

## FACT SHEET

# Vaccination – Is It Safe And Effective? What Are The Alternatives?

### What is vaccination? The theory

It is important to appreciate the reason we vaccinate our pets. Dogs and cats are, just like us, susceptible to a number of bacterial and viral infections, which can be debilitating and fatal. Vaccination is a procedure that stimulates the immune system to produce antibodies against the infectious agents so that if the animal subsequently meets the disease, it will not be affected so severely.

The canine vaccinations are designed to give protection against 6 diseases:

- Canine distemper virus
- Canine parvovirus
- Infectious canine hepatitis
- Parainfluenza virus
- Two types of leptospirosis

You only have to be near a veterinary clinic in an urban environment, with a local stray dog population, to see dogs suffering the dire consequences of infection from one of these diseases. Most people can still remember the high mortality rate among pet dogs when the first Parvovirus outbreak appeared in 1979/1980. Distemper is an equally harrowing infection of dogs causing severe respiratory signs, which very often rapidly progress to pneumonia. If the animal survives at this stage, damage to the nervous system can occur, resulting in convulsions, which may be too severe to treat.

### Effectiveness of vaccination

There is little doubt that in most cases, vaccinations do stimulate the immune system to produce anti-bodies against whatever is injected. This artificially induced response can be measured by laboratory tests. When vaccines are undergoing trials, the evidence will include measurements of the varying antibody levels produced by the individuals in the experiment over a period of time. In addition some animals will be deliberately exposed to the infections against which they have been vaccinated to see if they succumb to the infection.

A vaccine is considered successful if it stimulates the production of a large amount of antibodies and if it prevents the animal from becoming ill when it is challenged. The results of these tests must show that the vaccine is effective in both these areas before the company is granted a license to manufacture and distribute it. Because of the cost involved, most of the trials are carried out in relatively small groups of animals and for a limited period of time only.

There is also current discussion as to how long a vaccine protects for and whether annual, bi-annual or 5 yearly boosters are required: the truth is, no-one really knows and it is likely that it varies from individual to individual. You may request tests to be performed to establish if your dog's immunity is high or requires a booster vaccine for all or some of the diseases.

### Problems with the vaccine theory

Although vaccines give a high level of protection against disease, it must be remembered that a small number of animals do not respond fully to vaccines and may remain unprotected, and a small number have side effects after the vaccines have been injected. There is also increasing evidence and suspicion that there may be more long-term side effects by way of damage to the immune system. This is more likely to occur if the animal in question is not 100% fit and healthy at the time of vaccination.

Equally, innumerable animals have been vaccinated routinely and repeatedly without obvious untoward effects.

One problem with vaccines is that they are administered without any consideration for individuality. Each individual will have a unique degree of susceptibility to any vaccine, yet they are administered without any regard to the uniqueness of the individual.

This document is the copyright of Naturediet Pet Foods Ltd and may not be reproduced in part or in full without the permission of Naturediet Pet Food Ltd.

*We care what goes into our food, because you care what goes into your pet*

What exactly does happen upon administration of a vaccine? Of course modern studies in the field of immunology document well the varieties of cellular and chemical mechanisms that are brought into play, but a further question can be asked, "What happens to the health of the animal when a vaccine is given?" The experience of astute observers has shown that in many cases, vaccination has a profoundly disturbing effect on the health of the individual particularly in relation to chronic disease.

Whenever a vaccine is administered it tends to affect the vitality in the same way as severe illness. Vaccines contain proteins, bacterial and viral particles, also preservatives, neutralisers and carrying agents. Occasionally animals have an allergic reaction to one of these poisonous substances and can suddenly collapse in a way that can be rapidly fatal, known as anaphylactic shock.

During their lifetime, not all animals are exposed to all the diseases against which they have been vaccinated. The majority are exposed to just one or two at some time in their lives. The common hypothesis of being safe rather than sorry seems a logical argument, except when you consider the physiological facts involved.

The immune system is designed to protect the body against normal threat. The main cell components are "T" lymphocytes and "B" lymphocytes. "T" lymphocytes are so called because they are released from the Thymus gland and comprise: - Memory cells, Killer Cells and Suppressor cells. The Memory cells and Killer cells are responsible for producing antibodies and destroying invaders respectively in the face of disease threat.

The Suppressor cells halt the production of the other two once the battle has been won. The Thymus has a finite number of these cells, sufficient to protect the body in the face of reasonable threat, but not sufficient to cope with ongoing and constant challenge. Once these cells have been used up the body is unprotected against any new disease-causing agent. "B" lymphocytes are released from the bone marrow – and are numerous in number. They combine with T Killer cells in defending the body, and in fact work in synergy with the T lymphocytes. But there are no B Suppressor cells.

