



DOG Watch

Expert information on medicine, behavior and health from a world leader in veterinary medicine



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IN THE NEWS ...

Pet Ownership Is Up, Spending is Down

According to studies recently published by Marketresearch.com, pet ownership is on the rise — but owners are spending less on pet care on account of the struggling economy.

One report indicates that three factors are propelling the pet ownership market, including the strong sense of “pet parenting,” an increase in pet ownership among minority households and the prevalence of pet ownership among affluent Americans.

Ninety-two percent of dog owners and 90 percent of cat owners consider their pets to be part of their families, according to the survey of 2000 pet owners conducted online in February and March. This “pet parenting” phenomenon can lead to owners having more willingness to spend on their pets, according to Marketresearch.com. However, prevailing economic conditions continue to drive pet spending in the opposite direction. ♦

Heatstroke: A Potential Killer

As temperatures soar, so do the chances that your dog can become dangerously overheated. Here's how to protect him.

Humans have efficient methods of keeping cool during hot summer months, when temperatures can soar into the nineties and above. If they don't have air conditioners or fans, they simply sweat. But dogs don't have the luxury of sweating, and they certainly don't have air conditioners that they can turn on and off. Although they may perspire a bit through the skin on the pads of their paws, they rely primarily on panting to modulate their body heat. They may also try to cool off by ceasing all activity and just resting on a cool floor or a shaded area of grass so that their body heat can dissipate through their skin surface.

Unfortunately, a dog's natural temperature-lowering mechanisms don't always work, especially if, for instance, the animal has been exer-

cising too strenuously or has been confined in a hot and stuffy environment — such as a parked and closed-up car or an airtight, stiflingly hot house or apartment. The consequence — heat exhaustion — can pose serious health problems for a dog. And if the condition progresses to heatstroke, the consequences can be fatal unless the dog is treated without delay.

Alarming Indications. The initial signs of canine heat exhaustion include accelerated panting and rapid heartbeat. As the condition progresses to heatstroke, a dog may develop muscle weakness or collapse, vomiting, bloody diarrhea and possible seizure behavior. Unless a dog that is experiencing heat exhaustion is

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Lumps and Bumps on Your Dog's Skin

All of them — whether small or large — should warrant prompt veterinary diagnosis. Here's why.

There's no need to panic if you happen to spot a strange lump, bump or scabby sore on your dog's skin. But it would be wise to have the animal examined by your veterinarian.

It's quite possible that an unsightly growth will be nothing more than a harmless wart or cyst. On the other hand, you might discover a skin tumor in an early stage of development — a potentially worrisome situation, depending on the type of tumor. It might be an excessive but harmless proliferation of fat or other tissue. Or it could be an early sign of a



lethal skin cancer. An estimated 25 percent of all dogs will develop cancer at some point in their lives — and skin is by far the most commonly affected organ.

Benign Growths. Skin growths that are unlikely to pose a serious or long-term health threat are referred to as benign. Although some of these growths can become alarmingly large, they are typically small, well defined and inconsequential. Their cells do not normally spread to adjacent tissue

and involve other organs in the way that potentially deadly malignant tumors do.

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SHORT TAKES

Chronic Disease and Obesity

As our pets are living longer, chronic disease is also on the rise. But owners are hesitant to visit the veterinarian to treat existing conditions, according to the State of Pet Health 2012 Report, published by Banfield Pet Hospital.

From 2007 to 2011, the incidence of weight problems and obesity in dogs increased 37 percent, whereas it increased 90 percent in cats. Overall, one in five cats and dogs were classified as obese or overweight in 2011.

Obesity or an overweight diagnosis in pets coupled with other chronic diseases include:

- 40 percent of dogs and 37 percent of cats with arthritis;
- 40 percent of dogs and 40 percent of cats with diabetes;
- 40 percent of dogs with high blood pressure; and
- 60 percent of dogs with hypothyroidism.

