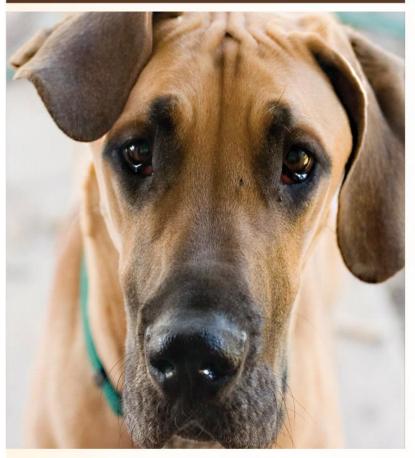
Your **Great Dane**

Caring for Your Faithful Companion



PET MEDICAL CENTER

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Great Danes:

What a Unique Breed!

Your dog is special! She's your best friend, companion, and a source of unconditional love. Chances are that you chose her because you like Gentle Giants and you expected her to have certain traits that would fit your lifestyle:

- Lovable, playful companion
- Good with children
- Confident, steady, and fearless
- Good watchdog with a loud bark
- Mild-mannered and easy to get along with
- Energetic, active, and athletic

However, no dog is perfect! You may have also noticed these characteristics:

- Takes up a lot of room due to her massive size
- Can be rambunctious and rowdy, especially as a younger dog
- Prone to separation anxiety and associated chewing behaviors
- May be gassy and drool a lot
- Can be aggressive, fearful, or snappy if not socialized properly

Is it all worth it? Of course! She's full of personality, and you love her for it! She is courageous, loyal, and sometimes reserved, but with proper socialization and training, she is a true Gentle Giant.

The Great Dane originated in Germany over 400 years ago. Initially bred to hunt deer or wild boar and to serve as estate guards, the Great Dane's modern purpose is companionship. The Great Dane was developed from a cross between the Irish Wolfhound and the Old English Mastiff, and is also known as the German Mastiff. The Great Dane is an easygoing and social breed; they are known to be patient with







children and highly devoted to their families. Great Danes are a large breed—they mature slowly, have only moderate exercise needs, and should not be over-exercised during their early years. The Great Dane is friendly and charming, a wonderful family companion. The Great Dane is a generally healthy breed with an average lifespan of seven to nine years.

Your Great Dane's Health

We know that because you care so much about your dog, you want to take good care of her. That is why we have summarized the health concerns we will be discussing with you over the life of your Dane. By knowing about health concerns specific to Great Danes, we can tailor a preventive health plan to watch for and hopefully prevent some predictable risks.

Many diseases and health conditions are genetic, meaning they are related to your pet's breed. There is a general consensus among canine genetic researchers and veterinary practitioners that the conditions we've described herein have a significant rate of incidence and/or impact in this breed. That does not mean your dog will have these problems; it just means that she is more at risk than other dogs. We will describe the most common issues seen in Great Danes to give you an idea of what may come up in her future. Of course, we can't cover every possibility here, so always check with us if you notice any unusual signs or symptoms.

This guide contains general health information important to all canines as well as the most important genetic predispositions for Great Danes. This information helps you and us together plan for your pet's unique medical needs. At the end of the booklet, we have also included a description of what you can do at home to keep your Gentle Giant looking and feeling her best. You will know what to watch for, and we will all feel better knowing that we're taking the best possible care of your pal.

General Health Information for your Great Dane

Dental Disease

Dental disease is the most common chronic problem in pets, affecting 80% of all dogs by age two. Unfortunately, your Great Dane is more likely than other dogs to have problems with her teeth. Dental disease starts with tartar build-up on the teeth and progresses to infection of the gums and roots of the teeth. If we don't prevent or treat dental disease, your buddy may lose her teeth and be in danger of damage to her kidneys, liver, heart, and joints. In fact, your Dane's life span may even be cut short by one to three years! We'll clean your dog's teeth regularly and let you know what you can do at home to keep those pearly whites clean.

Infections

Great Danes are susceptible to bacterial and viral infections—the same ones that all dogs can get—such as parvo, rabies, and distemper. Many of these infections are preventable through vaccination, which we will recommend based on her age, the diseases we see in our area, and other factors.

