

THE GREAT DANE

A Beginner's Manual



by Margaret Minuth, SierraDanes



Dedicated to my Danes Jenna, Cody, Sierra, Deenie, Lulu, Shadow, Rosie, Hunter, Luke, Chief, Jack, Tai, Xena, Laney, Jolie, Zorro, and those to come... but most importantly my mentor of nearly two decades - Janie Pronto, Nuttree Great Danes - for her support, smiles, encouragement, happy tears, and a shoulder when things got tough...

Thank you to the Great Dane Club of America (GDCA) and illustrator Steve Hubbell for the use of The AKC Standard and illustrations depicting structure. Thank you to Dr. Joanne Thompson, DVM, of Hanover Regional Animal Hospital for additional medical guidance.

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Ch. Sierra-Starz Mountain Shadow; breeder/owner Margaret Minuth, SierraDanes.

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ABOUT THE AUTHOR

Since I was 7 years old, I felt a passion for dogs, knowing someday I would become a breeder. Even at that age, I knew there was a right, responsible way to produce the best litter I could possibly breed.

At age 12, I began the methodical steps of researching and planning for my first litter of Gordon Setters. It wouldn't be until age 17 when I would find my foundation bitch, Maggie, who would begin my lifetime of devotion to purebred dogs. At age 22, my first Gordon litter was born, ten years after my research initially began. Because so few people knew about the breed, the demand for Gordon puppies was low, and I realized finding quality homes in this pre-internet era would be difficult. Therefore, I had to channel my passion elsewhere.

When I was in my late 20s, I discovered the Great Dane. It would be this gentle giant with whom I'd focus my efforts. I spent six years researching this breed before ever producing my first Dane litter. My foundation bitch International Champion Nuttree's Sierra Snowdancer began the SierraDanes line. As much as I learned about dogs and breeding with the Gordon, it was insignificant compared to the amount of knowledge needed to properly raise a giant breed.

I was fortunate to have the support of family and friends while pursuing my dream of breeding. I graduated from Clemson University with a Bachelor's degree in English and Advertising. I returned to school and earned my Master's in Business Administration from the University of North Carolina at Wilmington. My education took my full-time career into the world of healthcare marketing and public relations where writing and creating educational tools would be a key function of my daily job. It would be key in my life with Danes as well. My devotion to my breed compelled me to write an instruction manual so that my puppies' new families would learn as much about the Great Dane as possible. Thus, the creation of this book began.

The purpose of this book is to enlighten the minds of the first time Dane owner and perhaps clarify issues and offer insight about the Dane from a breeder's point of view. It's my goal to approach subjects less discussed about the Dane as well.

My life experience, research, and devotion guide me in writing this book. Though I've had courses in canine health, mentored under the guidance of breeders, networked with Dane breeders across the world, and have undergone much of what I've written about with the numerous dogs I've loved - Danes and other breeds - I am not a veterinarian. Nor do I qualify myself as an "expert" in the canine field. I entrust that distinction to those who have made huge medical advancements, established or published protocols, and given over his or her entire life to a cause. Accordingly, I am a devoted breeder who has done a significant amount of reading and experienced numerous oddities that I want to share with Dane lovers.

Please consult your veterinarian for confirmation and the newest treatments should you suspect your Dane has any of the health issues mentioned in this book.

Educating oneself and keeping an open mind is paramount in providing a loving, healthy home for a Dane. Traditional veterinary medicine is necessary, but there is also much to be said about alternative medicine, nutraceuticals and homeopathic remedies. There is a place for both. And only when one has exhausted all modalities can one say, "I've done all I can for my Dane."

~ Margaret Minuth & Shadow



PICTURED: Int'l
Champion Nuttree's
Sierra Snowdancer,
the foundation of
the SierraDanes line.
Owner Margaret
Minuth; Breeder Mel &
Janie Pronto, Nuttree
Great Danes



SIERRA

INTRODUCTION TO THE GREAT DANE

Originating hundreds of years ago from the Mastiff and Greyhound, the Great Dane – the “Apollo of Dogs,” Deutsch Dogge, or German Mastiff as they’re called across the globe – was officially developed to hunt wild boar. The Great Dane Club of Germany recognized the breed in 1891 when an official description and standard was developed. The Dane is a member of the American Kennel Club’s “Working Group.” Today, they “work” in the house as companions and enjoy such events as conformation shows, obedience, and agility.

The AKC describes the Working Group as such:

“Dogs of the Working Group were bred to perform such jobs as guarding property, pulling sleds and performing water rescues. They have been invaluable assets to man throughout the ages. The Doberman, Siberian Husky and Great Dane are included in this Group, to name just a few. Quick to learn, these intelligent, capable animals make solid companions. Their considerable dimensions and strength alone, however, make many working dogs unsuitable as pets for average families. And again, by virtue of their size alone, these dogs must be properly trained.”

If you’ve never owned a Dane, you must regard their needs as well as your own. Look beyond their majestic beauty before considering one in your home. Their lack of undercoat provides little insulation against cold or hot climates and thus makes this breed an “inside dog.”

Consider the Dane personality as well. They have an immense loyalty to their family and a natural tendency to protect them by being alert—a true guardian without being aggressive. They prefer being with their humans, in the middle of everything. Because of their desire to be part of the family, Danes may be standoffish with strangers, being slightly “offended” if a stranger is overly

familiar. They adore children, and may be rambunctious in their desire to hug their humans while standing on their hind legs. For this reason, small, eye-level children should be watched around Danes as a wagging tail can make a bruise. Danes can also be very destructive inside if they aren't housed correctly.

This friendly, dependable beast enjoys the afternoon on a couch. They don't realize their own size and may try to squeeze into the smallest of spaces next to you on the sofa. A true characteristic of a Dane is sitting on your lap. They scoot their fannies up onto a lap and sit down while the front legs remain on the floor.

Finally, with any giant breed, vet, boarding, and food bills will be much larger than that of medium or small breed, not to mention HOW you'll transport the Dane if you don't have a van or larger vehicle.

FRIDGE



BIS/BISS Ch. Von Shrado's I'm A Knock Out, HOF

A legend still today, "Fridge" was the #1 Great Dane in 1990 & 1992, and also the top sire. He holds the all time Best Of Breed record in history with 404 Best Of Breed wins. He is the only Great Dane to be #1 as a veteran and in the Top 20 for 6 years. He won the GDCA Futurity. He qualified twice for the Hall Of Fame for producing 39 Champions to date and having won 10 or more BEST IN SHOWS. His get have won BIS and the Top 20.

~ Owners/Breeders Jim & Sandy Hann, von Shrado Great Danes. Fridge is pictured with Sandy.

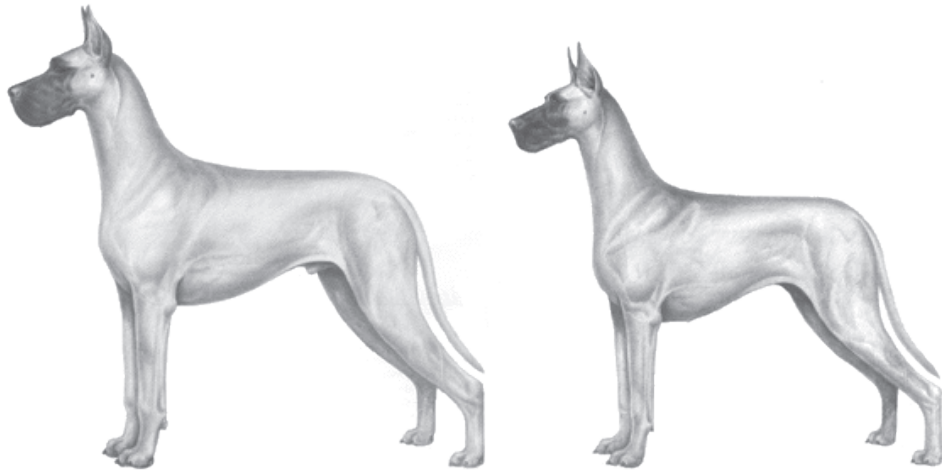
The Official AKC Standard of the Great Dane

► General Appearance

The Great Dane combines, in its regal appearance, dignity, strength and elegance with great size and a powerful, well-formed, smoothly muscled body. It is one of the giant working breeds, but is unique in that its general conformation must be so well balanced that it never appears clumsy, and shall move with a long reach and powerful drive. It is always a unit—the Apollo of dogs. A Great Dane must be spirited, courageous, never timid; always friendly and dependable. This physical and mental combination is the characteristic which gives the Great Dane the majesty possessed by no other breed. It is particularly true of this breed that there is an impression of great masculinity in dogs, as compared to an impression of femininity in bitches. Lack of true Dane breed type, as defined in this standard, is a serious fault.

► Size, Proportion, Substance

The male should appear more massive throughout than the bitch, with larger frame and heavier bone. In the ratio between length and height, the Great Dane should be square. In bitches, a somewhat longer body is permissible, providing she is well proportioned to her height. Coarseness or lack of substance are equally undesirable. The male shall not be less than 30 inches at the shoulders, but it is preferable that he be 32 inches or more, providing he is well proportioned to his height. The female shall not be less than 28 inches at the shoulders, but it is preferable that she be 30 inches or more, providing she is well proportioned to her height. Danes under minimum height must be disqualified.



The Great Dane Dog

The Great Dane Bitch

Steve Hubbell, Illustrator: ©GDCA

► Head

The head shall be rectangular, long, distinguished, expressive, finely chiseled, especially below the eyes. Seen from the side, the Dane's forehead must be sharply set off from the bridge of the nose, (a strongly pronounced stop). The plane of the skull and the plane of the muzzle must be straight and parallel to one another. The skull plane under and to the inner point of the eye must slope without any bony protuberance in a smooth line to a full square jaw with a deep muzzle (fluttering lips are undesirable). The masculinity of the male is very pronounced in structural appearance of the head. The bitch's head is more delicately formed. Seen from the top, the skull should have parallel sides and the bridge of the nose should be as broad as possible. The cheek muscles should not be prominent. The length from the tip of the nose to the center of the stop should be equal to the length from the center of the stop to the rear of the slightly developed occiput. The head should be angular from all sides and should have flat planes with dimensions in proportion to the size of the Dane. Whiskers may be trimmed or left natural.

► Eyes

The eyes shall be medium size, deep set, and dark, with a lively intelligent expression. The eyelids are almond-shaped and relatively tight, with well developed brows. Haws and Mongolian eyes are serious faults. In harlequins, the eyes should be dark; light colored eyes, eyes of different colors and walleyes are permitted but not desirable.

► Ears

Ears shall be high set, medium in size and of moderate thickness, folded forward close to the cheek. The top line of the folded ear should be level with the skull. If cropped, the ear length is in proportion to the size of the head and the ears are carried uniformly erect.

► Nose

Nose shall be black, except in the blue Dane, where it is a dark blue-black. A black spotted nose is permitted on the harlequin; a pink colored nose is not desirable. A split nose is a disqualification.

► Teeth

Teeth shall be strong, well developed, clean and with full dentition. The incisors of the lower jaw touch very lightly the bottoms of the inner surface of the upper incisors (scissors bite). An undershot jaw is a very serious fault. Overshot or wry bites are serious faults. Even bites, misaligned or crowded incisors are minor faults.

► Neck, Topline, Body

The neck shall be firm, high set, well arched, long and muscular. From the nape, it should gradually broaden and flow smoothly into the withers. The neck underline should be clean. Withers shall slope smoothly into a short level back with a broad loin. The chest shall be broad, deep and well muscled. The forechest should be well developed without a pronounced sternum. The brisket extends to the elbow, with well sprung ribs. The body underline should be tightly muscled with a well-defined tuck-up. The croup should be broad and very slightly sloping. The tail should be set high and smoothly into the croup, but not quite level with the back, a continuation of the spine. The tail should be broad at the base, tapering uniformly down to the hock joint. At rest, the tail should fall straight. When excited or running, it may curve slightly, but never above the level of the back. A ring or hooked tail is a serious fault. A docked tail is a disqualification.

► Forequarters

The forequarters, viewed from the side, shall be strong and muscular. The shoulder blade must be strong and sloping, forming, as near as possible, a right angle in its articulation with the upper arm. A line from the upper tip of the shoulder to the back of the elbow joint should be perpendicular. The ligaments and muscles holding the shoulder blade to the rib cage must be well developed, firm and securely attached to prevent loose shoulders. The shoulder blade and the upper arm should be the same length. The elbow should be one-half the distance from the withers to the ground. The strong pasterns should slope slightly. The feet should be round and compact with well-arched toes, neither toeing in, toeing out, nor rolling to the inside or outside. The nails should be short, strong and as dark as possible, except that they may be lighter in harlequins. Dewclaws may or may not be removed.

► Hindquarters

The hindquarters shall be strong, broad, muscular and well angulated, with well let down hocks. Seen from the rear, the hock joints appear to be perfectly straight, turned neither toward the inside nor toward the outside. The rear feet

should be round and compact, with well-arched toes, neither toeing in nor out. The nails should be short, strong and as dark as possible, except they may be lighter in harlequins. Wolf claws are a serious fault.

► Coat

The coat shall be short, thick and clean with a smooth glossy appearance.

► Color, Markings and Patterns

• Brindle – The base color shall be yellow gold and always brindled with strong black cross stripes in a chevron pattern. A black mask is preferred. Black should appear on the eye rims and eyebrows, and may appear on the ears and tail tip. The more intensive the base color and the more distinct and even the brindling, the more preferred will be the color. Too much or too little brindling are equally undesirable. White markings at the chest and toes, black-fronted, dirty colored brindles are not desirable.

• Fawn – The color shall be yellow gold with a black mask. Black should appear on the eye rims and eyebrows, and may appear on the ears and tail tip. The deep yellow gold must always be given the preference. White markings at the chest and toes, black-fronted dirty colored fawns are not desirable.

• Blue – The color shall be a pure steel blue. White markings at the chest and toes are not desirable.

• Black – The color shall be a glossy black. White markings at the chest and toes are not desirable.

• Harlequin – Base color shall be pure white with black torn patches irregularly and well distributed over the entire body; a pure white neck is preferred. The black patches should never be large enough to give the appearance of a blanket, nor so small as to give a stippled or dappled effect. Eligible, but less desirable, are a few small gray patches, or a white base with single black hairs showing through, which tend to give a salt and pepper or dirty effect. Any variance in color or markings described above shall be faulted to the extent of the deviation. Any Great Dane which does not fall within the above color classifications must be disqualified.

• Mantle – The color shall be black and white with a solid black blanket extending over the body; black skull with white muzzle; white blaze is optional; whole white collar preferred; a white chest; white on part or whole of forelegs and hind legs; white tipped black tail. A small white marking in the black blanket is acceptable, as is a break in the white collar.

Any variance in color or markings as described above shall be faulted to the extent of the deviation. Any Great Dane which does not fall within the above color classifications must be disqualified. (Note: This paragraph refers to all the color/pattern descriptions, not just mantle).

► Gait

The gait denotes strength and power with long, easy strides resulting in no tossing, rolling or bouncing of the topline or body. The backline shall appear level and parallel to the ground. The long reach should strike the ground below the nose while the head is carried forward. The powerful rear drive should be balanced to the reach. As speed increases, there is a natural tendency for the legs to converge toward the centerline of balance beneath the body. There should be no twisting in or out at the elbow or hock joints.

► Temperament

The Great Dane must be spirited, courageous, always friendly and dependable, and never timid or aggressive.

► Disqualifications

Danes under minimum height.

Split nose.

Docked Tail.

Any color other than those described under “Color, Markings and Patterns.”

Approved September 11, 1990. Effective October 30, 1990

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Understanding Structure & Interpreting the Standard

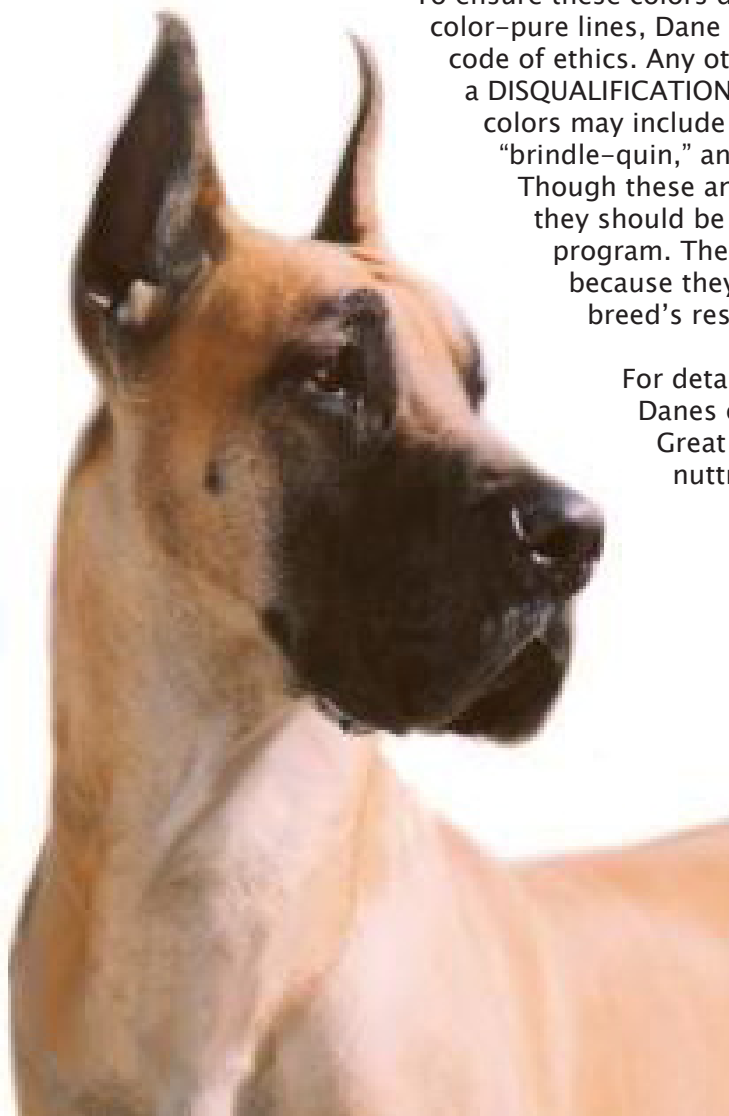
Because there is much to learn about Great Dane structure, there is a section devoted to the topic with sketches entitled “Structure” beginning on page 39.

Breeder’s Note on Great Dane Colors:

To ensure these colors don’t become diluted and to keep color-pure lines, Dane breeders follow a breeder’s color code of ethics. Any other color than listed above is a **DISQUALIFICATION** in the Breed Standards. These colors may include merle, “fawn-a-quin,” chocolate, “brindle-quin,” and solid white (possibly deaf).

Though these animals will still make nice pets, they should be eliminated from a breeding program. These colors are **NOT** more “valuable” because they are “rare”—just look in the breed’s rescue to see that’s not true!

For detailed information on the Great Danes of yesteryear, visit Nuttree Great Danes Ancestry Index at www.nuttreedaneancestors.homestead.com



ROCKET

Pictured LEFT: Am/Can BIS/BISS
Ch. Lagarada Reach for the Starz,
CGC, AOM (Westminster) ~
“ROCKET”
~ Owners Carole and Catherine
Brakhage; Breeder Fran Lass,
Lagarada Great Danes

IS THE GREAT DANE RIGHT FOR YOU?

► FAQs (Frequently Asked Questions)

If you've never owned a Great Dane, you've made the best decision to read about the breed first. At the end of this manual is a list of additional sources on the breed. In this section, questions frequently asked of breeders are answered.

You must consider is whether you can take the social responsibility of owning a giant breed. The size of the Dane can be quite attention grabbing – it can also be intimidating. When you are in public with your Dane, keep him under control at all times, especially when visiting other people or pets. Your Dane may be well-behaved, but other kids or pets may not have dog manners. Some people fear dogs, and you must respect their feelings. There may be a valid reason for their fears. Don't try to help them overcome fear by shoving your Dane in someone's face. Positive experiences through education and visits on that person's own terms will help others overcome fears and help you raise a good citizen. If that person (including family member who doesn't live with you) chooses not to get to know your Dane, accept it and move on.

1) Do you sell “Pet Quality” Great Danes?

Individual breeders have varying policies on show and companion quality pups. Some breeders grade their pups and sell show pups solely to show homes and companion pups to families who have no desire to show. Some breeders simply distinguish between full registration and limited registration and allow the new owner to decide which registration to purchase.

2) How much do Great Danes cost?

When dealing with a giant breed, the initial cash outlay is minimal as costs continue once the dog is home (see question #3). Purchase price varies with color. For a quality Dane from reputable breeders, you can expect to pay anywhere from \$1,000 to \$3,500 depending if you are purchasing a companion or show pup and even the color of its coat.