Suppressor cells are only produced by the Thymus and are available in a finite number, approximately half the amount of memory and killer cells. Suppressor cells are the only cells that have the ability to recognise "self" from "foreign". It is this ability that allows them to come into play when all the "foreign" invaders have been destroyed, to protect the normal body cells from being destroyed from the other lymphocytes, which do not have the ability of selection. When they have all been used up, the immune system is without a braking system. B Cells often continue to be produced inducing a state of increased sensitivity in the body, which manifests as increased allergic response. Without the presence of suppresser cells the B Cells fail to separate "self" from "foreign" and can start to destroy normal body cells as invaders. This is the start of auto-immune disease.

Vaccination uses up a great number of T lymphocytes and if continued can dramatically deplete the immune resources. However, it must be recognised that the major diseases of dogs do present a real risk, and protection is important. Young animals are at the greatest risk because their immune systems are not fully developed. Puppies receive maternal antibodies from their mother's blood before the birth and then from the milk afterwards. These antibodies offer short-term immunity to the environment in which they live, and to a disease to which the mother has immunity. As soon as these young animals are moved to a new environment they are vulnerable to all the new morbid influences.

It is at this time of life that protection is of paramount importance. Protection can be achieved by virtue of non-exposure, or through vaccination or a recognised alternative. Although young animals are more vulnerable to disease influence, there are many environmental and inherent influences today that deplete the immune resources of most animals and most humans, which mean that a degree of prophylaxis will always be necessary, even in seemingly healthy adult animals.

## Consider the options available

Non-exposure is not really an option except in very immune compromised animals or if you are lucky enough to live on a desert island. But it is worth remembering that one of the integral laws of nature and of immunity is the survival of the fittest – and organisms should yield and overcome, and thereby grow stronger.

This document is the copyright of Naturediet Pet Foods Ltd and may not be reproduced in part or in full without the permission of Naturediet Pet Food Ltd.

We care what goes into our food, because you care what goes into your pet

Vaccination is still required by most boarding kennels, and many people still feel more confident at the protection offered by conventional means. If the decision is made to use vaccine protection, its safety and effectiveness can be optimised, and the risk of adverse effects reduced, if the following rules are observed:

- Only let a completely healthy animal be vaccinated. This is what the vaccine manufacturers recommend. If your dog or cat has skin problems, nervous system disease, a heart murmur or any signs of even minor health problems, do not vaccinate. Ask your vet for the best alternative method of protection.
- Check what sort of booster your vet is giving, and ask if a full booster is really necessary
- Keep the immune system as healthy as possible by feeding a wholesome, natural diet, preferably one which is totally free from chemical additives
- Avoid exposure to chemical pollutants where possible
- If your animal has reacted adversely to vaccines in the past, use natural methods such as homeopathic nosodes
- Wherever possible, avoid vaccinating pregnant animals

Many vets now recommend giving initial vaccines to puppies but not the annual boosters throughout life.

## Homeopathic nosodes

These are prophylactic remedies produced from disease material of the disease against which protection is sought. This may sound similar to vaccination, and indeed the principle is similar, but these remedies given orally carry no risk of ill effects.

Homeopathic nosodes are highly potentised and they do not directly induce antibody formation. They work by acting on the same receptor site and can give rise to mild symptoms of the disease, this serves to prevent infection by similar disease agents because the toxic receptor site remains insensitive to toxins for some time after the remedy has been taken up.

However, the immunity offered by nosodes is short lived, probably a month at the longest, so it is necessary to repeat the nosode as long as the animal is exposed to the particular infective risk. In reality the use of nosodes appears to strengthen the immune system. It does also appear that animals that are treated constitutionally throughout life with homeopathic remedies will tend to be stronger, more resilient and healthier.

The great benefit of nosode treatment is that it provides protection against individual disease as and when the threat arises, and does not deplete the immune resources unnecessarily when no threat exists. However, the risk is that disease is often an invisible entity and your pet may be unprotected at a critical time. If you know that your pet has been exposed to one of the major diseases it is still possible to act preventatively. Most viral diseases have an incubation period of at least 48 hours. If the nosode is given within that time it will act to prevent the disease progressing.

For those of us who like to be able to make informed choices in the treatment of our pets, the decision on vaccination is difficult. It is probably best made on an individual basis with due consideration being given to the susceptibility of the animal and the risk factors in its lifestyle and environment. Nosodes are available for all the major diseases of all animals. If you want to treat your pet in this way you are strongly advised to seek the help and advice of a veterinary surgeon with a Postgraduate Homeopathic Qualification.

Call the Naturediet helpline for a list of Homeopathic Veterinary Surgeons in the UK.

This document is the copyright of Naturediet Pet Foods Ltd and may not be reproduced in part or in full without the permission of Naturediet Pet Food Ltd.

*We care what goes into our food, because you care what goes into your pet*