Obesity

Obesity can be a significant health problem in Great Danes. It is a serious disease that may cause or worsen joint problems, metabolic and digestive disorders, back pain, and heart disease. Though it's tempting to give your pal food when she looks at you with those soulful eyes, you can "love her to death" with leftover people food and doggie treats. Instead, give her a hug, brush her fur or teeth, play a game with her, or perhaps take her for a walk. She'll feel better, and so will you!

Parasites

All kinds of worms and bugs can invade your Gentle Giant's body, inside and out. Everything from fleas and ticks to ear mites can infest her skin and ears. Hookworms, roundworms, heartworms, and whipworms can get into her system in a number of ways: drinking unclean water, walking on contaminated soil, or being bitten by an infected mosquito. Some of these parasites can be transmitted to you or a family member and are a serious concern for everyone. For your canine friend, these parasites can cause pain, discomfort, and even death, so it's important that we test for them on a regular basis. We'll also recommend preventive medication as necessary to keep her healthy.

Spay or Neuter

One of the best things you can do for your Dane is to have her spayed (neutered for males). In females, this means we surgically remove the ovaries and usually the uterus, and in males, it means we surgically remove the testicles. Spaying or neutering decreases the likelihood of certain types of cancers and eliminates the possibility of your pet becoming pregnant or fathering unwanted puppies. Performing this surgery also gives us a chance, while your pet is under anesthesia, to identify and address some of the diseases your dog is likely to develop. For example, if your pet needs hip X-rays or a puppy tooth extracted, this would be a good time—it's more convenient for you and easier on your friend too. Routine blood testing prior to surgery also helps us to identify and take precautions against



common problems that increase anesthetic or surgical risk. Don't worry; we'll discuss the specific problems we will be looking for when the time arrives.

Genetic Predispositions for Great Danes

Bloat

Gastric dilatation volvulus, also known as GDV or bloat, usually occurs in dogs with deep, narrow chests. This means your Dane is more at risk than other breeds. When a dog bloats, the stomach twists on itself and fills with gas. The twisting cuts off the blood supply to the stomach and sometimes to the spleen. Left untreated, the disease is quickly fatal, sometimes in as little as half an hour. Your dog may retch or heave (but little or nothing comes up), act restless, have an enlarged abdomen, or lie in a prayer position (front feet down, rear end up). Preventive surgery in which the stomach is tacked down or sutured in place so that it is unlikely to twist is an option. If you see symptoms, take your pet to an emergency hospital immediately!

Heart Disease

Great Danes are especially prone to a life-threatening heart condition known as dilated cardiomyopathy, or DCM, in which the heart becomes so large, thin, and weak that it can no longer effectively pump blood to the body. As this problem advances, your pet may act weak or tired, faint or collapse, breathe in a labored way, or cough. We'll conduct a yearly electrical heart screening (ECG) and/or an echocardiogram to look for abnormal heart rhythms as early as one year of age. If indicated, treatment includes medication and dietary supplementation.

Cancer

Cancer is a leading cause of death among dogs in their golden years. Your Great Dane, however, is a bit more prone to certain kinds of cancer that can appear at a younger age. Many cancers are cured by surgical removal, and some types are treatable with chemotherapy, but for all types, early detection is critical! We'll do periodic blood tests and look for lumps and bumps on your pet at each exam.

- Osteosarcoma is the most common bone tumor in dogs. It typically afflicts middle-aged large and giant breeds like your Dane. Early symptoms include lameness and leg pain. Early detection is critical! Call right away if you notice that your dog is limping. Osteosarcoma is a painful and aggressive tumor, and the sooner it is removed, the better his prognosis.
- Lymphoma or lymphosarcoma is a type of cancer that afflicts Great Danes more than other breeds. This disease makes the body form abnormal lymphocytes, which are a type of white blood cell. Because white blood cells can be found throughout the body, this cancer can show up almost anywhere. Lymphoma is a very treatable form of cancer with an excellent success rate in dogs receiving chemotherapy. Luckily, lymphoma is one of the few types of cancer that can often be found with a blood test, so we

- may recommend a complete blood count twice yearly. Watch for swollen glands (ask us, we'll show you where to look), weight loss, or labored breathing at home and be sure to call us if you notice any unusual symptoms.
- Hemangiosarcoma is a type of bleeding tumor that affects Great Danes at greater than average incidence. These tumors commonly form in the spleen, but can form in other organs as well. Unbeknownst to a pet owner, the tumor breaks open and internal bleeding occurs. Some tumors can be volleyball-sized or larger before signs of sickness show. We often find clues that one of these tumors is present during senior wellness testing, so have his blood tested and an ultrasound performed at least yearly.

