

# Meat FACTSHEET decontamination

## Why would meat need to be decontaminated?

**Foodborne** diseases are an important public health issue. They are caused by food or beverages containing harmful bacteria, parasites or viruses. Symptoms range from gastrointestinal discomfort to a threat to life. The 2011 *E-coli* outbreak, caused by tainted sprouted seeds, is just one example of many.

Meat is a common source of food poisoning bacteria, which live in the intestines of poultry, pigs, cattle, etc. Poultry is particularly prone to contamination with *Salmonella* and *Campylobacter*.

Typically, animals can become infected on the farm by contact with other infected animals or their faecal matter. The germs on farm workers' shoes and clothes can be passed to healthy animals. Contamination can also occur during transport to the abattoir or as a result of unhygienic slaughter conditions.



*Campylobacter*: a food-poisoning bacteria commonly transmitted by poultry.

## How to ensure meat is free from harmful bacteria?

There are **two different approaches** to meat safety.

The first prevails in the European Union and is known as the '**farm to fork**' approach. It ensures hygiene and safety all along the production chain via preventive steps. These include on-farm biosecurity to prevent animal infection in the first place (e.g. use of dedicated clothes and footwear by farm workers), proper transportation conditions, hygienic slaughtering and processing practices, etc.)

The second prevails in the United States and essentially monitors safety of the end product. It favours '**end-of-pipe**' treatments such as spraying or dipping meat carcasses with chemical cleaning solutions in abattoirs to reduce bacterial contamination.

## Are those rinses safe for our health ?

A range of chemical meat rinses are used in the United States and countries such as New Zealand, including lactic acid, peroxyacetic acid (PAA), chlorine dioxide, acidified sodium chlorite.

The European Food Safety Authority evaluated several treatments such as lactic acid<sup>1</sup> and [PAA](#). While no major toxicity concerns were raised, the risk of antimicrobial resistance could not be [ruled out](#).

Occupational safety problems (mainly respiratory diseases) for workers have also been reported in poultry plants where the use of chemicals is widespread.

<sup>1</sup> EFSA Scientific Opinion (2011). Evaluation of the safety and efficacy of lactic acid for the removal of microbial surface contamination of beef carcasses, cuts and trimmings.



## 🗨️ Does the EU permit washing meat with chemicals?

For many years, the EU only allowed drinking water to disinfect meat carcasses. It was only very recently, and after an official request from the United States, that EU legislation allowed lactic acid to decontaminate beef carcasses.

Other treatments, including PAA or chlorine for poultry have not been approved in the EU to date. This is due to insufficient evidence as to their efficacy and concerns over antimicrobial resistance risks.

## 🗨️ Aren't both approaches equivalent?

The answer is clear: NO. EFSA says fighting bacteria as early as possible in the meat production chain is more efficient than end-of-pipe treatments, as it prevents contamination via all possible transmission pathways.

Bacteria may indeed spread from farm animals to humans other than by meat. Direct contact with infected animals is enough. For *Campylobacter*, non-meat pathways are actually the major contamination route<sup>2</sup>, making the EU's 'farm to fork' approach more efficient in protecting public health.

## 🗨️ What about consumers?

[Studies](#) from the UK, Finland and Denmark match: European consumers prefer meat that has not been treated with chemicals. No less than 85% of Danes found chlorine washes on meat "totally unacceptable", while 67% of British people surveyed said they were unlikely to buy chlorine-treated chicken.

## 🗨️ BEUC's recommendations

- We do not believe chemical meat washes will deliver any "extra safety net". Rather, they risk being seen as the 'easy fix' to clean up dirty meat and make up for inadequate hygiene on farms and abattoirs. No chemical rinse removes all bacteria from meat heavily contaminated as a result of poor slaughter hygiene.
- While some of our trading partners seek to ensure meat safety differently, the EU should stand by its 'farm to fork' approach and put public health and consumer protection before trade interests.
- Meat safety could be further improved in the EU by better enforcing current hygiene requirements. Several reports by the EU Food and Veterinary Office and the media have shed light on severe hygiene shortcomings in some slaughterhouses.
- Consumers might accept physical meat treatments (e.g. Rapid Surface Chilling) more willingly than chemical washes, provided they do not impair the smell, taste and texture of meat. However, such treatments should never be a substitute for proper farm and slaughter hygiene.

For further information see our [position paper](#)

<sup>2</sup> EFSA (2011). BIOHAZ panel Scientific Opinion on *Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain