Choosing the Safest Vaccines for Your Pet

Vaccines are one of the most notable, life-saving medical innovations. (Thank you, Dr. Jenner.) They rank right up there with anesthesia, antibiotics, and hand washing. (Thank you Drs. Morton, Fleming, and Lister.) The ability to administer a small dose replica of a deadly germ, to teach our immune systems how to fight off the true threat, is truly amazing science. People no longer fear dying of small pox or polio. Similarly, we can rest assured that our beloved pets are protected from parvo, distemper, and several other diseases.

How do vaccines work?
A vaccine works by activating the immune system to produce antibodies, which can fight off the viruses or bacteria that cause disease. The activated immune system works hard to prepare its response to invasion. Ideally, the white blood cells work without incident, and there are few outward signs of the important accomplishments going on within the immune system. Sometimes, however, mild side effects are noticeable.

What are the side effects?
Mild fever and lethargy may accompany vaccination, or sometimes soreness at the injection site. Occasionally an immune system can become over-activated, and over-respond to a vaccine. This can result in an allergic reaction, anaphylaxis (which can be life-threatening), and severe illness. Felines, being medically peculiar in almost every way, actually risk developing cancer from certain vaccines.

How can vaccine risks be mitigated?
Luckily, thanks to vaccine science advancements, it's possible to mitigate risks and unwanted side effects. Scientists now use recombinant DNA technology, viral engineering, and a host of other advanced techniques to make safer, more effective vaccines. For example, some of today’s re-engineered vaccines no longer require harsh additives to secure immunity. For cats, the risk of developing cancer from one of these milder vaccines is nearly eliminated. You might be aware of the state-mandated rabies shot, with required renewal for cats every three years. This three-year vaccine carries with it a high cancer and vaccine reaction risk. Alternatively, we now have access to a much gentler rabies shot, which lasts for one year, satisfies the state requirement, and massively reduces the risk of problems. (See Daisy's Story in the sidebar.)

What's the right vaccine choice?
Our clinic is dedicated to providing only the safest, gentlest, and most effective vaccines. We understand that some of the improved vaccine technology comes with a relatively higher price tag, but we feel that it's a worthwhile exchange for fewer reactions and cancer risks. Our pets are family members; naturally, we want what is best for them. Besides choosing safer vaccine options, you can reduce risks by making informed choices about which diseases warrant vaccination (in light of your pet’s lifestyle), and also by timing vaccines appropriately. Ask your veterinarian to explain both considerations.
5 Myths About Feeding Cats

Our team often receives questions about cat food and the ideal diet for cats. Plus, certain supermarket brands perpetuate misconceptions about cat’s dietary needs. So before you clip your next cat food coupon, be sure you’re up to speed on these common myths and realities:

1. **You should always avoid canned cat food to promote your cat’s dental health.**
   *Truth:* Canned food alone will not cause dental issues, and there are actually several reasons why cats can benefit from consuming some canned food. Moist canned food helps to support kidney function. It’s also more filling, which can help cats to stay slender. Finally, every cat should be exposed to canned and dry food textures at a young age, so she learns to accept both. Later in life, many cats will need to assume a canned diet for medical reasons; familiarity will ease the transition.

   As long as you provide daily portions of dry food, your cat’s teeth will get the tartar removing benefits they need—especially if the brand is specifically designed to prevent tartar, such as Hill’s Science Diet Oral Care. Ideally, you should also brush your cat’s teeth daily.

2. **Cats need a variety of shapes, colors, and food brands to be happy, consistent eaters.**
   *Truth:* Many of the colorful, grocery-brand cat foods contain fillers and low-quality calories. These foods are commonly associated with urinary tract and digestive problems in cats. Dry, brown food is perfectly suitable; your cat will not get bored.

   While it is a good idea to expose your cats to different textures and protein sources when they are young, it’s not advisable to switch labels every week. Pick one good brand, such as Hill’s Science Diet, and serve a limited number of flavors, including canned and dry food.

3. **Cat foods designed to promote urinary health will prevent urinary problems.**
   *Truth:* Most of the grocery store products labeled as "urinary health" foods are actually too aggressive in lowering the pH of your cat’s urine. Too much can lead to calcium oxalate bladder stones. If your cat has been diagnosed with urinary problems, only your veterinarian should tell you which diet elements will safely help to prevent further problems.

4. **Cats should be fed low-fat food to control weight gain.**
   *Truth:* Cats are carnivores. Ironically, many diet brands labeled as "light" or "low-fat" are very high in carbohydrates; cats don't need too many of those. Instead, cats require adequate protein, plus moderate fat for ideal body condition and maintenance of lean muscle.