The Great Dane Standard allows for six colors: fawn, brindle, black, blue, harlequin, and mantle. When showing a Dane, color clarity is a consideration and the AKC Standard should be referenced:

Any Great Dane which does not fall within the above color classifications must be disqualified.”

Because Danes come in several colors, occasionally other colors may appear from perfectly reputable breeders. These include merles, whites, and variations of harlequins and mantles (other than black and white). Some of these colors are not recognized by the AKC, thus these companions are sold by ethical breeders only on limited registrations. Breeders should never strive to get these unusual colors nor promote the colors as “rare.” The pups should be priced as a companion. As part of your research on finding an ethical breeder, check the GDCA Breeder's Color Code so you will have the knowledge about color crossing while researching the parents' pedigrees.

YOU GET WHAT YOU PAY FOR. If you find a deal, you may make up for it later with vet bills, bad temperaments or a poor representation of the breed. Be sure to get a Dane from a reputable breeder who will stand by you and your pup! If the price is out of your budget, consider adopting a RESCUE.

3. Other than food, what expenses should I expect?

Frequently breeders will recommend that new owners purchase a giant crate to ease in the house training and lessen destructive behavior. Crates cost about \$200 plus shipping. You might also need to build a fence at least 5–6 feet in height. Veterinary bills and medications are significantly higher because many meds are dosed by weight of the animal. Also, with any surgery, it is highly urged that pre-surgical blood-work and clotting panels be performed. It may cost a little more, but if you don't do it, and your Dane does not survive surgery, you are still obligated to pay for the unsuccessful surgery. A good rule of thumb for raising a Dane is to budget about \$100 per month for food, treats, toys, and medication (excluding vet bills).

4) How much do they eat?

Great Danes must be fed a premium feed or a natural diet to ensure the best possible health during the critical growth period. A proper diet continued throughout his/her life will ensure your dog matures into a healthy senior with fewer health problems, and perhaps even lessen the chance of bloat. Dane breeders will advise you on what to feed your new pup, and typically, the health warranties are tied into your nutritional program. If the breeder does not recommend a specific food, consider that a “red flag” and decide if this breeder will stand behind the pup once it comes home with you.

Depending on mature size and brand of food selected, a typical Dane will eat between six and ten cups of food per day (three feedings per day as a pup, and two feedings per day as an adult). A 40# bag of premium feed will cost about \$40 and may last three to four weeks. A breeder may also require that puppies take supplements (Vitamin C & Probiotics) to help build healthy soft tissue and aid in digestion. These products can cost approximately \$40 for a six month's supply. For heartworm prevention, you may add \$60 for a six month's supply. Searching the internet and eBay are great ways to reduce costs of heartworm medication, flea control, and food supplements, but double check expiration dates and whether the product has been opened.

5) What kind of temperament do Danes have?

Great Danes are lovable companions who know they have a job to do. The first job is to love their family to the depths of their hearts, and this makes them a HIGH MAINTENANCE breed. They need to be housed inside because they have only a single coat unlike the double-coated Labrador who can withstand colder and warmer temperatures. If they are separated from their family for longer than they think is appropriate, they may “BOING” -- jump very high, peering into windows, to remind the family that they aren't with them. They typically display their affection by leaning against people (even new friends they meet) or bumping hands and arms to be pet or massaged. When more than one dog is present, the Dane may even begin a beautiful serenade in the morning or evening before bed. Your neighbors may frown on this even if it's a beautiful song to you.



*Cody, Rocket, and Luke -
Three different boys,
Three different Boings!*

Some Danes may drool more than others...check and see how much the parents drool (most all Danes will drool if they are patiently waiting for treats).

As a WORKING DOG, the Dane's second job is to protect those they love. How they protect is by barking, grumbling (a warning growl) or standing tall to unknown visitors. It is expected that they will be standoffish until they meet and greet the visitors but they shouldn't show true aggression without provocation or real danger. Should the family be in danger or send messages of fear, the Dane will stand in front of the family and stretch up on his/her toes, looking the perpetrator in the face. Unless his family is in danger, it is not acceptable behavior for a Dane to snap, growl in a truly threatening manner, or bite.

6) Are Great Danes good with children?

Yes...BUT... Great Danes don't really know how big they are, even when they've reached maturity. Should they sit on a child's lap, it may be scary or even painful. Additionally, because of the Dane's height, eye-level children may get slapped in the face by the Dane's exuberant tail. These "whips" commonly leave bruises on adults, so great care must be taken when raising children and Danes together. Another thing to consider is whether the child is strong enough to control the massive force of a Dane when on a leash. There are tricks and training techniques to ensure an obedient Dane, so be prepared to have the family at some puppy kindergarten classes.

Usually comfortable keeping the couch warm and toasty, Danes frequently get bursts of energy and may have difficulty slowing down his/her speed inside. When this happens, they typically look for their family to lend a hand. Thus, they run at their family full speed and expect a soft, cushy body to stop them.

7) Are Great Danes good with other dogs and cats?

Properly socialized and trained pups will accept other members of the animal family, but it is up to the new family to ensure harmony continues when the pup begins maturing and discovering new behaviors. Pups raised in litters will typically enjoy the companionship of other dogs, and hopefully the other animals in the family will welcome the new pup as well. Many Danes have been raised successfully with other dogs of varying size, cats, horses, and other animals, and many prefer to have a canine companion to play with. As with any dog raised in a multiple dog home, Danes do have a tendency to "pack" if not properly socialized. Hormones will also affect their behavior, so spaying or neutering a Dane that is not used for showing or breeding is a good idea.

8) What health problems do Danes have, and how long do they live?

Because Great Danes are a giant breed and grow so rapidly in short intervals, they tend to have more complex health problems. Some typical conditions include Hypertrophic Osteodystrophy (H.O.D.), vonWillebrands Disease (vWD), Wobblers Syndrome, Hypothyroidism, Osteochondritis Dissecans (O.C.D.) and Hip Dysplasia. Many times, these conditions can be prevented or treated with proper nutrition or nutraceuticals. Serious, life-threatening problems include Bloat and Dilated Cardiomyopathy (a genetic disease).

When compared to small and medium sized breeds, Danes are considered

to have a short life span. But we can't compare a giant breed with smaller breeds because the stress of weight on the joints and demands on the heart and other organs will age a Great Dane more rapidly than a Miniature Schnauzer, for example. Typically Danes will live about 8 to 10 years, and quality breeders strive to eliminate illnesses that take them earlier. If you decide the Dane is right for you, go into the breed appreciating from the start what time you have with them, be it short 4 years or fulfilled 14 years.

It is important to follow the guidance of your breeder to help minimize any chance of losing your dog earlier. Additionally, the breeder should perform health screenings to eliminate breeding stock that may be affected by genetic conditions.

9) How much room does a Great Dane need?

A Great Dane doesn't particularly need much *land* but does need enough room in the home and in the yard to be able to stretch his legs. That means, he/she should have the ability to run around the yard at as fast a pace as he/she desires.

An important thing to consider is that the Great Dane expects to be in the same room with his/her human most of the time – including the bathroom!



Zorro checks around the house to find his mom - Could she be in the tub? Owner Patti Thomas

Z
O
R
R
O

10) Do they need a fence?

Most breeders will require new homes to have a fence. A minimum height of 5 feet, with 6 feet preferred, is a good guideline. A wooden fence is ideal; a chain link offers less protection with spaces large enough for little human hands to poke in but will still contain the Dane. Remember, a fence is for protecting your dog as much as it is protecting others.

Many breeders don't believe that an invisible fence is an appropriate containment unit for a Great Dane. One reason is the shock the dog receives, which could alter the Dane's personality forever. Even if your Dane is successfully contained, other domestic or wild animals – and curious kids – can still come into the yard, which doesn't protect your dog. As a responsible owner, you must exercise *double the caution* with a giant breed than with other dogs by protecting your dog from people and animals as well as keeping your neighbors safe from your dog.

Should a neighbor's child approach your fence and stick his arms over the fence to pet the wondrous dog, he may be injured from a scratch by the pads or toenails or a smack by the feet. As a Dane owner, you will understand that these lovable giants can injure in their need for attention. Keep yourself out of trouble! Get a fence!



The Zoom Groom is a favorite even among dogs that hate to be brushed. The soft rubbery fingers feel good and remove lots of hair - more so than traditional brushes. The size, shape and color don't matter - get whatever Zoom Groom you can.

11) Do Great Danes shed?

Yes, but rather than shedding constantly, Great Danes blow their coat a few times a year, usually when there is a change in weather. They still have loose hairs falling from their bodies throughout the year, but typically you won't have a handful of hair sticking to your palms on a consistent basis when you pet them. When they blow their coat, it's helpful to purchase a Zoom Groom and massage their bodies until their coat is beautiful and shiny again. Do this outside! The Zoom Groom is preferred for Danes because a standard brush can scratch the skin with the amount of brushing that is required to remove undercoat.

12) How old are they when their faces begin graying?

As they age sooner than smaller breeds, some Great Danes have a tendency to begin graying as early as a year old. This frosting usually begins in a small stripe right below the nostrils and moves further into the muzzle as they mature. By age three, you should notice more grey; and by the time they are four, the gray may have moved into the eyebrows. .

13) How big are they? How much do they weigh?

Great Danes are born weighing an average of over one pound. Within eight months, they will grow to about 100 pounds. If your Great Dane doesn't follow this growth rate, it does not always indicate a problem -- just perhaps a slower or faster metabolism. Ask your breeder what is an average adult size for his/her line.

Great Dane weights range between 110–145 pounds for bitches and 120–160 pounds for dogs (males). According to the Great Dane Standard, females should mature to a height of 28" minimum at the shoulder, with a preferred height of at least 30", and males should mature to a height of 30" minimum with a preferred height of 32".

While you and your dog are in public, expect to get questions about his size: "Do you have a saddle for that thing?" or "How much does he eat/weigh?"

14) Why are they inside dogs?

The Dane's coat is not designed to withstand the summer heat and the cold chill. They must live in a temperature-controlled environment and be exercised several times a day outside. Should a Dane show signs of stress (heavy panting, dark red tongue, shivering, constant whining, cold ear tips), he should be brought inside immediately! Dogs may be used to living in the wild, but domestic dogs of today have not been bred to live in the wild. History shows that the Dane was developed from a cross of a Mastiff and a Greyhound, thus it could be argued that breeders developed the Great Dane according to their needs, and if left to Natural Selection, the breed itself may be extinct.

15) Why do Great Danes cost so much?

Let's consider the following initial expense to the breeder:

- Stud fees – these range broadly and can reach \$1,500 or more for a nationally ranked stud. Factors include health checks, national ranking on the show circuit, major wins (Westminster, Specialties), pedigree, sire status (“top producer”), artificial insemination fees, and the limited number of straws (frozen semen) available once a stud has passed.
- Health costs – costs include vaccines and worming, formula, supplements and vitamins, vet checkups on the pregnant dam, vet checks on the newborns, ear crops (varies, and there may be added expense of traveling out of state for the vet who knows how to do a Dane Ear Crop properly), ear tape supplies, emergency vet bills/c-sections, homeopathic remedies, prenatal monitoring devices, artificial insemination surgical procedures.
- Supplies – supplies add up with food, toys, towels & blankets, laundry, cleansers, puppy kit items (pedigrees, articles, etc.), AKC registration for the litter, microchips, long distance phone bills to vets, breeders, and potential puppy homes, pictures or video tapes to potential puppy homes, website fees, ads & subscriptions to Dane World and other magazines.
- Travel expenses – it's usually necessary to travel to get pre-breeding health screenings, to breed to the stud, to go to an Artificial Insemination Vet for semen implant when doing an AI, to get a vet checkup for the litter, to have ears cropped, to meet families who have to travel long distances to get a pup.
- Time – the amount of time a breeder puts into a litter will never fully be financially rewarded: researching the lines, preparing for the litter, travel, monitoring the bitch before whelp, around-the-clock vigils for two weeks once pups are born, continued care and socialization for another seven weeks, ongoing 24/7 support with families for the life of the dog, and we can't forget the time we spend showing our dogs so you will be as proud of your new baby as we are!

Many of the expenses are paid BEFORE a litter is even a reality. Sometimes there are no pups, and the breeder takes a big loss. Even with a large litter, breeders don't make a profit. If lucky, breeders may break even, and money from sold pups is reinvested back into the breeding program. So then, WHY do it? ... It's our legacy.

[Please keep these expenses in mind should you decide you want to begin a breeding program of your own.]



Sometimes litters can be as small as one pup, and the breeder will not be able to recover his or her initial expenses. Ben was the only pup in Tigger's litter. Nuttree's Tiger's Eye, breeder Mel & Janie Pronto, Nuttree Great Danes.

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BEFORE BRINGING YOUR DANE PUP HOME

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PICTURED: 12 -week old Cody weighing 36 pounds and taking up one small pillow. Even at a mature 130 pounds, he took up the same small amount of space on the couch. Danes make themselves “very small” to get their way.

Selecting an Ethical Breeder

Because you are making a commitment that will last about a decade, you want to be sure to do your homework. You can find breeders online through several sources: the breed’s parent club (i.e., Great Dane Club of America), local breed clubs, breed websites (www.ginnie.com, www.danesonline.com), and by visiting dog shows in your area (search the show calendar at www.infodog.com). Though not always the case, it is less likely that a reputable breeder will advertise pups for sale in your local newspaper as usually they have already found homes for their pups or get referrals through their breeder network.

Once you find some breeders, interview them--it’s expected! If breeders don’t get interviewed, they may not think you’re serious about the breed.

► Questions you want to ask a breeder may include:

1. How long have you been breeding Danes? [Someone new to breeding may have done the necessary research and be as reputable as someone who has been breeding for years – just ask more questions until you are comfortable.]
2. What other breeds have you bred? [Though it’s common to have two or three different breeds, a breeder with more than a few breeds at home or several litters at one time could be a red flag]
3. How many Danes do you currently have? [Can the breeder give the adults and puppies the socialization and time required?]
4. How many litters have you had?
5. How many litters do you have a year? [This is a question that needs to be

asked lightly as unreputable breeders know this is a “red flag” question. If the answer is “more than two litters per year” you should discuss the breeder’s values further.]

6. Why did you decide to breed the pair you did?
7. Can you tell me about their good qualities and what qualities you would like to see improved? [There are no perfect dogs, and anyone should be able to tell you what they like about their dog and what they would like to improve through their breeding program.]
8. Can you tell me about their pedigree? [You may not know anything about their pedigree, but the breeder should know plenty and have a pedigree available for you to see.]
9. What titles do they hold? [Write them down and check them online later.]
10. Where do you keep your adults?
11. Where do you raise your puppies? [You are looking for how much interaction and socialization the pups have had with people and other animals. Understand that the pups may be too young to be socialized with anyone other than the breeder if they haven’t had their shots.]
12. What kind of health problems are in the breed itself?
13. How often have you experienced these problems? [Most breeders have experienced something in their years of breeding. They should be forthright and tell you the steps they’ve taken to reduce the problems.]
14. Is the mother (and maybe the father, too) onsite for me to see? [Breeders don’t typically own both mother and father; and with artificial insemination and other advances in breeding, it may not be possible to see the father in person. Perhaps the breeder has video of him. If the breeder has no documentation or pictures on the father, that would be a warning sign to avoid that breeder.]
15. What health and temperament guarantees do you have for the puppy?
16. When can I take the puppy home? [Ideally, breeders will send pups home after 9 weeks. Any earlier than 8 weeks, find out why. Six weeks is a definite red flag.]
17. Do pups come with their ears cropped or uncropped? [Some breeders opt not to crop pups, but most will send them to their new homes cropped. Some will give you the option to leave the ears natural].
18. What puppy shots will the puppy have before leaving your home?

Breeders will want to interview you as well! Here are some questions to expect:

1. Have you ever owned a Dane? [If your answer is “no,” they will want to know what research you’ve done to reach your decision.]
2. Why do you want a Dane?
3. What are your living arrangements (i.e., apartment, house, condo, etc.)?
4. Tell me about your family (who lives with you – kids, elderly, partners).
5. Tell me about your job (i.e. your position, how far from work, how long you’re away from home, hours and days worked, some financials to ensure you can afford a Dane.)
6. Do you have a fenced yard?
7. How many dogs have you had in your lifetime?
8. Those that you no longer have, what happened to them?
9. How many pets do you currently have?
10. Where will the Dane live?
11. Have you ever experienced bloat?
12. Do you intend to breed your Dane?
13. Do you intend to show your Dane?

How Quickly Will You Find a Pup

With the internet opening up a whole new method of communication among breeders and potential qualified puppy homes, it may take many months – even a year – to find the pup of your dreams, especially if you are not willing to travel a distance. Through a waiting list, many breeders have pups sold before they are even born. This can be frustrating for someone searching for a “gift” for their loved ones, but it can be rewarding as well to watch the pup grow from birth. [Special note: breeders are wary of people looking to buy a pup as a “gift” for someone else especially as a surprise or around Christmas. If you want to surprise someone, give them an IOU and take the time to enjoy the search together.]

You will want to develop a relationship with your breeder. Get to know the breeder, the dog’s line/pedigree, and enjoy pictures and video of your new pup growing up. Your breeder will likely expect a deposit once the pups are born as there may be other qualified homes who were further down the line.

Selecting Your Pup

Some breeders may select a pup for you with no input on your part based on how well the puppy’s personality matches your expectations. Others may let you pick from the litter. Ask the breeder to show you what they like and don’t like about each of the pups in the litter, even if some pups are already spoken for. If you are selecting a show pup and are a novice, ask the breeder for help with your selection. You can learn about structure from sketches in the later section on “Structure.” It may be difficult for a novice to see structure in a young pup.

Cropping or Natural Ears

Many reputable breeders sell their pups already cropped. This is because the ideal age for cropping a pup is between 7 and 9 weeks of age. Any later and the ears may not stand. Breeders should have appropriate contacts for ear cropping, and if they choose not to crop, ask why. If you want a puppy cropped, find a breeder who will sell the puppy cropped. It’s a surgical procedure, and you want the risk to be with the breeder. If the breeder has uncropped pups, also called “natural” ears, and does not plan to sell the pup with the ear crop, it’s best advised keep the ears natural. Don’t rely on your family vet to perform this surgery as most vets don’t know how to properly perform the long and specialized “Dane crop.”

Taking the Pup Home

Ask the breeder if the pup has ever been for a ride in a car. Though dogs tend to travel well, you may need to prepare for car sickness. When transporting, first and foremost, make sure to have a vehicle in which you can safely transport your puppy home. Your new pup may weigh thirty pounds and have separation anxiety once leaving the home in which he was raised. You may need to travel with a crate, especially if your trip lasts a few hours. Many breeders recommend crating while in a car so the dog gets used to traveling without interfering with the driver and so they can get plenty of rest. It’s a safer method than leaving the dog loose in the car, especially if there is an accident. Should you have car trouble and need to walk, you could leave your dog protected in the crate (temperature permitting) while you seek help.

Bring a leash with an adjustable collar, blanket, bottled water, and water bowl with you. In case of tummy aches, take some plastic grocery bags and paper towels as well. Expect to have several potty breaks, and perhaps offer water a few hours after traveling.

If you are planning on flying your Dane home by air, ask the breeder if this is acceptable to them. Is this method safe? Consider that in February 2006, a top winning Whippet escaped its crate at the airport on its way home from the Westminster Dog Show. The dog has not been found.

You will need to arrange as direct a flight as possible; check the weather so that the environment in the cargo hold is not too hot or too cold, and check with the airlines about their policies. Ask about their procedures and precautions for puppies getting loose or escaping their crates. Some airlines offer special services for pups traveling longer distance. This method is costly, requires a purchase of a crate (which can be beneficial later on), and can be quite risky. You will also want to do much more research on this method of travel to see if you are comfortable with flying your pup home.

Supplies You Will Need

You will need to have a bag of dog food that your breeder selects along with elevated stainless steel bucket and pans for water and food. Stainless steel is easier to clean thoroughly and will help prevent puppy acne (pyoderma). Your breeder will give you a list of supplements he/she recommends for proper growth. You may want to get some breeder-approved chewies and toys, a blanket, and even begin a first aid kit with bloat prevention tools.



Elevated diners help reduce the amount of air swallowed while eating & drinking, which could reduce the risk of bloat.

Where to Keep Your Dane

► IN THE HOUSE

Nothing is more enjoyable to a Dane than to have free access to a house, jumping over couches, running through the halls, and chewing on things—walls, mattresses, rugs, furniture. Containing your dog while unsupervised will save you hours of frustration! You can build a pen in your garage, utility room, a spare bedroom, or other room, or you could crate your Dane while you are away.

A decent Dane crate is a wire folding/suitcase style “General” brand crate, Model #206. It measures 48”L x 28”W x 36”H and will fold for easy travel. The cheapest source is currently J.B. Wholesale, 1-800-526-0388. For the Jumbo-size Dane, Omaha Vaccine (1-800-367-4444) offers Item #03111/Crate #99—it measures 54”L x 36”W x 44”H. When looking at crates, be sure they set up securely. “Midwest” brand crates have COLLAPSED on my dogs (at shows) more than once and allowed them to escape!