Arthritis and chronic kidney disease are also on the rise. The rate of arthritis diagnoses in dogs and cats rose 28 percent and 67 percent, respectively, from 2007 to 2011.

At the same time, chronic kidney disease increased 15 percent in cats (which are seven times more likely to be diagnosed with the disease than dogs). Most cats diagnosed in the early stages of chronic kidney disease live about two to three years, whereas most cats diagnosed in later stages live less than six months after diagnosis, according to Banfield.

Meanwhile, 36 percent of dog owners and 28 percent of cat owners indicated that they would take their pet to see a veterinarian to manage an existing condition, according to a survey of 2,000 pet owners conducted by Banfield and market research firm Kelton. "The key to successful early disease diagnosis involves a partnership between pet owners and their veterinarian to identify changes in a pet's overall health and behavior," said Jeffrey Kausner, DVM, senior vice president and chief medical officer for Banfield. "In partnership with pet owners, we hope to reduce the number of pets living with undiagnosed or unmanaged chronic diseases."

Are We Really Like Our Dogs?

Researchers found that people labeled with "low agreeableness" was a good predictor of a preference for those dogs considered to be more aggressive than average. Individuals low in agreeableness tend to be less concerned with the well-being of others and may be suspicious, unfriendly and competitive ("Top Dogs: canine preference, personality, delinquency and mating effort" in *Anthrozoos*, 2012).

However, the study found no link between liking an aggressive dog and delinquent behaviors, or the possibility that liking an aggressive dog is an act of "status display" meant either to show off to others or to attract romantic partners.

"This type of study is important, as it shows assumptions are not the whole picture. It is assumed owners of aggressive dogs (or dogs perceived as aggressive) are antisocial show-offs," explained Dr. Vincent Egan, lead researcher on the study. "But we did not find persons who expressed a preference for aggressive dogs had committed more delinquent acts, or reported showing off more."

"However, we did find a preference for a dog with an aggressive reputation was related to being younger and being lower in agreeableness (i.e., being less concerned with the needs of others, and being quicker to become hostile)."

The study examined the reasons why some people prefer aggressive dog breeds. Professor Egan explained: "A lot of human behavior involves status display and dominance, and evolutionarily this helps with finding mates. Basic personality also influences a lot of our behavior. By measuring both at the same time, we could see whether they each had an influence on liking aggressive dogs, or whether one was due to another."

In the study, participants indicated their preference for different types of dogs, and filled in personality tests. The dogs were independently rated according to how aggressive people perceived them to be.

Analysing the findings, the research team found that certain personality factors indicated a preference for dogs perceived to be more aggressive. Low agreeableness and higher conscientiousness were related to a preference for aggressive dog breeds. Younger people were also more likely to prefer the aggressive breeds. ♦





Is Your Dog Getting His Vitamins?

Despite the high nutritional quality of commercial dog foods today, deficiencies are possible. Here's why.

Lethargy, muscle weakness, a scruffy-looking hair coat — any of these can be signs that your dog is suffering from a serious physical disorder that, in some cases, may be difficult to treat. However, these same signs — and others, as well — can also indicate that the animal is not taking in the vitamins that it needs each day in order to maintain its good health, a situation that an attentive owner can easily remedy.

Fortunately, vitamin deficiencies are uncommon these days in the U.S., thanks largely to research done by animal nutritionists who have focused much of their attention on canine vitamin requirements. The pet food industry has responded to this research by formulating diets that are guaranteed to be complete and balanced. Consequently, the shelves of the nation's supermarkets are lined with a vast array of canned and dry foods that are sure to provide the typical dog's recommended daily vitamin intake.

Potential Problems. But, of course, there is no such thing as a "typical" dog. Some dogs, for example, may be less inclined than others to empty the bowl of food that's routinely put in front of them.

