

Medical Notes

InTown Veterinary Group is dedicated to providing clients with an unparalleled range of veterinary care options.

The doctors at Bulger Animal Hospital & Essex County Veterinary Referral Hospital are always on hand no matter how seemingly small the question. We care about you and your pets. No question is too small. If you're worried, call us.

Bulger Animal Hospital:

247 Chickering Road,
N. Andover, MA 01845

Phone:
(978) 682-9905

24-Hr Emergency:
(978) 725-5544

www.InTownBulger.com

Wellness Care

At Bulger Animal Hospital, caring for both sick and healthy pets have always been equal priorities. Wellness care is considered a standard in veterinary medicine. Determining comprehensive healthy baseline values for your pet can assist in the process of isolating changes in a pet's overall health before symptoms become apparent. We are proud to announce that we have now designed a new wellness program to simplify the selection of wellness testing for owners.

What is wellness care?

If you have been bringing your pet to the veterinarian annually for a physical examination and vaccines, some degree of wellness care is already being done. Heartworm, flea, and tick preventatives are also part of wellness care.

Wellness comprises both preventative medicine and early detection. Aspects of preventative medicine include:

- Vaccinations to prevent or decrease the severity of diseases.
- Monthly heartworm preventatives kill larval stages of heartworms before they can develop into adult worms. These medications are also effective in killing gastrointestinal parasites such as roundworms, hookworms, and in some cases whipworms.
- Flea and tick preventatives kill adult fleas and ticks. They also prevent reproduction and maturation of flea eggs and larvae. Keeping these parasites at bay reduces the risk of tick-borne diseases such as Lyme disease and Ehrlichia.

Early detection of disease is currently a hot topic in veterinary medicine. It is about doing what we can to discover diseases early enough that we have a higher degree of success in treating them. Ideally, we want to find problems before the pet has any clinical signs.

Wellness testing has another important function: the establishment of baseline values. When bloodwork is run on an annual basis during times of health, it is much easier to determine whether changes in illness are significant. For example, many older pets will have small elevations in one or more liver values without any underlying disease. If an older pet has a documented elevation which has remained consistent over the years, then when that pet gets sick, we can more easily rule out liver disease as a cause. If that same pet has never had wellness bloodwork, every elevated value must be considered thoroughly in the workup.

In the pages to follow, the available testing and wellness program is discussed in more detail. We hope this new program will give owners more control over the care their pet receives, while keeping our beloved pets happy and healthy for as long as possible!

For more information, feel free to use the medical index on our website. www.InTownBulger.com, then click "Medical Index".

Medical Notes

Descriptions of Tests

Physical Examination (All Species): Annual or semi-annual physical examinations are recommended for all species to catch medical problems early and ensure the overall health of your pet. During the physical examination, your pet's various body systems will be assessed. A systematic approach is often used to evaluate your pet from nose to tail. The following body systems are evaluated: the head region, heart, lungs, peripheral lymph nodes, gastrointestinal system, urogenital system, musculoskeletal system and neurologic system.

Fecal Flotation Test (All Species): This test checks the feces of pets to diagnose any gastrointestinal parasites. Specific parasites that can be identified with this test include roundworms, hookworms, coccidia, whipworms (in dogs), and in some cases, giardia and tapeworms.

Complete Blood Count (CBC) (Dogs and Cats): This evaluates the cellular components of blood. The CBC determines the number of red blood cells, number and type of white blood cells, and number of platelets.

- Red blood cells carry oxygen throughout the body. For example, too few red blood cells, or anemia, may indicate impaired oxygen carrying capacity.
- White blood cells fight infection and are part of the immune system. There are five different types of white blood cells; the number and ratios of these white blood cells can offer insight into the degree and type of inflammatory response observed.
- Platelets are part of the blood clotting system.

Serum Chemistry Profile (Dogs and Cats): The chemistry profile evaluates multiple factors produced throughout the body and allows your veterinarian to monitor such things as liver, kidney, and pancreatic function, to name a few factors.