► OUTSIDE

Even though your Dane is living inside, the outside enclosure is just as important. Make sure the fence wire is strong and tall enough for a 160–180 pound dog to jump on while trying to protect your property. Some Danes will dig – and dig – and dig. Your pen may require a top or even go underground.

It should provide ample shade and light for the dog, and should be cleaned regularly. Fresh water should be available at all times. Leaving a Dane unattended outside is not necessarily safe.

► BOARDING

If you board your dog, make sure the kennel is familiar with your breed's special needs. Are they familiar with bloat? How do they protect your dog against diseases or parasites brought in by other dogs? Can they feed your dog in an elevated diner? If your dog is a fence jumper or digger, will they have appropriate containment facilities? How will they transport your dog to the vet in an emergency, and what arrangements do they have for emergency vet care? You'll be charged a premium for the size dog you have and may also need to hunt around for an appropriate boarding facility.

An alternative to boarding is a pet sitter. Be sure the person is experienced with a giant breed and knows what to look for with potential health problems – especially bloat and torsion.



Do Danes dig? Look at Laney inside the den she made all by herself. The picture on the top right shows just her fanny. This hole was 12 feet long and 4 feet deep. She could crawl into it, turn around, and go back outside. She would dig holes whenever she would go through a false pregnancy.

THE GREAT DANE PUPPY

Physical Developments & Growth Stages

It takes a human nearly 18 years
to grow from 8 pounds to 140 pounds...
It only takes a Great Dane TWELVE months!

Because of their rapid growth, it is possible you could encounter some growth problems if you don't follow your breeder's recommendations – and even if you do. Your breeder is not a substitute for veterinary care, but he/she probably has been through some of the illnesses described in this book and is likely connected to a huge Dane network with centuries of combined knowledge. The Dane breeder network has assisted many vets across the country in developing treatment plans for Dane problems, including the anesthesia protocol for surgery. A homeopathic treatment may even be suggested for some illnesses. All in all, you will be the one who finally decides what approach best fits your needs.



Sierra and her seven-week old pups nursing ~ still.

Some growth diseases originally suspect of genetic origin can be brought on by environmental or nutritional factors. Rough-housing, pups exercising with larger dogs, dog food with high protein/fat contents or even CHANGING a pup's food during crucial growth stages can promote illnesses such as HOD, OCD, and Pano.

Conditions Associated with Fast Growth

► **HYPERTROPHIC OSTEODYSTROPHY (H.O.D.)**

Hypertrophic Osteodystrophy affects the long bone in the leg and causes lameness and extreme pain in young growing dogs, typically between three and nine months of age. Swelling in joints is commonly seen just above the pastern and hock joints. Though not yet scientifically documented, some breeders believe there is a correlation between a puppy being diagnosed with H.O.D. and having received vaccinations within a week's time frame.

Puppies with H.O.D. may stand "hunched up," appear pained in the rear, or even refuse to stand at all. They may or may not have a fever or have fever just in the joints. In most cases, an x-ray may confirm this diagnosis – although it can look a little like bone infection from a septic condition (*septicemia*). Excessive dietary levels of calcium or protein are believed to be the primary cause, though the etiology of H.O.D. is unknown. Viral or bacterial infections may underlie some cases of H.O.D. because canine distemper virus has been found in the affected areas in some dogs.

Dehydration and starvation are the main fears with H.O.D. Some suffer

permanent disability but many recover later. Some vets may suggest euthanizing the puppy; however, homeopathic remedies have been very successful in treating this illness. Treatment may consist of analgesic medications such as aspirin or Carprofen (Rimadyl). Corticosteroids have also been proven to be very effective in treating H.O.D. Homeopathic vets have had several success stories in treating Danes with H.O.D., so you may opt for this path instead. If your pup is diagnosed with H.O.D., find a vet experienced with successfully treating this illness.

H.O.D. may resolve spontaneously in as short a time as a week or so. It can be a recurrent, cyclic condition that goes on for a long time, too. Severe deformities may occur in extreme cases. The primary goal of treatment is to control pain. It's important to note that Septicemia (a blood infection) has been known to be misdiagnosed as H.O.D. and vice versa. This illness requires antibiotics for treatment, whereas antibiotics are not indicated for H.O.D. Therefore, it's important to rule out Septicemia as the diagnosis.

► OSTEOCHONDRITIS DISSECANS (OCD)

Normally, as an animal grows, the soft cartilage at the ends of long bones matures and remodels to become hard. With OCD, the cartilage does not become hard and instead breaks down, causing lameness. OCD usually is seen between six and nine months of age, and more predominantly in males because of their larger size. This breakdown of cartilage can lead to joint erosion, lack of cartilage on the joint surface, fluid buildup in the joint, bone cysts, bone-to-bone contact and/or pain.

Many factors contribute to this disease syndrome: Danes are genetically predisposed to rapid growth; rough-housing, hard play or excessive exercise during crucial growth periods may damage joints. Early detection of the problem is key to an effective treatment. With OCD, watch for recurring lameness in the same joint. The shoulder, hock and stifle joints are frequently involved.

Treatment usually consists of crate rest and pain relievers. Surgery may be indicated for OCD along with restricted exercise and diet. Cosequin DS® (Glucosamine) in the early stages may help the dog's joints repair themselves. Aspirin is a good pain reliever but has been known to cause gastrointestinal upset in some dogs, leading to ulcers. Ascriptin® (aspirin with Mylanta) may be a good alternative. Carprofen (Rimadyl) is an anti-arthritic medication, but it has caused liver damage in some dogs. It should be discontinued if there are signs such as lack of appetite, depression, vomiting or anything else worrisome after administration. Pain relievers can make a huge difference in the comfort level of a dog with an arthritic-type disease.

► PANOSTEITIS (Pano)

Panosteitis is a spontaneously occurring lameness that usually occurs in large breed dogs between five and fourteen months of age, and more common in males. Some veterinarians feel that this disease may be induced or worsened by stress. Similar to H.O.D. symptoms, the lameness tends to occur very suddenly, usually without a history of trauma or excessive exercise. In most cases one or the other front leg is affected first and then the problem tends to move around, making it appear that the lameness is shifting from leg to leg. There are often periods of improvement and worsening of the symptoms in a cyclic manner. This makes evaluation of treatment difficult since many dogs will spontaneously recover with or without treatment and then relapse. X-rays usually reveal that

the bones have greater density than is normally found. If pressure is applied over the long bones, pain is usually present. The X-ray signs do not always match the clinical signs. In most cases, the worst pain lasts between one and two months but may persist in a cyclic nature for up to a year. Pain relievers can be helpful, and changing food to a lower protein content is suggested. This condition should eventually go away, with or without treatment.



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Baby Sierra with her favorite toy. Oh, how innocent!

Mental Growth Periods & Socialization

Puppies go through several mental growth stages throughout their development.

- ♥ The FIRST PERIOD [birth to 20 days old], a pup's basic needs are food, sleep, warmth, gentle touch. They respond by reflex and benefit from careful handling and massage.
- ♥ The SECOND PERIOD [21–28 days—4th week] is a critical week as the pup becomes aware of his environment and rapidly develops his senses of sight, sound, smell, taste, and feel. Pups now begin learning by their surroundings. This transition to the second period is indicated by the "startled" response. Socializing the pup with adults and children should begin. During the Second Period, pups need an unaltered environment—he needs to stay with his litter, he needs to be protected from any negative events...he is learning to be a dog at this stage. Weaning should NOT occur during the Second Period and any transition must be made with care.
- ♥ The THIRD PERIOD [5–7 weeks], the puppy needs personal attention away from the litter, slowly and consistently, preferably three times a day. Teaching socialization should be intensified. House training and weaning can begin. This is optimum learning time for lead breaking, examining teeth, testicles, ears, feet, and for teaching retrieving and "come," but make it a game of fun, not work.

During this period, the pups are learning greetings, dominance, submissiveness, and play gestures. Do not completely remove the puppy from the mother you will become the surrogate mother for care and discipline.

♥ During the FOURTH PERIOD [8–12 weeks], the brain is fully developed, and the pup needs socialization from the outside world. The mother should be removed and the pups should be rotated with littermates and learn to be alone. Dominance is reinforced during this time. Training should continue as well as socialization with other dogs. This is the “FEAR IMPRINT STAGE” of the dog so care should be taken to avoid any fright or pain during this stage – including no ear cropping at this age (preferably done at 7 weeks).



Baby Shadow hamming it up for the camera, as usual.

♥ In the FIFTH PERIOD [13–16 weeks], training, formal obedience, and less exposure to dogs and more to people is recommended for bonding. Dominance and flight instincts are more prominent. If puppies are raised without training, they may become difficult to reach mentally upon reaching sexual maturity. If the pup has been “THE BOSS” up until now, the owner will have a difficult time during the next period.

♥ The JUVENILE PERIOD [4–7 months] is when most dogs are placed in shelters as their owners give up. Pay special attention to the surroundings and socialization your dog receives during the different stages of his growth. If your pup is raised with the stages above in mind, you should have fewer problem later on. Remember: HITTING is not an appropriate training tool!

Housebreaking a Puppy

The ideal time to housebreak a puppy in his new home is the day he comes home, which should be between ages 9 and 14 weeks old. Newspaper training is a lazy method and encourages a dog to pee in the house. Crate training will assist in housebreaking as animals don't like to sleep where they go to the bathroom. Buy a dozen cheap bath towels to line the crate and change them out in each morning. Expect it to take a few weeks, maybe even a month or two before you can trust your dog in the home supervised. Girls may be more difficult to house train until they can develop their urinary tract muscles. Once they start to squat, it's very hard to stop them in mid-flow.

Housebreaking is EASY! If your pup pees in the house, it's your fault! The SierraDanes' Secret of Housebreaking:

“If the pup isn't eating, sleeping, drinking, or playing, he's getting ready to pee.” It's your responsibility to watch what the pup's behavior until he learns the rules of the house!”

Make it easy on your dog by being one step ahead of the game. Take your dog outside BEFORE he thinks he needs to relieve himself. Let your dog out immediately after playing, eating, drinking, or sleeping. Always watch for little signs that the puppy needs to go out. If the dog begins pacing in a straight line or even starts circling, it's time to go out – and quickly. Use key words such as “outside,” “potty,” or “let’s go out.”

Each time your dog goes to the bathroom, reward with much praise “good potty!” or “good outside!” If your dog has an accident inside, don’t spank him—rather, immediately rush the dog outside, reminding the dog of his key word (it’s o.k. to kindly say “no, no, no” while the accident is happening – but remember it’s YOUR fault). Clean up the mess quickly with a good ammonia-free cleaner to discourage the dog from doing it again. A frequent, immediate schedule will help the dog understand his duty.

If a dog tries to urinate over and over but can’t, you may need antibiotics for mild cystitis, which can be common in female pups. Many young males don’t lift their leg to urinate until they are much older – a year or even older. Some never lift their leg, and that may be an advantage considering how high the stream is.

Lead Training Your Puppy

► Collars & Lead Training

Collars are not always safe when worn on a day-to-day basis. When dogs play, they like to play-bite each other’s necks. Dogs that play alone also are at risk as they explore new sights. Because of the collar’s flexibility, nylon web or chain choke collars have the tendency to get caught up on objects presenting a risk of a dog being “hung.” Additionally, the collar can wear away the hair around the neck leaving an imprint when removed.

Your town may have laws requiring dogs to wear rabies tags and other identification tags at all times. Stiff leather collars are more appropriate for everyday use, but they don’t offer much control when on a lead. A slip collar when properly used offers the most control when walking in public. It’s a good idea to have several different collars for different occasions. It’s not the size that counts – giant breeds are easily controlled, once trained, at dogs shows using a simple slip collar and lead that is about 1/4” in diameter.



Different types of collars.
TOP: Rolled Bridle Leather - a hard collar that is more appropriate for everyday use. RIGHT: A Slip Collar that offers control in public.



Understanding the anatomy of the neck is important when learning to lead train a giant breed to walk on a lead. It’s no surprise that the neck is a massive muscle with vertebrae and nerves. Therefore, the placement of the collar is essential. If a collar is placed at the most muscular part of the dogs neck (near the base), the owner will have a difficult time controlling the dog and may feel like he’s being pulled by a sled dog. GENTLY placing the collar up under the chin where there is

less muscle will enable the owner to have optimum control. BE VERY CAREFUL not to jerk, snap, or pull hard as you may injure your dog's windpipe or spine. This is a safe way to control your dog as long as you understand that gentle tugs and guidance may be all that is necessary to keep your puppy by your side when out for walks.

When collar training your pup, let him get used to the collar first. Place the slip collar around the dog's neck and pet the dog. At first, the pup may try to bite the collar, shake his head, or try to scratch it off with his hind leg. Keep the dog busy by playing with a favorite toy. After the pup gets accustomed to the collar, place a lead on the collar. Get plenty of treats! Take the lead and walk with the puppy in your house or backyard (any enclosed "safe" area) on your left side. With a positive, happy voice, tell the puppy how good he is and use a term such as "walk," "with me," "let's go" so that the pup knows what you want. He may pull and tug to get out of the collar. Reassure him that this is not punishment--make it fun. Five minutes is plenty of time to begin. Work up to an actual walk when you both are comfortable. A "pinch" collar (with prongs) is NOT APPROPRIATE for a DANE!!!



The Yellow Arrow above shows the proper placement for optimum control with a Slip Collar (be gentle ~ you don't need much pressure). The Blue Arrow shows where a collar may have fallen if you are having problems controlling the dog.

Puppy Shots

Mother's milk provides puppies with the necessary antibodies to make them immune to whatever their mom is immune. Once off the mother's milk, these antibodies gradually wear off, and the puppy must make his own antibodies. If a puppy is vaccinated and still has high levels of his mother's antibodies, the vaccination is useless as his system doesn't respond. This is why puppy vaccinations are given as a series—to vaccinate the puppy when his maternal antibodies are low enough for the vaccine to be effective but within a time frame that we won't leave him defenseless. Some vaccines are "killed" and some are "modified live" viruses. In any case, the pup is getting a form of the disease itself to build antibodies so he will become immune if exposed in the future. "Nosodes" are the homeopathic alternative to vaccines.

► DISTEMPER

This highly contagious virus is spread by airborne droplets or contaminated objects. Once exposed, it takes 6–9 days for distemper to incubate before the first round of fever begins. Several days later, the fever spikes again, and runny eyes and nose, squinting, depression and pneumonia begin. The puppy may seem to recover from this stage only to begin twitching and having fits, paralysis and grand mal seizures. These neurological problems may show up weeks after the initial signs. About 50% of dogs affected with distemper will die, with about half of the survivors showing some permanent neurological problems. This disease is always lurking around and chances of exposure at sometime during a dog's life are high.

► HEPATITIS

This adenovirus can cause anything from a mild fever to a fatality. The white blood cell count drops and blood may not clot well. Affected dogs may have depression, runny eyes and nose, thirst, very red mucous membranes, inflamed tonsils and little blood spots on the gums. Some dogs will develop “blue eye,” a clouding of the cornea which disappears over time. This virus is spread by direct contact and may be shed for months in the urine of recovered dogs. Vaccination has reduced the incidence of this disease, so it’s rarely seen.

► PARVO

Spread through the feces of infected dogs, this virus can survive for months within feces at less than 20°! It is easily carried on shoes, clothing, and by flies. The incubation period is generally 4 to 10 days but may vary from 2 to 4 days. Parvo attacks rapidly growing cells—bone marrow and the cells lining the intestine. Symptoms include depression, lack of appetite, vomiting and bloody diarrhea. Suppression of the immune system leaves the dog wide open to secondary bacterial infections. Death usually occurs due to dehydration even though the animal has had excellent medical care.

► PARAINFLUENZA AND BORDETELLA

This virus–bacteria combination causes kennel cough, which can spread rapidly through a group of dogs. After an incubation of 5–10 days a dry, honking cough develops. Pressing on the dog’s windpipe may unleash a flurry of coughing, but most dogs feel fine otherwise. This disease gets better on its own, unless a secondary bacterial infection occurs, producing fever and a longer recovery.

► RABIES

This viral disease is almost 100% fatal and is a human health hazard, therefore, state laws mandate this vaccination. Though not yet scientifically proven, many breeders believe there is a correlation between puppies receiving rabies shots and the possibility of acquiring H.O.D., Demodex, and other illnesses. Therefore, the shot should be given while the pup is under the least amount of stress, has had no nutritional changes, and is at optimal healthy.

► LEPTOSPIROSIS & CORONA

An article in the Journal of the AVMA reported on the vaccination schedules of 27 North American Veterinary Colleges stating that their recommendations on Leptospirosis and Corona were that due to the rarity of the diseases, the short duration of immunity (6–8 months) and the risk of allergic reactions as reasons for no longer giving Lepto and Corona.

Your veterinarian will most likely tell you that your puppy “may be lethargic and feverish after receiving a vaccine.”
Vaccinate puppies ONLY when healthy!

An Expert's Recommendation:

Noted expert on vaccines Dr. W. Jean Dodds, DVM, has release a vaccine protocol which has been accepted by all 27 veterinary colleges in the United States. Below is her recommended protocol in her words:

CANINE VACCINATION PROTOCOL - 2006
 MINIMAL VACCINE USE
 W. Jean Dodds, DVM
 HEMOPET
 938 Stanford Street
 Santa Monica, CA 90403
 310-828-4804; Fax 310-828-8251
 email: hemopet@hotmail.com

Note: The following vaccine protocol is offered for those dogs where minimal vaccinations are advisable or desirable. The schedule is one I recommend and should not be interpreted to mean that other protocols recommended by a veterinarian would be less satisfactory. It's a matter of professional judgment and choice.

<u>Age of Pups</u>	<u>Vaccine Type</u>
9 - 10 weeks	Distemper + Parvovirus, MLV* (e.g. Intervet or Progard Puppy DPV)
14 weeks	Same as above
20 weeks or older, if allowable by law	Rabies
1 year (optional)	Distemper + Parvovirus, MLV*
1 year	Rabies, killed 3-year product (give 3-4 weeks apart from distemper/ parvovirus booster)

*MLV = Modified Live Virus

Perform vaccine antibody titers for distemper and parvovirus annually thereafter. Vaccinate for rabies virus according to the law, except where circumstances indicate that a written waiver needs to be obtained from the primary care veterinarian. In that case, a rabies antibody titer can also be performed to accompany the waiver request.

W. Jean Dodds, DVM

Permission given by Dr. Dodds to distribute

The Danger of Vaccinosis

Vaccinosis is the malaise (fever, muscular aches, bone pain, prostration, etc.) as the result of being vaccinated.”

[Definition From: A Dictionary of Homeopathic Medical Terminology.]

Because of their delicate immune system, Danes frequently do have a reaction to vaccines, most of them mild fever or sleepiness. The question is which is the “better of two evils”—not vaccinating and risking the puppy’s health or vaccinating and having a reaction. It is imperative that shots be given to only healthy puppies who have no fever, runny noses, signs of lethargy, diarrhea or other signs of illness. Additionally, rabies shots should never be given in conjunction with any other vaccines—wait 2 weeks between shots. Avoiding combination shots will help reduce any malaise in the puppy.

Luke, the puppy below, is pictured (top photo) at 4 months old and has an extreme case of Vaccinosis. He went to his new home fully vaccinated, needing one more DA2PP and only a rabies vaccine when the time was due. The pup’s new veterinarian repeated the series of vaccines because she was “uncertain if the shots were given properly” as she did not personally administer the vaccines. Luke was scheduled to receive a vaccine series that would subject him to a total of 14 viruses. Instead, he received combinations that exposed him to 24 viruses before four months of age. His body reacted with vomiting, diarrhea, lack of energy, pustules developing over his body, and lack of appetite.

Dr. Charles Loops, DVM, a homeopathic veterinarian treated Luke with remedies to purge his system of the toxins, and the new family eventually turned to a natural, raw diet called “BARF” (Biologically Appropriate Raw Food). After six months of therapies and an excellent nutritional program, this puppy built his immune system back up, though the permanent damage manifested throughout his life with hives and eventually a fatal stomach ulcer at age 6.

Learn from Luke – know exactly what vaccines your puppy has received before you get him home so you can protect him from Vaccinosis.



Luke pictured the weekend he went to his new home. Notice his healthy coat and ideal weight for his age.



Vaccinosis can manifest into other health issues later in life. After recovering from the worst of his Vaccinosis, Luke gets a case of the hives. The origin was never found and he had hives a few times, but luckily, not frequently. Luke did live a happy life.