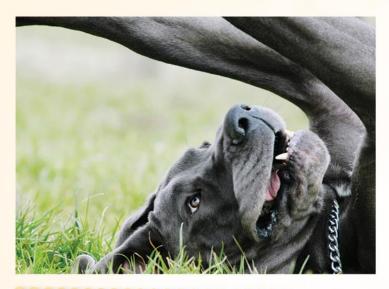
Bone and Joint Problems

A number of different musculoskeletal problems have been reported in Great Danes. While it may seem overwhelming, each condition can be diagnosed and treated to prevent undue pain and suffering. With diligent observation at home and knowledge about the diseases that may affect your friend's bones, joints, or muscles, you will be able to take great care of him throughout his life.

- When Dane puppies are allowed to grow too quickly, the cartilage in their joints may not attach to the bones properly. This problem is known as osteochondritis dissecans, or OCD. If this occurs, surgery may be required to fix the problem. Our recommended growth rate for Great Dane puppies is no more than four pounds per week. To maintain this rate, don't overfeed him and don't supplement with additional calcium. Feed a large-breed puppy diet rather than an adult or regular puppy diet. And weigh your puppy every three to four weeks to make sure he's on track.
- Growing Danes can suffer from a painful inflammation of the long bones in the legs called eosinophilic panosteitis, or pano or eo-pan for short. It usually starts around six to ten months of age and shifts from leg to leg. We'll look for this condition upon examination; if your pal exhibits pain when the area is squeezed or palpated, we'll take X-rays to diagnose the problem. Panosteitis usually causes no permanent damage, but requires pain medication. If your dog has this condition and develops an abnormal gait to compensate for the sore leg(s), rehabilitation exercises may be required.
- Both hips and elbows are at risk for dysplasia, an inherited disease that causes the joints to develop improperly and results in arthritis. Stiffness in your Dane's elbows or hips may become a problem for him, especially as he matures. You may notice that he begins to show lameness in his legs or has difficulty getting up from lying down. We can treat the arthritis—the sooner the better—to minimize discomfort and pain. We'll take X-rays of your dog's bones to identify issues as early as possible. Surgery is also sometimes a good option in severe and life-limiting cases. And keep in mind that overweight dogs may develop arthritis years earlier than those of normal weight, causing undue pain and suffering!

Neurological Disease





A genetically linked neurological condition, known as wobbler disease or wobbler syndrome, causes a wobbly, drunken gait in affected pets. Wobbler disease is the result of a narrowing of the vertebrae in the neck that pinches the spinal cord and associated nerves. When pinched, the nerves do not send signals to the brain as they should causing the pet to be unable to feel his feet. The first signs you will often notice with wobbler disease are unstable hind legs, stumbling, and sometimes falling. Treatment options include medications, neck braces, rehabilitation exercise programs, and surgery.

Eye Problems

Not many things have as dramatic an impact on your dog's quality of life as the proper functioning of his eyes. Unfortunately, Great Danes can inherit or develop a number of different eye conditions, some of which may cause blindness if not treated right away, and most of which can be extremely painful! We will evaluate his eyes at every examination to look for any signs of concern.

Hypoadrenocorticism (Addison's)

Addison's Disease is an endocrine system disorder that occurs when the adrenal glands fail to produce enough hormones to keep the body functioning normally. Left untreated,

hypoadrenocorticism can be fatal. Symptoms often mimic many other diseases, but we can run a specialized blood test to check for this specific condition. Though this disease can occur in any type of dog, Danes are more at risk. We'll be watching for clinical signs at every exam and will periodically check his electrolyte levels to screen for this problem.

