

Infectious disease and vaccination

cats.org.uk




Vaccinations are vital in keeping your cat happy and healthy. They will help to prevent them from getting unwell and even dying from certain diseases. It's even more important to make sure kittens get vaccinated.

There are lots of reasons to get your cat vaccinated, such as:

- protecting them against serious diseases
- helping to prevent the spread of certain diseases among cats
- protecting vulnerable cats from becoming seriously ill
- most insurers will require you to vaccinate your cat for your insurance to be valid
- if you use a cattery for holiday care, they will often require you to vaccinate your cat

Cats evolved as solitary hunters, rarely coming into contact with other cats. These days, our pet cats live alongside many more cats than they did in the wild. This puts them at greater risk of sharing and transmitting fatal infectious diseases. They don't even need to have direct contact with other cats to become infected. Some of these diseases are preventable. Vaccination is an efficient and cost-effective way of controlling some common infectious diseases.



Pathogens

We are surrounded by microorganisms, including bacteria and viruses. Most of these are unable to overcome your cat's natural defences. However, there are some microorganisms, known as pathogens, that can invade the body and cause disease. Whether infection occurs depends on factors such as:

- the amount of pathogen present
- the strength of the pathogen
- the health, stress levels and immunity of your cat

Vaccination uses your cat's natural defences against infectious disease.

Natural protection

Bacteria and viruses are all around us, all of the time. Because of this, animals and humans have developed a number of different natural defence strategies. These include:

- physical defences, such as the skin, or natural reactions such as coughing or sneezing
- inflammation. This process leads to increased blood flow and delivery of chemicals and cells to destroy pathogens. However, it is not always effective and it is not specific to a particular pathogen

- acquired specific immunity. This type of defence takes a few days to develop first time around.

Should your cat survive and meet the same pathogen again, their immune system recognises and destroys it. Acquired immunity involves one or both of the following:

- production of specific proteins called antibodies, which target specific pathogens

- production of special cells which recognise and help destroy infected cells

This 'memory' for pathogens declines over time, unless they are encountered often.

Vaccination

Vaccination allows your cat to develop immunity without risking illness from natural exposure to a pathogen. When your cat is vaccinated, they are given a modified, safe version of a pathogen so that they develop an immune response. After vaccination, if the cat encounters the same pathogen the body recognises it, then has a quicker and more effective response to the disease.

Vaccines

A vaccine contains part of a virus or bacteria which triggers an immune response when given to your cat. The microorganism in the vaccine has been altered in such a way to stop it causing disease. This allows your cat to develop immunity to the disease without suffering from it.

How vaccines are given

Most cat vaccines in the UK are given by injection, although one type of vaccine can be given via the nose.

The diseases vaccines protect cats from

Vaccines are usually developed for diseases that are debilitating or life threatening and easily spread. They are not available for all infectious diseases because it can be difficult to produce effective vaccines against some pathogens. Luckily, there are a number of vaccines available to protect your cat from some common or severe infectious diseases.

- Feline parvovirus (FPV).

Find out more: cats.org.uk/FPV

- Feline herpes virus (FHV).

Find out more: cats.org.uk/flu

- Feline calicivirus (FCV).

Find out more: cats.org.uk/flu

- Feline leukaemia virus (FeLV).

Find out more: cats.org.uk/FeLV

- Chlamydomphila felis.

Find out more: cats.org.uk/flu

- Bordetella bronchiseptica.

Find out more: cats.org.uk/flu

- Rabies

- Rabies is a lethal virus which is not currently a problem in the UK

- Cats travelling abroad to most countries, or entering the UK from abroad, must have vaccinations against rabies.

Find out more: cats.org.uk/moving-house

Combined vaccines

These are where your cat is vaccinated against multiple diseases but with a single injection. The vaccine contains more than one microorganism to allow immunity against more than one disease. The 'flu and enteritis' vaccine covers feline parvovirus (FPV), feline herpes virus (FHV) and feline calicivirus (FCV) and may also be mixed with a feline leukaemia virus (FeLV) component.

Core vaccines

Core vaccines are those that are considered essential for all cats. This is their regular vaccination (and boosters) to protect them from common and/or serious diseases such as feline parvovirus (FPV), feline herpes virus (FHV) and feline calicivirus (FCV). It may also include feline leukaemia virus (FeLV) depending depending on your cat's age and lifestyle. Non-core vaccines are those recommended for cats who are at risk of specific infections. Not all cats need them. Your vet will be able to advise.

When to give vaccinations

The primary vaccination course should be given to kittens from around eight to nine weeks of age.

Timing is important:

- too early and the antibodies they receive from their mother will interfere with the immune response to the vaccine. This will prevent it from working properly
- too late and kittens will be left open to infection. The timing of when the antibodies from the mother deplete varies from kitten to kitten. Two to three vaccines are usually needed, three to four weeks apart, to ensure kittens are not left open to infection. A booster vaccine should also be given around one year later to keep immunity levels high

Note: Vaccination against rabies cannot start until 12 weeks of age.

How long protection lasts

The immune system's 'memory' for microorganisms declines over time, unless they are encountered regularly. The amount of time before immunity fades depends on factors including:

- the individual cat
- whether the cat is being regularly exposed to the microorganism in their environment
- the specific microorganism
- the type of vaccination

Booster vaccinations

Regular booster vaccinations (boosters) are very important. The primary course of vaccination that your cat receives will kick start protective immunity. Booster vaccinations are needed to ensure that immunity remains at an adequate level. Boosters remind the immune system to react, enabling it to work effectively in the face of infection. If booster vaccinations are not given, the cat may become open to infection. This is because the immune system will gradually 'forget' the threat.