A ROADMAP TO VACCINOSIS (LUKE'S SHOT RECORD)

HISTORY & BACKGROUND:

Great Dane Puppy, Male, Fawn

Born - 8/4/99

Birth weight - 6.0 ounces

Food - Eagle Brand Lamb and Rice

Fecal exams were normal on 10/6/99 and 11/2/99 by breeder's veterinarian

VACCINE HISTORY:

By Breeder under supervision of breeder's veterinarian:

Worming: rounds & hooks

8/28/99: Nemex2

9/11/99: Nemex2

Vaccine series:

9/19/99: Progard Puppy DPV (Distemper & Parvo)

10/06/99: Vanguard DA2PP (Distemper, Adenovirus2, Parvo, Parainfluenza)

10/27/99: Vanguard DA2PP (Distemper, Adenovirus2, Parvo, Parainfluenza)

10/27/99: Sent home Vanguard DA2PP in iced cooler to be given by new owners on 11/17/99

By New Owner's Veterinarian:

11/9/99 Bordetella (to participate in his new vet's daycare)
DHLPP-CVK (this vaccine contains SIX viruses including Lepto and Corona. Additionally, it was given eight days before the final vaccine was due).

12/4/99 An additional Bordetella
DHLPP-CVK (a SEVENTH vaccine by 4 months of age!)

ONSET OF VACCINOSIS:

12/4/99 AM Stool looks "marbled with mucous"; stool looks "encased with mucous"

12/5/99 AM Very loose stool; liquid vomit, brown (like food), large amount subsequent vomit x5, mostly large amounts of mucous, Vet "suspects virus"

[Is there any wonder with all the viruses he's been exposed to?]

TREATMENT:

12/5/99 Catheterization I.V.
Lactate Ringers Solution
Injection - Trimethoprim/sulfa (sulfa antibiotic- another no-no)
Injection - Metoclopramide (Reglan)
Injection - Cimetidine (Tagamet)

12/6/99 Withheld food and water
Treatment same as on 12/5/99
Fecal exam
Administered Strongid T (wormer)

GROOMING

Ear Care

Simply take a “baby wipe” to the crevices of the ear about once a week or more frequent if the dog is in a dusty environment. Puppies with cropped ears that need to be re-taped, it is essential to clean the cavity and to give the ears time to breathe before re-taping.

Teeth Cleaning

Put a rough, dry washcloth over your forefinger and scrub the back teeth weekly to remove gummy debris. Teach puppy from the start to allow you to clean teeth. If tartar builds up, purchase a tooth scaler from any dog catalog. Canine toothpaste (Enzymatic) is effective at keeping the teeth clean with regular use.

Anal Glands

Impacted anal glands can be very uncomfortable. One indication of swollen or impacted glands is a dog scooting its rear on the floor, but if they don't scoot, it doesn't mean there isn't a problem. Severely impacted glands can fester through to the outside of the dog's rectum. A vet can show you how to properly express the glands. It's a simple procedure that takes just a second.

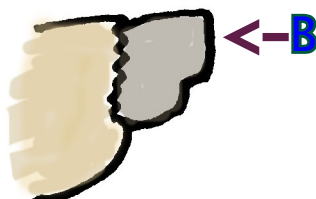
Toenails

Dane nails grow very quickly, especially when they are fed proper nutrition. Toenails should be done each week—yes—each week. Long nails will mess up the dog's foot structure and make them stand “down in the pasterns.” A short nail trimmed properly ensures a tight foot.

Guillotine-style toenail trimmers (pictured at right) are painful when the adult Dane's toenails mature the thickness of a pencil. A better alternative is an electric rotary grinder tool (known as a Dremel) with a sandpaper drum which works very well to get close to the quick without striking blood – but learn how to properly use it first! Too hard pressure or too long will feel like a burn. Short, quick “zaps” are most effective. Be sure to keep any long hair or loose clothing away from tool and wear safety glasses.



The toenail sketch below shows the Before (left) and After (right) images of the proper length toenail. To achieve the bottom, first you need to define the arch of the toenail (see “A” on first photo) and gently sand underneath for just a moment (5 seconds or less) until you can almost see the white quick (pink is too close). Next, grind the perpendicular “face” in short “zaps” to remove the hook (see “B” on second photo). Be careful not to get too close to the quick.



NUTRITION

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Brother and sister, Shami and Patrick from Nuttree Great Danes

The "23/12 Rule:"

Great Danes are a GIANT breed who grow rapidly and need quality ingredients to aid in proper growth. Overfeeding or over-nutrition can result in crippling and sometimes deadly illnesses. Two most important things to consider when choosing a food for the Great Dane are 1) consistency in diet and schedule and 2) protein & fat ratios. Simply switching foods can throw the growing body off course even though the food may be a "premium." Too much protein can cause a dog to grow too fast and damage the muscles and tissues. A good protein level is 23%. Breeders highly recommend staying BELOW 25% protein. A good fat level is about 12% (13% is fine, too). Too high fat will keep too much weight on your dog, and too low fat may make them constipated. Studies also show the ratio between calcium and phosphorous is important for healthy growth. H.O.D. has been associated with unbalanced calcium and phosphorus ratios as well as too high a caloric intake.

Premium Feed

The quality of your dog food will help your dog grow into a beautiful, healthy animal. Selecting a dog food that will fit your budget and offer your dog the most nutrition can take a little bit of time. Stick with what the breeder feeds at least until the dog has passed the crucial growing stages—12 months. Avoid corn and soy based feeds—they can make them gassy and encourage bloat.

Avoid the "Three Fs" – Feet, Feather, and Fur. They are considered protein, but can you imagine eating a bowl of fingernails and hair for breakfast? Some well-

known brands even have “road kill” and other diseased animals rendered into the foods. Look for a food with a protein that is fit for human consumption – one that has useful ingredients, not fillers. Some appropriate ingredients may include probiotic enzymes (lactobacillus acidophilus), whole egg, fish, lamb, chicken, rice, Vitamin C, Omega 6 & Omega 3, beet pulp (fiber), mixed tocopherols (natural preservative), and sequestering minerals. Digestibility of 90%+ is ideal.

With premium feeds, you feed less food. Less food in the stomach reduces the chance of bloat. An elevated diner for the dog allows the dog to eat at a normal height, reducing air ingestion while stretching down to eat...again, lessening the chance for bloat.

► **Some Foods meeting the special requirements of a Great Dane:**

- Back to Basics 1-800-219-2558 www.beowulfs.com
- Balance Diet (505) 496-5819 www.balancediet.com
- Breeder’s Choice 1-800-255-4286 ... www.breeders-choice.com
(Distributors of Avoderm, Pinnacle, Advanced Pet Diets, Select Choice)
- Eagle “Natural” 1-800-255-5959 www.eaglepack.com
- Eukanuba (800) 423-6036 www.eukanuba.com
- Flint River Ranch 1-909-682-5048 ... www.flintriver-home.com
- NaturaPet 1-800-532-7261 www.naturapet.com
(Distributors of Innova, California Natural, Healthwise, Carma Organic)
- Nature’s Recipe 1-800-237-3856 ... www.naturesrecipe.com
- PHD 1-800-320-7062 www.phdproducts.com
- Precise..... 1-888-477-3247 www.precisepet.com
- Solid Gold 1-800-364-4863 ... www.solidgoldhealth.com
- Wellness 1-800-225-0904 www.omhpet.com
(Produced by Old Mother Hubbard)
- Wysong 1-800-748-0188 www.wysong.net

Supplements (Vitamin C, Kelp, Probiotics)

Too many vitamins and supplements may increase the risk of growth disorders. Three most common supplements for Danes are Vitamin C, Greens, and a Probiotic Enzymes. Select your supplement based on what food your breeder recommends or what food you select.

► **VITAMIN C**

Most breeders agree that Vitamin C is essential to your dog’s proper growth. Vitamin C helps the body absorb the nutrients in the dog food. It also helps build healthy bones, muscles, and tissue. Usually a dose of 1,000–1,500 mg each day is recommended. This helps keep the dog “on their toes” with a nice, tight, foot. For H.O.D. puppies, your breeder may recommend not giving Vitamin C. Since it’s water-soluble, what isn’t used by the body is eliminated in the urine.

- SOURCE: Bronson Pharmaceuticals 1-800-294-5507
www.bronsonvitamins.com
Item #50 Sodium Ascorbate, The included scoop gives 1,000mg of Vitamin C. Other forms of Vitamin C are also available through Bronson in bulk. Item # 145 offers Vitamin C Crystals with citrus bioflavonoid (antioxidant activity). Dogs with systemic yeast infections or those that have been ill may do best on Item #149, Buffered Vitamin C. Try to avoid sodium citrate as it may cause stomach irritation.

► GREENS

Did you know dogs graze? Dogs require vegetation in their daily meals. No matter what form, greens are important in the dog's diet. Some Greens contain other supplements such as Vitamin C and a probiotic enzyme, so read labels and know what you are giving.

- SOURCE: First Choice Naturals 1-800-937-1104
www.firstchoicenaturals.com
"4-in-1 Probiotics" is the product formerly known as "Daily Greens Plus."

► PROBIOTICS

To aid in digestion by providing live bacteria, breeders highly recommend probiotics.

- SOURCE: First Choice Naturals 1-800-937-1104
www.firstchoicenaturals.com
"4-in-1 Probiotics" is the product formerly known as "Daily Greens Plus."
- SOURCE: Nature's Farmacy 1-800-733-4981
www.naturesfarmacy.com
Look into their DogZymes
- SOURCE: Your corner grocer. Danes also love YOGURT as a probiotic enzyme. You can increase the amount to even as much as one cup per day during extra stressful periods (shows, travel, tummy aches, surgery). Any fruit flavor, vanilla, or plain will do. Avoid the artificially flavored varieties with aspartame in them. A Dane favorite is "Yoplait French Vanilla Custard!"

NOTES: Fruit and vegetables (carrots, apples, melon, peas, berries, green beans, and sweet potatoes) are excellent treats for snacking, but onions, grapes & chocolate are toxic to dogs (see poison pages at the end of this booklet).



ABOVE: Shadow graze on some home-grown greens.
LEFT: Baby Sierra (facing camera) with her sister, Snowball, and mother, Vinnie from Nuttree Great Danes.

Special Needs Supplements

Some Danes will go through skinny stages and may not eat. If you have problems during the teenage years (16–28 months) with your dog gaining weight or getting him to eat, you can try a temporary powder supplement called The Missing Link (call Designing Health at 1–800–458–6598). This product can be frozen for several months and has lots of good vitamins and nourishment for the stressed dog. Or you can try a homemade supplement.

SATIN BALLS

- | | |
|----------------------------------|------------------------------------|
| • 5 lbs. hamburger | 1/2 box of Total® cereal |
| • 1 small canister raw Oatmeal | 5 raw eggs whole |
| • 1/2 jar of wheat germ (15 oz.) | 5 packs of Knox unflavored gelatin |
| • 3/4 cup of vegetable oil | 3/4 cup of mild flavor molasses |
| • pinch of salt | |

Mix all ingredients in a container and roll into meatballs. Freeze and serve frozen or thaw and serve raw. This will make a 2 week supply which is enough for 3 Danes. Be careful as it will make your dog fat.

Feeding Schedules for Puppies

Feeding a puppy is just a bit different from feeding an adult because the pup's nutritional needs vary, and you won't feed the same amount each week. You will need to train your pup to eat meals on a regular basis so you can make sure he's getting the right nutrition. FREE CHOICE FEEDING is dangerous. Though leaving food down for the dog to eat as he chooses seems like a good idea, it does not encourage proper eating habits. Some dogs over-consume, some pick all day long, and some may not get hungry enough to eat the proper amount of nutrition necessary. Allow the pup about ten to fifteen minutes to complete his meal to discourage picky eaters. If the pup is not eating his meals regularly and you are giving treats, eliminate the treats until a normal regimen is resumed.

Other than Vitamin C, puppies need NO vitamins, minerals, or calcium. Extra calcium can cause growth problems and deformities. Probiotics are acceptable.

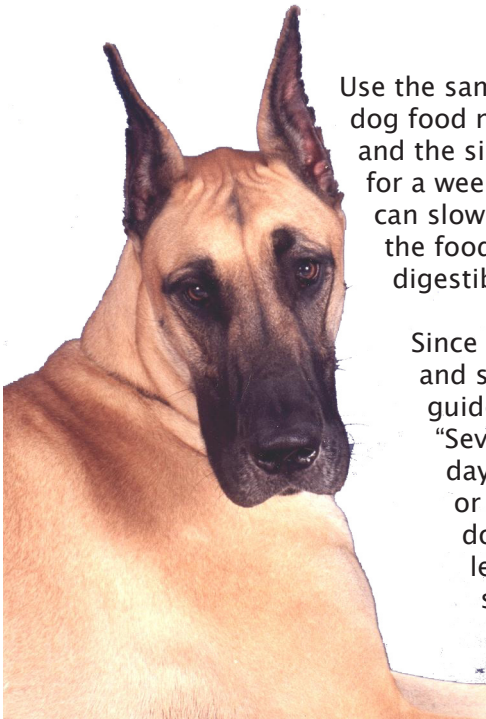
Using lukewarm water, soak dry kibble until it's soft to reduce the swelling of food in the stomach. Hot water will kill the live enzymes in the food. Feed three times daily (morning, noon or just after work, and bedtime) before the age of five months, then twice a day from then on. Neither a large amount of food nor a high protein/fat/calorie food will produce a bigger animal. In fact, it will cause bone diseases (H.O.D., OCD or Pano). Here's a general guideline for quantities of food for the Dane pup using a PREMIUM feed as recommended by the breeder:

► **AGE AMOUNT**

- | | |
|-----------------|----------------------------|
| 2 months | 2–4 cups per day |
| 3 months | 3–5 cups per day |
| 4 months | 4–6 cups per day |
| 5 months | 5–7 cups per day |
| 6 months | 6–10 cups per day |
| 7 months+ | adjust according to weight |

Danes that weigh approximately 140 pounds at adulthood eat about 6–8 cups of food per day (two feedings total), depending upon brand. Always read the manufacturers recommendations for feeding amount.

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Feeding Schedules for Adults

Use the same “soaked food” method as you use with puppies. The dog food manufacturer will give you guidelines for your breed and the size of the dog. If it seems like too little, try the amount for a week to see if your dog is dropping any weight, then you can slowly adjust (1/2 cup at a time) to his specific needs. If the food just isn’t working, you may have to select a more digestible food for your dog.

Since Danes are prone to bloat, set a schedule for feeding and stick to it. Read the label to find what the DAILY feeding guidelines are and divide that by the number of feedings.

“Seven & Five” is what many breeders go by: two feedings a day, one at 7am and one at 5pm. Feed the Dane in a raised or elevated feeding diner to make sure his digestive tract doesn’t suck in extra air from gulping food off ground-level. On-time feedings reduce the incidents of sour stomachs and vomiting.

Water

Danes love to drink water especially after a long workout. To reduce the risk of bloat, let the Dane relax and cool down before drinking. Ice cubes will relieve the panting pup, and ice cubes made from Pedialyte or Nupro Electrolytes will help rehydrate the dog. Make sure plenty of water is available throughout the day because it’s easy to dehydrate a dog when trying to restrict the water intake.

Nupro electrolyte supplement is especially good for dogs who are showing, working hard, have recently had an illness or injury, or just plain thirsty. If your Dane normally drinks as if there will never be more, monitor the amount of water he gets each time—maybe a half a bowl an hour. When they’ve had too much water, Danes spontaneously “burp up” or regurgitate a mouthful or two. It may be a good idea to ask your vet to check his kidney functions or perform a blood panel if your Dane is showing these symptoms.

- SOURCE: Nupro Supplements 1-800-360-3300
www.nupro-supplements.com

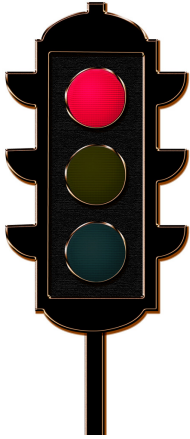
Puppies won’t be able to make it through the night if they are allowed to drink while they should be sleeping. Wait until they can hold their urine before leaving water down all night. Once they are old enough, leave clean water down for them throughout the day.

DID YOU KNOW? Standard garden hoses are made from cancer-causing materials. If you use a hose to fill water outside, be sure to use one approved for drinking, typically found in the camping supplies. Read warning labels!

Treats & Chewies -- Good and Bad

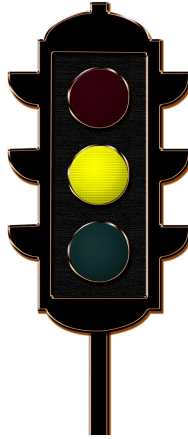
Danes love to CHEW! Provide as many toys as possible to keep your Dane from eating your shoes, furniture, the rug, the table, and other things you'd never expect. There are many toys and chews on the market, but with ANY breed of dog, some toys are unacceptable.

Don't learn the hard way about the dangers of RAWHIDE chews. You may have to learn how to perform the Heimlich Maneuver to disengage a piece of rawhide lodged down your dog's throat.



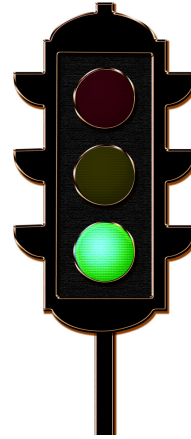
NO GOOD:

- Any Rawhide, Pigs Ears, Hooves, Muscle Chews, etc., especially if not made in the U.S.– The product may be preserved with arsenic or other poisons. They are also difficult to digest and can cause blockages or ruptured intestines. Plus, they smell.
- Rope Tugs (with or without the tennis balls!) – A BIG “no-no” for several reasons. The rope can be chewed and get caught in the stomach, strangling the intestines. The head-shaking during play is not good for the delicate neck & back during growth stages... plus, IT HURTS when you get slapped in the head with one of these!



USE WITH CAUTION:

- Chewy Fleece Toys– Eyes or squeakers may come off and puncture intestines. Fun “fetch” and “tug” toys, but monitor play their habits.
- Galileo & Nylabones– If the dog tries to eat it, it's not good. If the dog just chews and doesn't destroy, it's o.k.
- Booda Velvets & Healthy Choice Bones – Made to be consumed but may be a choke hazard.
- “Natural Sterile Beef Bones” – They may break teeth, and if you plan to show, that'll stop you!
- Pedigree Dentabone – Edible, hard bone that's good for the teeth but only lasts 10 minutes! Too many may give the pup diarrhea.



GOOD TREATS:

- Kongs & Rhinos – Made from puncture-resistant natural rubber. Strong & durable toys. Put a treat in the hole to add hours of “busy” time.
- Tennis balls – Great exercise for the teeth and gums. Discard once they pop so pieces aren't chewed up and swallowed.
- Frozen Hot Dogs & Strawberries – Don't overdo it with these. They make great “catch” snacks for a fun 30 second.

STRUCTURE

How is my Dane's Structure?

So you're at a dog show trying to learn about quality Danes but you see all of these Danes in the ring and they seem to look the same. Someone ringside tries to help you by pointing out a dog that has "more substance" or "nice headpiece." You haven't got a clue what they mean.

This section will help you understand how to interpret the AKC standard and identify structure we all seek to achieve in breeding. It's important to note that there are no perfect dogs. To some degree, you will see that even the top winning dogs will have something that isn't perfect in the definition of the breed.

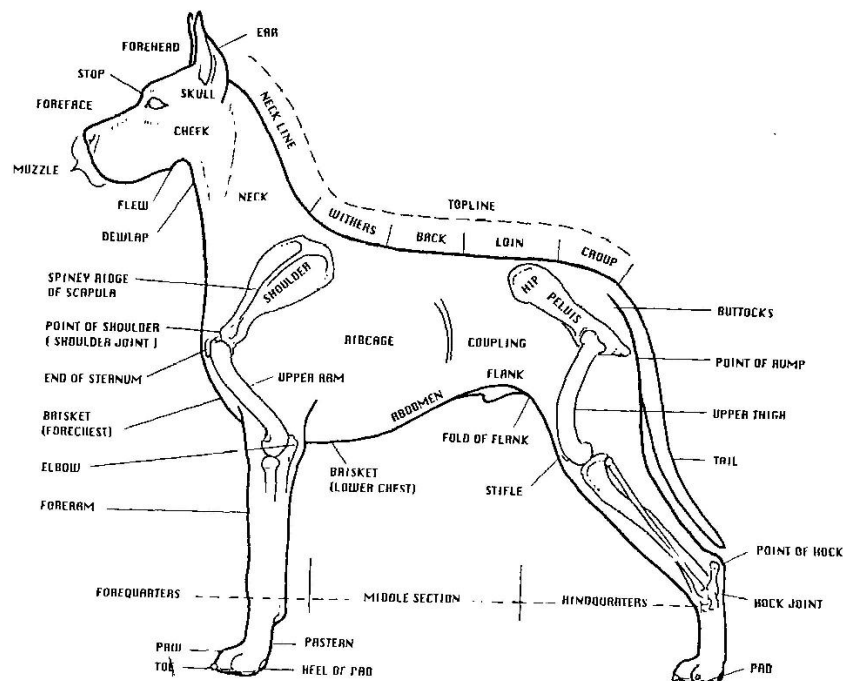


ROCKET

Severe deviations and obvious faults are what breeders should avoid. Because a dog has a lighter eye, doesn't mean he shouldn't be shown. It means when breeding, he should be bred to bitches with a dark, correctly colored-eye.