Other dogs may derive their nourishment solely from homemade diets that have been concocted without the advice of a veterinarian or veterinary nutritionist. Working dogs and those that are especially athletic will need to take in more nutrients than those dogs that spend most of their time lolling about the house. In general, small dogs, on a pound-for-pound basis, often require more nutrients than larger dogs; lactating dogs also have elevated nutritional needs. "We sometimes see vitamin deficiencies in puppies and younger dogs because growth is the most demanding period of life," says Joseph Wakshlag, DVM, an assistant professor of clinical nutrition at Cornell University's College of Veterinary Medicine.

Cautionary Measures. The manufacturers of commercial dog foods formulate their products according to strict canine dietary guidelines established by the National Research Council and the pet food committee of the American Association of Feed Control Officers (AAFCO). Dr. Wakshlag is confident that, in general, dog owners have little to worry about when it comes to the threat of vitamin deficiency — as long as they're feeding

KEEP TRACK OF TREATS. It's important to consider them part of your dog's daily nutritional intake. A balanced dog food is best.

their animals the recommended portions of AAFCO-approved canned or dry food for their age, size, and activity level.

A major nutritional problem these days, he notes, is the indiscriminate feeding of treats. Says Dr. Wakshlag: "An owner will tell us that a dog is eating a well-balanced diet, and then we find out that it is consuming three or four milk bones and a lot of pizza crusts daily instead of the nutritious food that it should be eating. The bulk of its intake is in those things, and that can cause some serious nutritional imbalances and deficiencies."

There are risks as well in relying on homemade diets instead of commercial dog foods. "If you want to prepare your own dog food," he advises, "get someone involved in the design of the diet who understands the minimum requirements for vitamins and other nutrients — your veterinarian or an animal nutritionist."

The same holds true for routinely giving vitamin supplements to a dog. "There's probably no harm in that," says Dr. Wakshlag, "but you shouldn't do it without checking with your veterinarian." Pregnancy, old age and certain disease conditions — liver or kidney disease, for example — can dramatically affect a dog's ability to properly metabolize vitamins. ♦

SIGNS OF VITAMIN DEFICIENCY

Seek prompt veterinary attention if your dog shows any signs of a vitamin deficiency:

Vitamin A: vision problems, skin lesions, poor hair coat, decline in appetite, weight loss, stunted growth.

Vitamin D: bone deformities (rickets) in puppies and dental problems, such as the growth of defective permanent teeth.

Vitamin E: reproductive failure, degeneration of the retina, muscle atrophy, loss of appetite, lethargy.

Vitamin K: increased blood-clotting time, hemorrhage.

Vitamin B: gastrointestinal upset, a decline in appetite, anemia, neurologic impairment.



Why Has Your Dog Started to Limp?

A possible reason: He has ruptured an all-important ligament, the ACL. Here's what you should know.

Maybe your dog is a lithe, athletic little animal who loves nothing more than to visit the park with you each day and spend a half-hour or so leaping high in the air to retrieve its Frisbee. Or perhaps it's a large, lethargic, couch potato — a stay-at-home type whose major physical activity involves rising sleepily from a nap every once in a while and ambling over to its food bowl. In either case, the animal's ability to get up on all four legs and do the things it wants to do in life depends on the health and structural integrity of its anterior cruciate ligament (ACL) — a narrow strip of tissue that keeps its hind legs stable and ready for action, whatever that action might entail.

However, the ACL is a notoriously vulnerable component of a dog's musculoskeletal anatomy. Indeed, disabling weaknesses or ruptures of this ligament are probably the most frequently

treated among all canine orthopedic problems. At the Cornell University Hospital for Animals (CUHA), "We see cases of ACL rupture in dogs several times each week," says Ursula Krottscheck, DVM, an assistant professor of small animal surgery at the university's College of Veterinary Medicine.

An Essential Component. Healthy, intact ligaments — the tough, fibrous, somewhat stretchable bands of dense tissue that connect and support the bones within a dog's joints — are essential components of the canine skeletal structure. They connect one bone to another, and their elasticity enables movement of the bones within the joints while also limiting this movement in order to preserve the joint's structural integrity.

