

FMD: Frequently Asked Questions

What is it?

Foot-and-mouth disease (FMD) is an acute infectious disease, which causes fever, followed by the development of vesicles (blisters) – chiefly in the mouth and on the feet. The disease is caused by a virus of which there are 7 types, which produce similar symptoms and can only be differentiated in the laboratory.

How is it spread?

The virus is present in great quantity in the fluid from the blisters, and it can also occur in saliva, milk and dung. Contamination of any objects with any of these discharges is a danger to other stock. At the height of the disease, virus is present in the blood. Infected animals begin by excreting the virus a few days before signs of the disease develop. Pigs in particular produce large numbers of virus particles.

Airborne spread of the disease can take place and under favourable climatic conditions the disease may be spread considerable distances by this route. For example, circumstantial evidence strongly suggests that the outbreak on the Isle of Wight in 1981 resulted from the airborne spread of the virus from Brittany in northern France.

Animals pick up the virus either by direct contact with an infected animal or by contact with foodstuffs or other things which have been contaminated by such an animal, or by eating or coming into contact with some part of an infected carcass. In the past, outbreaks of the disease have been linked with the importation of infected meat and meat products.

The disease is spread mechanically by the movement of animals, persons, vehicles and other things which have been contaminated by the virus. Trucks, lorries, market places, and loading ramps – in or over which infected animals have travelled – are dangerous until disinfected. Roads may also become contaminated and virus may be picked up and carried on the wheels of passing vehicles.

The boots, clothing and hands of a stockman who has attended diseased animals can spread the disease and dogs, cats, poultry, wild game and vermin may also carry infection.

Can people contract the disease?

Advice from the Department of Health is that it is very rare. There has only been one recorded case of FMD in a human being in Great Britain and that was in 1966. The general effects of the disease in that case were similar to influenza with some blisters. It is a mild short-lived, self-limiting disease. The Food Standards Agency have advised that the disease in animals has no implications for the human food chain.

There is, however, a human condition called Hand, Foot and Mouth disease, which is unrelated. It does not affect animals. If you are concerned, you should contact your GP.

Which animals are susceptible to FMD?

Among farm stock, cattle, sheep, pigs, and goats are susceptible, as are llamas and alpacas. Some wild animals such as hedgehogs, coypu, and any wild cloven-footed animals such as deer and zoo animals including elephants can also contract it.

What are the signs?

Vesicles (blisters) in the mouth or on the feet and other signs which vary somewhat but can include:

Cattle – Fever, dullness, blowing lightly, off feed, shivering, sudden reduced milk yield and sore teats in milking stock, slavering, tenderness of feet or lameness. Feeding and cudding may cease and the animal is “tucked up” with a staring coat. If at pasture, the animal will be away from the rest of the herd and probably lying down. Quivering of the lips and uneasy movement of the lower jaw with copious frothy saliva around the lips that drips to the ground at intervals. Loss of condition is marked because of the fever and because the mouth is so painful that the animal is afraid to eat.

Sheep and goats – Fever, severe lameness affecting one or more legs, stiff-legged walk, off colour, tendency to lie down and unwillingness to rise, increased lamb mortality. Mouth symptoms are not often noticeable.

Pigs – Fever, sudden lameness, dullness, off feed. Mouth symptoms are usually not visible, but blisters may develop on the snout or on the tongue.

More details on how to spot foot-and-mouth disease can be found at:
www.defra.gov.uk/footandmouth/about/clinical.htm

What kinds of virus are there?

There are 7 main types: O, A, C, SAT.1, SAT.2, SAT.3 and Asia 1. Within each type there are many sub-types, e.g. O1 and A22. The average incubation period is 3-8 days but it can be shorter or may extend to 14 days or longer. The virus responsible for the 2001 outbreak in the UK was the highly virulent pan-Asiatic O type. When animals recover from infection by one type of virus they have little or no protection against attacks by any one of the others.

How is the virus destroyed?

It can be destroyed by heat, sunlight, low humidity, or certain disinfectants, but it may remain active for a varying time in a suitable medium such as the frozen or chilled carcass of an infected animal or on contaminated objects. Cold and darkness tend to keep it alive. Under favourable conditions it can survive for long periods.

What are the effects of FMD?

The disease is rarely fatal, except in the case of very young animals, which may die without showing any symptoms. Exceptionally, a severe form of the disease may cause sudden deaths among older stock.

The after-effects of FMD are serious. Affected animals lose condition and secondary bacterial infections may prolong convalescence. The most serious effects of the disease however are seen in dairy cattle. Loss of milk yield will certainly be experienced. Chronic mastitis may develop and the value of a cow is permanently reduced. Abortion, sterility and chronic lameness are commonplace and in some cases chronic heart disease occurs.

Can FMD be cured?

There is no cure. It usually runs its course in 2 or 3 weeks after which the great majority of animals recover naturally. Slaughter remains the basic control policy because widespread disease throughout the country would cause significant welfare problems and be economically disastrous due to the effects already noted above.

How is the disease controlled?

The basic disease control policy is the slaughter of all susceptible animals on premises infected with FMD and dangerous contacts. This is in keeping with EU legislation and OIE guidelines. Movement restrictions are also put in place to help contain the disease.

There is an EU wide ban on the use of prophylactic (routine) vaccination, which has been in place since 1992. This allows EU Member States to retain the highest FMD status under international rules of "countries free from foot-and-mouth disease without vaccination".

However, the new EU Directive gives greater prominence to the potential use of emergency vaccination in the event of an outbreak as an adjunct to the basic slaughter policy. The Government accepts that emergency vaccination should be considered as a disease control option from the start of any outbreak of FMD.

What happens when a suspect animal is found?

The owner of a suspected animal or carcass must by law report the fact to the Animal Health Division of the Department of Agriculture, Fisheries and Forestry. The owner is not expected to diagnose the disease, but he ought to know enough about the disease to suspect it. All owners and stockmen should make themselves familiar with the symptoms, and call in a veterinary surgeon as early as possible; they should never ask another stock-owner to look at the suspected animal.

Restrictions are imposed on the premises from the time of notification prohibiting any animal, person or thing entering or leaving the premises

without permission, and a DAFF Veterinary Officer (VO) makes an investigation. If signs suggest FMD is present, the VO, a will sign a notice which prohibits the movement of animals within a radius of 8km of the premises concerned and arrange for sample material from the affected animal(s) to be sent to the Institute of Animal Health, by the quickest possible means, for testing. The Chief Veterinary Officer will confirm the outbreak if the laboratory results confirm the presence of FMD virus.

What are dangerous contacts?

Dangerous contacts are animals which have been exposed directly or indirectly to the risk of infection, either by movements of vehicles, people or animals, or by their proximity to a confirmed case.

Does the national movement ban affect the movement of horses?

Yes. Horses are included in livestock movement restrictions