

EMERGING FOOD-BORNE PATHOGENS: CAMPYLOBACTER

In the world of food safety, the emergence of emerging pathogens poses constant challenges. Among them, Campylobacter has emerged as a disturbing player in the food safety equation.

As we explore the complexities of this microorganism and its impact on a variety of foods, we will discover how [Amerex](#), a leader in biotechnology-based natural food preservatives, is at the forefront of finding innovative solutions.

Join us in this blog to understand and address the challenge presented by Campylobacter in our food chain.

Pathogenic microorganisms in food. What do we know about Campylobacter?

In the constant quest to ensure food safety, we are faced with a number of challenges, one of which is the emergence of new emerging pathogens in food.

The Campylobacter bacterium has recently captured the attention of the scientific community. Campylobacter belongs to the family *Campylobacteraceae*. Species of this genus are Gram-negative, comma-shaped, motile bacilli and have proven to be a growing risk in the food chain due to the food poisoning they cause.

Combating Gram-negative bacteria is one of the main challenges for the food industry, as there are not many food additives that are really effective against these pathogens due to the protection afforded by their cell wall. To a lesser extent, we can even find natural food preservatives that are clean-label and really effective in keeping this type of microorganisms at bay.

Which foods are contaminated by the emerging pathogen Campylobacter?

The prevalence of pathogenic microorganisms in food, such as Campylobacter, poses a serious threat to public health as it can cause [campylobacteriosis](#) (a common cause of intestinal infection). These bacteria are also one of the many causes of traveller's diarrhoea or food poisoning.

These bacteria can contaminate a wide range of foods, from poultry to dairy products to raw vegetables, similar to contamination by the world-renowned [Salmonella](#). People are almost always infected by eating contaminated food.

Understanding how these emerging pathogens affect our food chain is essential to implement effective safety measures, both at the production level in the food industry and good food handling practices by consumers at home.

What are the most common types of food additives against Campylobacter?

In the quest to ensure food safety, it is crucial to know which are the most common and effective types of food additives against Gram-negative pathogens such as *Campylobacter*.

The group of Gram-negative bacteria are among the most difficult to combat in the food industry, including pathogens such as the aforementioned *Salmonella* and *Campylobacter*, or *E. coli* within the group of enterobacteria. All of them can cause diseases of particular relevance to humans as a result of consuming food that has developed them.

The most common types of food additives against these bacteria is the use of acids, such as acetic acid. [Acetic acid](#) is widely used in the industry and has been assigned the E number E-260, and also all its salts such as sodium diacetate, the latter being the additive with number E-262ii. Even with this specific activity, acetic acid often requires synergies with other preservatives of different origins to control its occurrence.

Are there natural food preservatives against Gram-negative bacteria?

Amerex, through its use of biotechnology, has developed natural food preservatives that not only extend the shelf life of food, but also act as effective barriers against these unwanted microorganisms.

The combination of technologies in the food industry has become an innovative and effective strategy to improve product safety and quality. At Amerex we have products based on the synergy of acetic acid and protective fermentation, such as [Fermitrat Fs](#), which is a prime example of this highly effective combination.

However, there are other fully clean-label solutions that allow acetic acid to be removed from the equation, resulting in natural food preservatives. Thanks to the use of protective fermentation, the mixture of different strains allows us to obtain products that tackle these types of pathogens, such as [Safemix AV](#).

In summary, the challenge of dealing with emerging food pathogens requires a combination of awareness, research and innovative solutions. Amerex is committed to providing natural food preservatives that not only meet these challenges, but also raise food safety standards in the industry.

Our team of experts is at your disposal to advise you on customised solutions for your specific needs in the food industry to improve the safety, quality and durability of your food products.

imasd@amereXingredientes.com

Telephone: +34 91 845 42 14

See you neXt time!