   Feeding a small portion of dry food (to exercise the teeth) and a moderate amount of canned food (for protein without the carbs) is a good strategy that will keep most cats lean. Every cat's body composition is different, however, and ideal body weight for an adult cat can range dramatically. Ask your veterinarian to help you determine sensible portions for your cat.

5. **Cats will automatically get fat after they are spayed or neutered.**
   *Truth:* Intact cats that roam free outside will definitely burn more calories than house cats. That’s because they’re so busy fighting for territory and running away from coyotes. Luckily, most cats are safely indoors all or most of the time. After being spayed or neutered, they aren't susceptible to hormonal-driven fighting, and they probably cover less ground.

   The confusion comes from pet food bags, which still base serving sizes on the needs of highly active, outdoor cats (and on selling more cat food). The trick is to feed your pet the amount of calories he actually needs for his lifestyle. For house cats, this is generally about half of the recommended serving.
The Secret Lives of Fleas

The weather is getting warmer and increased humidity is on the way... You may not appreciate the return of hot, muggy days, but fleas certainly do. These tiny, blood-sucking insects can be a real nuisance. They can cause anemia, spread disease, encourage tapeworm infections, and create severe skin problems for pets that are allergic to flea bites. Luckily, with some background knowledge of flea patterns and lifecycles, infestation is preventable.

How Fleas Find You
Outside, hungry adult fleas hunt for warm host environments - pets are often the ideal target. Even if your pet doesn't carry fleas inside, your home is not totally immune. Fleas have been known to infiltrate screen windows or ride into homes on people's clothing. Worse, fleas are so tiny they may be hard to notice right away.

How Fleas Spread
About 24 hours after a female flea has fed on pet blood, she will start laying eggs at the rate of 40 per day. She can live for up to six weeks-continuing to lay eggs at this rate. The eggs fall off of pets and land in lawns, carpets, cracks in hardwood floors, upholstery, and pet beds. The eggs hatch and the baby fleas go through their larval stage. If your house or yard is at a comfortable temperature (70 to 90 degrees), this may take as little as nine days. The larvae soon develop cocoons, which are sticky. They adhere to carpets and nestle in other fibers or crevices. In their protected cocoons, they can live for months while monitoring fluctuations in carbon monoxide levels, light, and movement; this is how they know that dogs or cats are near. As soon as they get the signal, they emerge as hungry adult fleas. This whole cycle can take less than three weeks. With some basic math, it's easy to see how a few fleas can turn into a huge infestation during the course of one summer.

How to Find Fleas
The first key to protecting your pet and your home is vigilance. Know that fleas are small and hard to spot. Sometimes the only sign they're present is the "flea dirt" they leave behind. A flea comb is a great tool to use routinely. Carefully comb your pet's coat, looking for signs of fleas and flea excrement. (Keep in mind, some pets are very adept at grooming-especially if they are itchy and nursing a rash. They may clean away flea evidence before it can be found. Any pet with a skin rash should be seen by a veterinarian.)

How to Control and Prevent Fleas
Many of today's flea control products are very effective. They kill would-be invaders and even sterilize resistant adults, so surviving fleas cannot lay eggs to pass on their strong genes. Using the right product, carefully and routinely, is often enough to prevent flea infestation. Control products that work the best can fluctuate from year to year, as flea populations change. Your veterinarian will tell you which options are best for your pet. Remember: always consult your veterinarian before trying a flea control product. Some over-the-counter products are actually very toxic and not recommended.
This month's client question: What is the best supplement for my pet?

By law, commercial pet foods are required to contain all the vitamins and minerals pets need. In fact, adding more of certain vitamins to the diet can do more harm than good. So unless your pet has a specific medical condition, for which your veterinarian has prescribed dietary supplements, multivitamins and other nutrition products are unnecessary.

One notable exception: omega-3 fatty acids. The benefits are so impressive, I not only give it to my pets, I also take it myself. When I mention omega-3 to clients, many already have some at home because it was recommended by a physician.

What is omega-3 fatty acid?
Omega-3 is a category of essential fats that aid in healthy body functions. Our bodies don't produce these nutrients, so we need to add them into our diets. Fatty fish is one rich source of omega-3. But since most humans and pets aren't eating fish daily, supplements can help.

Omega-3 is most effective when consumed in proportion with another essential fatty acid, omega-6. Typical human diets and pet foods are very rich in omega-6 fatty acids already, so you don't need to worry about supplementing that category.