Before getting into structure, it is important to know the parts of the body.

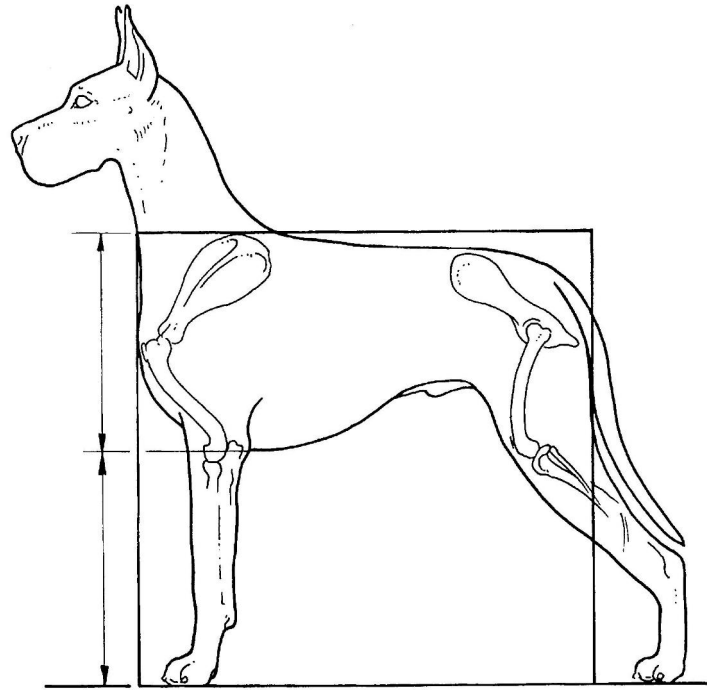
The standard calls for the "forehead" and "foreface" to have parallel planes, as is illustrated on the sketch. Additionally, the "topline" has a gentle slope to the rear, and the tail is long enough to reach the "point of hock." The "brisket" reaches the "elbow," and the "flank" has a nice "tuck-up."



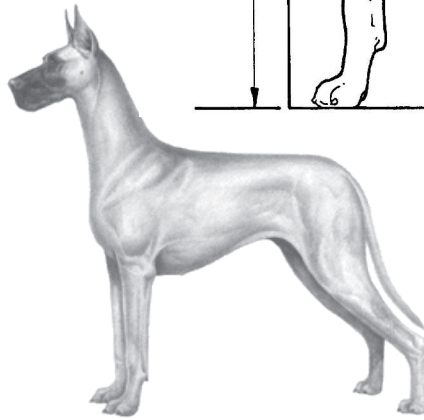
Let's begin with overall structure:

Proportion.

The ratio between height (ground to top of shoulders) and length (chest to tail) in the male Great Dane should be as square as possible. In bitches, a somewhat "longer" body is permissible as illustrated below right.

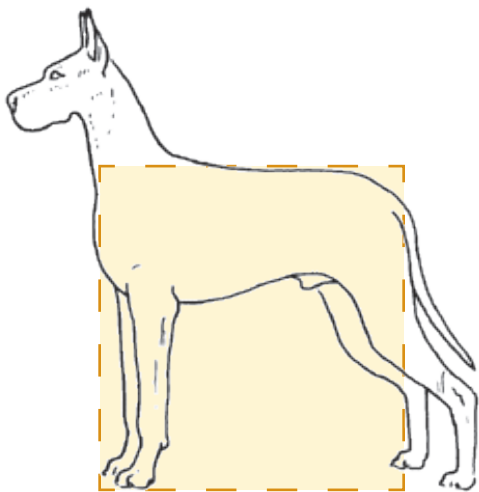


The Great Dane Dog

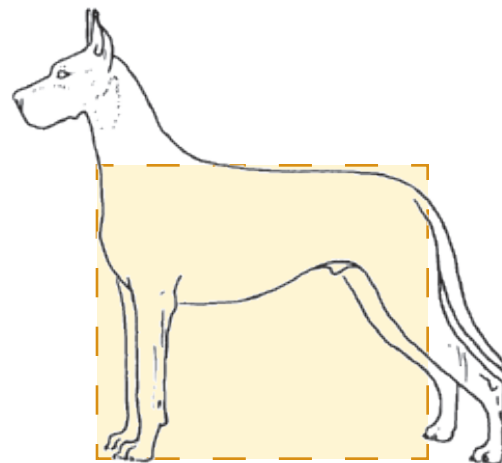


The Great Dane Bitch

INCORRECT PROPORTION – Illustrated below to the left, the body is “high on leg” or “short backed” which basically means his legs are too tall in proportion to his length. To the right, the dog is “long of body” which means that his body is longer between his chest and buttocks than his legs are high. The yellow box should help you visualize these slight nuances in proportion.



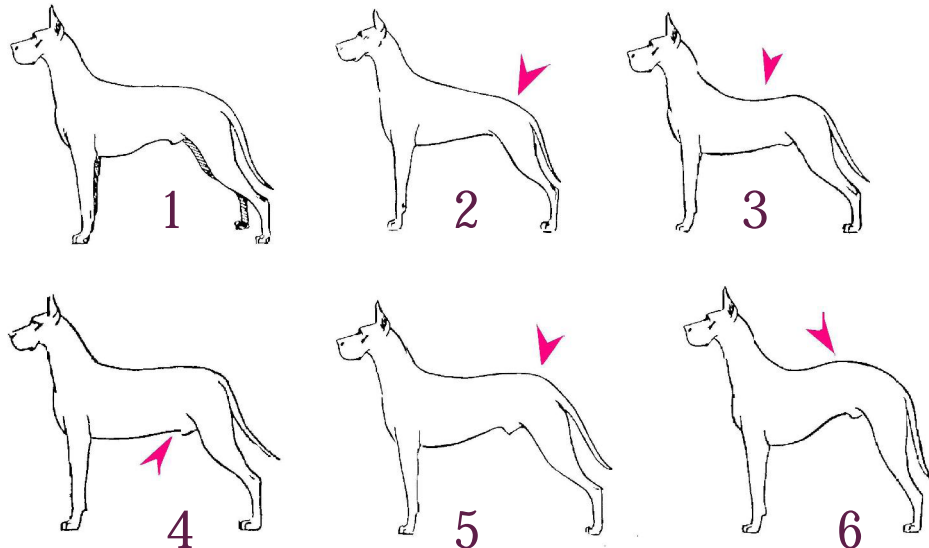
High on Leg



Long of Body

Topline.

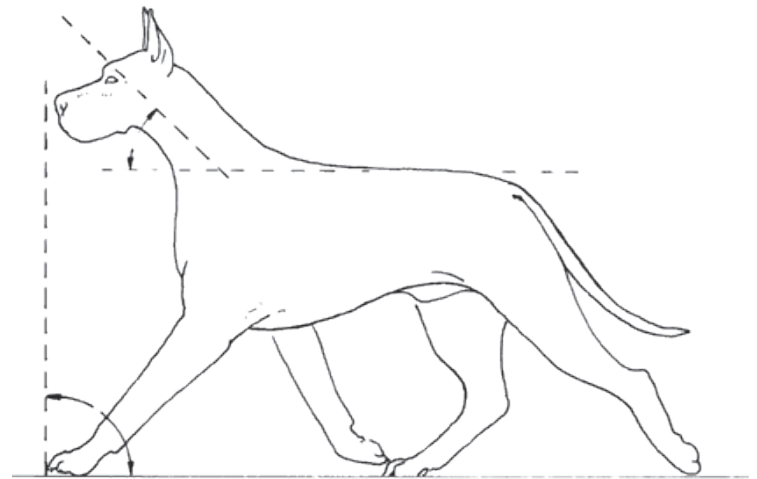
The correct topline (back) is shown in number 1. In number 2, the croup is sloped too much; #3 has a sway back, #4 is lacking “tuck up” at his flank; #5 is high in the rear; and #6 is “roachy” or “camel backed.” Pups do go through awkward stages but should not look like this as adults.



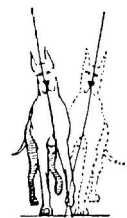
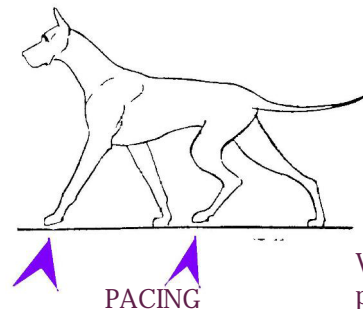
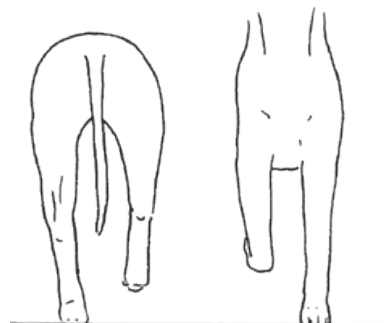
Gait.

Structure affects how the dog gaits properly. The dog's Reach and Drive determine its gait. Reach is the force the *front legs* pull the animal; Drive is the force the dog's *back legs* push the animal.

Pictured right, the dog has a proper gait where opposite legs (front right and back left) work at the same time. This gives a stable balance when gaiting as seen in front and rear view gaits below on the left. The sketches below right show the dog “pacing” – the legs on the same side reach & drive at the same time. This gives a wobbly appearance when gaiting.



Correct gait from front and back



View when dog is pacing

Rear.

The dog's rear is extremely important to demonstrate working dog function. The angulation of the rear should be strong, not shallow or straight.



Overangulated

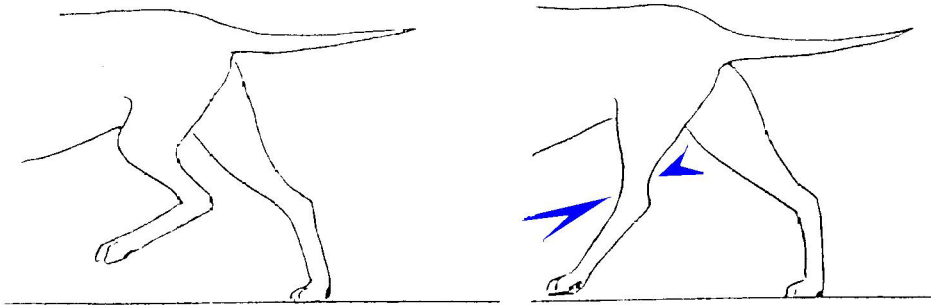


Too Straight

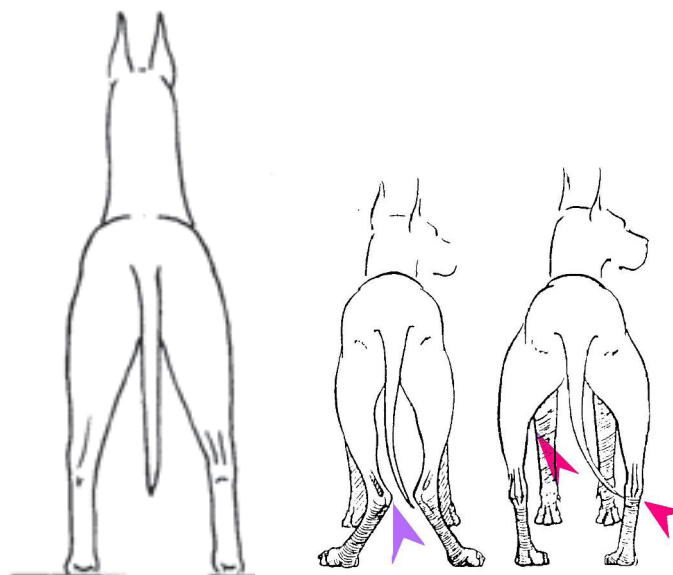


Sickle Hock

With gaiting, a strong drive with a good range of motion is needed, as shown on the bottom left. To the right, the rear is very straight, showing lack of flexibility and inability to perform the function for which they are bred.



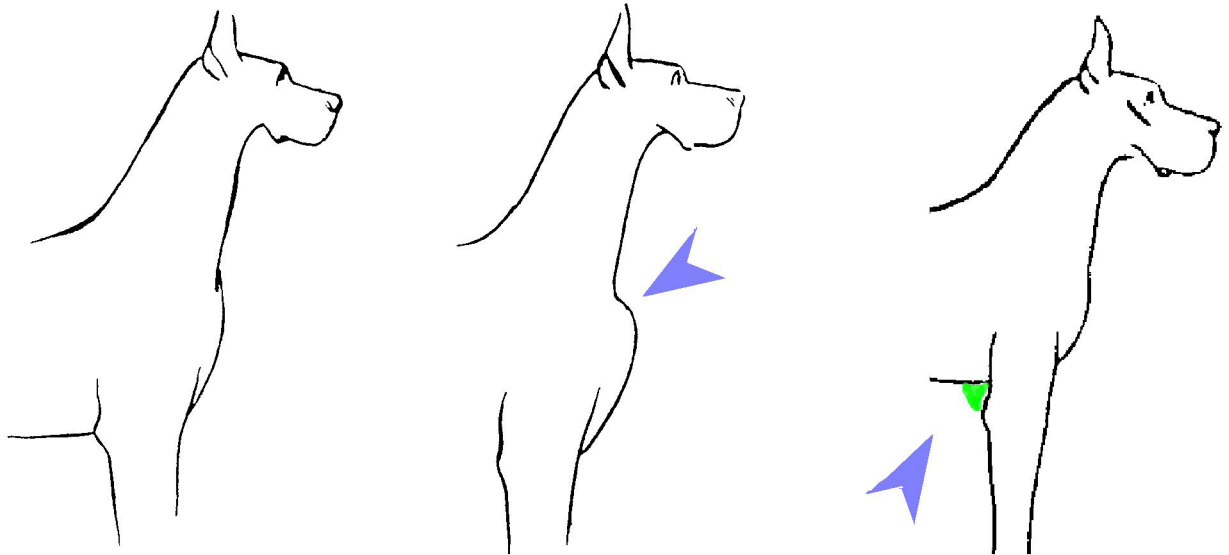
Looking at the rear directly from behind, the dog's hock joints should appear to be straight, turning neither inward as shown in the sketch in the middle ("cow-hocked") nor outward ("bowlegged") as shown to the far right.



Correct Rear

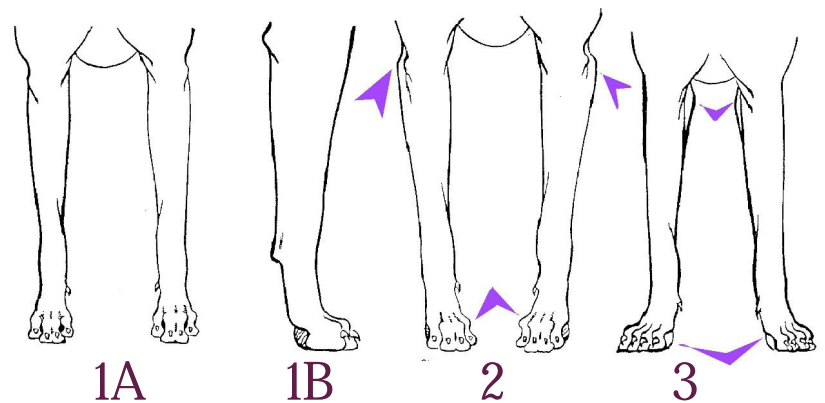
Chest.

On the left, the correct structure of the chest exhibits strength. The middle picture illustrates a “pigeon” breast where the bone protrudes too much. To the far right, the chest is too shallow--the brisket doesn’t reach the elbow.

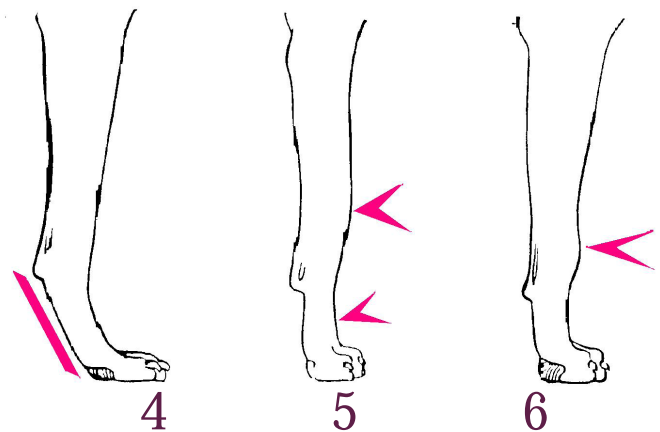


Front.

The correct front and side are illustrated in 1A and 1B. In number 2, you can see the dog is “elbowing out” which brings his toes in, called “toeing in.” In number 3, the dog is “elbowing in” and “toeing out”.

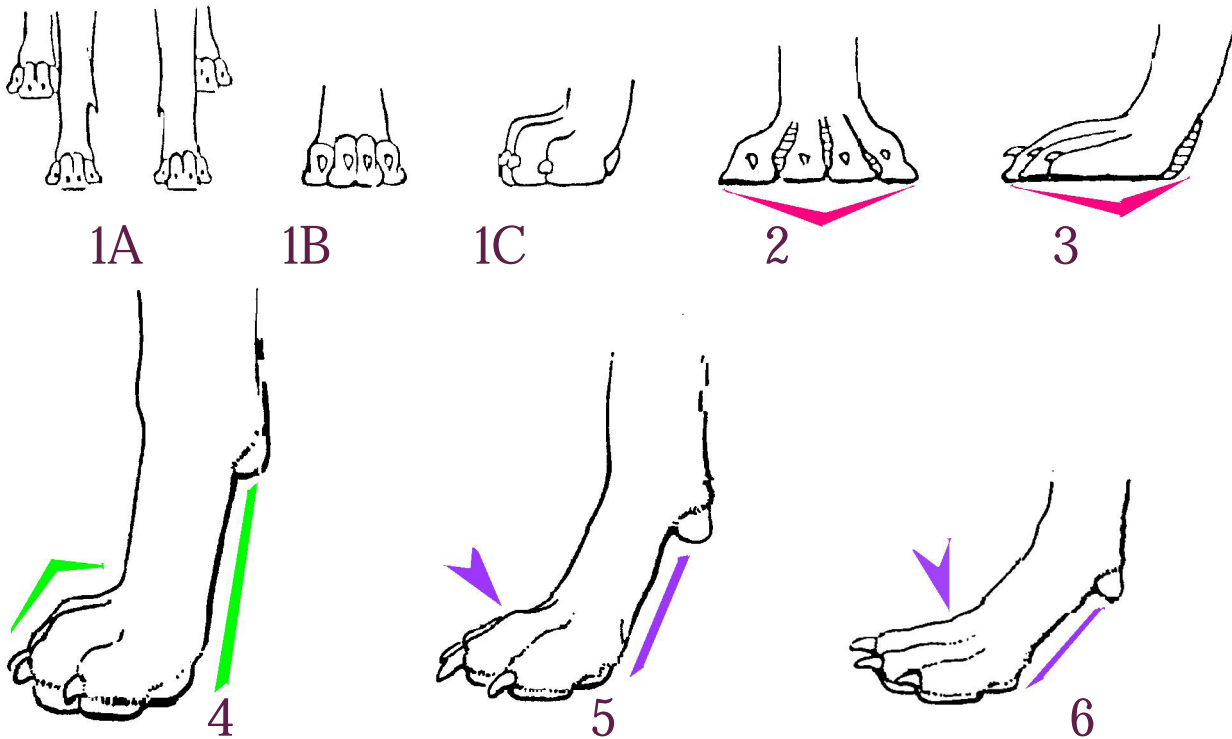


A dog who is weak in the pastern has too much angle in the lower forearm as shown in number 4. The “chairleg” in number 5 shows a very weak front leg which makes for a weak “reach.” In number 6, the knobby joint exaggerates the growth plates.



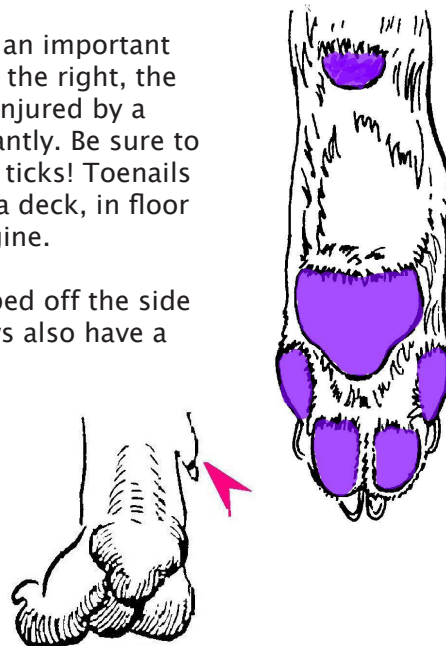
Feet.

