## Urine Lawn Burns

Alkaline urine, urine with a high pH , is generally the reason for grass burning. You can try 1 tsp- 1 Tbsp cider vinegar (doggie salad dressing) on the food as a urinary acidifier. Use the smaller dose for small dogs, and 1 Tbsp for large dogs. If that does not work you could try prescription urinary acidifiers. These work in $95 \%$ of urine burn cases.

The problem (for the homeowner, not the dog) is worsened by high urine concentration on the grass, especially in dry weather. If you flood the spot with water immediately, it will dilute the urine and the grass won't scald. The ammonia in urine is a great fertilizer, however, and you may also notice that the grass at the edge of the scalded spot is wonderfully green and fast growing.

Some local farm and garden stores recommend gypsum pellets for urine spots in the grass. They recommend sprinkling it specifically on the brown spots in the spring and doing a more generalized sprinkling (amounts are on the bag) on all areas the dog uses before snow falls in the Fall. There is some improvement with this method, not huge amounts, but it is inexpensive and could be worth a try.

## The Proper Use of Praise

By Janie Cain

Praise is a common element found in most training programs. When praising a dog the owner is communicating his or her approval of the pet's behavior. Yet the use of praise tends to be a widely misunderstood and misapplied training tool. Many times praise is given too freely, too sporadically, or is ill timed. Understanding the proper use of praise can improve your training program and help your dog achieve higher levels of success.

## What is Praise?

Praise is simply communicating to your pet that you approve of his or her actions, whether intentionally offered or not. For example, you ask your dog to sit and he responds promptly; a "Good Boy" is definitely deserved. Or, you find your normally rambunctious Black Labrador lying quietly in the kitchen. This is a great opportunity to verbally reward your canine companion for doing something right.

Praise can also be used to encourage a pet on to higher levels of performance such as steadier sit stays, quicker response to "come", or a calmer greeting of guests. Using praise in this manner is no different than the enthusiastic cheering of football, tennis, and soccer coaches. Savvy coaches know that their students need well-timed information when they have done things right, as well as wrong.

## Timing is Everything

In order for your praise to be effective you need to mark the desired behavior as it happens. If your praise is too early or too late, your dog will become confused as to what you actually want him or her to do.

To mark good behavior you can get as sophisticated as developing a conditioned reinforcer, such as, a whistle or click. Or, you can simply use a short, to the point, praise word, such as, "good" or "yes." Either way, you will be able to quickly communicate what behavior you liked. Long, drawn out praise responses like "Good Boy...what a clever fellow," are too lengthy to properly identify the precise behavior you wish to reward. Instead, use these longer phrases after your marker word.

## The Right Tone

An enthusiastic, upbeat tone will improve your dog's confidence while also asserting your leadership position. This hearty form of praise is commonly referred to as praising your dog "up." The opposite, praising your dog "down," is better known as baby talking or sympathetically reassuring your pet..."It's ok puppy...don't worry...it's ok." (By using this type of praise when your pet is startled or frightened it will validate your pet's fear and actually encourages your dog to act fearful in strange situations.) Hearty praise is used to reward your dog for doing the right thing in the right way.

## Banking Your Praise

Just as treats or corrections need to be regulated depending upon the circumstances, praise should also be regulated. The ability to "bank one's praise" (offering a simple good on a sit stay for an advanced dog vs. a virtual celebration when a puppy sits on command for the first time) is a skill that separates the good trainers from the great ones. The term banking comes from the technique of "expending" slips of praise here and there for low and moderate levels of performance while "saving up" heaping portions of praise for exceptional efforts.

Exceptional trainers instantly recognize when a dog understands what is expected. These trainers instantly increase the criteria that the dog must attain in order to receive the same level of praise. The ability to read a dog and self-discipline are key training skills needed to masterfully deliver praise in the right quantity at the right time.

## DOES YOUR DOG'S BARKING DRIVE YOU CRAZY?

Does your dog bark at visitors or passers by? Does your dog bark when you're not home? Is the noise annoying your family and neighbors? Don't despair, there's hope for your dog!

The best treatment available is an ingenious collar called the ABS Anti-barking System. It is a safe, humane behavior-modifying training tool. When it senses the dog bark it emits a puff of citronella scent, which is offensive to dogs. It doesn't shock them or hurt them, it just smells bad. Most dogs very quickly learn to associate the barking and the bad smell and will soon cease barking when they wear the collar.

The collar has a battery operated vibration sensor. It is available in two sizes. The citronella comes in cartridges that are replaced as needed. The company reports an $88 \%$ success rate with use of the collar alone and almost $100 \%$ success if the collar is combined with assistance from a behaviorist.

The cost of the collar is about $\$ 180$ to $\$ 200$, and refill cartridges are about $\$ 22$. If you don't want to invest the money for an anti-bark collar there are other things you can do to discourage barking. First, do not "bark" back at the dog. Shouting only increases the barking and its volume. When the dog barks in your presence, call him to you as quietly as the barking will allow. If the barking is about something unusual that you think needs attention, go investigate, but do so quietly. "Shush" the dog with a whisper and hand signal (like putting your finger to your mouth) if he starts to bark again. Then go back to where you were and settle down. Call the dog, ask him to sit and keep him close by, praise and pet briefly if he stays calm and quiet. Leaving a leash on while you are practicing allows you to pull the dog toward you if he does not come and sit readily.

Be persistent with this routine for six weeks. You are trying to teach the dog an alternate behavior, sitting and staying by you, for which you can reward him. During the course of the six weeks you should start to notice the dog sound his first alarm bark, then turn and look to you. If you are out of the room, he will seek you. That is ideal watch dog behavior - to let you know of a problem or visitor and then look to you for direction on what to do next.

Barking when you aren't home is more difficult and complicated. This is where use of the ABS collar is ideal, but there are other ways to train a dog to be less territorial and reduce the noise your neighbors are complaining about as well. These take more space than this handout permits, so you may want to contact a trainer or behaviorist to help you start a behavioral program for your dog. Your veterinarian can probably refer you to a behavioral specialist.

## "How to Make a Doghouse a Happy Home"

Modified from an article by Frances Ingraham
New York Times News Service
Doghouses date back to the mid-1800's. The most common building material is still wood, although modeled plastic doghouses are available. The latter need no waterproofing, but can become very hot in summer. A doghouse should be large enough to accommodate your dog so that it can stand, stretch and turn around, but not so large that is body heat won't keep the inside warm in cooler weather.

All doghouses should be set a least 2 inches off the ground on bricks, a platform or cinder blocks and built of sturdy materials with insulation to protect the animal from wind, snow and rain. The roof should be waterproof and flat to help keep the dog's body heat in and serve as a secure roost or vantage point.

Provide a slight overhang to protect the entrance. A hinged roof will make it easier to clean the shelter or treat it with flea spray.

Ready-made doghouses of cedar or Dogloos, made from molded plastic, can be found at most fencing and feed stores. They cost between $\$ 60$ for a mid-size dog to $\$ 150$ for a very large dog.