What are the benefits associated with an ideal ratio of omega-3 and omega-6?
Most of the benefits come from reduced inflammation. Skin is calmer and better protected from allergens and infections. The liver is more efficient in processing daily toxins. The kidneys are better protected from blood pressure damage and daily stress. The joints are less inflamed and less prone to degeneration from arthritis. Omega-3 has also been linked to improved cognitive function and anti-aging effects in the brain. And this is just a simplified list! Medical and veterinary researchers are constantly releasing new studies that find added benefits.

How do I choose the right omega-3 product for my pet?
Your veterinarian would be happy to help you find the ideal omega-3 supplement for your pet. Small animals do best on pet-designed supplements, while big dogs may be suited to human products. The label on quality fish oil supplements will list the EPA, DHA, and sometimes GLA in the product. Dogs and cats should get 15-25 mg EPA per pound of body weight.

Supplements should be taken daily, with food. Some health benefits take time to achieve, but most owners will notice pets have a shinier coat within the first few weeks. This lets you know that your pet is already healthier on the inside.
Cat Scratch Fever FAQs

You've probably heard the name before. Unfortunately, "cat scratch fever" isn't just an old Ted Nugent song. It's also a disease that people can catch from cats. The bacteria, Bartonella henselae, is transmitted through the scratch (or possibly bite) of an infected cat. Since cat scratch fever is transmitted from animals to people, it is categorized as a zoonotic disease.

Is Cat Scratch Fever Serious?
For the average person, cat scratch fever is not a major health concern. An infection typically causes minor swelling near the scratch or bite. Several weeks later, there may be swelling of nearby lymph nodes and a fever. This mild syndrome usually resolves without any further problems. Someone with a compromised immune system, however, can develop severe systemic infections from Bartonella infection.

Is My Cat at Risk?
Most cats do not get very sick from Bartonella infection. Unless they have underlying health issues, they may not appear ill or unusual.

Is My Family at Risk?
Cats are only able to spread cat scratch fever to humans if the bacteria is present on their claws or teeth. Fleas are to blame for putting it there. Cats with fleas will likely scratch at their bites, and pick up flea feces containing Bartonella on their claws. If there are no fleas, then there will be no spread of the infection.

Should My Cat Be Tested?
Routine screenings for the bacteria aren't recommended, in part because there's no reliable way to test cats for Bartonella. Some of the tests available check for antibodies to the bacteria. This only proves that a cat has been exposed at some point. (In regions like New England, where warm and humid weather promote flea reproduction, as many as 40 percent of cats may test positive.) Other tests look for the presence of bacteria in the cat's body. These often miss the disease, as the bacteria circulates intermittently.

How Can Cat Scratch Fever Be Prevented?
Prevention of cat scratch fever is mostly a question of flea control. There are several safe and effective products that can be used year-round. Never use over-the-counter flea products without consulting your veterinarian. Many of the old-fashioned, retail brands contain poisons that are very toxic to cats.
Why Do Dogs Get Ear Infections?

Ear infections are very common in dogs, but why do they get them? Let's start with some basic biology.

A normal ear canal has microorganisms that naturally live there, which is known as "flora". Dogs' ears have Malassezia yeast and Staph bacteria that live in harmony. If the balance gets disrupted in any way, one or both can overgrow and cause an infection of the ear canal, known as "otitis externa". Other bacteria can invade the already irritated ear canal and cause a very severe, opportunistic infection.

Causes of Ear Infections
Ear infections can be triggered in many ways, but these four are the most common:

Anatomy:
Dogs with floppy ears get more ear infections. When the flap of the ear (pinna) covers the opening to the ear canal, moisture, dirt and heat get trapped. Yeast love to grow out of control when ears are hot and humid.

Environment:
Swimming and playing out in the rain are huge risk factors for getting ear infections, especially for floppy-eared dogs, because those ears don't dry out on their own. Ear flora really loves to grow in ears filled with pond water. Just drying the ears after a swim can prevent a lot of ear infections.

Food allergies:
It may sound strange, but food allergies are a common cause of recurrent ear infections. Dogs can develop an allergy to anything they are fed, but the most common offenders are meat proteins and grains. If a dog is constantly exposed to allergenic foods, it can disrupt the balance anywhere in the body, including the ears.

Environmental allergies:
Dogs can have allergies to pollens, molds, dust mites -- just about anything in the environment, even human dander. Environmental allergies cause similar problems as food allergies but can vary with seasons.

Detection and Treatment
Head shaking, scratching at the ears, and ear discharge or odor are all signs of an ear infection. Your veterinarian will look at your dog's ears and look at a swab of ear discharge under the microscope to determine what organisms are involved. Different organisms require different medications.