Booster vaccinations frequency

Your vet can guide you on the vaccinations needed and how often they should be given to maintain protection. Your cat should be checked over and assessed at least once a year.

Remember, the immune system's memory for microorganisms declines over time. It's useful to understand how feline infectious diseases are transmitted and what may pose a risk to your cat.

- Some infectious diseases are spread through direct contact with other infected cats. If your cat has outdoor access and you live in an area with a large population of cats, they may be at greater risk
- Indoor cats may appear to be at less risk. However they are not getting natural exposure to bacteria and viruses which act as natural booster reminders to their immune system. If vaccinations are not kept up to date, immunity may fade and indoor cats will not have protection if they do become exposed
- Boarding catteries may have strict vaccination history requirements before they allow your cat to board, check in advance

Tests are available to measure the number of antibodies cats have to some of the diseases where vaccinations are available. However, for some

diseases, this doesn't always predict the immune response. For feline parvovirus (FPV), the antibody levels can be useful to determine immunity.

Vaccination risks and adverse reactions

A mild reaction following vaccination can be a normal part of the immune response. Your cat may:

- lack energy
- have a poor appetite
- have a high temperature
- feel tenderness at the injection site for around 24 to 48 hours after vaccination

Symptoms should be mild and only last a day or two. If you are concerned, contact your vet.

Severe symptoms (vomiting, swelling or collapse) following a vaccination can be a sign your cat is having an allergic reaction to the vaccination. This is rare but requires immediate veterinary attention.

Occasionally, a lump may occur at the site of injection which will normally disappear within a few weeks. In very rare cases, cancer may develop in the same spot.

If you are concerned about the potential side effects of vaccination, please talk to your vet who can discuss this in more detail.

Vaccination of pregnant animals is not generally recommended. A reaction such as a fever may harm the developing kittens and if using certain types of vaccine, the pathogen may infect them.

Unsuccessful vaccination

It is unusual for a vaccination to be unsuccessful but it can sometimes happen. This may result from:

- failure to respond. For some cats, especially those with a major illness or under significant stress, vaccines may have little or no effect in stimulating immunity
- the infection already being present prior to vaccination
- subsequent infection occurring from a strain of microorganism that was not included in the vaccine

With some diseases, such as feline herpes virus (FHV), kittens may already be infected prior to their initial vaccination course. However, vaccinating can still help reduce the severity and frequency of any associated illness.

Should all cats be vaccinated?

Vaccination has greatly reduced the outbreak of life-threatening infectious diseases among cats. However, the cat population has increased and so if cats are not vaccinated, widespread outbreaks of disease may occur.

It is best to discuss your cat's individual vaccination needs with your vet. We recommend that all cats receive the core vaccinations listed below to improve their immunity and reduce the risk to other cats:

- feline parvovirus (FPV)
- feline herpes virus (FHV)
- feline calicivirus (FCV)
- feline leukaemia virus (FeLV) (for cats with outdoor access and young cats)

Remember, cats entering boarding catteries will usually need to have vaccines up to date.

Cats infected with feline immunodeficiency virus (FIV) have a disrupted immune system which means that they may be at greater risk of developing infectious diseases if they are exposed to them. Cats with feline immunodeficiency virus (FIV) can be vaccinated to offer some protection, so speak to your vet for advice. Find out more: cats.org.uk/fiv-in-cats

In cases where health problems prevent your cat from being vaccinated, discuss the options with your vet.

If a large number of cats continue to be vaccinated this leads to 'herd immunity.'

This is the resistance of a group of animals to a disease because a large proportion of them are immune. It reduces the chances of a cat coming into contact with an infected animal or their bodily fluids, so that the spread of disease is slowed or stopped.

Summary

We strongly advise the use of vaccination as the most effective way of controlling infectious diseases. All cats and kittens homed from Cats Protection have been vaccinated before adoption. We recommend that their new owners continue to give them regular vaccinations on their vet's advice. This will keep them protected through their lives.

Further information

The Cat Group policy statement on vaccination
thecatgroup.org.uk

The following vet-approved guides are available as PDF downloads from cats.org.uk/information-leaflets

Essential guides

- Caring for your cat W84001
- Welcome home W84002
- Moving home W84003
- Feeding and obesity W84004
- Keeping your cat safe W84005
- Neutering W84006
- When to let go W84007
- Microchipping W84008
- Understanding your cat's behaviour W84009
- Managing your cat's behaviour W84010
- Cats living together W84011
- Indoor and outdoor cats W84012
- Cats and people W84014
- Caring for your kitten W84015
- Elderly cats W84016
- Feral cats W84017
- Pregnant cats, birth and care of young kittens W84018

Veterinary guides

- Arthritis W83201
- Feline lower urinary tract disease (FLUTD) W83202
- Itchy cats and skin disorders W83204
- Kidney or renal disease W83206
- Feline immunodeficiency virus (FIV) and feline leukaemia virus (FeLV) W83209
- Heart murmurs and heart disease W83211
- Hyperthyroidism W83212
- Teeth and oral health W83214
- Fleas and other parasites W83215
- Cat flu W83216
- Infectious disease and vaccination W83217
- Digestive disorders: vomiting and diarrhoea W83218

Please see cats.org.uk for more information on:

- Cats and the law
- Diabetes
- Feline parvovirus (FPV)
- Cats with disabilities
- Hypertension
- Feline coronavirus (FCoV) and feline infectious peritonitis (FIP)
- Feline asthma
- You and your vet
- Cats and pregnant women: toxoplasmosis

For more information about Cats Protection or to find out how you can support us, go to **cats.org.uk**



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