Dogs may feel confined inside today's smaller individual doghouses, so consider a structure in which each end is hinged to open. This can also aid air circulation on a summer day.

Some plans call for an interior wall that creates an entry hall, which protects the sleeping area from direct wind. The divider wall can be removed in warm weather. If there is no hall to create protection, the entrance opening should be offset and cut to one side instead of the center; that should keep wind from blowing directly on your pet.

A protective canvas or plastic strip flap will help to keep the elements out. If possible, the location of the doghouse should be changed with each season to keep your dog comfortable. In winter, the doghouse should be placed on the southeast or east side of your house to get the winter sun.

Among the more pampered pet options you might consider for a custom-built doghouse are skylights, a synthetic-turf patio, window boxes, a heat source, air conditioning and picture window of shatterproof glass or thick scratch-proof plastic.

Before buying a doghouse, make sure that it's appropriate for your animal. Doghouses are not recommended for older dogs, dogs that are small or thin-coated, and puppies. These dogs should be inside, especially in hot or cold weather.

Dogs shouldn't be left in a doghouse if the temperature dips below 20 degrees, according to the Humane Society of the United States. At these temperatures, dogs can experience hypothermia or frostbite. Some people bring their dog in the house at night during winter and leave it outside during the day. This makes it very difficult for the pet to adjust - he'll either be cold when outside or hot when inside. He can't have a haircoat appropriate for both 20 and 70 degrees at the same time. A partially heated garage, breezeway or basement may be a better option at night, to minimize temperature fluctuation.

Bedding material is important to keep your pet snug and warm in cold weather. Cedar shavings or straw (not hay) are best and should be changed or freshened up on a regular basis to keep the house clean. Shy away from fabric bedding in the doghouse, as it will hold moisture.

For safety reasons, to prevent choking or injury to the legs from getting the rope or chain tangled, never tie your dog to his house - a fenced kenned area around it is necessary. Always
keep a fresh water source nearby. To maintain the dog's body heat, the amount of food you feed should be increased by $25 \%$ or more in cold weather.

Outdoor dogs are prone to insect bites and stings, often don't get enough exercise or attention and sometimes suffer from neglect, even lack of food and water. Dogs are social animals who need interaction with people to be happy. If you have a pet be sure it is properly cared for and gets loving attention every day, even if it is outdoors.

## Safety Secrets for Pet Owners

The most dangerous place for dogs at any time of the year is the driveway. It's natural for dogs to run out to greet us as we pull in, or to stand or lie where we can't see them. Keep your pets in the house when you know someone will be pulling in or out of the driveway.

Buckle in your pets. Crash test studies with dummies confirm that a pet is just as vulnerable to injury in a car crash as a child. Experts advise using an adjustable restraint that attaches a dog's harness to the seat belt, or strapping your dog into a pet safety harness. Both are available in pet stores or on the Internet (type in pet restraint). Keep cats in their carrier and loop the seat belt through the carrier's handle.

Don't let your dog stick his head out the window. This is a frequent cause of eye and ear infections, and injuries to the eyes and face from flying debris.

Never transport your dog in the back of an open pick-up truck. Not only can he fly out in the event of a sudden stop or turn, but eye and ear infections, and burns to the paws from the hot truck bed, are also common. Thousands of dogs are treated annually for fractured limbs due to pick-up truck injuries and many die. If you must transport your dog this way, purchase a safety harness to keep him from falling out.

Warm weather means more visits to veterinary offices for skin, eye and ear problems. Warm, humid weather, as well as swimming, rain and time spent outdoors, all foster the development of diseases involving these organs. Allergies, parasites such as fleas and ear mites, infections caused by yeast or staph bacteria, all take their toll. Help prevent these diseases by protecting your pet with flea and tick preventatives, clean ears often, use ear drying solutions after swimming, and notify your veterinarian if symptoms appear.

Don't put out rat, mouse or ant baits where your pets can eat them. Be aware, too, that eating a rodent that has consumed these poisons can also kill your pet. Clean up antifreeze spills quickly and don't let your pet in the garage or driveway when you are using antifreeze. It only takes a few licks of this sweet substance to kill your pet.

Be on the alert for signs of heat stroke this summer. Usually occurring in dogs who over-exercise in warm or hot weather, it can be fatal within a very short time. Factors that increase the risk for heat stroke include: the pet is black in color, which absorbs more heat; the weather is humid, making panting less effective; it's early in the season and the dog is not yet accustomed to the heat; the pet is overweight; the pet is a brachycephalic breed such as a bulldog or pug, whose nasal passages are not efficient at dissipating heat; the pet is locked in a car, even with the windows partway down; the pet has inadequate shelter from the sun or inadequate water; the pet is feverish, seizuring or otherwise ill.

Signs of heat stroke include heavy panting; staring; anxious expression; refusal to obey commands; warm, dry skin; high fever; rapid heart rate; vomiting; collapse; seizures; death.

## Weight Control and Exercise for Dogs

Over half the dogs veterinarians see every year are overweight, many extremely so. Being overweight has some serious consequences for dogs, just as it does for people. In fact, the average lifespan of an obese pet is years shorter than that of pets who stay slim and trim. Weight related diseases include arthritis, heart disease, diabetes, liver disease, bladder problems and many types of cancer.

Most of our house pets are not very active. Not only are many of them overweight but they
also don't get enough exercise. This is bad for their health and contributes to behavior problems - a dog that is bored and inactive is more likely to be destructive or aggressive.

So what should you do to prevent these problems?
Some dogs are better at burning calories than others, but for most dogs the recommended feeding amounts on dog food bags are way too generous. If you are feeding a good quality food your dog can eat much less than the label says and still get all the nutrients necessary for good health. Feed only what your pet needs to maintain a healthy weight.

You should be able to easily feel your dog's ribs and backbone under his skin. If there is lots of padding over the ribs your dog is probably overweight. You should be able to see his waist - his body should curve up behind his ribs if you are looking at him from the side. Looking down from above you should also see a pronounced narrowing of the body

The average life expectancy of an obese pet is $30 \%$ shorter than that of a normal weight pet.

A medium Milkbone biscuit has 110 calories.

One Bonz treat for a $10 \mathrm{lb} . \operatorname{dog}$ is like a whole bowl of ice cream for a person. behind the ribs. Also look for bulges over the hips, a common place for excess pounds to show up.

On the other hand, if your pet's ribs or backbone are visible, or very pronounced when you run your hand across them, your pet may be too thin.

Choose a good quality pet food which fits your pet's lifestyle. If your dog is very active, look for a food made for active dogs. If your pet is a couch potato, he needs a low calorie food.
Limit treats, snacks and table food. A medium Milkbone ${ }^{\text {TM }}$ dog biscuit contains over 100 calories. It doesn't take many extras to tip the scales, especially in small dogs. Avoid processed treats they are loaded with fat and salt, and aren't even good for your pet's teeth like harder biscuits are.

If you must feed treats (and almost everybody does!), give small pieces, or bits of the pet's regular food. Some dogs enjoy bits of carrot and other vegetables. These make fine, lowcal snacks.