The best way to be sure the infection gets better is to make sure your dog gets the right medicine for his or her infection. Many dogs will also need an ear flush to make sure the discharge gets cleaned out so the medicine can get in to do its work. If your veterinarian sees signs of an opportunistic bacterial infection, he or she will send a culture to the lab. The results will determine the type of bacteria and the appropriate medications since standard antibiotics often will not work. For more information about canine ear infections, please see our handout on ear problems on our website.
Thunderstorm and Firework Phobias

Do thunderstorms and 4th of July fireworks send your dog into a panic? Dogs may be genetically programmed to react to loud noises, but environmental factors and learned behaviors also play a role. Noise-induced anxiety can range from mild tension or drooling, to anxiety that is so extreme that your pet may even jump through a window or screen door to escape.

If your dog is frightened by thunder and fireworks, try the following:

**Set up a safe haven in the house.**
Set up a crate or other comfortable, snug space in a basement or closet that buffers outside noises. Practice going into the safe place, and give your dog a favorite treat or toy as a reward. Softly play recordings of storms or fireworks while your dog is in the safe place to help your pet become used to the sounds during positive activities. Take your dog to the safe place during a actual thunderstorm or fireworks show and play music to disguise the outside noises.

**Turn to special products for help**
Many dog owners report success using products designed to reduce phobias. Mutt Muffs® (www.safeandsoundpets.com) are noise-blocking earmuffs that come in a variety of sizes. Many dogs will also feel calmer in a snug wrap called a Thunder Shirt® (www.thundershirt.com), which works similarly to swaddling for babies. There is even Dog Appeasing Pheromone (DAP) (www.dogappeasingpheromone.com), widely available on the Internet as a spray, diffuser or collar. The scent reduces anxiety in dogs and can be used to make the safe haven more relaxing and inviting.

**Get professional help**
Untreated canine anxiety typically escalates with each exposure to the fear-causing stimulus. If you have a very anxious or panic-prone dog, do not hesitate to seek advice from a veterinarian. If needed, your veterinarian can prescribe a short-acting anti-anxiety drug that will give tremendous relief to your dog if taken prior to fireworks shows or thunderstorms. If your dog has generalized anxiety and is panic-stricken during storms, talk to your veterinarian about drugs to help control anxiety at all times.

For more information, please see the page on fearful behaviors in the pet care handout section of our website.
Ice Melt Warning

Did you know that products intended to remove or prevent ice from your walkways can be hazardous to your pet's health? Here's what the ASPCA has to say:

"Ice melt contains calcium chloride, which has the potential to be corrosive. It may cause severe skin and gastrointestinal tract irritation, depending on the concentration and circumstances of exposure. Because of this, if you plan to use this ice melt on your property, take care not to apply it thickly-and wipe your dog's paws off thoroughly if he or she steps on any of the crystals or pellets.

As an extra note, keep a look out for ice melt products that are labeled as "pet safe." You may wish to consider these as a relatively safer alternative.

What worms are contagious to people?

Many common pet ailments cannot be transmitted to people. Those that can be are called "zoonotic". Unfortunately, two of the most common intestinal worms are zoonotic and can cause significant problems for humans, especially children.

Roundworms or Toxacarasis:
Puppies and kittens catch this worm from their moms, from contaminated soil, or from eating bugs and wildlife. The worm eggs are then shed in your pet's poop. Eggs in fresh poop are not contagious to people but they become very harmful once they have been sitting in the soil, sandbox, beach or playground. If fingers touch contaminated soil and then go in a person's mouth, the eggs can hatch inside the body. The eggs release larvae (baby worms). As the larvae migrate, they cause a severe illness called "Visceral Larval Migrans". The worms generally migrate through the internal organs, causing damage as they go. They have a tendency to find the brain and eyes, causing permanent damage and blindness. Roundworm infection is an important cause of acquired blindness in children.

Hookworms or Ancyclostomasis:
Similar to roundworms, this worm can also be spread by the pet's mom, the environment or wildlife ingestion. Even worse, the larvae of this worm can also go straight through a pet's - or a human's - skin to cause infection. It is quite common for people to walk on contaminated soil or sand with bare feet and get an infection called "Cutaneous Larval Migrans." The condition causes a very itchy rash everywhere that larvae have migrated. It's treatable, but no fun!