Hemolytic Anemia and Thrombocytopenia

Danes are particularly prone to some relatively rare diseases of the blood that occur when the immune system goes haywire and starts attacking the pet's own red blood cells or platelets. If the immune system destroys red blood cells, your dog quickly becomes anemic, weak, and lethargic. His gums will look whitish or yellow instead of a normal bright pink color. If the immune system destroys platelets, his blood won't clot properly and he'll have bruises or abnormal bleeding. We'll perform diagnostic testing for blood clotting to check for these problems

before we perform any surgeries. To slow or stop the immune system's destruction of cells, we'll prescribe steroids and other immune-suppressive drugs. Sometimes an emergency transfusion of red blood cells or platelets is needed.

Thyroid Problems

Danes are prone to a common condition called hypothyroidism in which the body doesn't make enough thyroid hormone. Signs can include dry skin and coat, hair loss, susceptibility to other skin diseases, weight gain, fearfulness, aggression, or other behavioral changes. We'll conduct a blood test annually to screen for this disease. Treatment is usually as simple as replacement hormones given in the form of a pill.

Allergies

In humans, allergies to pollen, mold, or dust make people sneeze. In dogs, rather than sneezing, allergies make their skin itchy. We call this skin allergy "atopy", and Danes often have it. The feet, belly, folds of the skin, and ears are most commonly affected. Symptoms typically start between the ages of one and three and can get worse every year. Licking the paws, rubbing the face, and frequent ear infections are the most common signs of allergies. The good news is that there are many treatment options available for these conditions.

Mange

Demodex is a microscopic mite that lives in the hair follicles of all dogs. Normally a dog's immune system keeps the mites in check, but some breeds, like your Dane, may develop an overabundance of these mites. In mild cases, pet owners may notice a few dry, irritated, hairless lesions. These often occur on the face or feet and may or may not be itchy. Secondary skin infections may also occur. Prompt veterinary care is important to keep the disease from getting out of hand. Many pets seem to outgrow the problem, while others require lifelong management.

Paw Infections

Another painful condition to which your Dane is susceptible is pododermatitis, a skin infection of the feet. This infection can cause blisters and ulcers to develop between your pet's toes. Ouch! Pododermatitis is especially common in pets with allergies. If your dog licks his feet or is limping, check his paws for redness, moisture, or skin abrasions. If his skin looks inflamed, make an appointment to see us right away. He may need antibiotics or other therapy.

Dental Abnormalities

Teeth abnormalities are often genetically induced and are relatively common in dogs, especially in purebred dogs like your Dane. An overbite or underbite is called a malocclusion or a bad bite. Oligodontia is a condition in which only a few teeth are present. Misaligned teeth can also occur and cause lots of problems, but can usually be corrected with braces or extractions. (Yes, dogs can get braces!) We want to keep your buddy's teeth healthy, so we will be watching his developing teeth closely.

Taking Care of Your Great Dane at



Home

Much of what you can do to keep your dog happy and healthy is common sense, just like it is for people. Watch her diet, make sure she gets plenty of exercise, regularly brush her teeth and coat, and call us or a pet emergency hospital when something seems unusual (see "What to Watch For" below). Be sure to adhere to the schedule of examinations and vaccinations that we recommend for her. This is when we'll give her the necessary "check-ups" and test for diseases and conditions that are common in Danes. Another very important step in caring for your pet is signing up for pet health insurance. There will certainly be medical tests and procedures she will need throughout her life and pet health insurance will help you cover those costs.

Routine Care, Diet, and Exercise

Build her routine care into your schedule to help your Gentle Giant live longer, stay healthier, and be happier during her lifetime. We cannot overemphasize the importance of a proper diet and exercise routine.

- Supervise your pet as you would a toddler. Keep doors closed, pick up after yourself, and block off rooms as necessary. This will keep her out of trouble and away from objects she shouldn't put in her mouth.
- She has low grooming needs. Brush her coat as needed, at least weekly.
- Great Danes generally have good teeth, and you can keep them perfect by brushing them at least twice a week!
- Clean her ears weekly, even as a puppy. Don't worry—we'll show you how!
- ✓ She's a large, smart dog with lots of energy, so keep her mind and body active, or she'll get bored. That's when the naughty stuff starts.
- ✓ She can have a high prey drive, so she needs to be leash walked and a sturdy fence is a must.
- It is recommended that you provide her with soft bedding to help prevent joint problems and calluses.
- Keep your dog's diet consistent and don't give her people food.
- ✓ Feed a high-quality diet appropriate for her age.
- ✓ Exercise your dog regularly, but don't overdo it at first.