To accommodate the constant demands that are made on a dog's knee

THE ACTIVE DOG IS AT RISK. Your athletic, high-energy pet is simply more susceptible to this type of injury.

joint (stifle), in which the lower end of the thigh bone (femur) meets the upper end of the shin bone (tibia), the ligaments housed within it serve a variety of purposes. Two crisscrossing ligaments at the rear of the knee joint (the posterior cruciate ligaments) are essentially supportive, while the anterior ligaments, which are in the front part of the stifle, play a more complex role.

"Basically," explains Dr. Krottscheck, "the ACL has three anatomic functions. It prevents cranial translation, in which the tibia moves forward away from the femur; it prevents rotation of the tibia relative to the femur; and it limits excessive movement — hyperextension — of the knee overall. Without a healthy and intact ACL, the joint will be unable to function properly."

Contributing Factors. A variety of factors can make the ACL subject to rupture, she points out. A deficiency in collagen, a protein constituent of all connective tissues, can weaken the ligament. Or the natural skeletal conformation of a dog's rear legs can increase the risk. (Dogs with very straight hind legs, for example, seem to be at greater risk than those with noticeably bent rear limbs.) The main source of the vulnerability, however, is believed to be a genetic flaw; that is, the ligament's weakness may be inherited by a dog from its parents.

ACL ruptures can be either complete or partial, says Dr. Krottscheck, and they can be either traumatic (caused by an activity or accident that suddenly causes the tissue to snap) or chronic (a gradual fraying of the tissue that progresses over a period of time — usually months).

In either case, the rupture will inevitably result in the onset of osteoarthritis, a degenerative and painful condition in which the unprotected ends of the bones in a joint (in this case the femur and tibia) grind relentlessly against one another. "Because an ACL rupture sets up inflammation in the joint," she explains, "essentially all dogs with this condition will already have arthritis or will eventually de-

velop it."

In cases of traumatic ACL rupture, says Dr. Krotscheck, the dog will suddenly start walking on three legs, keeping the injured limb elevated. A dog experiencing chronic ACL damage will be intermittently, but increasingly, lame over time. "The owner will notice that the animal seems to have difficulty walking normally, especially following exercise," she says. "The affected leg may buckle occasionally."

Neither age nor gender is a significant risk factor for ACL rupture. "We see a lot of young dogs, both male and female, with this problem," notes Dr. Krotscheck. Excess body weight, on the other hand, makes a dog likelier to injure the ligament, as does an animal's activity level. "Very active animals — hunting dogs, for example, and those that are especially athletic — are more prone to this injury simply because they are at greater risk of traumatizing themselves," she says. And due to genetic predisposition, certain breeds — such as Newfoundlands, Akitas, St. Bernards and Rottweilers — have been shown to be at elevated risk.

Treatment Options. Definitive diagnosis of a suspected ACL rupture can be achieved by a so-called Drawer Test. In this procedure, the veterinarian stabilizes the femur with one hand and attempts to move the tibia with the other hand. If the ACL is not intact, the tibia will slip forward (like a drawer). This cranial translation can only occur if the ACL is either grossly stretched or entirely ruptured. "Most of the time," says Dr. Krotscheck, "it is ruptured."

To confirm a diagnosis, X-rays will be taken to exclude any other possible cause for the condition, such as a tumor that leads to bone destruction and ligament laxity in the knee joint.

"Surgery is generally recommended when an ACL rupture is diagnosed," says Dr. Krotscheck. "because conservative treatment — using nonsteroidal antiinflammatory and cartilage-protective drugs — focuses on easing the pain of the arthritis rather than on repairing the ligament dam-

age. "The arthritis will never go away," she notes, "and once a dog has an ACL rupture, the arthritis will progress. This is not ideal for the patient." Several surgical options are widely available. The three most frequently performed are:

◆ **Extracapsular Repair**, in which a strong suture or a wire is installed to hold the tibia and femur in proper relation, thereby taking over the function of the ACL;

◆ **Tibial Plateau Leveling Osteotomy (TPLO)**, in which a semicircular incision is made in the tibia, the bone is rotated to its proper position, and a plate is implanted to secure it in that position;

◆ **Tibial Tuberosity Advancement (TTA)**, in which an incision is made in the front of the tibia, the bone is moved forward to alter the angle at which it meets the femur, and a plate is installed to secure it in that position.