Prevention

For the good of both your pets and your loved ones, it is important to prevent the spread of parasites. Here are a few essential tips:

- Follow your veterinarian's recommendations for routine parasite prevention so the eggs do not get shed into the environment. Monthly heartworm preventatives are very important. Cats that go outside often test positive for worms since they hunt, so they need to always get a monthly preventative as prescribed by their veterinarian.
- Keep your dog on a leash and pick up poop promptly to decrease environmental contamination.
- Sandboxes should be covered when not in use so they do not become an outdoor litter box for cats.
- Pets should be kept off of playgrounds and restricted beach areas.
- Children should be taught to wash their hands after touching a pet or playing outside.
- Restrict your pet's access to house plants since up to 20% of potting soil is contaminated with parasite eggs.

For more information visit www.capcvet.org.
Which is more important: getting my new puppy socialized, or getting him fully vaccinated, first?

Puppy Training Classes
Training classes are a great way for families to bond with their dogs, while learning to curb bad behavior. Puppy training classes are especially helpful in teaching dogs to listen and obey, even when distractions are calling. Keep in mind, any dog can develop behavior issues-even if he is raised correctly. But dogs that are well-socialized have the best chance of being friendly, agreeable pets. Unfortunately, most socialization activities - especially those conducted at a training class - carry some risk for disease exposure.

Young Immune Systems
Puppies actually get some antibodies from their mothers, before they are born and throughout the nursing stage. These maternal antibodies linger in their systems until around 14 to 16 weeks of age. While not foolproof, maternal antibodies do provide some protection against serious diseases like canine parvovirus (CPV), commonly known as "parvo," and canine distemper.

Preventative Medicine
When you bring him home, your new puppy may have already received one vaccine and a dose or two of worm medication, but probably little else for preventative medical care. Vaccines and preventative medicine are very important at this age, as young dogs begin to encounter all of the diseases of the outside world. But puppies can't be fully vaccinated as soon as they leave their mothers. Their immune systems still too immature.

Potential Risks
As you're waiting for your dog to receive all his vaccines, there are several potential risks you can watch for. The most common diseases for puppies to catch are upper respiratory infections, kennel cough, intestinal parasites, and skin parasites. It is possible to contract one of these even at the most reputable puppy class, or while walking in the nicest neighborhood. Common infections are usually very treatable. More serious diseases and infections exist, but they are much less common.

Early Socialization vs. Full Vaccination: The Verdict
The overwhelming consensus among experts is that the importance of puppy socialization trumps the need to be fully vaccinated. Yes, your puppy may catch something at puppy class, but chances are good it will be very treatable. Keep bringing your puppy for vaccine appointments, according to your veterinarian's recommended schedule. If your puppy shows any signs of illness (coughing, sneezing, diarrhea), skip puppy class and call your veterinarian.

Meanwhile, enjoy these early weeks of getting to know your new family member. Take your puppy to the kindergarten; stroll through the neighborhood; visit a pet-friendly beach. Your veterinarian fully supports you!
Your Dog and the Dangers of Water Play

When temperatures rise, playing in the water can be a great way to cool down with your dog. But do your homework before you dive in... Here are four common dangers associated with water play, along with easy tips to protect your pet:

1. Ear Infections
Dogs are prone to getting ear infections after swimming, especially if they have floppy ears. A warm, wet ear canal is the perfect breeding ground for yeast and bacteria. To prevent ear infections, it's always a good idea to dry your dog’s ears after swimming and water play. For dogs who have a history of ear infections, it's also advisable to use an ear cleaner that is recommended by your veterinarian.

2. Hot Spots
Wet fur can trap moisture against the skin, causing irritation or infection. Worse, many dogs will follow their natural instincts, repeatedly licking the irritated spots. Excessive licking can lead to pyotraumatic dermatitis: a.k.a. an infected hot spot. These lesions generally require medical care and antibiotics. A good preventative measure involves towel drying of your dog’s wet coat and checking for clumps of matted hair. If your dog has a long or dense coat, consider a summer haircut.

3. Drowning
Not all dogs can swim. Swimming requires good instincts and the correct body shape. Several popular breeds—including bulldogs and pugs—are too barrel chested and front-heavy to be good swimmers. Whether your breed is a natural swimmer or not, always supervise pets near the water. If an accident should occur, do not hesitate to seek emergency medical care. Even a brief, near-drowning incident can have severe health consequences.

4. Sunburn
Protecting your dog or cat from sunburn is an essential part of summertime pet care. Any area of a dog or cat covered by thin hair or by white hair is susceptible to sunburn. Pay attention to your pet’s face, ear tips, back, and even belly—especially if your pet likes to lounge in the sun. Repeated sunburns can lead to skin cancer. Luckily, sunburns are easily preventable with sunblock. Most formulas made for children are also safe to use on dogs and cats, but check with your veterinarian first. Meanwhile, find more information on pets and sunburns here.