

FAQ

17 January 2025

Foot-and-mouth disease (FMD): questions and answers

Foot-and-mouth disease (FMD) is a highly contagious viral disease in cloven-hoofed animals. The FMD virus is not hazardous to humans.

On 10 January 2025, FMD was detected on a water buffalo farm in the district of Märkisch-Oderland in Brandenburg. This is the first case of FMD in Germany since 1988. By that, Germany has lost its FMD-free status in accordance with the requirements of the World Organisation for Animal Health (WOAH). The German Federal Institute for Risk Assessment (BfR) has compiled a selection of questions and answers below.

What is foot-and-mouth disease?

Foot-and-mouth disease (FMD) is a highly contagious viral disease. All cloven-hoofed animals such as cattle, sheep, goats and pigs as well as various zoo and wild animals are susceptible. The disease is caused by the FMD virus, which is mainly found in different countries in Africa and Asia as well as in Turkey. In Germany, FMD is a notifiable animal disease and when it occurs, it is combatted in accordance with the relevant legislation. Affected animals often suffer from high fever and very painful blistering in the mouth and hoof areas.

Can humans also contract foot-and-mouth disease?

The FMD virus is not hazardous to humans. In the past, only very few individual cases of mild febrile general illnesses with subsequent blistering of the mouth, fingers and toes, which healed completely within a few days have been described following direct contact with infected animals. Thus, this disease should not be considered a classic zoonosis. Between 1921 and 2007, only around 40 cases of human infection with the FMD virus were reported worldwide. Even during a major FMD outbreak in the UK in 2001 with over 2,000 outbreaks in livestock, humans were not infected.

Are there diseases in humans that could be confused with foot-and-mouth disease?

The [Robert Koch Institute \(RKI\)](#) points out that FMD is often confused with hand-foot-and-mouth disease (HFMD), which is particularly common in small children, due to the similar symptoms. However, the diseases are not related to each other. The HFMD pathogen occurs exclusively in humans.

Can you become infected with the FMD virus from food?

Consuming food derived from infected animals – for example in the form of pasteurised milk and products made from it such as yoghurt or ice cream as well as thoroughly cooked meat – is not to be expected to result in an infection with the FMD virus. There are no known cases of disease contracted via the consumption of food or human-to-human transmission to date.

How long does the FMD virus survive in food?

The FMD virus is highly resistant to desiccation, cold, and high salt concentrations. In raw milk, insufficiently heated milk or frozen and cured meat such as pork, the virus can remain infectious for months under certain conditions. Food derived from animals should therefore not be brought in from areas where FMD is present and should never be fed to animals.

What must be taken into account when preparing meat?

Consumers should always follow the basic rules of kitchen hygiene, also with regard to other pathogens that may be present. This includes maintaining the cold chain and avoiding cross-contamination. The latter refers to the transfer of pathogens from one foodstuff to another. In addition, meat should be heated in such a way that all parts of the piece of meat reach a temperature of 70 °C or higher for at least two minutes. Further information can be found in the [BfR FAQ on foodborne infections](#).

Can the FMD virus be transmitted through raw milk?

In general, raw milk can be contaminated with pathogenic agents. Particularly sensitive population groups such as children, pregnant women or elderly and sick people should therefore generally refrain from consuming raw milk that has not been boiled. However, healthy adults are also at an increased risk of infection with various pathogens if they consume raw milk that has not been boiled. Further information can be found in the [BfR FAQ on raw milk](#).

Can the FMD virus be transmitted to animals via feed?

The FMD virus can be transmitted either directly between animals (via secretions or faeces) or indirectly via vehicles, equipment, shoes and clothing. Airborne transmission is also possible. According to current scientific knowledge, transmission of the FMD virus to animals via feed cannot be ruled out. However, knowledge about this route of transmission is limited, both in terms of the possible routes of entry of the virus into feed and the infectivity of the virus in different types of feed.

About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. The BfR advises the Federal Government and the States ('Laender') on questions of food, chemicals and product safety. The BfR conducts independent research on topics that are closely linked to its assessment tasks.

This text version is a translation of the original German text which is the only legally binding version.

Legal notice

Publisher:

German Federal Institute for Risk Assessment

Max-Dohrn-Straße 8-10

10589 Berlin, Germany

T +49 30 18412-0

F +49 30 18412-99099

bfr@bfr.bund.de

bfr.bund.de/en

Institution under public law

Represented by the president Professor Dr Dr Dr h. c. Andreas Hensel

Supervisory Authority: Federal Ministry of Food and Agriculture

VAT ID No. DE 165 893 448

Responsible according to the German Press Law: Dr Suzan Fiack



valid for texts produced by the BfR

images/photos/graphics are excluded unless otherwise indicated)

BfR | Identifying Risks –
Protecting Health