All of these procedures require the services of an expert veterinary orthopedic surgeon, notes Dr. Krotscheck, and dog owners should be aware that the procedures can be costly. At CUHA, ACL ruptures are treated using either the extracapsular or the TPLO technique. These surgeries typically take between 45 and 90 minutes to perform, and a dog's owners can expect to be charged between \$2,500 and \$3,800 for the procedure. ♦

POSTOPERATIVE PROSPECTS

Recovery patterns are similar following any of the three most common ACL rupture procedures. "It will typically require between two and three months of restricted exercise after surgery before the dog is moving around normally and comfortably," says Dr. Ursula Krotscheck. "And its exercise must be well supervised—no running free. If TPLO or TTA surgery was done, the implants could break, and if the extracapsular operation was done, the sutures could tear before the repair has healed. And then you're back to square one."

To reduce the risk of ACL rupture, she advises: "Keep your dog's weight under control — the animal should be light and fit and appropriately conditioned for exercise. If you notice any signs of lameness at all, consult your veterinarian. Early diagnosis and surgical treatment of these injuries will slow down the progression of the arthritis that results from them, and there will be a much better chance of long-term function."



SURGERY IS REQUIRED. An ACL rupture will require one of the surgical procedures that are available to canine patients.

THE DANGER OF HEATSTROKE ...

(continued from cover)

cooled down immediately, heatstroke is apt to ensue. The animal's panting will become increasingly fast and noisy, and as it pants it will be pulling in air that, on an extremely hot day or within a confined space, is likely to be hotter than its normal body temperature, which typically ranges between 100.5° and 102.5° F.

If the overheating is unrelieved and the dog's body temperature, taken rectally, reaches 108° F or thereabouts, cell damage will start to occur, which can result in severe kidney or liver dysfunction; destruction of muscle, skeletal and intestinal tissue; lowered levels of blood oxygen; blood-clotting abnormalities and spontaneous bruising; impaired brain function; heart failure; and death. "I would be concerned if the temperature goes above 105° F," says Gretchen Schoeffler, DVM, chief of emergency and critical care services at the Cornell University Hospital for Animals. "And I would be very concerned if it rises into the 107° F range."

Highly Vulnerable. Some dogs are at greater risk for heatstroke than others, Dr. Schoeffler says. For example, she says: "Obese dogs, certainly, are more vulnerable. And older dogs, too — especially those that are already ill — may be less resilient, just as they are with any disease process." Although there is very little published research regarding canine heatstroke, it seems that larger-breed dogs are at elevated risk, as are short-nosed (brachycephalic) breeds. While it is unclear why larger dogs would be more susceptible, Dr. Schoeffler notes that short-nosed dogs lack the abundant nasal space that longer-nosed dogs have to cool or regulate the air they inhale.

At especially high risk as well, she adds, are dogs whose owners decide on the first warm day of the year to go on a five-mile run with the animal. "You may have done that last summer," she says, "but you have to keep in mind that your dog has lost its conditioning over the winter, so you really have to reintroduce strenuous exercise gradually."

Prompt Treatment. A dog showing the early signs of heat exhaustion should immediately be bathed in or hosed down with cool, not "super-cold," water by its owner, Dr. Schoeffler advises. The animal

PLAYING IT COOL DURING THE DOG DAYS OF SUMMER

Dog owners can significantly reduce the threat of canine heatstroke by taking appropriate precautions, says Dr. Gretchen Schoeffler. Following are some tips on how to ensure that your dog stays healthy and comfortable in the heat.

Never leave your dog alone in a car on a hot, humid, sunny day, even with the windows cracked open a few inches. Studies have shown that the temperature inside an unventilated car that is parked on hot asphalt pavement with the sun beating down on it can reach well over 150° F within a short time. A dog confined within such a car can expire within only 10 minutes.