What to Watch For

Any abnormal symptom could be a sign of serious disease or it

could just be a minor or temporary problem. The important thing is to be able to tell when to seek veterinary help and how urgently. Many diseases cause dogs to have a characteristic combination of symptoms, which together can be a clear signal that your Great Dane needs help.

Office calls

Give us a call for an appointment if you notice any of these types of signs:

- ✓ Change in appetite or water consumption
- ✓ Tartar build-up, bad breath, red gums, or broken teeth
- ✓ Itchy skin (scratching, chewing, or licking); hair loss
- ✓ Lethargy, mental dullness, or excessive sleeping
- ✓ Fearfulness, aggression, or other behavioral changes
- Dry, scaly, sometimes itchy, hairless patches on face or paws
- ✓ Dull coat, hair loss; sluggish, weight gain

Emergencies

Seek medical care immediately if you notice any of these types of signs:

- ✓ Scratching or shaking the head, tender ears, or ear discharge
- ✓ Inability or straining to urinate; discolored urine
- Cloudiness, redness, itching, or any other abnormality involving the eyes
- ✓ Dry heaving or a large, tight, painful abdomen
- ✓ Fainting, collapse, breathing issues, coughing
- ✓ General listlessness, droopy facial expression; vomiting, diarrhea
- ✓ Gums that are a color other than bright pink
- ✓ Leg stiffness; reluctance to rise, sit, use stairs, run, or jump; "bunny hopping"

Genetic/DNA Testing





DNA analysis is a rapidly advancing field in healthcare for people and pets. Luckily, technologies exist to screen for hundreds of inherited diseases in pets, just like in people. By screening each pet for as many genetic diseases as possible, we will be better prepared to care for your pet throughout life. This is an important step in caring for your pet because it's always better to know your pal is at risk for a genetic disease before the problem is untreatable.

In an effort to screen for as many genetically linked diseases as possible, we may recommend the

K9Genetics[™] Disease Screen to screen for more than 150 genetic mutations that cause disease.

Each K9GeneticsTM Disease Screen Screens for

- ✓ Over 30 Musculoskeletal Problems
- ✓ Over 30 Metabolic Conditions
- ✓ Over 30 Eve Conditions
- ✓ Over 25 Blood and Clotting Disorders
- ✓ Over 10 Immune System Diseases
- ✓ Over 10 Urinary Tract Problems
- ✓ 10 Skin and Hair Conditions
- ✓ Cancer
- ✓ Dental Disease
- ✓ Drug Metabolism
- ✓ Heart Problems
- ✓ Hormonal Conditions
- ✓ Liver/Gastrointestinal Diseases
- ✓ Midline Defect
- ✓ Neuromuscular Diseases
- ✓ Reproduction Problems
- ✓ Respiratory Conditions

This one-time test is one of the best decisions you can make for your Great Dane's medical care. With less than a few drops of blood, we'll have a lifetime of information to assist us in providing the very best care of your friend's unique and individual needs throughout her life!

For more information about genetic testing, visit http://www.k9genetics.com

Your Great Dane counts on you to take good care of her, and we look forward to working with you to ensure that she lives a long and healthy life. Our goal is to provide the best health care possible: health care that's based on her breed, lifestyle, and age. Please contact us when you have questions or concerns:

Pet Medical Center 254-690-6769

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Puppy to Adolescent Health Care Recommendations

