

Puppies need veterinary visits usually every 3 to 4 weeks until they are about 4 months old. Geriatric dogs (older than 7 to 8 years old) should see their veterinarian twice a year or more frequently because illness is more common in older pets and it can be identified sooner. Your veterinarian may recommend a wellness program for your pet, including routine blood work to monitor for problems such as early kidney or liver disease.

### Signs of Illness

Because you are more familiar with your dog than anyone else, you should watch it carefully for subtle signs of illness that another person or even a veterinarian may miss. General signs of illness include a lack of appetite or decreased activity. Other more specific signs include vomiting and diarrhea, urinating more (or less) frequently, coughing and sneezing, or a discharge from the eyes, ears, or nose. Illness can also show up as a loss of hair or itchy areas on the skin or around the ears. Problems with the musculoskeletal system are often seen as stiffness or lameness, such as not putting weight on a leg. If your dog shows any of these signs for more than a day or two, a visit with your veterinarian is a good idea.

### Giving Medication

Pills and chewable medications are usually relatively easy to administer to dogs. Most dogs will readily eat a pill that is hidden in a small treat, such as a piece of cheese or a bit of peanut butter. Sometimes, gently holding the dog's muzzle closed until you are sure that it has swallowed can be helpful. Liquid medications are sometimes prescribed, particularly for puppies. Liquids can be given via a syringe into the rear of the dog's mouth by inserting the tip of the syringe near the back teeth on either side. Holding the dog's head pointing partially upward can help prevent spills. Spot-on products or other topical medications are administered directly on the coat or skin. If your dog needs eye drops or ear medication, your veterinarian or veterinary technician will



Liquid medicine is easiest given by eyedropper or syringe.

give you a demonstration. Regardless of the type of medication or how it is to be given, it is important to read and follow all label instructions.

### Vaccinations

Vaccination is a key component of preventive medicine in dogs, just as in people. Vaccinations are given to stimulate the immune system against infection before exposure to a disease. Several vaccines are routinely given to dogs as the core defense against serious infectious illness. Several others (referred to as non-core) are important in certain regions and situations (*see* TABLE 4). Your veterinarian can advise which vaccines are necessary in your local area and circumstances.

Traditionally, booster vaccinations have been given every year throughout the dog's life to ensure ongoing protection. However, the need for yearly revaccination has been questioned in recent years. Some data indicate that after the first year of life, immunity lasts long enough so that booster vaccinations are needed only every few years. However, the debate is ongoing. Your veterinarian will be aware of the most recent findings and can advise you about the best vaccination program for your pet.

**Table 4. Vaccines Required or Recommended for Dogs\***

Disease	Description	Vaccination Frequency and Comments
<b>Core vaccines</b>		
Distemper	A viral infection that can affect several body systems, including the respiratory and nervous systems	First vaccination at 6 to 8 weeks of age, followed by additional vaccinations at 3- to 4-week intervals until 14 to 16 weeks old; booster at 1 year, then every 3 years or more
Hepatitis	A viral infection that causes liver inflammation	Same schedule as distemper (usually given as combination vaccine)
Parvovirus	A viral infection that can affect many body systems, including the respiratory, digestive, and nervous systems	Same schedule as distemper (usually given as combination vaccine)
Rabies	A viral disease of the nervous system that is both fatal and transmissible to people	Initial vaccination as early as 3 months of age; boosters at 1 year and every 1 to 3 years after that, depending on local laws
<b>Noncore vaccines</b>		
<i>Bordetella</i>	A bacterial component of kennel cough	Two doses 4 weeks apart; booster every 6 to 12 months depending on risk; vaccine usually administered into the nose
Leptospirosis	A bacterial infection of the urinary system	Two doses are given, 2 to 4 weeks apart; annual revaccination; used in areas with a known risk
Lyme disease	A bacterial infection that can affect many body systems, especially the joints	Similar schedule as distemper; revaccinate yearly just prior to start of tick season in areas with a known risk
Tracheobronchitis (kennel cough)	A viral infection that is a key component of kennel cough	Same schedule as distemper (often given as combination vaccine)
<b>Not recommended</b>		
Coronavirus	A viral infection of the digestive tract	Similar schedule as distemper; rarely causes disease and typically does not require treatment when it does occur
Giardiasis	A protozoal infection of the digestive tract	Vaccination can prevent shedding of infective cysts but does not prevent infection

\*These recommendations were developed after referring to the 2006 American Animal Hospital Association Canine Vaccine Guidelines, Revised.

## Parasite Control

The primary intestinal parasites of dogs include roundworms, hookworms, whipworms, and tapeworms. These worms damage the digestive tract or interfere with absorption of essential nutrients, or both. Intestinal parasite

infections are diagnosed by finding worm eggs (or sometimes actual worms or worm segments) in fecal samples. Fecal samples should be tested periodically (yearly or on the schedule recommended by your veterinarian) in all dogs and more frequently in puppies, which are

especially prone to parasite infection. These worms usually do not cause intestinal infection in people; however, hookworm infections leading to abdominal pain and inflammation have developed in people with weakened immune systems. Roundworm larvae also have the potential to infect people. When infective roundworm eggs are ingested, they can develop into larvae in the intestine and potentially migrate into sensitive organs. This migration is much more likely to occur in children and people with weakened immune systems. Sanitation is key to prevention because roundworm eggs take about 30 days to become infective; thus, promptly cleaning up feces from your yard can essentially eliminate potential exposure.

Heartworm is an especially serious parasite that is transmitted by mosquito bites. These worms live in the major blood vessels of the lung, causing inflammation of the blood vessels and potentially resulting in heart damage and early death. Because treatment of heartworm infection carries a number of serious health risks and is also potentially fatal, prevention is critical. The Companion Animal Parasite Council, an assembly of experts in veterinary medicine and parasitology, recommend year-round heartworm prevention for dogs, because it is impossible to accurately predict all times when mosquitoes will be present. Additionally, most heartworm preventives contain medications that also treat for intestinal parasites, which can be transmitted at all times of the year. Blood tests to check for heartworm disease should be done yearly. (See also page 73.)

Common external parasites include fleas, ticks, and mange mites. Monthly preventive treatments are available to control fleas and ticks, and are administered as body sprays or “spot-on” preparations that are placed on the skin between the shoulder blades. Mange mites can be detected by scraping the skin of infected areas for signs of mites or their eggs. Signs of mange

include red, scaly areas or bald patches on the skin, or both. (See also page 260.)

## Dental Care

Dogs need dental attention throughout their lives. You can help keep your dog’s teeth and gums in good condition by feeding dry food, providing certain toys (for example, “flossie”-style bones), brushing your dog’s teeth regularly, and following a program of professional dental cleanings and oral care performed by your veterinarian. Good dental care reduces the development of plaque which, if untreated, can progress to gingivitis and periodontal disease. In severe cases of dental disease, extraction is common. (See also page 87.)

## Grooming

Your dog’s hair coat should be brushed regularly to remove shed hair and prevent hair mats. Grooming is especially important for dogs with thick or shaggy hair coats that mat or tangle easily. Mats can irritate the skin, and the moist, stuffy conditions underneath them leaves the skin more susceptible to bacterial or parasite infections. Mats should be removed with electric clippers (not scissors) to avoid cutting the skin underneath. Periodic bathing with a pet shampoo is also important for maintaining healthy skin and fur. However, excessive bathing can irritate and dry the skin and hair. On average, most dogs



Dogs with long or shaggy hair require grooming to keep their hair from becoming matted.