- Liver values: Alkaline Phosphatase (ALK, SAP), Alanine Transferase (ALT), Bilirubin, Aspartate Aminotransferase (AST), and Gamma Glutamyl Transferase (GGT) are values that, if elevated, can indicate liver damage due to injury, infection, inflammation, cancer, or other diseases.
- Kidney values: Blood Urea Nitrogen (BUN) and creatinine are markers for kidney disease. Elevations in these products can also reflect

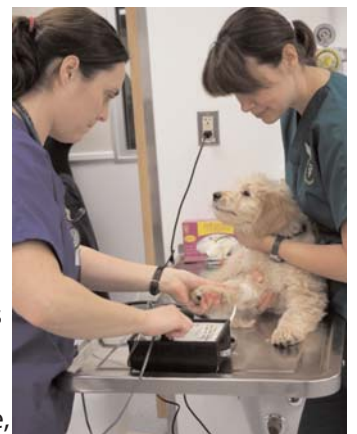
dehydration and sometimes gastrointestinal diseases.

- Protein levels: Total protein, albumin, and globulins can be increased with dehydration or inflammation, and decreased with protein loss or lack of production. Globulins can be elevated with chronic immune stimulation or some forms of cancer.
- Glucose: When elevated may indicate diabetes, stress, or liver disease.
- Electrolytes: Sodium, potassium, calcium, and phosphorus are also part of the chemistry profile and are chemicals that help regulate cellular function in the body.

Urinalysis (Dogs and Cats): The urinalysis is a test that evaluates the urine of your pet. This test is part of the basic minimum database to assess overall health. In conjunction with the bloodwork (CBC and Chemistry Profile), the urinalysis provides the veterinarian with valuable information about your pet's urinary system. Results from a urinalysis may indicate diabetes, a urinary tract infection, kidney disease, urinary stones, or other systemic diseases.

Total T4 (Dogs and Cats): A measure of thyroid hormone. In dogs, this is commonly decrease. Elevations of thyroid hormone may indicate hyperthyroidism, a common disease of older cats causing weight loss despite a ravenous appetite.

Blood pressure (Dogs and Cats): Blood pressure is a measurement of the pressure the heart generates in the bloodstream while pumping blood. In pets, we typically measure only the systolic blood pressure (the maximum blood pressure generated during each heartbeat). For example, when your blood pressure is measured as "120 over 70", the systolic blood pressure is the first number, or 120. High values can indicate kidney disease, heart disease,



... continued on page 5

Dog Safety

In an effort to simplify an otherwise complex decision-making process, we have established a tier system for wellness testing. All of the elements in any suggested tier can be completed in one visit. Your veterinarian can help provide more insight into each of these levels of care and you may change your mind about the level of care you choose at any time.

Adult Dog:

Small Breeds: 2-9 years
 Medium & Large Breeds: 2-7 years
 Giant Breeds: 2-5 years

Test	Level 1	Level 2	Level 3
Physical Examination	✓	✓	✓
Heartworm Test	✓	✓	✓
Fecal Flotation Test	✓	✓	✓
Vaccinations*	✓	✓	✓
Heartworm Preventative*	✓	✓	✓
Flea & Tick Preventative*	✓	✓	✓
Complete Blood Count (CBC)		✓	✓
Serum Chemistry Profile		✓	✓
Urinalysis			✓
Electrocardiogram (EKG)			✓

Geriatric Dog:

Small Breeds: 10 years & older
 Medium & Large Breeds: 8 years & older
 Giant Breeds: 6 years & older

Test	Level 1	Level 2	Level 3
Physical Examination Twice Yearly	✓	✓	✓
Heartworm Test	✓	✓	✓
Fecal Flotation Test	✓	✓	✓
Vaccinations*	✓	✓	✓
Heartworm Preventative*	✓	✓	✓
Flea & Tick Preventative*	✓	✓	✓
Complete Blood Count (CBC)		✓	✓
Serum Chemistry Profile		✓	✓
Total Thyroid Level (T4)		✓	✓
Urinalysis		✓	✓
Electrocardiogram (EKG)		✓	✓
Blood Pressure			✓
Chest X-Rays			✓

Things to Remember:

Use paw-safe ice melt to reduce irritation and skin burns from regular salt products.



Keep dogs off frozen lakes & ponds.



Small, shorthaired dogs need more warmth in the cold winter months.

Invest in a waterproof jacket for your dog for those icy morning walks.