The correct foot is straight in line with the legs and arched tightly as illustrated in the different views shown below in sketches 1A, 1B, and 1C. Compare the spread in toes and angles in the “splay foot” (sketches 2 and 3) with the closed toes in 1B and the correct “cat foot” in 1C. Sketch 4 shows correct angulation of the foreleg. A “hare foot” (sketch 5) shows weakness in the pastern (“down in the pastern”) as well as lack of arch in the toes, and the splay foot from the side shows a weak pastern and flat toes in sketch 6. Deviations such as 2, 3, 5, and 6 can cause injuries to other muscles in the legs and back.



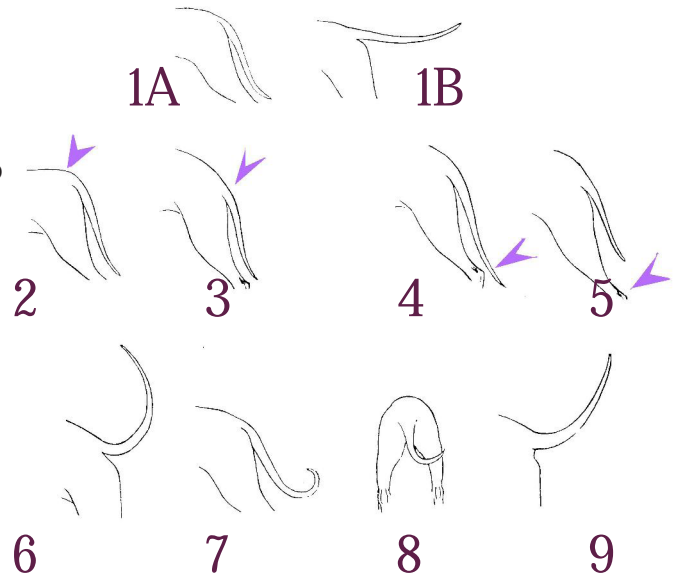
NOTE: From a health perspective, the bottom of the foot is an important part to address because it's frequently ignored. Pictured to the right, the pad (in purple) protects a large area of the foot and leg. If injured by a cut, splinter, burr, or split in the pads, it will bleed significantly. Be sure to check in between the toes for any foreign object, including ticks! Toenails that are kept too long can get caught between the slats of a deck, in floor air-conditioning grating and other things you'd never imagine.

Dewclaws (indicated below with the pink arrow) can be ripped off the side of the foot, so it's important to keep it very short. Dewclaws also have a small pad up on the inside corner of the leg. Some breeders remove the dewclaws when the puppies are only a few days old. Others believe it's too much trauma and leave them on. They are allowed in the show ring and are not penalized in the ring if they are removed. Dewclaws on the BACK legs, called Wolf Claws, are uncommon and a “serious” fault.



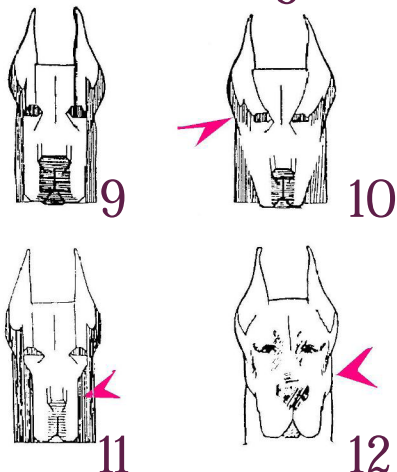
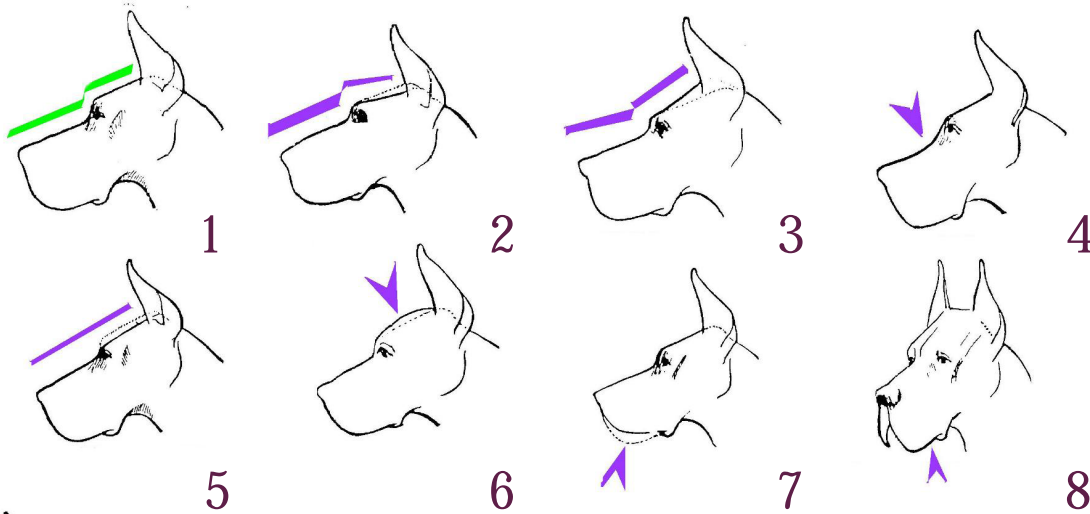
Croups & Tails.

The croup governs the tail set. Sketches 1A & 1B illustrate the proper tail set and carriage when at rest and when gaiting. Croup #2's tail is set too high and #3's tail is set too low. The tails shown in sketches 4 and 5 show the variation in length as #4 extends past the hock and #5 is several inches above the hock. The shape of the tail varies as well. Number 6's "ring tail" is bent too far over the back; #7 shows a curly tail; #8 shows a twisted tail, and #9 shows a gay tail which is carried too high.



Heads.

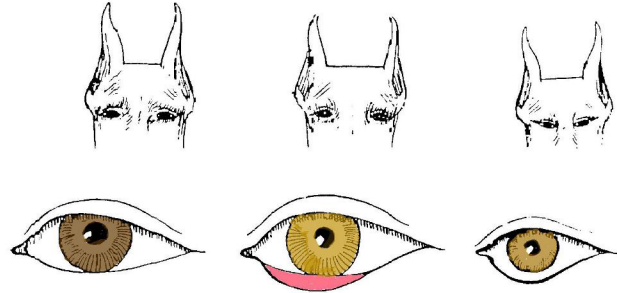
Looking at the heads, Head #1 shows the correct parallel planes of the forehead and foreface. Numbers 2 - 6 have unparallel planes with variations. Number 2 shows a "roman" nose where the bridge of his nose and his forehead drops; #3 shows the forehead rising as it reaches the ears; #4 illustrates a "dish-face;" #5 shows a head with no stop between the forehead and foreface; #6 shows a rounded "apple" head. In #7, the planes are parallel but the dog lacks "lip" and is called "snipey." The opposite is shown in number 8 with too much lip, which is called "fluttering lips."



The frontward appearance is equally important. Number 9 shows a correctly proportioned face. Notice that the forehead (upper part of the face) is balanced with the foreface (the lower part of the face). Number 10 illustrates a dog whose forehead is too wide; number 11 illustrates a dog whose foreface is too narrow. In number 12, the dog is called "cheeky" because his cheeks are very prominent and are not balanced with the width of the foreface.

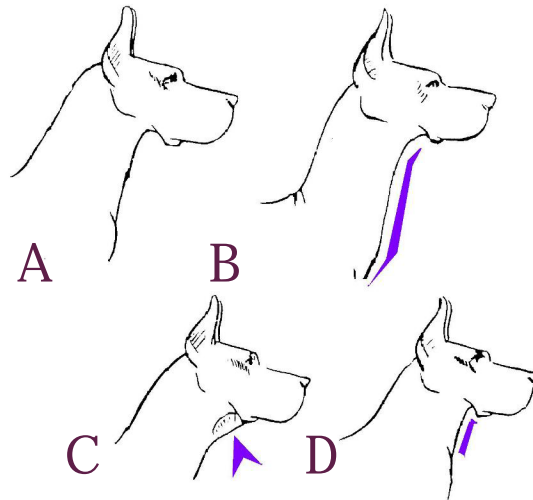
Eyes.

The eyes should be almond-shaped with a dark brown color (far left). The middle illustrations (top and bottom) show an eye with too much haw (ectropian). Also notice the lighter, less desirable color. The eye to the far right shows a drooping eyelid. The color is a medium brown rather than the preferred dark brown.



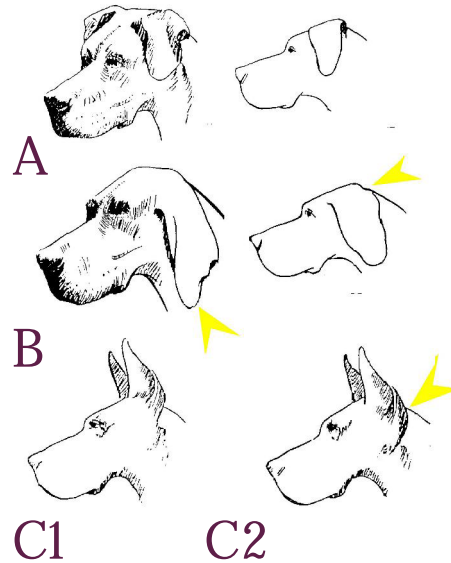
Necks.

Shown in these illustrations are (A) the correct neck, (B) a deer neck, (C) too much “dewlap” and (D) a “short” neck. The deer neck, Sketch B, is reminiscent of a giraffe or deer rather than sturdy and strong as in Sketch A. Sketch C illustrates the throatiness on the dog. When a dog is on a lead, this excess skin is often disguised by the handler who pulls it up and around the neck for a clean look. Sketch D shows a short, stubby neck which may be elongated on a collar by lifting the dog’s head up. Sketches C and D are two deviations not uncommon in Danes. You can get a pretty good picture of the dog at rest, even with the collar on by knowing what to look for.



Ears.

Whether cropped or “natural” (uncropped), the dog’s ear set is important for the proper expression. Sketch A shows the alert expression of the breed as the medium length ears perk up and point forward. Sketch B shows ears that are too long and set too low, making them appear “hound-like.” Sketches C1 and C2 show a cropped ear with a correct ear set and a low ear set. This effects the shape of the head and face giving the head a heavy appearance.



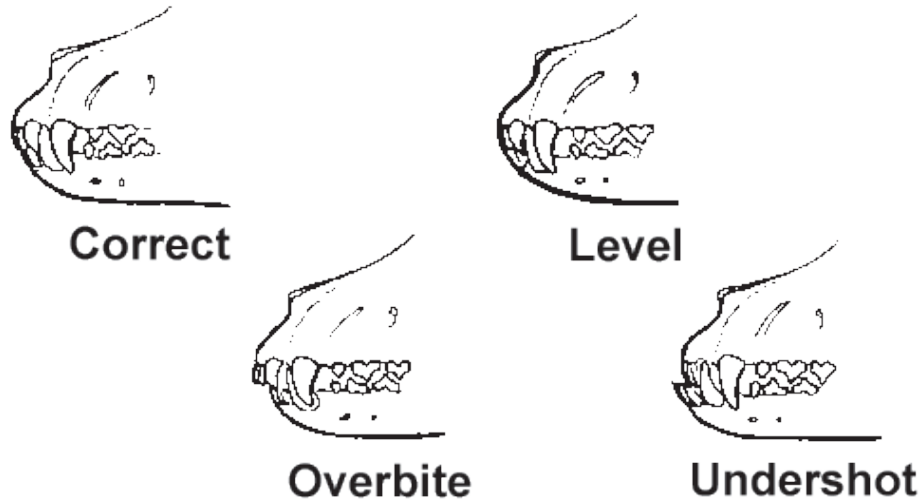
CROPPED EAR



UNCROPPED EAR

Bite & Teeth.

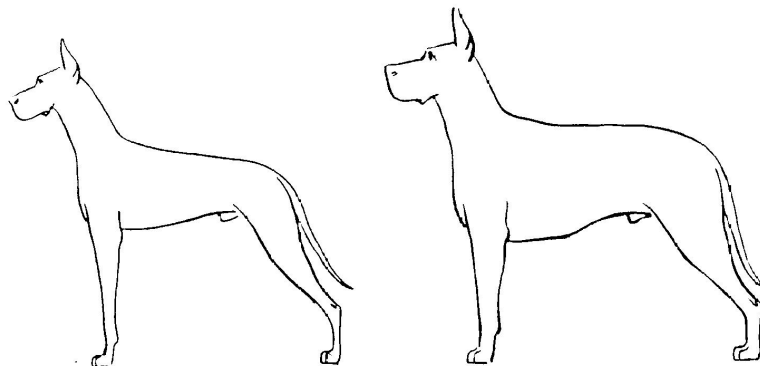
The position of the upper jaw in relation to the lower jaw is called the “bite.” The correct bite for a Dane is a “scissor.” An even bite will wear teeth down too quickly. An undershot or overshot jaw is a serious fault.



Dogs have 42 permanent teeth. It is most desirable for adult Danes to have all of their teeth; however, some Danes are missing a premolar or molar. The number of teeth is referred to as ‘Dentition.’

Breed “Type”.

As the Great Dane originates from the Greyhound and the Mastiff, an overall appearance that obviously resembles either breed is not desired. To the left, the Greyhound origin is noticeable in this “wispy” dog; to the right, the Mastiff origin is noticeable in this “course” dog.



Understanding Showing



There are so many excellent books available on dog shows, that only the basics will be touched upon here. When someone states his dog is a “champion,” he is usually referring to a Champion in Conformation.

► JUDGING CONFORMATION:

A show in which most of the 140+ AKC breeds are represented is called an ALL-BREED show. Shows with only one breed are called SPECIALTY Shows (The Great Dane Club of America’s National Specialty, for instance). The purpose of the specialty is for breeders and breeder judges to come together to celebrate their breed and showcase their progeny. Points towards conformation championships are available at both types of show.

The judge interprets the Breed Standards as he/she sees fit. These standards are developed by the breed’s parent Group (i.e., the Great Dane Club of America) and adopted by the AKC. Since the judge’s decision is an interpretation of the standard, not all judges look for the same thing. For this reason, participants generally select shows based on the judges who like the strengths of dog they enter. Every judge is not eligible to judge every breed; but judges must have had some experience in breeding and handling the breeds for which they are qualified to judge.

► THE BREED “GROUPS“:

The American Kennel Club hosts dog shows to select candidates in each breed that best “conform” to the standards of that breed for future puppies. There are over 140 different breeds recognized by the AKC, and more breeds being added yearly. These breeds are categorized into seven Groups:

- Working (Great Danes’ group)
- Herding
- Non-Sporting
- Terrier
- Toy
- Hound
- Sporting

Every dog breed is classified in a Group according to what function the breed was originally designed to do. It may not always make sense as to why a breed is in a particular group, but if you trace its origin, it will become apparent.

► EARNING POINTS:

The goal in showing in Conformation is for a dog is to earn points toward its AKC Championship. Every dog needs 15 points to become a Champion of Record. Of these points, 6–10 points have to be Majors. Majors are groups of points determined by the numbers of dogs in that breed showing that day. Majors may be 3–point, 4–point, or 5–point – no more, no less. Of the two majors necessary, both majors have to be won under different judges. Majors validate the dog’s win by demonstrating the dog is good enough to earn the points over a large representation of his/her breed who showed that one day.

The number of dogs making up the points is determined by the AKC and region of the show, the gender of the dog, and the popularity of the breed. For example, in a southeastern region – Division 3 (DC, NC, VA, KY, MD, WV, and TN), the 2005 Point Schedule mandates that a Great Dane dog needs to defeat

16 Dogs for a 3–point major, and a Dane Bitch needs to defeat 20 Dane Bitches. The “point schedule” changes every May, so you must become familiar with it.

Only the Dog and Bitch declared “Winners Dog” and “Winners Bitch” earn the points and the coveted purple ribbon. In any given show, a dog can only earn up to 5 points toward his or her championship title.

► **CLUSTER SHOWS:**

A dog show begins and ends on the same day. When there are “cluster” shows—several shows back to back during a weekend or week—the dogs begin from scratch each day with new judges. The previous day’s winner has no bearing on the next day’s winner. Therefore a schedule of classes sets the pace of the show.

► **SOME HELPFUL TERMS:**

- **Handler**—the person who is showing the dog. These may be breeders, owners, professional handlers, junior handlers, or anyone who knows how to properly present the dog to the judge in the ring.
- **Stack**—the position in which the dog stands to be examined. The front legs and the pastern of the back legs should be perpendicular to the floor. The topline (back) is straight in Danes, but may be roached (hunched) for other breeds, such as in the Afghan or Greyhound.
- **Free Stack**—some judges will ask the handler to show the dog at his natural stack – that is, the judge wants you to let the dog stand naturally with no assistance from the handler in setting up the front and back legs. This can be a make-or-break win, so training the dog for a free stack is essential!
- **Down & Back**—this is the most common pattern a judge asks the dogs to perform. The handler will walk the dog at a medium pace diagonally from where the judge is standing to the corner of the ring.
- **Bait**—some judges want to see how the dog responds to its handler or to see his expression. Handlers frequently use bait (food or toys) to show the ears, eyes, or expression. However, there are some judges forbid upon bait, and you need to know if bait is acceptable in their ring.
-



Shadow in a “Free Stack”
~ a four-point stack is the
hallmark of a well-trained
showdog.

► **THE CLASSES:**

At the beginning of the show, dogs are shown in competition with their own breeds and gender. Theoretically, dogs are not competing against each other but are competing to see which one best “conforms” the breed standard. The dog will have been pre-registered in a “Class.” Classes are determined by age, experience, color, and sometimes Variety (ex. Beagle 13”, Beagle 15”). Dogs and bitches are shown separately in each class and can earn first through fourth places (blue, red, yellow, white ribbons). The seven classes available include:

- Puppy, 6–9 months
- Puppy, 9–12 months
- 12–18 months
- Novice
- American Bred
- Bred-by-Exhibitor
- Open (may be divided into colors)

► **WINNERS DOG & WINNERS BITCH:**

The 1st Place winners (blue ribbon holders) of each Class then go back into the ring for another competition called “Winners Dog” and “Winners Bitch.” This is where they can earn their points and the purple ribbon.

► **BEST OF BREED:**

Finally, Champions of Record will enter the ring, then the Winners Dog and Winners Bitch enter. The winning dog in this category will continue in the show to Group competition. Dogs winning this class earn points for their National Ranking in the breed.

► **“GROUP” COMPETITION:**

Group competition begins in the afternoon, usually about 2:00pm. Once all Best of Breeds are selected, the dogs will show in its assigned “Group.” For instance, the Working Group dogs will show together and may include the Great Dane, Rottweiler, Doberman, Boxer, Mastiff, Newfoundland, etc. Four places will be awarded with only the first place—“Group 1”— moving on to the Best in Show Competition. This is typically what you see when watching a dog show on television.

► **“BEST IN SHOW” COMPETITION:**

Best in Show is the absolute last class of the day. Once all seven Groups have chosen their first place winners, these seven winners representing their Groups will compete for Best in Show. The Best In Show winner receives ribbons, trophies, points, and other kudos – and the privilege of adding “BIS” to the prefix of his registered name. Only one in 1,500 or more dogs entered in the show will receive this title that day.

In a Specialty show (a show with only one breed), the winner of this part of the competition is called “BISS” for Best in Specialty Show.

For more information on dog shows, see the Recommended Reading section at the end for the top books on the subject.



BREEDING

We do not own the Breed,
We merely hold it in trust for the next generation.
They will be the judges of our success
Just as we judge our predecessors

Should I Breed my Dog?

Breeding a litter of dogs takes a great amount of thought, planning, timing... and finances. There are enough unwanted dogs in shelters that are euthanized each month, and there are plenty of poor quality Great Danes available for just about any budget. Ethical breeders develop breeding programs to improve the breed and make their legacy.

Everyone has a different opinion on why a dog should be bred: “I have a female and she needs to have pups;” “I want my child to experience the miracle of birth;” “I have a really pretty dog that would make pretty puppies;” “My male can make big puppies;” “I love my dog so much that I want one of her pups.” For those who have been in dogs for decades, these are common statements heard from families who haven’t done their homework. Pups sold from people with this thought process frequently wind up in shelters as the “breeder” didn’t do his homework in selecting the appropriate homes. Ethical breeders strive to improve the breed not to just have pups.

You have to start somewhere, and it’s not always easy to find a mentor who will help guide you through the process of becoming a responsible breeder. In Danes, it’s quite hard to break into the clique, and you have to earn your way – you have to prove yourself. It takes many years to learn all the intricacies needed to create a line. So much planning needs to happen before even purchasing the your first breeding prospect (“foundation”) – be it male or female – and your mentor can help you with your selection. It’s a serious commitment. If you are serious, take the time to do it right, you’ll earn the respect of your fellow breeders but more importantly – you’ll earn their support when you need it most. Ethical breeders strive to improve the breed, and they support those who have the same interest.

