

Adverse events can be broadly divided into three categories:

- 1. Implantation Reactions:** These usually occur relatively soon after implantation and are commonly linked to the implantation procedure e.g. haematomas (bleeding under the skin) or infection (an abscess near the site or an infection spreading systemically, making the animal ill). Very rarely, though, as with any foreign material introduced into the body, the animal will reject it, creating an inflammatory response.
- 2. Microchip Migration:** In the UK, the implantation site for dogs, cats, rabbits and ferrets is in the mid line between the shoulder blades just under the skin. Implantation sites may vary in other countries. Although most microchips are covered with a special coating to promote tissue bonding, if they have been incorrectly implanted they may still move around the neck and onto the front of the shoulders or chest. In rare cases they may travel even further, so it is important to scan all over the body if the microchip is not identified between the shoulders. Most scanners must be held within a few centimetres of the microchip in order to work.
- 3. Microchip Failure:** Microchips should continue to work throughout the life of the animal, but, being electronic devices, very occasionally a microchip may just stop working. In order to confirm that this has happened the presence and location of the chip should be confirmed by feeling it under the skin or with diagnostic imaging, such x-rays or ultrasound. Before assuming a microchip has stopped working it is good practice to ensure the scanner is fully powered, working correctly and is compatible with the microchip in the animal (some microchips used in other countries will not work with the scanners available in the UK).

## How can I report a suspected adverse event involving a microchip?

Reports can be submitted online at [www.vmd.defra.gov.uk](http://www.vmd.defra.gov.uk) under the yellow tab below the Quick Links on the right of our homepage. The form is easy to use, with drop down boxes and reminders of the information that we need to help us assess your report. The more information provided the better, and if further information is required, we will try to contact you using the details you provide to us. These are held confidentially and will not be divulged to any other party without your permission.

Microchips are used in a wide variety of animals, and we can accept reports relating to any companion animal species, including horses. Anyone can report an adverse reaction, however as some cases require more thorough veterinary investigation, you should include your veterinary surgeon's contact information in the report.

Once submitted, you will receive an email to confirm that the VMD has received your report. The VMD will monitor all reports received to identify emerging issues and will feed back any concerns to the chip manufacturer and MTA so that appropriate action can be taken.

If you have any questions about the scheme, please contact the VMD's Pharmacovigilance Unit on **01932 338427**.

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[www.vmd.defra.gov.uk](http://www.vmd.defra.gov.uk)



VETERINARY MEDICINES  
**VMD**  
DIRECTORATE

ASSURING THE SAFETY, QUALITY & EFFICACY OF VETERINARY MEDICINES



## The Veterinary Medicines Directorate's Microchip Adverse Event Reporting Scheme



Department for Environment Food & Rural Affairs



MTA  
Microchip Trade Association

The Veterinary Medicines Directorate is an Executive Agency of the Department for Environment, Food & Rural Affairs

[www.vmd.defra.gov.uk](http://www.vmd.defra.gov.uk)

# Who is running this scheme and what is its purpose?

The Veterinary Medicines Directorate (VMD) is an executive Agency of the Department for Environment, Food and Rural Affairs (Defra) whose statutory role is to assure the quality, safety and efficacy of veterinary medicines. In order for a veterinary medicine to be sold in the UK, it must have first been approved by the VMD following rigorous scientific assessment of the dossier submitted by the pharmaceutical company wishing to market it. Once authorised, the VMD maintains an oversight of all products through the work of its Pharmacovigilance Unit who closely monitor all reports of suspected adverse reactions or lack of efficacy following use of veterinary medicines.

In February 2013 the UK Government announced that from the 6th April 2016 all dogs in England will be required to be microchipped. (A similar provision will apply in Wales from 1<sup>st</sup> March 2015. Microchip identification of dogs is already mandatory in Northern Ireland and at the time of preparation of this leaflet the Scottish government was still consulting on the issue.) After this date, any owners of dogs found by the police or local authorities without a microchip will be given a short period to comply with the microchipping law. If they do not, they may face a fine of up to £500.

In light of the above, the Microchip Trade Association (MTA) approached the VMD to set up a monitoring scheme to oversee reports of potential adverse events following microchipping. The VMD does not regulate the animal microchip market, but in view of the success of its reporting scheme for veterinary medicines and the need for impartiality, the VMD agreed to take on this role. The scheme has been set up with funding provided partly by Defra and partly by the companies belonging to the MTA.

## Why are microchips used?

Microchip technology for animal identification was first introduced in the 1980s as a means of reducing the numbers of unidentified stray animals, particularly dogs, that were being put to sleep unnecessarily because the owners could not be found.

The microchip is injected just under the skin and provides animals with permanent identification without any scarring or disfigurement. It is already a requirement for all animals using the Pet Travel Scheme and all horses born after 1<sup>st</sup> July 2009 must be microchipped. Certain species of exotic animals such as tortoises are required to be microchipped to comply with the Convention on International Trade in Endangered Species (CITES).

Microchipping any species other than cats, dogs, rabbits, ferrets or goats is an act of veterinary surgery and as such should only be carried out by a qualified veterinary surgeon.

## How do microchips work?

Radio Frequency Identification Device (RFID) technology uses scanners which send out an electromagnetic field. The microchip is energised by the field and transmits its unique number code back to the scanner. The unique microchip number is displayed on the scanner. The microchip contains no battery and so in most cases there is no limit to the number of times that it can be scanned and read. The microchip number is stored in national databases along with the details of the animal and owner that were provided when the chip was registered.

## What adverse events might be seen following microchipping?

Millions of animals have been successfully microchipped since the late 1980s and microchipping has proved to be a very safe procedure providing a lifelong means of identification. Adverse events have rarely been reported.

At the time of implanting the microchip, it is not unusual for there to be an initial pain response, and sometimes a little bleeding at the implantation site. This should stop within a minute or two. These would not be considered as adverse events.