Make sure your dog gets the exercise he needs. If your yard is fenced, let him run all he wants and if he tends to be lazy, get him up and moving with a game of frisbee or ball fetching every day. Walks are fine, although most people don't walk fast enough to give a medium or large dog a good workout. Jogging with your pet, or swimming, usually results in better fitness levels. How often does your dog really cut loose and RUN? Probably not often enough.

If your dog is already overweight he'll need an exercise program and/or a restricted calorie diet. Most "lite" foods available in supermarkets are only about 10-15\% less in calories than regular food. If you feed one of these, and give the same amount of food as you fed of the regular non diet food, your pet may stop gaining weight, but he probably won't lose any. To achieve a reasonable amount of weight loss in a reasonable amount of time you need to cut back in calories by $25-30 \%$. The easiest way to achieve this is to feed a prescription weight loss diet. These foods are lower in fat calories, so you can feed an amount large enough to
keep your pet feeling full, while still achieving weight loss. Your veterinarian can recommend one for you.

If you decide to increase your dog's exercise level, start slowly. Just as with people, an out of shape pet is in no condition to exercise too strenuously. Avoid heat stroke and sore paws from hot pavement by staying indoors on hot days, especially when the humidity is high. Panting is an
inefficient way to get rid of excess heat so dogs overheat easily. Also beware of too much running on pavement, as this stresses the joints. Dogs under a year of age, with immature joints, and those with arthritis, should do most of their exercising on grass.

Most pets become less active with age, so their calorie needs often go down as they get older. Decrease their food accordingly. Most geriatric pets benefit from a food made for older pets which is lower in fat and salt, such as Hill's Science Diet Senior © .

## limil snacks encouraqe exercise measure food feed an appropriate diet

## CARE OF THE SKIN, COAT, NAILS AND EARS

SKIN CARE ...
The skin is the heaviest single organ of the body, accounting for about $16 \%$ of the total body weight. The skin has many functions: it prevents water loss; it serves as a sensory organ; it protects the body from impact and friction injuries; it is elastic to allow for swelling; it protects against ultraviolet rays from the sun. The skin's glands, blood vessels and fatty tissue participate in thermoregulation, metabolism and excretion. The skin is also the body's first defense against disease.

Proper care of your pet's skin and coat is very important to his overall health. Skin and ear problems are among the most common reasons for pet owners to seek veterinary care. Check your pet's skin often and look for sores, lumps, bald spots, reddened areas and fleas. Call your vet if you find any abnormalities. Brush your pet regularly to prevent mats and tangles. Start when your puppy is young with short sessions and a soft brush. Reward your puppy with a treat when he sits still. Try to pick a time when he is quiet and sleepy, not when he's wanting to play!

How often you bathe your pet will depend on your lifestyle. Once a month is a good rule of thumb for an indoor dog. When your dog smells or looks dirty it's probably time for a bath. Be sure to use shampoos made for pets. Human soaps and shampoos are formulated for human skin pH , which is different from that of dogs. Human shampoos usually cause dry, irritated itchy skin in dogs.

If you need to bathe the face, place a little bland ophthalmic (eye) ointment in each of your pet's eyes before bathing to avoid irritation from soap. Use lukewarm water to bathe your pet and be sure to rinse thoroughly with a spray attachment. Soap residue will cause red, itchy skin. Towel dry your dog and then blow dry on low if needed.

If you don't have the facilities to bathe your dog yourself most groomers and veterinary clinics are equipped to do it for you. Owners of poodles, schnauzers, cocker spaniels and other breeds that need regular clipping usually see their groomer every six to twelve weeks.

Parasites such as fleas, or skin problems such as seborrhea or allergies, usually require bathing with a special therapeutic shampoo. A veterinary staff member can help you choose the product that is best for your situation. Many pets are prone to dry, flakey, irritated skin, especially in the winter when the air is dry. Special shampoos, oil rinses and vitamin-fatty acid supplements are all used to alleviate this problem. Your pet will also have a thicker, shinier haircoat when he or she is eating a good quality diet.

EAR CARE ...

Regular ear cleaning should also be part of your routine with your dog. Dogs with upright ears, such as German Shepherds, will only need occasional cleaning. Their ears receive plenty of air circulation and resist infections. Breeds such as Cocker Spaniels and Springer Spaniels often develop serious and chronic ear disease. Regular and thorough cleaning of the ears should be done at least once weekly in these breeds.

Instill a few drops of an ear cleaning solution made for pets. Massage the base of the ear to squeeze the cleaner down the entire length of the ear canal. Then wipe out any excess with a cotton ball.

If green, yellow or brown discharge appears on the cotton ball, or if the ear canal seems red, sore or swollen, contact your pet's veterinary clinic us right away. Ear infections are very painful to your dog, and are most easily treated if caught early.

If your dog swims often, regular use of ear drying solutions will help prevent infection from too much moisture in the ears. It is also a good idea to place cotton balls in your pet's ears before bathing to avoid getting soap in the ears. Don't forget to take the cotton back out again.

NAIL CARE . . .
Some dogs wear their toenails down from walking on hard surfaces and never need to have them clipped. Most of us aren't so lucky and our pets have nails that need regular trimming.

If your pet has white toenails, you will be able to see the pink blood vessel inside the nail. Do not cut back so far as to damage this vessel. It hurts and your pet will bleed. With dark toenails it's best to have someone with experience show you how to trim the nails. Many people prefer to let the veterinary technician or the groomer trim the toenails.

Toenail trimming will be far easier if a puppy is introduced to it slowly and patiently from a young age. The feet should be handled gently multiple times a day and the nails clipped here and there or filed short with a nail file. Let the puppy get accustomed to it before you hold him down and make him sit still for all his nails all at once.
Whether or not you plan to trim the nails yourself you should still go through this process. Your veterinarian or groomer will charge you more for nail trimming if your pet has to be muzzled or requires multiple people to hold it down for the procedure. A little training early on makes nail trimming a quick and painless task for all concerned.

## How To Avoid And Treat Behavior Problems in Puppies and Dogs

Dogs and people have lived together for thousands of years, but that doesn't mean we always understand each other. Living with pets can sometimes be as frustrating and confusing as living with people! The following program will help you make the most of your relationship with your dog.

Dogs are pack animals - they are social and like to interact with people and other dogs. You can use this sociality to your benefit; your dog will do what you want if it earns him praise or petting AND he considers you a leader in his pack. This is a key point. All dog packs have a leader dog who makes decisions for the rest of the group. Other dogs are subordinate to the leader. Your dog should never think he is the leader in your house. You are the one who should decide when to eat, when to go out, when to go to the veterinarian for a check up, or when to get a nail trim. As with children, dogs who have rules to follow and respect for their parents are well behaved. Many behavior problems arise as a direct result of lack of leadership on the part of their owners.

Dogs behave as though they prefer knowing that you are in charge, and often seem
much
happier when they understand that you have taken charge. Following the advice below may be harder on you than on your dog! It's lonely at the top, so give your dog a break and take over. He'll love you just as much.

Also keep in mind that dogs are very sensitive to body language and visual cues.

