***Congratulations on your new pet!*** The experience is fun, but can be very scary. Hopefully, this packet will help explain the mysteries of raising your new family member.

**Vaccines:**
There are several vaccines out there that can get confusing. The following explains what they are and why they are important for protecting your puppy.

## DHPP (Distemper, Hepatitis, Parainfluenza, Parvovirus vaccine) Or DHLPP (which includes Leptospirosis)

***Distemper***

***What is it?***
A virus that enters through the respiratory system, but then attacks the entire body. It causes coughing, difficulty breathing, and runny eyes and nose. The disease then progresses to severe coughing, diarrhea, and vomiting. The disease can then progress to the nervous system causing signs such as seizures, twitching, weak limbs, and eventually death.

***How is it spread?***
Mostly through respiratory secretions.

***Hepatitis (Adenovirus 2):***

***What is it?***
A viral disease causing severe injury to the liver, kidneys, and eyes. Signs include vomiting, diarrhea, and abdominal pain. Severe liver injury can cause death or chronic illness if they survive.

***How is it spread?***
By contacting the urine, feces, or saliva of infected animals.

***Parainfluenza:***

***What is it?***
A highly contagious virus that causes upper respiratory disease (one of the agents that causes "kennel cough").

***How is it spread?***
Mostly through respiratory secretions.

***Parvovirus:***

***What is it?***
A virus that attacks the cells in the intestines. Signs include vomiting and diarrhea, which is most often bloody. Animals become dehydrated, depressed,

lethargic, and often die. Puppies are usually more severely infected than adult animals, yet all unvaccinated dogs are at risk. The virus is extremely hardy and able to survive in the environment for up to one year.

***How is it spread?***
Through infected dogs' feces. Because the virus is so hardy in the environment, you need to be careful when taking your new puppy to public places, especially dog parks, until they have been fully vaccinated.

***Leptospirosis:***

***What is it?***
A bacterial organism that affects the liver and kidneys, causing them to fail. Signs of the disease include depression, lack of interest in food, dehydration, high fever, vomiting, and jaundice (yellow coloring).

***How is it spread?***
Spread through the urine of infected animals, usually wildlife, and can therefore be contracted from contaminated ponds or other standing water sources (kiddie pools can be a source of infection). Leptospirosis can also affect people.

## Rabies

***What is it?***
A progressive fatal neurological disease in mammals.

***How is it spread?***
Mostly through wild animals such as skunks, raccoons, coyotes, and foxes, as well as unvaccinated pets. The virus is spread through the saliva. Because of the fatal outcome to humans and animals the rabies vaccine is *required by law*

## Bordetella ( Bordetella Bronchiseptica) aka "Kennel Cough"

***What is it?***
A bacterial infection that affects the upper respiratory tract. It is one of two agents that cause or contribute to kennel cough (the other is parainfluenza). It is usually a mild self-limiting disease that is cleared in 5-14 days. Signs include a dry harsh cough, nasal discharge, and possibly conjunctivitis. Some dogs can develop severe pneumonia which could lead to death.

***How is it spread?***
It is a highly contagious disease that is spread through respiratory secretions of infected dogs. Your dog is most likely to get the bacteria when it is boarded, at the groomer, or in contact with another infected dog.
It is recommended to vaccinate every six months if your dog is boarded or visits the groomer. You should vaccinate 10 days before possible exposure.

## Canine Influenza Virus (H3N8 and H3N2)

***What is it*?**
Influenza viruses represent a specific type of virus. They produce fever, joint pain, and respiratory signs with which we are all familiar. Death is unusual but stems from respiratory complications and is most common in the very old and very young.

Dogs were largely felt to be exempt from the flu until 2004 when a new canine influenza virus (H3N8) was isolated from several groups of Florida racing greyhounds. In 2005, cases began appearing in pet dogs in boarding facilities. 50-80% will get symptoms of the flu: they will have fever, listlessness, coughing, and a snotty nose. A new strain of the virus (H3N2) appeared in Atlanta the summer of 2015. This strain came from birds in Asia. Because these are emerging diseases, few dogs will have immunity unless they have received one of the new vaccines. This means that any dog unvaccinated for influenza is a candidate for infection.