Ask yourself, “What can I offer the breed?” If you believe you can add value to the breed, you begin by doing the background research. You’ll need to study structure, health issues of the breed, temperament, pedigrees and lineage (eight generations back or more), and get to know the breeders who have made milestones in the breed. When you can discuss these important issues with a breeder, your next step is selecting the outstanding specimen who is worthy to carry on the breed. No dog is perfect, and you should know what qualities your dog has and what qualities you’d like to improve on your line.

You should strongly consider showing your dog. Hire a professional handler if you’ve never shown a dog – it will pay off in the end. Showing gives you visibility and the respect among your peers. It also shows you are willing to make the financial commitment to the breed. Additionally, you will learn so

much about structure, movement, temperament/personality, and health issues. Ethical breeders strive to improve the breed, and learning about movement and structure is essential in creating a new line.

If you have already purchased an outstanding specimen as a companion, then you need to see if you have a limited or full AKC registration. If you don't have a full registration, you need to stop right there. Your pups won't be able to be registered with the AKC, and if that's unimportant to you, then improving the breed is probably unimportant as well. Should you have the full registration, it would be prudent to get in touch with your dog's breeder and discuss the possibility of breeding. Then, you will need to get the appropriate health clearances as well – a minimum of OFA hips and OFA heart, but much preferably also CERFd eyes, von Willebrands (vWD) assay, thyroid panel, and OFA elbows. Ethical breeders strive to improve the breed, and removing unhealthy dogs from your breeding program can take a lot of courage, especially if you've invested a great deal of money in your prospect.

Speaking of money – a litter is quite costly. Plan on out-of-pocket spending of \$5,000 or twice that, depending on size. Don't expect to recover your costs. It may happen, but it is unlikely that you will "make" money, especially considering the 24/7 care the pups require until they get in their new home. Ethical breeders strive to improve the breed, not make a profit.

Why do pups need round-the-clock care? The dam is usually exhausted the first few weeks and will need assistance settling in with her pups. A 140-pound Great Dane dam will (not *may*) lay on a one-pound pup and possibly smother it or crush its skull – no doubt about it, no matter how experienced you are, no matter how you try to avoid it, even if you are right there. It happens, and you need to take every precaution to prevent that from happening. Not only is it heartbreaking, but the mother is then stressed at the loss or absence of her pup. A pig rail is a big help in preventing this.

You've decided that you can make the commitment to breed a healthy, quality litter, and your prospect has completed the appropriate health checks. What else should you consider?

1. A canine's gestation period (time from conception to delivery) is an average of 60–63 days.
2. How are you going to take time off work during your bitch's delivery?
3. Where are the pups going to be raised?
4. What kind of whelping box should you build?
5. How will I find the right homes for my pups?
6. What provisions will I make should a placement/purchase not work out?
7. What should my contract say?
8. Do I need to DNA type my dog?
9. How do I find the right stud?
10. Will I need to do a natural breeding or artificial insemination (AI)?

This is just the tip of the iceberg. If you are still interested in developing a breeding program, read some books specifically on breeding.

Remember – ethical breeders strive to improve the breed. If you choose to breed, please breed responsibly.

Understanding a Pedigree

The pedigree is a “map” of the animal’s ancestry. Most pedigrees are shown four, five, or six generations long. A picture pedigree is most helpful as well. Pedigrees will show the full registered name and titles of the parents, grandparents, and ancestors. In the case of breeding different approved colors (fawn and brindle, for example) colors should also be indicated on the pedigree.

The far left of the pedigree shows the subject. In the sample below, Shadow is documented with his AKC registration number, color, birthdate, and call name. Shadow’s name is in **RED** because he is an AKC Champion. Dogs who have not earned their AKC Champion title are traditionally pictured in **BLACK** (a pup will be pictured in black). You may see more non-champion females than males. In the below pedigree, Shadow’s mother was not an AKC Champion but an *International* Champion. Therefore, she is shown in another color of the owner’s choosing.

At the beginning of the dog’s name (after any titles) is the breeder’s PREFIX. Shadow is from the *SierraDanés* line, his mother from the *Nuttree* line, and his father from *Lagarada*. With dual championships, you may see abbreviations such as “Mex” for Mexican champion and “Can” for Canadian, to name a few.

Males are on the top of the echelon, and the females are on the bottom with the subject dividing his parents’ ancestry. In the below 5-generation pedigree, Shadow’s father’s branch (upper half) shows his parents with an indent or step to the right. Shadow’s paternal grandparents are Timmy and Megan. Note how Timmy (male) is above his son, Rocket, and Megan (female) is below her son.



GENERAL HEALTH

A word to the Wise ~ medications and pesticides can damage kidneys whose primary function is to filter toxins from the body. Use your head before deciding on any treatment to eliminate parasites.

Internal Parasites

► HEARTWORMS

The heartworm is called such because it actually lives in the heart, mass reproducing, strangling the dog's heart. Caused by the bite of a mosquito, the mosquito sticks its proboscis into the flesh and injects the worms' eggs into the dog. Wherever there are mosquitoes, there is a significant risk of heartworm disease. The worms move into the heart, blood vessels, and lungs, growing into stringy worms as long as 6". This worm can be prevented by a monthly pill. Many heartworm tablets also have ingredients to kill fleas and intestinal parasites. For a dog testing positive, the treatment is arsenic derivative which can also kill your dog. Therefore, it may be advisable to keep dogs on a preventative all year in high risk areas. Puppies can start heartworm prevention at as early as 9 weeks but do your homework on which has the fewest side effects as giving pups too many medications can be harmful. Heartworm Prevention in the form of Ivomec or Ivermectin also control intestinal worms. Ask your vet which heartworm prevention is best for your pet in your part of the country.

► INTESTINAL WORMS

Puppies are more vulnerable to intestinal worms because they haven't yet developed immunity to many types of worms and their larvae. Because of the intestinal irritation, it is nearly impossible to housebreak a wormy puppy. Symptoms include a significant change in appetite, distention in the abdomen (potbelly puppies), coughing, weight loss, weakness, dull coat, vomiting or diarrhea, visible worm segments in animal's bedding or on his backside, diarrhea with bright red blood or dark feces. Annual checkups and screenings by your veterinarian can keep worms under control. Keep feces removed from the yard.

► TAPEWORMS

Tapeworms come from dogs ingesting fleas, but they can also come from dogs eating animal carcasses (rabbits, rodents, etc.). Tapeworms are visible in the dog's stool, but just because you don't see any worms, don't assume your dog is free and clear. Tapeworms are segmented and can reach three feet in length—the part you see in the stool is just a piece. The best method to rid your dog of these parasites is to make sure your fleas are gone, and then treat the dog with an initial treatment and a supplemental treatment three weeks later.

► ROUNDWORMS

Roundworms usually transmit from the mother to a pup through placenta or milk. This worm is hard to get rid of because the pups will discharge more roundworm eggs in their feces, and the mother will be reinfested when she cleans her pups. Roundworm infestation in an adult dog may only be a minor problem; but in a puppy, it can be deadly. The three-inch adult worms cause dehydration and protein & blood loss. These worms are transmittable to humans.

► WHIPS & HOOKS

Whipworms and Hookworms usually come from the soil, and dogs get these worms by eating or grazing in the grassy areas in which they defecate. These eggs can remain dormant and infectious for years. Removing feces from your yard will reduce the chance that your dog will be reinfested. Paving or concreting your run is safer than soil or gravel that can incubate worms indefinitely.

All of these intestinal worms may develop resistance to a particular drug. Over-the-counter medicines usually are ineffective because they are used for the wrong parasite. And because dogs shed microscopic worms, the best advice is to work with a veterinarian for worm prevention.

A HOMEOPATHIC TIP: A tablespoon of Apple Cider Vinegar given daily is used by homeopaths to prevent severe infestations of intestinal worms. Also, food grade Diatomaceous Earth (DE) is used for internal and external parasites.

External Parasites

► FLEAS & TICKS

Besides irritating the dog and causing skin problems or hot spots, fleas can make your dog anemic. Ticks cause Lyme Disease, Ehrlichiosis, and Rocky Mountain Spotted Fever. Several new preventatives (Capstar, Revolution, etc.) kill all stages of fleas, but be cautious. It's unclear whether there have been long enough drug trials on interactions and long term effects. Consider a flea and tick control that is incorporated in heartworm prevention only if fleas are present or are a common problem. Avoid "one drop" flea & tick controls as there is evidence that they may be toxic to some sensitive breeds. If fleas become a problem, seek alternative remedies before risking your dog's health with something that could cause irreversible kidney damage. If you use a flea product and notice ANYTHING about your dog's health or behavior, discontinue at once and possibly seek medical attention.

A more natural, safer solution to killing adult fleas: Ivory dish-washing liquid. Lather it up on young pups or old dogs and leave lather on about 5 minutes before rinsing with warm water. It's a groomer's secret, and there aren't any harsh chemicals to worry about. Also, Avon's Skin So Soft has been given the nod by many natural breeders. Rubbing the dog's coat with food-grade diatomaceous earth (DE) is a homeopathic flea duster. You could also do a search online for homeopathic parasite control for dogs to find recipes for sprays you can make safely at home.

If you need to use a shampoo with a pesticide, **ABSOLUTELY DO NOT MIX OR DOUBLE UP ON FLEA PRODUCTS** – don't give a flea bath AND spray with a flea control. Likewise, don't use flea collars and dips in any combination either. **READ THE LABEL.** Be sure to do research as well before applying sprays or one-spots like Frontline or Biospot to see what most recent reactions or fatalities other dog owners may have experienced.

Problematic Conditions

► DEMODECTIC MANGE (DEMODEX, or Red Mange)

Demodex is a non-contagious form of mange in which the mange mite (a naturally occurring organism found in all animals and people) overpopulates and causes irritation within the hair follicle. Two kinds of Demodex are found: (A) “localized” in which the irritation is self-limiting and heals with minimal therapy and intervention, and (B) “generalized” which causes continued breakouts throughout the animal’s life due to a compromised immune system. Board certified veterinary dermatologist Dr. Lowell Ackerman describes Demodex on his PetZone.com website:

“Apparently, animals are not born with the mites but acquire them from their mothers in the first few days of life, during the nursing process...A large percentage tend to self-cure when they reach immunologic maturity which may range from 8 months to 3 years of age, depending on the breed. It is estimated that 90% of pups affected will improve naturally if given supportive care which might include cleansing shampoos, antibiotic therapy, and immune stimulants.”

Signs of Demodex: hair loss and balding in distinct quarter-sized circles with black spots (like blackheads) in the center. Regarding treatment, Dr. Ackerman states:

“For young animals, it is not usually recommended to use treatments designed at killing the mites until the animal reaches immunologic maturity... If we kill the mites with insecticides, we’ll likely never know whether the pet would have gotten better by itself (a good prognosis) or whether its immune system never recovered, even though the mites are gone (a poor prognosis). The best supportive treatment we can give is to use shampoos that help “flush” the hair follicles (e.g., benzoyl peroxide-based products), periodic antibiotic therapy, and perhaps, immune stimulants.”

For “generalized” Demodex, a dip of amitraz--“Mitaban” by Upjohn--is one of the more effective products in treating demodex. The product is applied as a dip which means it is worked into the skin and not rinsed off. Animals are often bathed first with an anti-seborrheic shampoo to remove scale, bacteria, and crusts which might hamper absorption. The dips are applied every two weeks exactly as recommended by the manufacturer until mites are no longer found. The treatment is only recommended for cases of “generalized” demodicosis, realizing that 90% juvenile demodicosis cases will self-cure with supportive treatment only.

It is always important to evaluate the immune status of pets with demodicosis since this mite only causes problems in association with either a congenital or acquired immune deficit. This is often a more challenging task than merely attempting to eliminate the mite population from the skin surface. The Mitaban dips should only be done under the supervision or recommendation of a veterinarian. The drawback to these dips is that they are costly and HAVE A SEDATING EFFECT.

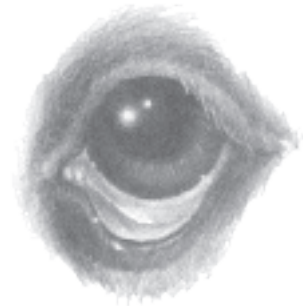
Homeopathic veterinarians may have a remedy available to ease the discomfort of Demodex before resulting to the dips. Additionally, a bath with a shampoo such as Goodwinol or Nolvasan (Jeffers catalog, item# F7-C6-42, approx. \$6.00, 1-800-533-3377) may also assist in recovery from “localized” Demodex.

► ENTROPIAN AND ECTROPIAN

These are hereditary disorders that affect many different breeds. Several genes are responsible for the development of the eyelid conformation: eyelid size and shape, depth of the eye socket, size and shape of the eyes, head conformation, and amount of facial skin. These genes work together to establish the look of the eyelid in comparison to the eye.

Entropion of the eye is a condition where the dog's eyelids turn inwards toward the eyeball rather than outward, causing irritation to the eye. If left untreated, it can lead to blindness. Dogs with entropion usually squint and have watery eyes. Entropion also causes ocular pain and corneal disease. If not treated or surgically corrected, ulcers can occur on the cornea and will become pigmented and vision will inevitably be lost. Entropion is usually inherited but can also be acquired later in life as a result of an eye injury or infection. It is not always apparent in young puppies, so when you are looking for a puppy, expect to see clear, dry, sparkling eyes on both the puppies and the parents of the litter. However, the natural aging process will eventually show cloudiness or lack of luster as in all living creatures.

Ectropion of the eye, unless very pronounced, does not lead to severe diseases of the eye itself. However the droopy eyelid may collect debris such as dust, pollen, and plant material from the environment. This may cause irritation that leads to discharge and a red eye. Dogs that have Ectropion must be watched very carefully by their owners for any foreign bodies and have their eyes kept clean and maybe medicated.



► FAT FOOT

Some Danes may get swelling in one of their front feet, and it's frequently unknown as to the cause. Lymphadema is suspect, but in older Danes where swelling doesn't go away, perhaps kidney issues should be viewed. Your vet will likely test any fluid to see if there is an infection, and if so, treat with an antibiotic. The vet may simply run a urine panel and see how well the kidneys are functioning. If kidneys are suspect, do NOT use Rimadyl or Deramaxx as they can cause kidney and/or liver failure.

► HEAT CYCLES & FALSE PREGNANCIES

Most giant breeds begin their first heat between 12 and 14 months. Irregular heat cycles and false pregnancies are common, but normal heat cycles should be about 3 weeks of heat cycle every six months. Monitor your bitch's first heat cycle carefully and contact your veterinarian if you have any problems. False pregnancies are common and evident when your bitch produces milk, typically 4–8 weeks after her heat cycle ends. She may also build a nest, dig, or cuddle stuffed animals. Intact bitches are at greater risk for developing breast cancer. If you are not planning on breeding or showing, you might consider spay, preferably after 12 months of age.

► HYGROMAS

These are pockets of fluid that build up on the front elbows of Danes, thought to be caused by repeated "trauma" to an area where the bone is near the skin. A collection of serum in a thick capsule builds to cushion the area. To eliminate

what's causing the pressure (a crate pan, a hard floor, etc.), provide more comfortable bedding. They frequently go away on their own but are unsightly in the process. Many vets may either drain them with a needle or surgically place a drain in them for weeks; many will suggest leaving them alone. A homeopathic treatment before taking the surgical route may benefit because hygromas tend to return once you start draining them. To the right is a picture of a hygroma.



► INTERDIGITAL CYSTS

Interdigital cysts are a common problem in short-haired breeds of dogs and even more so in males. Differential diagnoses may include Demodex, fungi, pyoderma secondary to atopy, or dermoid cysts (pocket of hair and “junk” in follicles). They are often infected and will recur unless surgically removed.

► PYODERMA

This is a pimple-like infection, usually on the dog's chin, but can also manifest on the feet where dogs lick. Plastic or dirty feed bowls encourage bacteria growth as do some dog foods. Stainless steel bowls may be all it takes to prevent pyoderma from recurring.

Females may get it more frequently around their heat cycles. Keeping the area free from infection, dirt, or grime is a start. Take a “baby wipe” to the chin after the dog is finished eating. Some dogs may benefit from a Stridex wipe or being cleaned with Listerine (yellow formula). Sloppy drinkers or heavy droolers may need their faces wiped as well. An inexpensive homeopathic route would consist of Silicea to purge the toxins from the cells. Pyoderma needs to be monitored because a serious infection can turn into staph and become “systemic” (throughout the body). At this point an antibiotic may be needed to clear it up. Generally, the dog should outgrow this at 18 -24 months.

► TAIL TRAUMA/SPLIT TAILS

Danes show love in a very obvious way...they wag their tail so hard that frequently the end of the tail splits and bleeds. To get an injured tail to heal as quickly and permanently as possible, don't cover the end of the tail. Exposure to the air helps to heal and harden the skin so that it won't split again. You need to keep the tail from hitting things by fabricating a “tail sling.”

Fabricating a Tail Sling: About 3 to 4 inches from the tip of the tail (up about 1 to 2 inches from the tail end damage) wrap the tail rather loosely with tape leaving the injured portion completely open. On top of the tape but on the underside of the tail, tape on a “D” ring or “O” ring so that it hangs from the underside of the tail. Around the dog's waist/flanks tie a soft “belt” of toweling. On this “belt” put a clip--the kind on the end of a leash. The belt should be tight enough to not slide off the dog's fanny but not so tight as to be irritating or to impede movement. Pull the tail between the back legs under the stomach and clip the ring (fastened to the tail with tape) to the belt. Unclip the belt when you let the dog outside. If you catch the injury early, the tail heals completely so that it is impossible to see that there was ever a problem. If you have a determined tailwagger, this can be used as a preventative.

Emergency Supplies to Keep on Hand:

Phazyme, Gas-X, Mylanta, acidophilus tablets are essential for breeds prone to bloat. For diarrhea, it's good to keep some Kaopectate or Pepto Bismol on hand. Plain aspirin (not Tylenol) will reduce fever and joint aches. Ascriptin is aspirin with Mylanta to control stomach upset from the aspirin. Panalog or Bag Balm is a handy ointment for cuts, scrapes, and wounds. Cotton gauze, cotton swabs, and ear tape (Curity porous tape) should also be available. Scissors and hemostats may be needed as well as a thermometer.

Anyone owning a Dane should know what pre-veterinary care can help save their dog's life during bloat. It is worth the time and office visit expense to discuss your options on how to help your dog in transport with your vet before you should ever need to. Your veterinarian can help you assemble your bloat kit, and several resources listed in the back have information on bloat kits as well.

Antibiotics & Anesthesia

Because the breed was developed from sighthounds, Great Danes may have a fatal reaction to certain antibiotics and anesthesia. Speak with your vet about two types of antibiotics that many Dane breeders avoid using in puppies:

- "Sulfa" -- Sulfonimade Antibiotics (Ditrim, Primor, TMZ and TMP/SDZ)
- "Keflex" (Cefa-Tabs, Cephalexin*)

These are excellent antibiotics; however, a puppy may have an allergic reaction to the drug. A reaction to antibiotic may include H.O.D.-like symptoms (fever, achy joints, swelling of joints, pain, lack of mobility, depression and anorexia). If this occurs, it can happen anywhere from 24 hours up to 2 weeks. Cephalexin is used mostly for long-term treatment and usually is tolerable to adult Danes.

As a large number of Danes have undergone routine surgeries and not survived, the Great Dane Club of America has recently published surgery guidelines specifically for Danes. If you are planning any routine surgery – anything including neutering, removing a cyst, or even teeth cleaning – please read these guidelines and discuss them with your veterinarian. The club has been dedicated to educating Great Dane breeders and owners as well as researching trends in the health of the breed. No longer is there such thing as a "routine surgery" on a Dane, so vets need to approach any surgery very cautiously. The risks of surgery increase greatly with the age of the Dane. Pre-surgery blood work along with a clotting panel is a must especially for those approaching middle age. If your veterinarian will not follow these guidelines, you may need to rethink your relationship with that veterinarian.

The Great Dane Club of America's Surgery Guidelines for Great Danes
The following information regarding both routine spay and neuter surgery as well as emergency situations in the Great Dane (such as those involving C-sections) is presented as a basic protocol to help avoid complications such as DIC (Disseminated Intravascular Coagulopathy) which appear to occur in a higher number of giant dogs undergoing surgery than the norm. Therefore, the GDCA offers the following information for owners and breeders of Great Danes. Several veterinary clinics with regular and extensive experience dealing with giant breeds have developed similar protocols for surgery that can be recommended preferentially for giant breeds. These are techniques that have proven highly successful; both in routine spay/neuter surgeries as well as more

critical care situations, such as C-sections. Such a set of protocols is offered below. We suggest you download it and discuss this with your veterinarian PRIOR to any surgical appointment.

