vitamins and minerals.



With a 90% lower carbon footprint than beef and 70% lower carbon footprint than chicken, mycoprotein isn't just good for us, it's good for the planet too.

## How is mycoprotein made?



### Mycoprotein development process key

- 1 Raw materials are grown.
- 2 Ingredients harvested and taken to our site in North East England.
- 3 Mycoprotein starter culture is ready for fermenting.
- 4 The fermentation process begins.
- 5 The ingredients are converted into Quorn products.

We use the age-old method of fermentation, much like bread, beer and yogurt. Our fermenters are 40 metres high and run continuously for 5 weeks at a time.

Once the organism has begun to grow, a continuous feed of nutrients is added until it's ready for harvest. A careful process then begins as the mix is steam-cooked, chilled and frozen to create our delicious range of products that you see on the shelves.

You can find mycoprotein in all Quorn products and to this day we remain the number one meat-free brand in the UK.

### Brief history

#### 1960's

As concerns were growing around potential global food shortages, Dr Spicer and Lord Rank set out to investigate the feasibility of turning starch into protein to help deliver a nutritional and appetising new food in the quantities demanded by an increasing population, without sacrificing the health of the planet.

#### 1967

Following the testing of 3000 micro-organisms taken from soil samples around the globe, a micro-organism was identified in a garden in Marlow, Buckinghamshire which allowed us to make our main ingredient, mycoprotein.

#### 1985

After many years of research and development and hundreds of millions of pounds in investment, we launched our first products with two savoury pies hitting supermarket shelves.

#### 2020

Since then, our Quorn range has grown and is now enjoyed by vegans, veggies and meat-eaters alike in the UK and markets all around the world, including Sweden, USA, Singapore and Australia.

### Nutritional profile

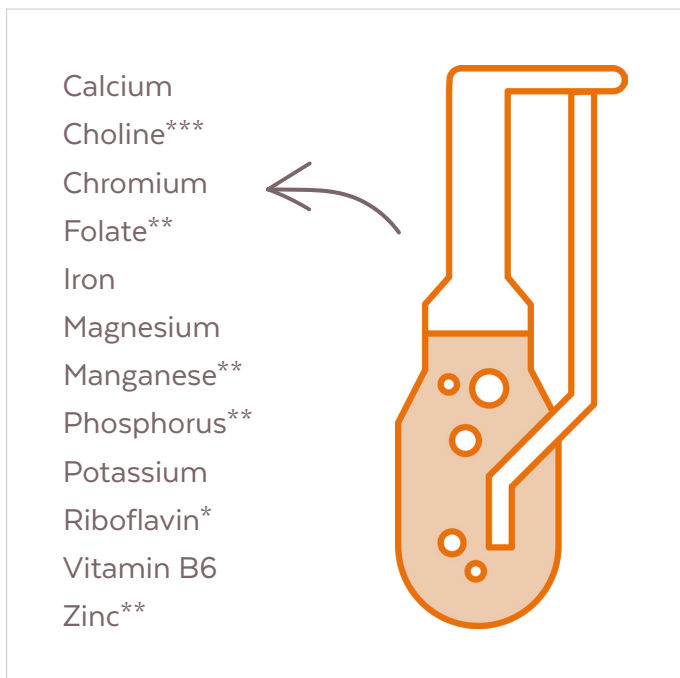
Mycoprotein is low in fat, high in fibre and protein and contains no cholesterol and so can play an important role in supporting a healthy, balanced diet for you and your family. Did you know that Quorn Spaghetti Bolognese has 90% less saturated fat than a beef version?

- Mycoprotein contains all 9 essential amino acids making it comparable to ‘traditional’ protein sources such as meat or fish. Protein is key for maintaining muscle mass and preventing muscle loss, and so may be particularly important for older individuals.
- Mycoprotein is an excellent source of fibre at 6g of fibre per 100g. Fibre helps keep our digestive system healthy and prevents constipation. It may also play a role in weight management and in the prevention of cardiovascular disease and bowel cancer.
- Mycoprotein is a source of riboflavin, folate, vitamin B12, phosphorous, zinc, choline and manganese. It is also low in salt.

#### Micronutrient profile of mycoprotein (per 100g)

\*source of (>15% in 100g) \*\*high in (>30% in 100g)

\*\*\*relative to 100g beef



#### How can mycoprotein help my family and me?

##### Weight management

Mycoprotein has been shown to effectively induce feelings of fullness due to its combination of nutrients, including protein and fibre - keeping us feeling fuller for longer.

##### Healthy ageing

Mycoprotein may be a beneficial addition to the diets of older individuals who are looking to manage or prevent loss of muscle mass by increasing dietary protein intake.

##### Diabetes

Evidence suggests that mycoprotein may have a positive effect on helping to control blood glucose levels.

##### Cholesterol benefits

Unlike meat, mycoprotein is completely free from cholesterol

and studies suggest that it helps maintain normal blood cholesterol levels and may even lower LDL ‘bad’ cholesterol. This can help support our heart health.

#### Further research

More research is needed on the health benefits of mycoprotein and so this is why we have PhD researchers all over the country helping us with just that.

#### How is mycoprotein good for the planet?

Mycoprotein is a healthy protein with a low environmental impact due to its very efficient fermentation production process. This process uses significantly less land and water than livestock production, and we produce significantly lower levels of greenhouse gas emissions...

So, it’s really quite simple: choose food that produces less carbon emissions as a step in the right direction to prevent climate change.

#### Is mycoprotein safe to eat?

Yes. Mycoprotein has decades of food safety history and has regulatory approvals from around the world. In fact, Quorn products have been eaten for more than 30 years with over 5 billion Quorn meals now served.

#### Genetic Modification

Mycoprotein is not made by genetic modification but instead, by fermenting a blend of natural fungus, glucose and minerals.

#### Organic

It is not possible to guarantee the organic status of all the ingredients used in mycoprotein.

#### Intolerances

It is important to know that Quorn foods can contain common allergens including egg, milk and gluten which are clearly marked on the back of pack labelling. As with all protein foods, there is the potential to cause an adverse reaction, such as an intolerance, in some consumers. Mycoprotein is also high in fibre which, like other fibre-containing foods, may cause flatulence but this soon disappears.

#### Where to find mycoprotein

Mycoprotein is the unique whole food at the heart of every single Quorn product. There is a huge range of great tasting Quorn® products and ingredients available, all of which can easily be used to recreate your favourite recipes with a nutritious and sustainable twist.

Visit [www.quornnutrition.com](http://www.quornnutrition.com) and [www.quorn.com](http://www.quorn.com) for more information about mycoprotein, products and recipes.