***How is it spread?***
Dogs that are infected will shed virus in body secretions whether or not they appear to be sick. Virus transmission can occur from direct contact with an infected dog or with its secretions. Kennel workers have been known to bring the virus home accidentally to their own pets. The virus persists on toys, bowls, collars, leashes, etc. for several days. Infected animals should be considered contagious for 14 days for the H3N8 and up to 60 days for H3N2.

## Lyme disease (Borrelia Burgdorferi):

***What is it?***
It is caused by a spirochete bacterium that is carried by a deer tick. Initially, a small reddened lesion will be present on the skin at the site of the tick attachment. Clinical signs of the disease include fever, shifting leg lameness, anorexia, heart abnormalities, and general malaise (not feeling well). Polyarthritis, enlarged lymph nodes, and kidney disease could also occur.

***How is it spread?***

It is spread by deer ticks (Ixodes genus). These ticks are very small and are about the size of a period (.). The tick must be on the dog for at least 48 hours. These ticks are prevalent in the northeast portion of the US, Wisconsin, Minnesota, Texas, and California. Dogs that travel or reside in areas endemic for Lyme disease should be considered for the vaccine. Dogs that stay just in Georgia do not need to be vaccinated.

## Vaccine protocol

| Age in weeks | Recommended core vaccines | Non-core vaccines recommended on an individual basis |
|---|---|---|
| 6-7 | DHPP | |
| 9-10 | DHPP<br>Kennel Cough (Bordetella) | Influenza |
| 12-13 | DHPP | Influenza<br>Leptospirosis<br>Lyme |
| 15-16 | DHPP<br>Rabies | Leptospirosis<br>Lyme |

Please be aware that your puppy is not fully protected until about 2 weeks after the last vaccine. Therefore, you should be careful about taking your puppy to dog parks and public areas.

This chart is also an estimate based on the vaccines your puppy received prior to coming to our hospital. Puppies need vaccines every 2-4 weeks until 16 weeks of age, as their mother's immunity can wear off anywhere from 8-16 weeks. Every dog is different and of course we can't tell when that immunity will wear off.

## Vaccine Reactions

With any vaccine, there is a small percentage of animals that have a reaction. These reactions can happen immediately after vaccination or up to 24 hours later. Signs to look for are facial swelling, vomiting, diarrhea, or difficulty breathing. If you should see any of those signs, please contact your veterinarian immediately. Some lethargy following vaccines is normal.

## Heartworm disease in dogs

Heartworms are one the most dangerous parasites for dogs. They are carried by mosquitoes and the worms get into the lungs and heart. Signs of heartworm disease include coughing, vomiting, breathing difficulties, sluggishness, and sudden death. A

simple blood test can be done once a year to determine whether your dog has been infected. Prevention is easy. There are a number of possible chewable tablets and topical medicines that can be given or applied once a month. Most of the heartworm preventions also are preventatives for intestinal parasites and some work on fleas. Talk to your vet to see which products they carry and the benefits of each one. Because you live in Georgia and the weather stays relatively warm all year long, it is necessary to use the preventative all year round. Because no preventative is 100% effective, we test each year to make sure that no infection has occurred. If your pet has missed a dose, we will need to test 6 months from the previous test, as the life cycle of a heartworm is 6 months (i.e. if your pet was bitten 1 month prior to the test and he/she was off prevention, it would not show up positive on the test that day). If your pet does become positive while on preventative the company will pay for your treatment, as long as you received the prevention directly from us.

***FOOD:***

There are many puppy foods out on the market, and it can be confusing to find what is best for your pet. We recommend feeding a **grain-inclusive** puppy food until 1 year of age. We can recommend more specifics based on size, breed, etc.
If you need specific recommendations, the 5 brands of food recommended by WSAVA (World Small Animal Veterinary Association) are:

- Purina Pro Plan
- Iams
- Royal Canin
- Hill's/Science Diet
- Eukanuba

# Pets, Parasites and People

## Companion Animal Parasite Council
## www.petsandparasites.org

Dogs and cats are not just pets. They are treated like members of the family. And like any member of your family,
it's important to keep your companion animal healthy and free of parasites.
It is fairly common for a dog or cat to become infected with an internal or external parasite at some point in its
lifetime. Parasites can affect your pet in a variety of ways, ranging from simple irritation to causing life-threatening
conditions if left untreated. Some parasites can even infect and transmit diseases to you and your family.
Your veterinarian can help prevent, accurately diagnose and safely treat parasites and other health problems that not
only affect your dog or cat, but also the safety of you and your family.
For more information on how parasites affect your dog or cat, the health risks to people and prevention tips, please
visit us at www.petsandparasites.org.