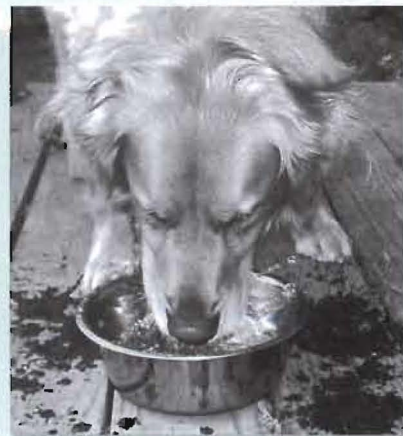
Keep the interior of your residence comfortably air-conditioned and well ventilated during periods of extreme heat, whether you are at home with your dog or away for several hours. While you're away, keep the air conditioner on in order to maintain a moderate temperature, and leave a few windows open several inches to create a cross breeze. (Be sure that all open windows have screens on them to keep your dog from escaping or falling out.)

Avoid overexercising your dog during the hottest hours of the day. Pavement is still hot and the sun's rays remain potent as late as five or six o'clock on a sweltering summer day. When exercising your dog, do not push the animal if it indicates that it wants to rest.

Carefully monitor the outdoor temperature and keep your dog out of the sun between noon and three o'clock in the afternoon.

Make sure that your dog always has access to plenty of drinking water. Whether inside the home or outdoors, place large bowls of water where the animal will be able to find them easily. And when traveling with your dog, take along jugs filled with water so that you can stop periodically to let the animal quench its thirst.

Avoid taking your dog to the beach with you on hot and sunny days; if you do, make sure that the animal has its own beach umbrella. If the dog spends a lot of time in your back yard, it should have a shady area or a protected doghouse.



should not be wrapped in a wet towel or sheet, however, since that will trap the heat within the animal's body. Also, she cautions, "Do not put ice on the dog. If you do that, the skin surface will become cold, the blood vessels will contract, and the dog will lose the ability to dissipate heat through its skin surface." Furthermore, the dog's temperature should be taken. If the rectal temperature is greater than 105° F, the dog should be transported to a veterinary clinic for evaluation. She recommends that owners always keep a rectal thermometer on hand and learn how to use it properly in case such an emergency arises.

In mild cases of heat exhaustion and with appropriate home care and cooling,

the animal is likely to regain its normal body temperature and recover. "But any dog that is showing signs of severe weakness or collapse should be taken to a vet immediately," says Dr. Schoeffler. "It may be experiencing true heatstroke and may have liver or kidney malfunction that requires intravenous fluids. Or it may be sloughing off intestinal tissue and will require antibiotics. Even blood transfusions are sometimes needed."

Such intensive care can be expensive since the affected dog may have to remain under veterinary care for several days. However, Dr. Schoeffler notes, with aggressive treatment, even a dog stricken with severe heatstroke has a good chance of surviving. ♦

LUMPS AND BUMPS ... (continued from cover)

Common canine skin growths include cysts (skin-covered, pea-sized sacs filled with a liquid or a thick, cheesy substance) and warts (hard, rough-surfaced lumps that are often caused by viral infections). Such growths occur frequently in the life of a typical dog. Some animals may have several of them at the same time, but unless they become ulcerated or seriously annoy an animal, they typically do not require treatment.

Among the most frequently diagnosed benign tumors in dogs are accumulations of soft, fatty tissue that develop just beneath the skin surface. According to Margaret McEntee, DVM, an associate professor of oncology at Cornell University's College of Veterinary Medicine, these growths (called lipomas) are usually small — perhaps the diameter of a large coin — but they can become “quite sizable.” In fact, she says, “The largest lipoma that I’ve seen was nearly the size of a basketball.”