## Behaviors

that you don't think much about may have meaning to your dog, in a way that may not be what you intended to say! For instance, two people talking face to face is confrontational in a dog's body language. Standing side by side is not. You can learn to take advantage of nonverbal cues.

The following suggestions are an effective and humane way to let your dog know that he or she is safe, well loved and NOT the leader of the pack. Keep in mind that love is not related to social status, and that most dogs live in relaxed harmony when the social hierarchy is clear, no matter where they stand in it.

These are not practices that you must follow every minute of the day. Who wants a dog if you can't ever pet it just for fun? But it's not good to cater to your dog. Your dog's behavior should drive your decisions on how to treat him or her. If your dog has always been a perfect gentleman you may not need to change a thing you're doing. But if your dog gives you problems, follow all these "social distance" suggestions.

If Spot just bit you, totally ignore him for two days to notify him there's been a change in the household. Don't speak to him or look at him, even while feeding or letting out. Then follow this program to the letter for at least a month before giving him any slack. If Ginger ignored a command at the park today, adopt these tips for a few days. Applying "social distance"
when your dog is misbehaving and rewarding with

Slightly more than $57 \%$ of dogs tested in a Turkish study preferred to use their right paw when performing assigned tasks, while only $18 \%$ used their left paw. Right pawedness is also more common in female dogs.

Tail wagging is very ambivalent. Just because the tail is wagging doesn't mean the dog won't bite you! The smaller the wag, the more likely the dog is to bite you. If the whole butt is wagging, you're probably safe!

Shyness has the highest heritability factor of all behaviors. Eye and hair color are examples of heritable traits. Religion would be an example of a non-heritable trait in humans.

Fear of unfamiliar things is an adaptive trait in the wild, and it is also a dominant gene, so it is difficult to get rid of by breeding.
Shyness is responsible for a large percentage of dog bites. praise and attention only when he is good
is the key to good behavior. Reward the behavior you want to continue to see!

Dominance - the tendency to strive for high social rank - is also highly heritable. So is agonistic behavior - aggressive behavior toward other dogs. The propensity to bite, in other words, is inheritable, and explains why some breeds are more prone to bite at the same level of aggression.

The location of the bite is also breed related, and thus genetic. Cockers, springers and shepherds are likely to bite the hands and arms. Dachshunds go for the face, heelers the legs, and huskies the torso. This is why it is important to research the breed and the parents of any puppy you may be thinking of purchasing!

A direct stare is a threat gesture to a dog. If you don't know whether a dog is naughty or nice, don't stare at him, as it will make him more likely to become aggressive. A submissive dog will usually look away when stared down.

## SO HERE'S HOW:

1) PETTING

- Pet only for obedience (come, sit, down, stay, shake, etc.). Reward obeying commands with attention. - Keep petting brief (don't indulge your dog).
- If your dog demands petting, either: look away (fold arms, turn head up and away from the dog) or ask for a sit or down and then pet when he obeys.
- If you want to pet your dog, call him to you, don't go to him.


## 2) PRACTICE LOOK AWAYS

Don't let your dog demand
play, food or petting. If your dog gets pushy, simply cross your arms, turn your head upward and to the side away from your dog. (This is an example of the body language mentioned earlier) If your dog counters by moving to

This is good practice to do any time your dog approaches you if he is very dominant and pushy. It is especially important if your dog has been aggressive towards you.
3) TEACH LIE DOWN AND STAY

A good, solid down and stay is one of the best learning tools. It teaches your dog to be patient and to wait for your command. You can practice while watching television. Start with one second stays for the first few days, and work up to longer and longer ones. After three weeks most dogs can handle a half hour down stay during a quiet time of day.

Correct breaks with a body block (act like a traffic cop), or a downward leash correction not by simply repeating "down" and "stay" over and over again. If your dog gets up 25 times, then correct him or her 25 times with the same actions and tone of voice. Do NOT include anger in your correction. Be very matter of fact.

## 4) WAIT AT THE DOOR

Alpha (pack leader) dogs have priority access to limited resources, which means they get
to push out the door first to get something they want. This is why a lot of dog fights occur at doorways over who gets to go out first.

Control the space in front of the dog and you control the dog - use body blocks again to

Puppies less than 14 weeks of age who growl (other than during active playtime) warrant serious attention. They have very dominant tendencies, and without exceptionally good training, may grow up to have serious behavior problems.

Socialization begins in the womb. Stress on the mother leads to changes in hormone levels, which lead to changes in the puppies. This is probably true for cats as well.

Varied and complex environments lead to increased brain development. Pet shop or puppy mill puppies and kittens often have a lack of neurological development as a result of lack of stimulus. Breeders should expose puppies and kittens to varied stimuli - different people, floor surfaces, noises, etc. The critical period for this is 5-7 weeks of age, before most new owners acquire their pets.
herd him away from the door. Or head toward a door or doorway and then suddenly turn and go the other way if your dog tries to get ahead of you. This puts you back in the lead.

Praise and pet your dog when he starts to turn around after you and keep moving until he
reaches you. Practice this as you move around the house until your dog is content to stay behind you and follow your lead.

## 5) FOUR ON THE FLOOR

Dogs interpret an increase in height as an increase in status. Dogs who sleep up on the bed are especially impressed with themselves. Keep dominant dogs on the floor, not up on chairs, couches or beds. If you want to cuddle, get down on the floor, ask for obedience and then pet when your dog complies.

## 6) TEACH HEEL

Leaders are in the lead. Teach your dog to stay at your side while you initiate pace and direction.

Stress means change. Stress can be positive or negative. Animals (and people) need a certain amount of stress and change to adapt and grow.

This basic 6 part obedience program should make treating any other behavioral problems
easier, if there are any. A dog that looks to you for direction can be taught almost anything. He will be happy to work for what he wants and it helps keep his mind occupied constructively. Integrate this training into your day by asking your pet to perform some action whenever it wants to go outside, get dinner, play ball, etc. Letting you be in charge will soon become second nature to your dog.
Much progress has been made in the past few years in understanding how dogs think and learn. We are able to deal with problem behaviors much more effectively when we understand how a dog's mind processes signals and information. Most problem behaviors are NORMAL dog behav-iors that are simply unacceptable to the humans they live with. Redirecting and retraining can make our canine companions better and happier pets.

Problem behaviors which a trainer or your veterinarian can help you deal with via proper training include:

- Barking
- Aggression
- Housesoiling, submissive urination
- Separation anxiety
- Digging
- Running away, boundary training
- Fearfulness

Here are a few more tips to make training more effective:
Do your homework! There are reams of books available to assist in training. Be cautious, as some are better than others. Outdated or cruel methodologies are still widely available in print. Read more than one and pick the methods that seem to make the most sense to you.

Consult with your veterinarian, a good dog trainer, or a behavioral specialist. What works for one dog may not work for another. The experience and training of those educated in the field of canine behavior and training is invaluable.

