

## PREVENTIVE MEDICINE

Preventative medicine concerns the steps which may be taken to head off health problems before they become dangerous. Besides good nutrition (see Nutrition and general Care article), the main areas where a dog owner needs to take action are vaccinations and parasite control.

Some important facts about vaccinations are:

- Vaccinations must be given early. A vaccine gives the immune system a head start in building antibodies; these are molecules which lock on to an invading bacteria or virus. Each antibody molecule must have the exact shape to fit a particular invader just like one jigsaw puzzle piece attaches to another. A vaccine triggers the production of these antibodies so that they will already be on hand when your dog is exposed to a disease. Vaccinating your dog after he or she comes in contact with disease usually does not work, and vaccinating after he or she is already sick is useless.
- Puppies need a series of vaccinations. When he nurses for the first few times, a pup will get antibodies to everything his mother has antibodies. These maternal antibodies will protect him, but will also interfere with his own system responding to a vaccination. These maternal antibodies may wear off anywhere from 7 to 14 weeks of age. Puppies should start getting vaccinated at about 7 weeks old and continue to get boosters until they are at least 14 weeks to be protected when maternal antibodies run out.
- A dog must be healthy for vaccinations to be effective. It takes biochemical work and uses up protein to build antibodies. A dog which is sick, malnourished, or severely stressed may not respond to a vaccination.
- Booster vaccinations are required to maintain protection. Immunity to a disease is not a black or white thing. How much exposure to a disease your dog could handle depends on several factors, and one of the most important is how many antibodies against that disease are in his blood stream. The antibody level will gradually decline after a vaccination until a booster shot sends it up again.

Vaccinations are available against the following diseases:

**PARVO** is a virus which attacks the stomach and intestines, causing severe vomiting and diarrhea. The diarrhea is often quite bloody, and dogs frequently die in a short time from dehydration, shock, or sepsis. Treatment usually requires hospitalization for intensive (and expensive) supportive care. Parvo is highly contagious between dogs, with infective levels of virus easily transported on people's hands, shoes and clothing, and parvo can survive some common disinfectants. (Special note to owners of Dobermans and Rottweilers - These breeds are especially susceptible to parvo and may require extra boosters.)

**DISTEMPER** is a contagious disease of dogs which can cause a wide range of symptoms including diarrhea, coughing, fever and depression. One of its most common signs is a pus-like discharge from the eyes and/or nose. In its worst form, it can cause muscle twitches, seizures, paralysis, or coma. Even with the best treatment available, distemper will kill a large percentage of infected dogs and will usually cause permanent damage in survivors.

**CANINE HEPATITIS**, also known as Canine Adenovirus I, causes fewer deaths than distemper or parvo, but may still be fatal to many. Symptoms may include fever, inflamed or discolored eyes, vomiting and a tendency for prolonged bleeding. A sister virus called Adenovirus II causes infection of the respiratory system. Fortunately vaccinations against either of the canine adenoviruses protects against both.

**RABIES** is unusual among viruses; it can infect any warm-blooded animal including man. It is 100% fatal. Because of the risk to human health, rabies vaccination is required by law, and an unvaccinated animal may be ordered destroyed if it bites someone so that conclusive rabies testing can be done. Outbreaks of rabies in common wild life like skunks and coyotes are not uncommon in this general area.

**LEPTOSPIROSIS** is a disease primarily of the kidneys and is spread by contact with infected urine. It can be contagious to humans and can cause permanent kidney damage in both dogs and humans.

**CORONA** virus causes a disease very similar to parvo, though not usually as severe. It is typically a puppy and young dog disease, and can cause deaths in very young or weak puppies.

**KENNEL COUGH** is a highly contagious bronchitis. It's called kennel cough because it can spread so easily through facilities such as boarding kennels, as well as at dog shows, pet stores, and veterinary hospitals. Fortunately it is typically a fairly mild disease, causing a loud, persistent cough, but only rarely fever or more serious symptoms. A few individuals however can become seriously ill. Because there are actually several different viruses and bacteria which may be involved, the usual vaccine may contain parainfluenza virus and Bordetella bacteria, which protects against most but not all exposures to kennel cough.

**LYME DISEASE** is a very serious tick-borne infection, a vaccine is available. Another tick carried disease, **EHRLICHIA**, is fairly common in Texas but unfortunately no vaccine is available. Wise dog owners should check with their veterinarians periodically about these diseases since the prevalence of Lyme disease and/or the availability of an Ehrlichia vaccine could easily change. Obviously preventing infestation with ticks is extra important.

Always consult your veterinarian regarding the appropriate preventative measures to insure the health of your dog.