



# Raw is risky

No packaging, direct from the producer, short transport routes – “natural” foods are currently the trend. Even raw milk is popular. However, it can contain pathogens, such as *Campylobacter*.



For some time, the number of reported cases of illness after consuming raw milk has been increasing. The number one cause of illness: *Campylobacter* bacteria, which are actually found in the intestinal tract of many game animals, pets and livestock such as cattle. Even though *Campylobacter* cannot multiply outside this warm biotope, they are still capable of surviving and causing infection.

The two most important pathogenic *Campylobacter* species, *Campylobacter (C.) jejuni* and *C. coli*, end up in milk mainly via faecal contamination during the milking process. It is not clear how long they can survive there. The few existing studies indicate a limited ability to survive, but also show that the different strains of *Campylobacter* can adapt to their environment with varying degrees of success.

### ***Campylobacter* bacteria cause diarrhoea**

Animals carrying *Campylobacter* often show no clinical symptoms, whereas humans may develop *Campylobacter* enteritis or *Campylobacter* enteritis if they consume contaminated food. Just a few bacteria are enough to cause an infection. This leads to watery, occasionally bloody diarrhoea, stomach ache or cramps, fever and tiredness. The illness lasts up to a week, sometimes even longer. Complications rarely occur. Many infections also run their course without symptoms.



### **How can I protect myself?**

Even if farms lure you in with cups, cocoa powder and a comfy seat for drinking fresh raw milk, it should not be consumed without first being heated. The BfR points out that raw milk from “milk filling stations” must be boiled before consumption to kill any pathogenic bacteria. Infants, toddlers, elderly people and people with certain underlying illnesses in particular should only consume raw milk if it has first been boiled, since bacterial diseases can be more severe for these consumers and they generally have a higher risk of illness.

The Robert Koch-Institute (RKI) records about 60,000 to 70,000 cases of these reportable enteritides in Germany every year. *Campylobacteriosis* is the most frequently reported bacterial disease and is mainly caused by bacteria in food. In most cases, the infection occurs via animal-based food, such as insufficiently cooked poultry or other raw foods that have come into contact with the pathogen. Infection can also occur via contaminated drinking water or pets.

### **Raw milk is often the cause**

Over the past five years, one type of food has attracted particular attention: unheated or insufficiently heated raw milk. The largest *Campylobacter* outbreaks can be traced back to the consumption of raw milk. In autumn 2015, around 100 people in Lower Saxony fell ill after drinking milk from a dispenser on a farm. The two largest outbreaks in 2018 – in Thuringia and Bavaria – were also linked to the consumption of insufficient or unheated raw milk.

### **Boiling kills bacteria**

The reason for the trend: farmers are increasingly offering raw milk from “milk filling stations” on their own farms. The milk is stored in a cool place, giving the bacteria little chance to multiply. However, this does not reduce the number of existing bacteria. Because of the health risk posed by raw milk, dispensation is specially regulated by law. For example, milk dispensers must clearly and legibly display the information “Raw milk – boil before consumption”. This is intended to prevent people from drinking raw milk directly and, therefore, possibly becoming infected.

In addition to farm dispensers, raw milk is also available in shops as certified raw milk, called “Vorzugsmilch” in German. Strict regulations apply to its production and treatment, and milk producers are monitored individually. There is a use-by date on the packaging, which must not be longer than 96 hours after milking. Nevertheless it cannot be ruled out that certified raw milk may also be contaminated with pathogens. The probability of foodborne infection here is lower than that from raw milk from milk filling stations due to the stricter regulations. However, because there is still some risk, certified raw milk must not be distributed in group catering contexts, such as in nurseries, schools or hospitals. Incidentally, there are no such risks with commercially available pasteurised milk, as pasteurisation sufficiently kills any bacteria. ■

More information:  
[www.bfr.bund.de/en](http://www.bfr.bund.de/en) > A-Z Index: raw milk