Consider using a Gentle Leader Promise ${ }^{\text {TM }}$ halter. This is a different style of training collar which takes advantage of the dog's natural response to pressure over the muzzle and behind the ears (points dogs use to signal each other about status and control), rather than a choke collar.
Promise ${ }^{T M}$ halters are more humane and more effective and can aid in solving several behavior problems. Click here for more information on head halter collars.

Using food as a reward for learning new commands is fine but don't give a food reward every time. Giving food intermittently means your dog will perform commands for you even when you don't have food, and also prevents weight gain.

Keep all training positive and consistent. There is no need to scold or punish your dog if you tap your dog's inborn need to follow a leader and respond eagerly.

## The Importance of Play: More Than Fun and Games

Playtime is more than just fun for your dog or cat. Dogs that play frequently with their owners learn to bond better with them and obey commands more readily. Cats who play have lower rates of aggression and obesity. In fact, a lifetime of play is crucial to a cat or dog's development and well being.

A puppy or kitten's mother starts the playful learning process right after birth. Her tussling, tickling and licking activate a young pet's mind and provide needed exercise and stimulation. A gentle bite or warning noise tells a puppy or kitten to stop when play gets too rough. After a few weeks most of a young animal's playtime involves wrestling with littermates, sometimes for hours. By competing with each other, young ones learn their place in the litter's pecking order, and how to inhibit play so that no one gets hurt. Puppies and kittens that are orphaned early or have no littermates suffer from slower brain development, abnormal behavior patterns and are more likely to show aggression or fearfulness.

Puppies and kittens need to learn their place in your home's pecking order too. Games of fetch or chase help teach these new family members their place in their new social hierarchy. Learning games forces pets to pay attention to your commands and to recognize praise. It also helps channel a young animal's boundless energy into constructive behavior, and decreases chewing and biting on less appropriate objects, such as shoes or hands. Use lots of praise when playing with pets and try to make it enjoyable for both parties.

On the other hand, playing with your pet in the wrong way can foster bad behaviors. Roughhousing, teasing and horseplay can turn a dog into a neighborhood menace that's prone to bite, or cause a pet to be fearful or aggressive toward children. Playing tug of war encourages a dog to challenge you in other ways. Letting your kitten bite your hands or fingers, even in play, teaches them it's OK to bite humans. Think carefully about what messages you send pets with the way you play, and make sure your kids play safely with pets as well.

Also remember that play toys can be dangerous. Pets can choke on or swallow toys just as babies can, requiring emergency surgery in some cases and causing death in others. Dogs that carry a tennis ball around all day can wear the enamel off their teeth, and fractured molars from toys that are too hard are also common. Kittens love to chase string and ribbon, the most common items we surgically remove from their intestinal tracts. Choose toys carefully and put them away when you are done playing.

Dogs and cats crave routine. Try to set aside a little time each day for playtime with your pet. You'll enjoy the interaction and the bond between you, as well as stimulating healthy exercise for both the mind and body of your cat or dog.

## Sound Strategies for Training your Dog

Training improves a dog's ability to process information, and to learn, remember and reason. Without training, dogs will only follow their own inherited, instinctive behaviors - which don't always mesh well with civilized society! Improper training, or no training, cripples a dog emotionally - they've never been taught how to fit comfortably into their environment or social situation. Instead of a healthy, happy relationship with their family they often suffer from
punishment, stress, abandonment or banishment. Investing time and effort to train your dog results in a satisfying relationship for both of you.

Choosing a trainer for your puppy or dog is just as important as choosing a school for your children. Both children and dogs benefit from an enriched, non-coercive learning environment where motivation and achievement are high - in other words, learning should be fun and rewarding for both owner and pet. Although there are many good trainers out there to choose from, some are better than others. There is no licensing required for dog trainers, so it's "Buyer Beware" for the pet owner, and you'll need to do a little research to find a competent, knowledgeable person.

Interview prospective trainers carefully before making a commitment. Ask lots of questions and observe a class or two.

Puppy preschool is the best way to get your new puppy off to a great start. Did you know that puppies exposed to a variety of people, other pets and social situations actually have increased brain development? Social interaction makes puppies and kittens smarter! Sign up for a puppy socialization class today!

If you see heavy handed, painful or abusive methods, look elsewhere. Here are some things to ask a prospective trainer:

Does the trainer advocate "quick fixes?" If so, keep looking. Time and patience are key to training and modifying behavior. Methods that aim for a quick fix are often coercive or even brutal.

Find out what the trainer's philosophy is - what are they in business to do? Answering this question takes some thought. The answer will tell you how seriously the trainer takes his or her work. Good trainers want to help you channel your pet's natural behavior into a happy, wellmannered family companion - a joy to own and a companion for life.

Dogs bite more than 4 million people in the U.S. each year and more than 750,000 of the victims need medical treatment. Dog bites account for more emergency room visits than do skateboards, in-line skates, baby walkers and all-terrain vehicles combined. Owners of dogs are liable for their pet's aggression, and $80 \%$ of dog bites occur in the victim's home or at a friend's home.

What types of corrections are used? Why? When are corrections needed? Why? They should be able to give specific and detailed answers. If responses include any references to electric collars, choke or prong collars, or other physical punishment methods, say "Thanks, but no thanks!" Again, learning should be fun. People don't learn best when frightened or in pain and neither do dogs.

Ask what the trainer has done in the past year in terms of continuing education. A good trainer will attend conferences and workshops and do a lot of reading to keep up with advances in the profession. Most of what we know about how dogs think and learn has been discovered in the last 15 years or so, and new advances are coming all the time. We are just beginning to realize and appreciate how complex some behaviors are and to modify training methods according to new information. If the individual you are interviewing has not kept up with the latest developments in training and behavior, they will not do a good job with your dog.

What professional organizations do they belong to? Ideally the trainer you choose will be a member of the Association of Pet Dog Trainers, an international organization dedicated to promoting humane training practices and educational opportunities. Membership in professional associations and participation in their activities enhances a trainer's credibility.
$80 \%$ of dogs surrendered to humane societies or picked up as strays have had no obedience training. Obedience school is one of the most important ingredients in a long, successful relationship with a dog.

Lastly, make sure your trainer is good with people as well as dogs. A good trainer knows how to coach and give feedback. At least as important as training the pet is training you, the owners of the pet, to handle your dog confidently and self-sufficiently. This coaching will teach you how to build a great relationship with your family pet.

Ask your veterinarian for a recommendation when choosing a trainer. Remember, they probably have lots of information to help you through many common behavior problems, including barking, digging, chewing, separation anxiety and many others. Some vets can also do one on one behavioral counseling in their office.

# What Is Lyme Disease Anyway??? 

Lyme disease is an infection caused by a type of bacteria called a spirochete. Although originally discovered in Lyme, Connecticut, Lyme disease has now been reported in most states. The disease is more properly called Borreliosis, after the bacterial species that causes it - Borrelia burgdorferi. Lyme Disease is a serious and life threatening disease. It can cause an array of symptoms, including kidney, heart, skin and neurological disease, abortion, and infertility. The most common signs in dogs are low grade fever (103-104 ${ }^{\circ} \mathrm{F}$ ), weight loss, and lameness or joint pain, which may shift from leg to leg. Symptoms in cats are similar, although cats are less susceptible than dogs. Cattle and horses can also get Lyme Disease. Symptoms may occur as soon as 4 days after exposure to an infected tick, or as long as 1 year later. The average incubation period is 1 month.

