

Factsheet: Dogs



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Vaccinating your Dog

Which diseases do we vaccinate against?

Parvovirus disease

Parvovirus disease is characterised by weakness and severe bloody vomiting and diarrhoea. Dogs, especially puppies, dehydrate quickly and die due to dehydration and, sometimes, severe blood loss. In puppies under the age of eight weeks the virus can also damage the heart muscle. Parvovirus can be caught directly from other infected dogs, but the virus can also survive for several months in the environment. It can therefore be picked up by a dog just sniffing in the park, for example. Illness usually develops within ten days of being infected.

Intensive treatment is frequently necessary for dogs with parvovirus infection. Unfortunately, even with intensive care, not all dogs can be saved.

Canine hepatitis

Clinical signs in mildly affected dogs include fever, poor appetite, a painful tummy and pale or jaundiced (yellow) gums. More severely affected dogs can develop bleeding and some patients are left with kidney damage. Infected dogs shed the virus with all their body secretions, especially urine and faeces, and may continue to be infectious for some time, even after they have survived the disease. As the virus can live in the environment for several months, it can be picked up by a dog during a normal walk without necessarily meeting an infected animal.

With intensive therapy many dogs, but unfortunately not all, can survive hepatitis.

The virus causing canine hepatitis is different from the human virus, so people cannot become infected with this disease.

Distemper

Distemper virus can attack almost every organ, so affected dogs can develop a multitude of clinical signs ranging from fever, severe conjunctivitis, pneumonia, vomiting and diarrhoea, to meningitis and encephalitis (inflammation of the brain). Dogs that manage to survive acute distemper are often left with brain damage, leading to tics or seizures (fitting). They may also develop thickening of their paw pads and nose ('hard-pad disease') which can be painful. Infected puppies that survive the acute form often have teeth with damaged enamel which leads to early tooth decay. Infected dogs shed the virus with all their body fluids and can continue shedding virus for a long time after surviving the acute disease. Virus particles can also be transmitted through the air.

Intensive treatment is usually necessary for dogs with distemper and they may then survive the initial acute disease. However, further on-going treatment is often necessary to try to control the chronic signs of the disease (seizures or hard-pad disease), which unfortunately is difficult in most cases.

Leptospirosis

Leptospirosis is the only bacterial disease included in dogs' vaccine protocols. Several forms of the *Leptospira* bacterium exist, but all cause liver and kidney disease and often failure of these organs. This disease is a zoonosis, which means that humans can become infected too. In human medicine leptospirosis is known as 'Weil's disease' and there is no vaccination available for humans.

Leptospirosis bacteria can survive for a long time in damp or wet surroundings (eg puddles or near rivers) and, as they are also transmitted by small mammals like mice or voles, dogs are potentially at risk on every walk. Many dogs can survive with intensive treatment, but may be left with liver or kidney damage. As infected dogs shed large amounts of *Leptospira* with their urine, owners are at risk of catching the disease from an infected pet.

Kennel cough

Infectious bronchitis - otherwise known as 'Kennel Cough' is a very contagious disease of the respiratory system, which affects dogs of all ages.

This disease is caused by a mixture of viruses and bacteria, which pass easily from dog to dog as a droplet infection, wherever dogs congregate - in boarding kennels, dog shows, training classes, or simply out on walks!

Affected dogs typically develop a very harsh, dry, hacking cough, which can often last several weeks. The cough can be so severe, that it often sounds as if the dog is choking. At the same time, the dog may run a temperature, go off his or her food and become quite lethargic - similar symptoms to human 'flu'. In some cases, kennel cough can have serious complications.

If your dog is attending training or agility classes, or going to shows then it is advisable to protect them against this disease. The risk of kennel cough can be reduced by vaccination. The vaccine differs from your dog's usual annual vaccination, in that it is squirted up the nostril, rather than being injected under the skin. In general, it is recommended that the vaccine is given 1-2 weeks in advance of attending kennels or classes.