Cat Corner

Wellness Tests for Cats

In an effort to simplify an otherwise complex decision-making process, we have established a tier system for wellness testing. All of the elements in any suggested tier can be completed in one visit. Your veterinarian can help provide more insight into each of these levels of care and you may change your mind about the level of care you choose at any time.

Adult Cats: 2-9 years

Test	Level 1	Level 2	Level 3
Physical Examination	✓	✓	✓
Fecal Flotation Test	✓	✓	✓
Vaccinations*	✓	✓	✓
Flea & Tick Preventative* (outdoor cats)	✓	✓	✓
Complete Blood Count (CBC)		✓	✓
Serum Chemistry Profile		✓	✓
Urinalysis		✓	✓
Total Thyroid Level (T4)			✓
Electrocardiogram (EKG)			✓
Blood Pressure			✓
Feline Leukemia/FIV test (outdoor cats)			✓

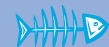
Geriatric Cats: 10 years and older

Test	Level 1	Level 2	Level 3
Physical Examination Twice Yearly	✓	✓	✓
Fecal Flotation Test	✓	✓	✓
Vaccinations*	✓	✓	✓
Flea & Tick Preventative* (outdoor cats)	✓	✓	✓
Complete Blood Count (CBC)		✓	✓
Serum Chemistry Profile		✓	✓
Urinalysis		✓	✓
Total Thyroid Level (T4)		✓	✓
Electrocardiogram (EKG)		✓	✓
Blood Pressure		✓	✓
Feline Leukemia/FIV test (outdoor cats)		✓	✓
Chest X-Rays			✓

Things to Remember:

Outdoor cats may climb onto vehicle engines for warmth during cold weather.

Check under the hood before starting your vehicle, or honk the horn to startle any animals seeking shelter inside.



Keep your outdoor pets indoors during the winter for safety.



Indoor play provides important bonding time, and will keep both you and your pet physically active.



Wellness Care of Small Exotic Mammals

The veterinary care of small mammals such as ferrets, guinea pigs, hamsters, and mice often is overlooked. One reason may be the cost of veterinary care in relation to the cost and shorter lifespan of these pets. However, it is difficult to measure the emotional attachment that caretakers have to their rabbits and rodents.

Recommendations for care are surprisingly simple: an annual or even twice annual office visit for a physical examination is recommended for all of them. Ferrets also require annual vaccinations for distemper and rabies. Why is this necessary, especially since your pet seems to be doing great?

The most common reasons for illness in these small pets are related to husbandry, or the care that is provided for them at home. This includes the cage, food, bedding, and play that you give them. Most veterinarians spend a large portion of the time in an office visit with a healthy small mammal pet discussing changes that could be made to optimize the health of the pet.

In addition, there are often subtle abnormalities in the examination of a pet which might suggest illness even

when the pet seems to be doing well. These pets are very fragile. They are prey species that are adapted to hide illness until it is very severe - so you may not know your hamster is sick until it's too late!



Regular veterinary care is important to keep your pet on track to living a long, healthy life.

Descriptions of Tests

(continued...)

endocrine diseases, or primary hypertension. Low blood pressures may indicate poor heart function, severe dehydration, or other acute diseases.

Heartworm Testing (Dogs only): Heartworm disease is a serious and potentially fatal condition caused by parasitic worms living in the arteries of the lungs and in the right side of the heart of dogs. Testing is performed annually even on dogs that are regularly taking heartworm preventative medications.

Electrocardiogram (EKG or ECG) (Dogs and Cats): An electrocardiogram tests the heart to determine its rhythm; that is, to determine that electrical impulses are traveling in the proper sequence through the heart. An EKG is performed by attaching small clips to your cat's

elbows and knees or holding a sensor unit up to his or her chest. Abnormalities can be a sign of underlying heart disease.

Feline Leukemia and Feline Immunodeficiency Viruses (Cats only): These are two infectious diseases that are transmitted from other outdoor cats. Both can cause various serious diseases, including immune suppression, anemia, and in some cases, cancer.

Chest X-rays (Dogs and Cats): X-rays, or radiographs, are performed to screen for heart disease, lung diseases, cancer, and disorders of the esophagus, ribcage, vertebral column, and the diaphragm.