In most cases, notes Dr. McEntee, a lipoma will be harmless, and it will not have to be removed. In some instances, however, a large mass of the fatty tissue will develop in a dog's axillary area — at the top of a forelimb — and will inhibit the animal's ability to walk or run, in which case its surgical removal will be advisable. Also, she points out, a grossly enlarged lipoma is apt to be unsightly and may be removed for cosmetic reasons. If surgery is performed, she says, removal of the mass is usually easy to accomplish. “We don't know why lipomas develop,” says Dr. McEntee. “Thin dogs get them as frequently as overweight dogs. It's possible that there is some hereditary component. Certain breeds — Labrador retrievers, for example — seem to develop them more often than other breeds.”

Adenomas, another type of benign skin tumor, develop in an animal's sebaceous glands, which are mostly associated with hair follicles. “They are usually quite small,” says Dr. McEntee. “Animals tend to have quite a few of these skin growths on various areas of their bodies. Adenomas seem to be especially prevalent in certain breeds such as miniature poodles and cocker spaniels.”

While adenomas are usually benign, she notes, cancerous growths called ade-

nocarcinomas sometimes develop in the same glands. And a malignant glandular tumor called a perianal adenocarcinoma can develop in the tissues around a dog's anus.

Malignant Growths. Unlike benign tumors such as lipomas and most adenomas, malignant skin tumors — lesions that have the potential to grow uncontrollably, to travel (metastasize) and to invade other tissues and organs in a dog's body — must be treated without delay whenever possible. According to Dr. McEntee, the most frequently diagnosed skin malignancy by far is a mast cell tumor. These growths, she says, account for about 20 percent of all canine skin tumors, including the various benign growths.

Mast cells are essentially white blood cells, important immune cells whose ingredients include histamine (a chemical that is released by the immune system as part of an allergic reaction) and heparin (an anticoagulant substance). Mast cells are found in a dog's skin and other tissues, such as cartilage and bone. Although mast cell tumors appear most often in golden retrievers and Labrador retrievers, the condition is by no means associated only with those breeds. Boxers, for example, are also at elevated risk, as are a number of other canine breeds.

Another type of canine skin malignancy — less common than mast cell tumors but of serious concern — is squamous cell carcinoma, which affects the flat, scaly cells on the outer layer of the skin. Dogs that have lightly pigmented skin — especially white dogs — are especially predisposed, regardless of breed. Direct and prolonged exposure to solar radiation is a significant contributing factor for squamous cell cancer; thus, a dog that habitually lies on its back basking in bright sunlight is at especially high risk.

Other relatively common types of canine skin cancers include melanomas, which form in pigmented skin cells; fibrosarcomas, which form in fibrous tissue; and hemangiopericytomas, which form near blood vessels.

Early Detection. An owner can reduce the risk of canine squamous cell cancer by limiting an animal's exposure to direct sunlight, especially if it is lightly pigmented or pure white. Otherwise, there is no known way to prevent the oc-

currence of either benign or malignant skin tumors.

“The most important thing for owners to do,” advises Dr. McEntee, “is to have a veterinarian look at any new lump or bump as soon as it becomes apparent. In some cases, the veterinarian will recommend that you just keep an eye on the lesion and see if it changes in appearance. In other cases, a biopsy or other diagnostic measures will be recommended. And, of course, in still other cases, the veterinarian may recommend surgery or another type of treatment.” ♦

TREATMENT OPTIONS

There are no outward characteristics that will tell a veterinarian for certain whether a tumor is benign or malignant. To achieve a definitive diagnosis, says Dr. Margaret McEntee, a veterinarian or veterinary pathologist must examine a sample of the affected tissue with a microscope.

If cancer is diagnosed and the tumor's size or location precludes its full removal, treatment options may include a combination of surgery, radiation therapy and in some cases chemotherapy. A typical surgical procedure for an uncomplicated malignant tumor would be performed using a general anesthetic. According to Dr. McEntee, such a procedure would probably take less than an hour to perform.