## What is a zoonotic disease?

Zoonoses, or zoonotic diseases, are those diseases that can be transmitted directly or indirectly from animals to
humans. For example, some worms can be transmitted in the environment.

## What is a vector-borne disease?

Vector-borne diseases are those transmitted by fleas or ticks among other parasites that infest dogs and cats. They
can affect pets and people. Ticks can transmit a large number of "vector-borne" diseases in North America including
ehrlichiosis, Lyme disease, relapsing fever, Rocky Mountain spotted fever and tularemia.

## Parasites that may affect your pet

• Coccidia • Giardia • Mange Mites • Ticks
• Ear Mites • Heartworms • Roundworms • Toxoplasmosis
• Fleas • Hookworms • Tapeworms • Whipworms

## Common questions about pets and parasites

*Do fleas and ticks on my pet present a health risk to my family?*

Yes. Fleas and ticks can carry and either directly or indirectly transmit several potential illnesses of humans. For example, rickettsiosis (infection with Rickettsia) can be transmitted directly by ticks. Bartonellosis (infection with
Bartonella) is transmitted between cats by fleas and then may spread to people. Also, fleas serve as an intermediate host for tapeworms, which can infect both your pet and humans.

*What kind of internal parasites or worms can infect my cat or dog?*

There are a number of intestinal worms that can infect dogs and cats, and they vary according to the species. In general, these include roundworms, hookworms, whipworms and tapeworms, and they are very prolific. In fact, one worm can produce more than 100,000 eggs per day, which are then passed in the pet's feces and spread throughout the area the pet roams. Once in the environment, some of these eggs can remain infective and present a health risk for your pet and humans for years.

*If my dog or cat has intestinal worms, how can these parasites infect humans?*

Roundworms are the most common intestinal parasite of pets and the most likely to be transmitted to humans.

Humans can accidentally ingest infective worm eggs that have been passed through the pet's feces and left in the environment. The eggs can then hatch in the human's intestinal tract, and the immature worms can travel to various tissues in the body, including the eyes and brain, potentially causing serious infections.
For more frequently asked questions and answers, please visit us at www.petsandparasites.org or consult with your veterinarian.

## Reducing risks for your family

You can reduce the risk of parasitic infection to your family by eliminating parasites from pets; restricting access to contaminated areas, such as sandboxes, pet "walk areas," and other high-traffic areas; and practicing good personal hygiene.
Disposing of pet feces on a regular basis can help remove potentially infective worm eggs before they become distributed in the environment and are picked up or ingested by pets or humans.

## Year-round prevention

Parasites can infect your pet any time of year. External parasites, such as fleas and ticks, may be less prevalent outside during certain times of the year; however, they often survive in the house during the winter months, creating an uninterrupted life cycle. Other internal parasites, such as worms, may affect your pet all year long. That's why it's important to consult with your veterinarian to implement a year-round parasite control program.

## What can I do?

Responsible pet parasite control can reduce the risks associated with transmission of parasitic diseases from pets to people. By following a few simple guidelines, pet owners can better protect their pets and their family.
• Practice good personal hygiene.
• Use a preventative flea and/or tick treatment year-round.
• Only feed pets cooked or prepared food (not raw meat).
• Minimize exposure to high-traffic pet areas.
• Clean up pet feces regularly.
• Visit your veterinarian for annual testing and physical examination.
• Administer worming medications as recommended by your veterinarian.
• Ask your veterinarian about parasite infection risks and effective year-round preventative control measures administered monthly.
For more important information about parasite control guidelines, ask your veterinarian or visit us at www.petsandparasites.org.

## The Companion Animal Parasite Council

The Companion Animal Parasite Council (CAPC) is an independent council of veterinarians and other animal healthcare professionals established to create guidelines for the optimal control of internal and external parasites that threaten the health of pets and people. It brings together broad expertise in parasitology, internal medicine, public health, veterinary law, private practice and association leadership.
Initially convened in 2002, CAPC was formed with the express purpose of changing the way veterinary professionals and pet owners approach parasite management. The CAPC advocates best practices for protecting pets from parasitic infections and reducing the risk of zoonotic parasite transmission.
For more information about how parasites may affect your pet, please visit us at www.petsandparasites.org.