	(√)	Age	Services We'll Provide	Great Dane-Specific Problems We're Looking For
ople Years	O	6–8 weeks	Head-to-tail physical examination Eye disease screen Parasite detection/prevention Vaccinations Discuss socialization and at-home puppy care	Breed-specific physical abnormalities plus Dental alignment, heart murmur, and hernia Cataracts, Entropion, and Ectropion
nt: Infant to 17 in Pe	O	10–13 weeks	Head-to-tail physical examination Eye disease screen Oral health assessment Skin and coat exam Neurological assessment Parasite detection/prevention Vaccinations Discuss caring for your dog's teeth and ears at home	Breed-specific physical abnormalities plus Cataracts, Entropion, and Ectropion Brachygnathism, Prognathism, Oligodontia, and Wry mouth Demodicosis and Pododermatitis Wobbler syndrome
Puppy to Adolesce	0	14–16 weeks	Head-to-tail physical examination Eye disease screen Oral health assessment Skin and coat exam Neurological assessment Parasite prevention Vaccinations Schedule spay/neuter surgery Discuss obedience and grooming	Breed-specific physical abnormalities plus Cataracts, Entropion, and Ectropion Brachygnathism, Prognathism, Oligodontia, and Wry mouth Demodicosis and Pododermatitis Wobbler syndrome
à	0	4–6 months	Head-to-tail physical examination Eye disease screen Oral health assessment Skin and coat exam Bone and joint exam Neurological assessment Pre-surgical diagnostics Spay/neuter surgery Discuss bloat, stomach tack, and microchipping	Breed-specific physical abnormalities plus Cataracts, Entropion, and Ectropion Brachygnathism, Prognathism, Oligodontia, and Wry mouth Demodicosis and Pododermatitis Osteochondritis Dessicans (OCD), Panosteitis, Hip dysplasia, and Elbow dysplasia Wobbler syndrome
A	•	6 months through 1 year	Head-to-tail physical examination Eye disease screen Oral health assessment Skin and coat exam Bone and joint exam Neurological assessment Parasite prevention Vaccinations Discuss lifetime genetic considerations	Breed-specific physical abnormalities plus Cataracts, Entropion, and Ectropion Brachygnathism, Prognathism, Oligodontia, and Wry mouth Demodicosis and Pododermatitis Osteochondritis Dessicans (OCD), Panosteitis, Hip dysplasia, and Elbow dysplasia Wobbler syndrome All major diseases important in the breed with diagnostic plan
	Puppy to Adolescent: Infant to 17 in People Years	Puppy to Adolescent: Infant to 17 in People Years O	O 6-8 weeks O 6-8 weeks O 10-13 weeks O 4-6 months O 6 months	Head-to-tail physical examination

Adult to Golden Years Health Care Recommendations

	(√)	Age	Services We'll Provide	Great Dane-Specific Problems We're Looking For
Adult: 18 to 39 in People Years	O	2 years through 5 years	Head-to-tail physical examination Eye disease screen Heart health check Skin and coat exam Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Discuss behavior and nutrition	Breed-specific physical abnormalities plus Glaucoma, Cataracts, Entropion, and Ectropion Dilated Cardiomyopathy (DCM) Demodicosis, Pododermatitis, and Allergies Addison's disease and Hypothyroidism Hip dysplasia and Elbow dysplasia Wobbler syndrome Osteosarcoma Immune-mediated hemolytic anemia (IMHA) and immune- mediated thrombocytopenia (ITP)
Senior: 40 to 59 in People Years	0	6 years through 8 years	Head-to-tail physical examination Eye disease screen Heart health check Skin and coat exam Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Discuss mental and physical well-being	Breed-specific physical abnormalities plus Glaucoma, Cataracts, Entropion, and Ectropion Dilated Cardiomyopathy (DCM) Demodicosis, Pododermatitis, and Allergies Addison's disease and Hypothyroidism Hip dysplasia and Elbow dysplasia Wobbler syndrome Osteosarcoma, Lymphoma, and Hemangiosarcoma Immune-mediated hemolytic anemia (IMHA) and immune mediated thrombocytopenia (ITP)
Golden Years: 60+ in People Years	•	9 years and older	Head-to-tail physical examination Eye disease screen Heart health check Skin and coat exam Endocrine screening Bone and joint exam Neurological assessment Cancer screen Blood disorder evaluation Parasite prevention Vaccinations Discuss mental and physical well-being	Breed-specific physical abnormalities plus Glaucoma, Cataracts, Entropion, and Ectropion Dilated Cardiomyopathy (DCM) Demodicosis, Pododermatitis, and Allergies Addison's disease and Hypothyroidism Hip dysplasia and Elbow dysplasia Wobbler syndrome Osteosarcoma, Lymphoma, and Hemangiosarcoma Immune-mediated hemolytic anemia (IMHA) and immune mediated thrombocytopenia (ITP)

Note: We recommend twice-a-year examinations so that we may diagnose problems sooner. This approach also gives you the budget-friendly option of spreading preventive testing over two visits rather than one.