## HOW IS IT SPREAD?

The deer tick is the most common carrier of Lyme disease in Wisconsin, Minnesota and the eastern coastal states. Recently, other species of ticks such as the lone star tick, the wood tick and insects such as deer flies, horseflies and mosquitoes have been found to carry the disease. Currently these insects are not felt to be important carriers of the disease.

Deer are not the only animals that harbor deer ticks, so pets can pick up Lyme disease whether or not they are in deer-populated areas. The larval deer ticks prefer to feed on small rodents that live in grassy or brushy areas, often around the fringes of woods or fields.

The deer tick lives a rather complex life cycle. It develops from an egg to a larvae, larva to a nymph, and finally from nymph to an adult. The deer ticks are among the first ticks to become active in the spring, and they remain active in various stages until the first snows in the fall. All three life cycle stages of ticks can transmit Lyme disease, and all three are very small and difficult to find. They are active almost all year 'round.

Many flea and tick control products, even the newer and more effective ones such as Frontline Top Spot, can take 24 to 48 hours to kill a tick. Don't expect a tick to die immediately, it will take a day or two. This may not be fast enough to prevent the transmission of Lyme disease to your pet, so vaccination may still be recommended for dogs with exposure to ticks.

## CAN LYME DISEASE BE TREATED?

Yes. The bacterium that causes the disease is sensitive to several antibiotics. Tetracycline is the one most commonly used to treat the disease in animals. The length of time needed to treat the disease varies, but two weeks is usually the minimum amount. Prolonged treatment may be necessary, and relapses and reinfection are common. The earlier the diagnosis of the disease is made, the more successful treatment is likely to be. Even with prompt treatment, however, there can be permanent damage, especially if the infection involved the brain, kidneys or heart. Preventing the disease altogether is usually a much better alternative than waiting for your pet to pick up the disease.

## DEER TICK

## Actual Size

larvae
nymph
adult

Removing leaf litter from your yard can reduce the number of ticks by 75 to $88 \%$. The nymphal stage of the tick survives in leaf litter and this stage is the one associated with the most cases of Lyme disease.

## SHOULD I VACCINATE?

Many veterinarians recommend vaccination for Lyme disease if you take your dog hunting, hiking, camping or running in fields or woods where deer ticks and Lyme disease have been reported. It may also be recommended if you can see deer from your house or yard. If you live in a town, city or suburb with no woods or fields nearby, and you don't travel with your dog, vaccination is probably not necessary.

We also advise the use of tick control products on your pet if he or she has tick exposure. Even if you vaccinate your dog, ticks carry other diseases besides Lyme disease, and their bites can become irritated or infected as well. Prompt removal of any ticks you do find on your dog is also recommended to help prevent exposure to disease.

## LYME DISEASE AFFECTS PEOPLE TOO!

Conduct thorough tick checks on yourself, your children and your pets after spending time out-doors. This includes time in your own backyard or garden, as well as when camping or hiking in
wooded areas. Avoid grassy and marshy woodland areas, and don't walk barefoot in grassy areas. Wear light colored clothing. This makes ticks easier to find. Tuck pants into boots or socks and wear long sleeved shirts, buttoned at the cuffs.

Ticks do not fly or jump onto their hosts. They wait atop grasses and other vegetation until an ani-mal brushes against them. Then they cling to skin, fur or clothing and will crawl for a time on their host before they embed and feed. Ticks must be embedded and engorged (not flat) before they transmit the lyme disease bacteria. Therefore it is important to look for and remove any ticks as soon as possible in order to prevent infection.

Protect yourself and your pets with insect/tick repellants. Products containing $30 \%$ or more DEET or 0.58 permethrin are almost $100 \%$ effective in repelling deer ticks. Your veterinarian has good, long lasting products available to help you to safely protect your dog or cat from Lyme disease.

## CAN I GET LYME DISEASE FROM MY PET?

It is not known at this time whether Lyme disease can be spread directly from animals to humans. Borrelia burgdorferi organisms have been found in the urine of infected animals, however, and it is speculated that urine and feces from birds and rodents may be contributing to the spread of the disease. Certainly infected ticks can carry the disease from animals to people in close proximity. At this time it is not believed that animal-human transmission is a significant factor in the disease, but caution is advised if you are exposed to an animal which has the disease. Use insect repellants conscientiously, and wash your hands or wear gloves when handling animal wastes or deer carcasses.

## CANINE HEARTWORM DISEASE . . .

is a serious, deadly disease wherever mosquitoes are present. Each year thousands of dogs become permanently debilitated or die from lung, heart or circulatory problems caused by heartworms. Your dog can have heartworms for several months before symptoms are obvious. By then the disease may be difficult or impossible to treat successfully.

SYMPTOMS ...
An infected dog becomes less active and tires easily. Coughing, weight loss, chronic fatigue and fainting may appear in advanced disease stages. Adult heartworms are found in the heart, lungs and major blood vessels. Secondary liver and kidney disease may result. Heartworms can grow from 5 to 14 inches long. In advanced cases, a hundred or more worms have been found in a single heart.

## PREVENTION . . .

A simple blood test is usually required before starting your pet on effective, easy-to-use preventive medication. Regular blood testing throughout your pet's life will ensure he or she is not infected despite preventative medication. Make sure your pet is tested and protected. Don't gamble with your pet's life!

## TRANSMISSION...

The disease is spread from one dog to another by mosquitoes. Mosquitoes feeding on an infected dog pick up the larval stage of the parasite along with their blood meal. The larvae develop inside the mosquito and then later are passed to another dog with the bug's next meal. Cats can also get heartworm disease.

TREATMENT . . .
Successful treatment depends on early detection and close veterinary supervision. If permanent damage has occurred, prognosis is very poor. It is easy and inexpensive to test for and prevent heartworm disease. The blood test requires only a brief

Interestingly enough, heartworms aren't good for mosquitoes either. More than 6 or 7 heartworm larvae will kill the mosquito before it can transmit the larvae to the next dog or cat. office visit. The preventative medications usually cost from \$ 3 to $\$ 15$ per month, depending on the medication chosen and the size of the dog.

FACT... All dogs and cats, regardless of age, sex, size or breed, are at risk wherever mosquitoes are present. It takes only ONE infected mosquito to infect your dog.
FACT... Heartworm Disease can kill your dog.
FACT... Effective, easy-to-use preventive medication can save your dog's life! Not only are heartworm medications reasonably priced but many of them now prevent roundworms, whipworms and hookworms as well. These parasites live in the intestines. 95\% of puppies are born with one or another of these parasites, and they are common in adult dogs as well, especially those that spend a lot of time outdoors. Roundworms and hookworms can also cause problems for people, especially children who may be out barefoot in the yard, or toddlers who may put soiled fingers in their mouths. There are 10,000 cases of animal parasites causing disease in children every year in the United States.