If your dog has become infected with kennel cough, the first thing that you are likely to notice is a dry, retching cough. Depending on how severe the infection is, your dog may also exhibit signs including:- lethargy, reluctance to eat, fever, runny eye and/or nose and depression. Prompt treatment of kennel cough once symptoms develop reduces the risk of complications. Antibiotics to kill the bacteria involved in the disease will hasten recovery and prevent most complications. It is also important to rest your dog as this will allow them to recover more quickly and will reduce the spread of infection to other dogs.

It is important to keep in mind that kennel cough can last for up to 4 weeks and your dog may remain contagious for up to 2 weeks after treatment.



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When should my dog be vaccinated?

Puppies

Puppies generally need two vaccinations given two to four weeks apart (depending on the vaccine used). The first vaccination is usually given when the puppy is about eight weeks old. Full protection starts about seven to ten days after the second vaccination has been given.

The two vaccinations are given to ensure a good immune response resulting in strong protection against the diseases mentioned. It also makes sure that maternal antibodies (antibodies received by the puppy from the mother's first milk) do not stop the vaccination working. The maternal antibodies give the puppy some protection during the first few weeks of life until its immune system has matured, but unfortunately they also interfere with the response to vaccination. The maternal antibody levels usually start to drop after six weeks and disappear when the puppy is between eight to ten weeks old, leaving the puppy open to infection. Giving two vaccination injections helps to catch the puppy at the times when it begins to need protection and can respond to the vaccine.

Occasionally breeders will request an additional early parvovirus vaccination at six weeks of age. This is done because in a few puppies antibody protection will start to decline already at this age. One reason to vaccinate against parvovirus so early is that at a very young age parvovirus not only affects the bowel system, but also damages the heart muscle. Another reason is that a few dog breeds such as Rottweilers and Dobermans seem to be particularly susceptible to parvovirus and it is advisable to vaccinate them three times as puppies for added protection.

Adult Dogs

The basic answer is that a dog should be vaccinated again when the level of protection starts to wear off. This can be an individual time period for each dog and also depends on the type of vaccine used. Currently the vaccine manufacturers advise vaccinating against distemper, parvovirus and hepatitis in puppyhood (see above), then at one year of age and every three years thereafter.

Leptospirosis and, if necessary, kennel cough, have to be vaccinated against yearly, as the protection does not last very long. This time period is set by manufacturers to ensure that the level of protection stays high.

Why is a health check necessary before vaccination?

The annual health check plays a vital role in the process of vaccination. Because successful vaccination is only possible when the body is able to build up a sufficiently strong immunity against the diseases, it is important that the dog is healthy at the time of vaccination and that the immune system is working properly and is not 'otherwise engaged'.

The health check prior to vaccinating your dog makes sure this is the case. If we find cause for concern, we will not give the vaccine, but treat the problem we find or, if we cannot make a diagnosis through the clinical examination, we will advise further tests to find out what is going on. Only after we have sorted out the problem will we ask you to come again to have your dog vaccinated.

The annual health check itself is just as important as regular vaccination as this allows us to spot problems early and to give assistance with routine healthcare issues - after all, our patients cannot tell us if there is something bothering them!

In very rare cases dogs are unable to produce a proper vaccine response even when they are healthy.

Should you be at all concerned before or after vaccination, please contact us.

Can something go wrong after vaccination?

Vaccination is a medical procedure and even though it looks easy, only people with a qualification in veterinary medicine are allowed to vaccinate animals. These days vaccination is a very safe procedure and problems are only rarely encountered. Unusual reactions of the immune system ('vaccine reactions') are only rarely reported and the risk of encountering one of the diseases is far greater than the risk of a reaction to the vaccine. Occasionally a small skin lump appears at the site of the vaccination, but this usually disappears within a few days. In very rare cases dogs are unable to produce a proper vaccine response even when they are healthy.

Is regular vaccination still recommended?

We strongly recommend regular vaccination as unfortunately we still not infrequently treat dogs with the diseases mentioned above. The outcome of these infections can be very serious or fatal and can be avoided by regular vaccination.