In most cases, a dog that has undergone the removal of a cancerous skin growth will be active and in good spirits within a few hours following the procedure and will require little in the way of recuperative care at home, unless chemotherapy is involved. The prognosis following surgery depends on the size of the tumor and whether the surgical removal has been complete and successful. If the malignant tumor is small and can be totally removed, there's a good chance that the growth will never recur.



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We regret that we cannot
respond to individual
inquiries about canine
health or behavior matters.

Q We have a mixed-breed dog that is part Beagle and part Husky. She has been a great dog with my kids, but she sometimes has an aggression problem. She has chewed the wood rails on my deck and also the insides of two cars. I believe that when another animal comes in sight, she gets so worked up that she gnaws on the closest thing available. Is there anything we can do about this behavior?

A *Chewing is a normal behavior — a way for dogs to explore their environment as well as something that calms them and provides pleasant oral stimulation. However, your dog's destructive behavior may not be due to any of those reasons, because you believe it occurs when she sees other dogs. You should be sure that she is not chewing as an expression of separation anxiety, that is, when you are not there. Presumably, you have been with her when she became agitated over a confrontation with another dog.*

The chewing may be an attempt to remove the barrier between herself and the object of her aggression, or it may be redirected aggression: Your dog would like to bite the other dog, but settles for the rail of the deck or the interior of your car instead. The easiest way to solve this problem is not to leave her unsupervised. If you are there, you can remove her from the deck. Don't take her in the car, or, if you really need to do so, keep her in a crate positioned so that she cannot see outside.

Because you are going to walk her on a leash instead of leaving her out on the deck, you will be able to begin treating her aggression problem. Regular exercise — not just the opportunity to move if she wishes — will help to reduce her aggression. Whenever you see another dog, try to walk at an angle so that she is not looking straight at the other animal. Direct eye contact is very threatening. If she is walking quietly with no barking or lunging, give her treats steadily. She should learn that the approach of other dogs results in good things. If she stiffens or refuses the treats, she is becoming agitated, so turn away from the other dog completely. You may need to use a Gentle Leader head collar for more control, or even a basket muzzle if she is very aggressive. Your goal is to walk her past another dog with no reaction. Don't expect her to like other dogs — we just want her to be civil.

Q I have a four-year-old female Maltese that I adopted when she was two. She was well behaved, but it took her a few months to become accustomed to us and her new environment (i.e., not have any more accidents). She is no longer shy and is now my constant and loving companion. Her only problem is the licking! When someone holds her, she constantly wants to lick that person's mouth, face or whatever part of exposed body she can reach. If a person is sitting and has bare feet and legs, she licks toes and legs, climbing up to lick any exposed body part. I have tried telling her "no" and pushing her away to no avail.

A *A dog's licking a person can occur for various reasons. It is usually associated with a demand for food. Puppies lick their mother's mouths to stimulate her to regurgitate food for them — the canine equivalent of baby food because it is pre-chewed and partially pre-digested. Male dogs lick female dogs around the hindquarters as part of courtship and possibly to check that a female is in heat. Bitches lick their puppies to dry them when they are first born and later to stimulate urination and defecation. The mother may lick the puppy's face to encourage it to crawl back toward the nest when it has strayed. So which of these reasons for licking could apply to your Maltese?*

Usually it is a demand, rather like a child pulling on her mother's coat in the supermarket to demand a candy bar. Your little dog sounds as though she is demanding attention even though she is your constant companion. The best approach would be to give her no attention when she licks. As soon as she starts to lick, put her gently on the floor and leave her for one minute — an eternity for a dog. Try that for one week. I know it will be tiring, but it should work.

The other approach is training. Since saying "no" doesn't work for her, you could try exposing only flesh that has been rubbed with something that tastes bad, like a bitter apple spray, which would be available from your veterinarian. (Be sure you have no broken skin when you apply this.) Be sure that she has some toys to lick and not your skin. Peanut butter — either spread on grooved toys or stuffed in a Kong toy — might satisfy her urge to lick. ♦

COMING UP ...

CUSHING'S
DISEASE



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WALKER



ADDISON'S
DISEASE



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