## Why risk problems for your pet or for your family?

It's a good idea to have a stool sample checked for intestinal parasites at the time the heartworm
test is done. If the stool sample is positive for intestinal parasites, your pet will need deworming to kill adult intestinal worms. Most heartworm preventatives will help prevent your dog from becoming reinfested with the intestinal parasites. Eggs of intestinal parasites survive on grass for long periods of time, so without the heartworm medication, it is very common for dogs to pick up intestinal parasites repeatedly from their yard.

Heartworm preventatives come in both chewable beef flavored form or in non-chewables. They also come in pills that are given either once a day or once monthly. Which kind you choose depends on what is easier for you to remember to give.

## Knowing how long to medicate is critical for successful prevention!

 Preventative medication should be started as soon as your pet has been blood tested. In the northern or central states, the medication should be continued, either daily or monthly, until at least one month after a hard freeze in the fall. Even though it may seem cold, mosquitoes will come out to feed on warm, sunny, fall days, so it is important not to stop the medication too soon. In the south, heartworm preventative should be given year 'round.Because of their affect on intestinal parasites as well as heartworms, more and more veterinarians are recommending that heartworm preventatives be administered all year, regardless of where you live.

Untreated animals spread disease. Please don't let yours be one! Unfortunately, heartworm disease is here to stay. There will always be dog owners who do not choose to put their pets on a heartworm prevention program. Nationwide, this percentage is anywhere from $25-50 \%$ of dogs and even more cats. Heartworm is also carried and spread by other wild canids - wolves, foxes and coyotes. These unprotected animals serve as a reservoir, spreading the disease to other pets. Please don't let your dog become a victim of this deadly disease. Call for an appointment to get your pet started on a parasite prevention program today.

## ELECTIVE SURGERIES IN DOGS

The average lifespan of a neutered pet is $40 \%$ longer than an unneutered one. Almost all unspayed female dogs will eventually develop either mammary tumors (breast cancer) or a severe uterine infection called pyometra, by the time they are 8-10 years old. Female dogs also go through a messy heat cycle two to three times each year. Male dogs commonly develop prostate disease, perianal tumors and testicular tumors in their old age.

Even more sadly, the most common reason for euthanasia of pets in the U.S. is behavior problems. These are usually aggression, running away or urinating in the house by unneutered male dogs. Intact males also have more tendency to roam, which leads to automobile injuries, dog fights and contagious diseases.

Keep in mind also that millions of puppies are put to death in the United States each year because there are not enough homes for them all. Spaying and neutering

Most dogs injured by automobiles are unneutered males. are the responsible thing to do.

If cost is a concern for having surgery, just \$5-10 per week saved from the time you get your puppy until he or she is 6 months old will be more than enough to cover the surgery. We recommend spaying (surgical removal of the ovaries and uterus) of female dogs and castration (surgical removal of the testicles) of males, for all dogs who will not be used for purebred breeding. This should be done when your animal reaches 6 months of age. Your animal will be a healthier, happier pet, and you will have done your part to reduce the pet overpopulation problem.

## Vaccinafing for Kennel Cough

Kennel Cough is the common name for a group of diseases similar to the human cold or flu. Symptoms are fever, swollen tonsils or lymph nodes and a deep, "honking," keep-you-and-the-dog-up-all-night cough that takes weeks to go away. Although rarely fatal, it can lead to pneumonia in puppies, geriatric pets or those already ill with another disease.

There are several different bacteria and viruses that can cause Kennel Cough. All are very contagious, especially when multiple dogs are in the same room together. When a sick dog coughs or sneezes it sprays the infectiousvirus or bacteria particles into the air, where they float around and are inhaled by another dog across the room or in the cage next door. It can also be spread by touching noses, sharing food or water bowls, or sniffing around where a sick dog has been.

The most common cause of Kennel Cough is a bacteria named Bordetella bronchiseptica, The vaccine for Bordetella is a nasalgen, or nose drops, and it gives quick and effective immunity for 6-12 months.
Parainfluenza is a viral cause of Kennel Cough. There are two strains of parainfluenza vaccine contained in the DHLPPC vaccine that most dogs receive annually. Some Bordetella vaccines contain extra parainfluenza vaccine as well.

There are also some less common viral causes of Kennel Cough for which we have no vaccine, so even a vaccinated dog can occasionally contract the disease.

There have been numerous studies reported recently in the veterinary literature about Bordetella infection causing upper respiratory disease in cats as well as dogs. Unlike the cough seen in canines, cats develop sneezing and sinusitis. A vaccine for cats is now available to prevent this disease in cats and kittens as well as dogs.

Almost all boarding kennels require that dogs be vaccinated against Kennel Cough. Some require Bordetella vaccination be given within the previous 6 months to keep immunity high. Many veterinary clinics require vaccination before elective surgeries to prevent the spread of disease in the hospital. The last thing your pet needs after major surgery is a fever and a cough!

Most groomers do not require Bordetella vaccination, but they probably should. Multiple dogs in and out of one room are the ideal breeding ground for infection. Your pet should also be vaccinated if you go to a dog park, obedience training, hunting or hiking with other dogs, or if you encounter other pets while walking your dog. Even sitting in the waiting room of the veterinary clinic, or entering the clinic for dentistry, x-rays or other procedures, puts the pet at risk for contracting this annoying disease. Only pets confined to their own house or yard have no risk of catching Kennel Cough.

As with most diseases, prevention is easy and cost effective. Be sure your pet is vaccinated!

## How To Choose A Chew Toy

Dogs love to chew! Giving your dog appropriate things to chew on is good for their teeth and gums, keeps them occupied, and decreases the tendency to chew on things they shouldn't. But did you know that some chews you can buy for your pet are actually harmful? Unlike toys for children, there are no rules or regulations regarding toys or treats for pets. Just because you can buy an item in a store does not mean it's good for your pet! So what should you watch for and what should you avoid?

Toys with small parts that your dog could swallow or choke on are common. Avoid any toy for dogs or cats that has strings, googly eyes, feathers, or any other part that could come off.

Avoid items that are too hard. The most common items on which dogs break their teeth are bones, cow hooves/chew hooves and ice cubes. Biting down just right on an object that is too hard causes a flake of the tooth to shear off. If the tooth breaks such that the tooth root is exposed, the tooth will be very painful and will subsequently become infected. Because this usually happens to the large back premolar that is difficult to see, your dog may be in pain for many months before you even know there is a problem. Do not give your dog bones, especially raw ones, or chew hooves - period. It does not matter how big your dog is. If your dog likes ice cubes, switch to shaved ice instead.

Another popular item is the rawhide chew. Rawhides come in all different sizes and shapes and sometimes even in flavors. Unfortunately, many of them are preserved in formalin or formaldehyde, which are carcinogens and can also be toxic to the liver. Most of the rawhides that contain these toxic preservatives are from foreign countries. Their use is restricted
in the U.S. so rawhides made here in the states are usually safe. Keep searching until you find the ones made here and don't buy any made in other countries.

If your dog swallows large pieces of rawhide that could cause choking, switch to a smaller or larger form that prevents this. Do not give your dog rawhides if it gives him diarrhea or an upset stomach. The same guidelines also apply to pigs' ears, turkey feet and other preserved
animal parts. Also be aware that some of these items are very greasy, and thus high in fat and calories. A single pig's ear may contain 800 calories, almost all of them from fat. This may be your dog's entire daily caloric need and it is not the least complete or balanced nutrition. These types of chew treats should be given only occasionally.

Beef bones are only safe if they are boiled and softened. Raw meat or bones are not safe for dogs or people. Not only can uncooked bones break teeth but they can also give your dog Salmonella, Toxoplasmosis, E. coli or other food poisoning. Chicken, turkey or other small bones can splinter and cause punctures in the mouth, esophagus or intestines so these also should never be fed to pets.

Pieces of rope with a knot at each end are popular now. These are a good choice as they are soft and gentle on teeth and gums. Throw them away when they start to unravel. Soft plush toys usually don't last long and if the stuffing is swallowed it can cause an intestinal blockage. Take these away as soon as they start to come apart - which in large dogs may be in a matter of minutes!

Nylabones, Gumabones and other nylon bones are also good, although some of these are hard enough to fracture teeth. Pick one on the softer side. If your puppy is teething, try placing a nylon toy in the freezer for a few hours. A chilled one helps numb the gums.

Squeaky toys are also good as long as the squeaker can't come loose and be swallowed and there are no parts that can be chewed off. Make sure any plastic or vinyl toys you choose are sturdy, heavy-weight and large enough that the pet can't choke on it. The same goes for balls. Balls should be larger than the dog can fit in the back of his mouth.

Tennis balls are great toys to play with but don't let your dog carry them around for long periods. The hair on the outside is abrasive and can actually wear the enamel off pets' teeth.

Kong toys and other solid or hollow rubber toys are highly recommended. They are heavyweight, come in several sizes and often have a hollow center into which you can stuff a little peanut butter, cream cheese, liver sausage or other food treat. Your dog will spend hours working at getting the food out with his tongue. A dog thus occupied is much less likely to be getting into trouble chewing on other things, especially if the Kong toy is brought out only as a special treat whenever you leave the house.

Old, well washed and rinsed plastic milk or soda bottles make good chew toys. Frisbees are always popular and another good choice, especially for large dogs. Old socks and shoes are NOT good choices - your dog can't be expected to understand the difference between old shoes and your best shoes.

Whatever toys you choose, use common sense and look for tough, long lasting and durable
choices. If your dog likes what you've chosen, he'll be sure to put it to the test!

## Diagnosing Hind Limb Pain

There are four main diseases which cause weakness, pain and stiffness in the hind legs of dogs. Often more than one of them is occurring at the same time. X-rays are necessary to determine which diseases are present in a particular pet. Taking proper X-rays of the hips requires sedation or anesthesia, but your veterinarian can usually diagnose other diseases without sedation.

Once X-rays have diagnosed which disease or diseases are present in your dog, a treatment protocol can be set up to help your pet. This may include medication, change in exercise routines, nutritional support, surgery, or a series of injections to improve joint function or spondylosis.

Your pet will also need periodic blood testing to check for problems which will affect the treatment plan or the medications recommended. Any antiinflammatory medications, including aspirin and newer medications such as Etogesic and Rimadyl ©, are metabolized by the liver and kidneys. Your veterinarian will need to know how these organs are functioning and to monitor the drugs' affect on these organs. Arthritis and spinal disease are generally treated for the lifetime of the pet, so it is important to monitor kidney and liver function. Most older dogs have at least minor changes in these organs. Blood testing is often done before starting a pet on lifetime medication, and at least annually thereafter.

Your vet will also need to monitor your pet and change or add medications depending on the response to treatment. Most dogs slowly worsen with age, and adjustments will need to be made over time. With appropriate care and medication, your dog will live longer and far more comfortably. Ask your vet to mark the diseases suspected in your dog on this sheet once X-rays have been taken. If a diagnosis cannot be made based on initial X-rays, other X-rays or tests may be needed.

1) Intervertebral Disc Disease, or slipped discs, is common in dogs, as it is in people. Dogs with short legs and long backs are most prone to this disease, but it can happen in almost any dog. Discs can slip suddenly, causing acute disease, or slowly, leading to chronic lower back pain and pinched nerves. If signs of disc disease are seen on your pet's X-rays your veterinarian may prescribe steroid medications, surgery or changes in exercise and daily activity.
2) Discospondylitis can occur at any age, but it is most common in older dogs. It is an infection of the bones and intervertebral discs of the spine, usually in the lower back. The infection is most commonly bacterial, though it is occasionally caused by fungal or protozoal infection instead. The infection typically comes to the spine via the bloodstream, from some other area of the body.
Infected teeth and gums are often the source, but bacteria can also come from skin or wound infections, urinary tract infection, infection of a surgery site or elsewhere. The kidneys, heart and joints are other organs also damaged by this type of infection.

Once they reach the spine, the bacteria cause a smoldering, low grade infection which gradually damages the vertebrae (the bones of the spine), the jelly-like discs between the vertebrae, and eventually the spinal cord and nerves.

Once damage is severe, even aggressive treatment for the infection cannot restore normal function and the dog will be permanently disabled. Early and proper treatment with antibiotics is essential.
3) Spondylosis also involves the vertebrae of the spine but it is not caused by infection. With spondylosis, the vertebrae develop outgrowths which slowly grow larger and larger, eventually fusing the spine. The bony outgrowths can press on the muscles running under the spine or trap the nerves coming off from the spinal cord, causing pain and inflammation. At this time, the cause or trigger of the disease is unknown.

Anabolic steroids are used to help slow the progress of the spondylosis, improve muscle tone and
maintain function longer. Pain medication may be needed. Sometimes surgery to remove some of the bony outgrowths and free trapped nerves is beneficial.
4) The last of these diseases is osteoarthritis, the typical hip arthritis of older, large breed dogs. Smaller dogs can also get arthritis, however, and arthritis is not just an old age disease. Many dogs start with arthritis at a young age, especially if they have hip dysplasia, poor conformation or a history of injury to the joints. As many as 44 million dogs in the United States are estimated to have some form or degree of arthritis - about 1 in 5 . Like discospondylitis, arthritis is caused or worsened by infection elsewhere in the body, especially the mouth.

In the early stages, most cases of arthritis are treated with antiinflammatory drugs such as aspirin and Rimadyl ©. (Never use Tylenol, ibuprofen or other human products in pets. These medications are not safe and can cause death or serious side effects.) Many other treatment options are available for arthritis as well, including nutritional supplements, medication injections, acupuncture, and sometimes surgery.

According to a recent study, $\mathbf{4 6 \%}$ of pets with arthritis are undermedicated for pain. Arthritis is usually worst in cold or damp weather. Pain medication not only makes pets feel better but it also reduces inflammation and slows the progression of this debilitating disease. Nutritional supplements are also very helpful to preserve a pet's quality of life and improve the health of the joints.