Please review the following with your attending veterinarian before deciding to have surgery done on your Dane:

1. First find a veterinarian experienced with surgeries involving giant breeds.
2. All elective surgeries, such as spay/neuter, should be done ideally only on healthy animals. Spays are best planned in anestrus (about 3 months after the last season). Please ensure your veterinarian is aware of any health concerns you might have about your dog prior to surgery.
3. Prior to any surgery, request that the veterinarian do a complete physical examination, including a good heart auscultation, and EKG.
4. Ensure that you elect to have the pre-surgical blood work done (CBC and serum chemistry panel) and ask them to also include a CLOTTING PROFILE. This likely will need to be done several days before surgery.
5. If all blood work and the exam are normal, then schedule the surgery and fast the dog overnight. It's not generally necessary to withhold water for 12 hours (simply put the water bowl away at bedtime).
6. Ask that the surgeon insert an IV catheter prior to surgery. Fluid therapy should generally be administered as a safety precaution. Pulse oximetry and cardiac monitoring are also recommended. If blood pressure monitoring is available, consider any extra costs as potentially ensuring additional safety margins.
7. Spay surgery in conjunction with C-section is not always the safest option in giant dogs. Be sure to discuss the pros and cons of two separate surgeries versus doing both procedures at once with your veterinarian.
8. Currently, the induction agent Propofol (deprivan) and the gas anesthesia Sevoflurane are considered the most ideal (safe and effective) anesthetic agents. These agents are not always available and may cost more to use. Valium, ketamine, and the gas isoflurane are widely available and generally acceptable. Due to the variations in physiology in giant breeds, drugs such as acepromazine, rompun and the thiopentals are less appropriate choices. Discuss this with your veterinarian. Also discuss appropriate pain control for your dog when contemplating surgery for your Great Dane.

Prepared by the Health and Welfare committee of the Great Dane Club of America. Written by Sue Cates, RVT and reviewed by LeAnn Lake-Heidke, DVM. Permission to reprint as submitted for educational purposes is given.

► TYPES OF ANESTHESIA

“Ace” (acepromazine) tends to stay in the dogs system for a long period of time, and need to be metabolized (changed) by the body to rid itself of the remains.

Propofol is a fast-acting anesthetic, metabolized by the liver, has a terminal half-life of 1–3 days – “reflecting the extensive tissue uptake.” It’s said to have little or no side effects in the majority of uses.

Telazol is an anesthetic that is administered by injection; another is Ketamine or Ketaset and is fairly safe.

Injectable anesthesia dosages are harder to gauge with very small puppies, as is the depth of anesthesia (how deeply the dog is under). Veins are harder to find in small puppies, and the vets are always cautious about potential dosage problems. Giant breed dogs are MORE sensitive to dosage, ie: the bigger the dog, the less medicine they may need per pound of body weight.

Isoflurane and Sevoflurane are both gases. Sevoflurane is the newest, results suggest that sevoflurane anesthesia provides a better cardiovascular and respiratory stability.

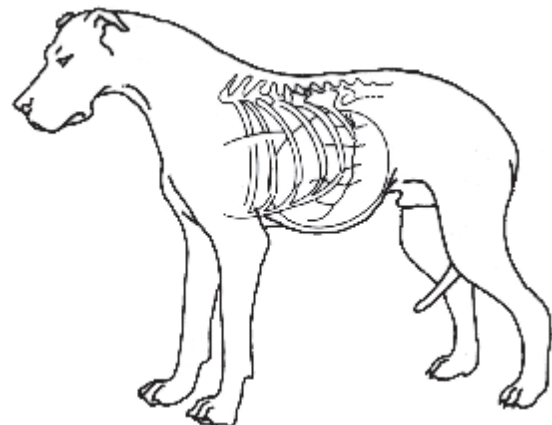
Bloat & Gastric Torsion

Bloat and Torsion are not the same. It is important to understand the definition and symptoms of both.

BLOAT is when the stomach swells with gas. When the stomach is overfull, it may then twist or TORSION and cut off the blood supply to the intestines and the stomach. Once a dog has bloated, he is likely to torsion. Costly surgery is necessary to save the dog’s life, as the dog’s stomach has to be untwisted back into place. If the circulation has stopped for too long, the tissue becomes necrotic and has to be removed. This may mean removing part of the dog’s stomach, the spleen, and part of the intestine. While in surgery, the vet may also perform a Gastropexy (tacking the dog’s stomach to a rib or elsewhere to prevent the stomach from flipping in the future). Recent advancements in this procedure include laparoscopic gastropexy. Bloat and torsion may mean your dog will not survive as torsion is the cause of death, not bloat.

The primary sign of Bloat is abdominal distention – the stomach will inflate like a watermelon. Additionally, the dog may retch or attempt to vomit, pace and whine, and may be restless. It is possible for a dog to Bloat and not Torsion.

Primary signs of Torsion are similar to bloat however the dog’s stomach may or may not be swelled. Rather, he may walk around as if someone kicked him in the stomach or just lay uncomfortably not wanting to get up. It is possible for a dog to Torsion and not Bloat. Torsion without bloat is more dangerous because it’s harder to spot. Both



the stomach and the spleen are susceptible to bloat. In the absence of the distended stomach, it is possible to miss the symptoms of torsion if the dog's stomach and spleen are not x-rayed.

Because of the severe metabolic, biochemical, and cardiac abnormalities associated with bloat and torsion, TIME IS OF THE ESSENCE if you hope to save your dog.

Though no one can predict bloat or truly know all of the causes, preventative measures are the best way to avoid bloat. Taking care that the dog doesn't overload with water after a workout, a low-stress lifestyle, and making sure your dog doesn't eat fast helps as will following the feeding guide in this booklet. Feeding a premium food that requires less quantity and supplementing with a probiotic enzyme are believed to be the key to a healthy digestive tract.

Age plays a factor in bloat as muscles tend to relax and loosen with age, increasing the risk for bloat and torsion.

Elective gastropexy might need to be carefully considered for high-risk dogs. Remember, it is major surgery. High-risk dogs are those who are stressed, nervous, fast eaters, pacers, hyperactive, and deep-chested breeds. Get used to their normal stomach size, smells, and body mannerisms when you're around them. Excessive gas doesn't mean bloat is inevitable, but it may be wise to give your dog Phazyme, Gas-X or generic (human) baby simethicone if something is clearly "not right" with your dog's system.

Cancers

Cancer is a leading killer of dogs and it comes in many forms: thyroid, breast, bone, testicular, ovarian, lymphatic, and connective tissue – just to name a few. In females, the most common cancer is breast cancer, but bone cancer in Danes is prevalent as well.

► BONE CANCER (Osteosarcoma)

With bone cancer, the most common site for bone tumors is in the legs in the small region between the shaft and ends of the long bones (i.e., the metaphysis, where growth occurs). These tumors are usually aggressive and spread to other parts of the body, most commonly the lungs. Bone cancer is more likely to affect males than females, and there is evidence that hormones play a role as neutered dogs and bitches have twice the risk of developing bone cancer compared to intact dogs.¹ Additionally, large breeds – those weighing over 80 pounds – are 61 times more likely to develop bone cancer than smaller breeds. Development of bone cancer is related to rapid bone growth, and it is presumed that during periods of rapid growth, strenuous activity can cause microscopic bone fractures which induce cancer formation. The course of action recommended may be surgically removing the affected leg, if possible, but the prognosis and quality of life may not be positive post-surgery.

¹Kelsey, JL, AS Moore, and LT Glickman. (1998). *Epidemiologic studies of risk factors for cancer in pet dogs. Epidemiologic Reviews* 20(2):204-217. Jennifer Kelsey is a well-known cancer epidemiologist from Johns Hopkins.



A photograph of a mammary tumor (adenocarcinoma) just before surgery. Photo from ACVS American College of Veterinary Surgeons



A photograph of a dog with an Inflammatory Mammary Carcinoma. Photo from ACVS American College of Veterinary Surgeons

► BREAST CANCER

Dogs have five pairs of mammary glands, numbered one through five from front to back. Tumors in these glands are common in dogs. With breast tumors, any gland can be affected, but more than 65% develop in the fourth and fifth rows (the four between the back legs). Although not always cancerous (50% are malignant), hormones do increase the risk of malignancy. Intact female dogs are seven times more likely to develop breast cancer than a spayed dog; and if she is 4 years or older, she has a 25% chance of developing at least one breast tumor. For this reason, if you do not plan on breeding or showing, spaying your female may prolong her life.

During monthly bathing and grooming, check your bitch's breasts for any abnormal lumps, leakage, skin change, or redness and swelling. With a benign tumor, you may feel a hard pea-like mass. With adenocarcinoma, there may be large, firm tumors and many of them. Inflammatory Mammary Carcinoma (a severely aggressive, rapid-growing cancer that is fatal) is similar in appearance to mastitis with swollen glands, a fever, ulcerated rash or pus on the skin. Upon discovering any abnormality, a veterinary consult is paramount.

Dilated Cardiomyopathy ("DCM")

Dilated Cardiomyopathy is a heart muscle disease associated with Danes and is usually characterized by enlargement of the left ventricle. The muscle wall of the ventricle loses its elasticity, stretches, and becomes thin or dilated. The weakened heart muscle no longer pumps blood effectively, causing a buildup of fluid in the lungs and elsewhere.

Eventually the heart will fail altogether.

DCM is suspected to be hereditary. Males between ages 3 to 8 years are the most common victims of DCM, and the prognosis is grave. Symptoms include typical "heart failure" signs: coughing, gasping, weakness, blue gums or tongue and enlarged abdomen. With any of these signs, emergency veterinary care is vital, and may even come too late. X-rays will show an enlarged heart; EKGs will show abnormalities; and an ultrasound will show the fibrosis of the muscle wall.

The Orthopedic Foundation for Animals (OFA) certifies heart exams as well as hips. Of 52 breeds tested between January 1974 and December 2005, Danes rank #29 with 1,049 tests performed. The results were 98.5% of the Danes tested normal, and 0.1% Danes were classified as "affected." However, these results may be misleading because DCM is common enough in the Dane breed, and the clinical symptoms may not appear until the dog is affected in later years – after receiving a normal cardiology exam. Therefore, responsible breeders should perform pre-breeding screenings that include an exam from a certified cardiologist to rule out existing heart conditions.

A Great Dane advocate and professor of cardiovascular medicine at Ohio State's

College of Veterinary Medicine, Dr. Kathryn M. Meurs has focused her research on determining whether DCM is inherited, and if so, how it is transmitted from parent to offspring. Funded by the AKC's Canine Health Foundation, the Great Dane Health Foundation and the Great Dane Club of America, her research has prompted her to find a genetic marker wherein a blood test can be performed on a Dane to actually screen for DCM. Responsible breeders would then be able to eliminate affected dogs from their breeding program before the DCM symptoms were evident.

Hypothyroidism

Caused by an insufficient production of the hormone Thyroxine, this disease is believed to have a genetic link to certain breeds. Many vets suspect combination vaccines and nutritional issues (commercial dog food and over-supplementation) to be a cause as well. Generally, the affected dog's immune system doesn't recognize what is happening with the thyroid and starts producing antibodies against the gland. Dr. Jean Dodds, DVM, has studied an association between hypothyroidism and von Willebrand's Disease. Symptoms include lethargy, hair loss, dogs who become chilly and uncomfortable in cold weather, irregular heat cycles, and prolonged anestrus (post heat). Signs are commonly seen between the ages of two years and four years. Blood screenings will determine if a dog has the disease as symptoms may not show or may be very subtle. Its treatment is simple with a daily synthetic hormone replacement that would need to be given for the rest of the dog's life.

Kidney Failure (Renal Failure)

The kidneys can act as a window to an animal's internal health. They are hard-working organs that remove toxins from the body, filtering an animal's entire blood volume every thirty minutes. As a result, kidneys are continually exposed to a myriad of potentially damaging substances, infectious agents, or external and internal conditions (external, such as pesticides; and internal, such as disease or nutrition). Various diseases may damage nephrons, resulting in leakage of albumin into the urine:

- Inflammatory diseases (e.g., dental disease, pyoderma, immune-mediated diseases, inflammatory bowel disease)
- Infectious diseases (e.g., heartworm, Ehrlichiosis, Lyme)
- Metabolic diseases (e.g., diabetes mellitus, Cushing's Syndrome, hypertension)
- Neoplasia (cancer, tumors)

When kidneys become damaged, they don't regenerate, and kidney failure is inevitable. It's important to make certain that if your dog becomes sick, that proper medical care will help alleviate the burden of the kidneys so that there is no permanent damage.

Symptoms of Kidney Failure include increased thirst and frequent urination, swelling in the feet, legs and perhaps abdomen, swelling in the soft membranes in the lower eyelid, loss of appetite, weight loss, lethargy, vomiting, and diarrhea. There is no come-back from this diagnosis. By the time it is evident through symptoms, the kidneys are damaged significantly, and quality of life rapidly declines. It's now only a matter of weeks before the dog is gone. With some terminal diseases such as cancer, it may be the kidneys that actually fail

before the disease itself advances to the point of death. The origin of kidney disease is not always known, but what is known is that when it progresses from “kidney disease” into “kidney failure,” there is no hope of a cure and the end result is a painful suffering.

To measure kidney disease, conventional veterinary tests include urine specific gravity, BUN, creatinine – which don’t detect kidney damage until at least 70% of the kidney function is lost. However, an inexpensive new test – an E.R.D.– HealthScreen® Urine Test by Heska – detects small amounts of albumin in the urine (“microalbuminuria”) before the kidney is too damaged. [Microalbuminuria (MA) has been clinically defined as levels of albumin in the urine greater than normal (1 mg/dL) and less than overt proteinuria (30 mg/dL) at a standardized specific gravity of 1.010.] For more information on this test, visit <http://www.heska.com/erd/index.asp> or contact your veterinarian.

As your Dane ages beyond three years of age, it is a wise idea to routinely have your dog’s urine checked with the ERD during annual check ups.

von Willebrands Disease (vWD)

Von Willebrands Disease occurs when the vWD factor in the blood, which aids in clotting, is deficient (haemostatis). Signs will vary depending upon animal and may show up only after surgery or trauma. Some dogs may show spontaneous bleeding in urine or feces or with swollen joints. Bleeding into joint cavities is seen in hemophiliacs. There is no cure for bleeding disorders, but stress should be minimized. Affected animals should be removed from breeding programs. It is possible to identify a carrier and a dog who has von Willebrands disease. Frequently, dogs developing thyroid disease have lower levels of von Willebrands in their blood. Hypothyroid dogs also may exhibit low platelet counts which can cause mucosal bleeding. Since it is generally impossible to distinguish between inherited and acquired von Willebrands disease, it is important to screen for both von Willebrands disease and thyroid function to assess susceptibility to these interrelated disorders.

Wobblers - Cervical Vertebral Instability

Wobblers has not been proven genetic, but it is quite prevalent in some breeds. It is caused by a malformation of the vertebrae in the neck. The vertebrae are unstable and move, causing the disks between them to swell. The symptom is a wobbly, clumsy gait in the rear. Some dogs have no pain but are paralyzed; other dogs are in extreme pain but are mobile, and some dogs are both. X-rays usually cannot detect the disease. The only method of diagnosis is by myelogram—an image of the cord after the fluid around it has been injected with dye. As with any procedure, ask your veterinarian on the risks associated with a myelogram. Currently, there is no cure, though surgical or medical intervention may help reduce the swelling or stabilize the vertebrae. Accupuncture, chiropractic adjustments, and Gold Bead implants are proving to be successful treatments.

Benefits of Glucosamine

Presently, there is evidence that the nutraceutical Glucosamine taken long term (3 months or more) is beneficial in reducing inflammation associated with degenerative joint diseases. Glucosamine provides the raw material that is essential for the synthesis of synovial fluid and the cartilage matrix. It helps the

body build amino acids, which aid in the development of soft tissue, muscle, and cartilage. The amino acids enable the tissue to expand further than without it; thus, if an animal has problems with range of motion, glucosamine may help. It is safe and has no known side effects. This has been widely prescribed as a long-term therapy for dogs with bone and joint problems, such as hip dysplasia and OCD.

- SOURCE: One of the best forms of Glucosamine comes in the form of Cosequin DS, a combination therapy of 500mg Glucosamine, 400mg Chondroitin Sulfate, 66mg Ascorbate, and 10 mg Manganese. This product is available at Heartland Veterinary Supply at 1-800-934-9398.
- Also, you can check your local drugstore for products containing Glucosamine, Chondroitin Sulfate, and MSM together.

Hip Dysplasia, OFA, and Penn-Hip

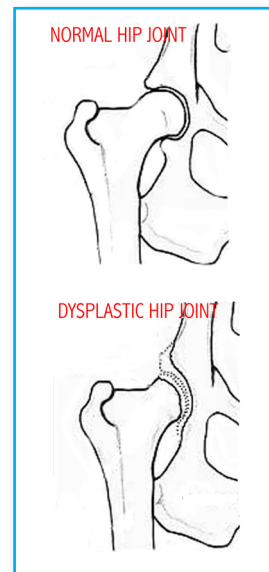
Understanding Canine Hip Dysplasia

Canine Hip Dysplasia (CHD) is a disorder of the hip joints brought about by a laxity of the supporting muscles, connective tissues, and ligaments. In a GOOD hip, the “ball” (the head of the femur) fits neatly into the “socket” (acetabulum). In a BAD hip, the fit is loose; cartilage erodes and develops new, abnormal growth and rough joint surfaces. CHD can be in both hips (bilateral) or in one only. It can be very painful for the dog and frequently requires surgery. New treatments suggest that Glucosamine and Chondroitin Sulfate may help strengthen and develop the connective, soft tissues and ligaments to protect against CHD.

Canine Hip Dysplasia is a polygenetic inherited condition that is affected by environmental influences such as obesity, improper nutrition, and exercise, which can cause rapid wear & tear of the hip joint leading to arthritic changes.

In 1997, a large study in Labrador puppies who were fed a hi-protein/hi-calorie diet (free choice) for 3 years showed a much higher incidence of hip dysplasia than did their littermates who were fed the same hi-protein/hi-calorie diet but fed 25% less than the dysplastic group. The free choice group was significantly heavier, maturing an averaged 22 pounds heavier than the control group. Because obesity is also a risk factor this study may be difficult to interpret.

Exercise may be another risk factor. Dogs that are genetically susceptible to CHD may have an increased incidence of disease if they over-exercise at a young age. But also, dogs with large muscle mass are less likely to contract CHD than dogs with small muscle mass. “Free” exercise that strengthens the gluteal muscles (chasing a ball, walking, “tag,” and occasional swimming) are acceptable exercises for pups. The problems arise when the dog is pushed beyond his current capability through forced exercises, workout routines, or “conditioning” exercises. These NO-NO’s include frisbee, jumping, running the dog along a



bike, car, or person (where the dog “has” to move or fear being left behind), using a treadmill, heavy swimming exercises, pulling or pushing exercises, to name a few. Ideally, the pup should be at least 26 months before beginning any exercise program such as these. Additionally, allowing the pup AT ANY AGE to walk on wood, linoleum, tile, or other slippery floor surfaces may even promote dysplastic hips.

The controversy begins when we try to determine what predisposes the animal to CHD. Researchers and breeders must agree that there is some genetic link involved. However, other factors suggest that genetics contribute less than 25% to the development of the disease: To paraphrase an article written by Joe Bodewes, DVM, Drs. Foster & Smith, Inc., Veterinary Services Dept.:

If there are no carriers of hip dysplasia in a dog's lineage then it will not contract the disease. If there are genetic carriers then it may contract the disease. We know breeders can greatly reduce the incidence of hip dysplasia by eliminating dysplastic stock from the breeding programs. We also know that we can increase the incidence by test-breeding dysplastic stock. But since we cannot completely reproduce the disease through selective breeding, it is difficult to totally eradicate Canine Hip Dysplasia from a breed or specific line.

What can we do then? Responsible breeders have an ethical obligation to reduce instances of canine hip dysplasia by removing dogs diagnosed with CHD from their breeding programs. Preventative screening mechanisms or tools (OFA and Penn-HIP screenings/certification) will help identify stock with CHD before they are bred. Though no tool can eliminate CHD from the breed, it can help prevent the future of the breed from becoming dysplastic.

► Orthopedic Foundation for Animals – Certification

Established in 1966, the Orthopedic Foundation for Animals has become the world's largest all-breed registry, maintaining a database of hip evaluations for nearly 500,000 dogs. Radiographs are taken by a veterinarian under specific guidelines and submitted to the OFA for evaluation of hip and certification of hip quality. The OFA December 2005 statistics report that Great Danes rank 76th in 142 breeds tested for hip dysplasia since January 1974. Of the 9,428 evaluations, 11.3% of the Danes tested received an “excellent” grade and 11.8% of those tested were dysplastic. Dane breeders have clearly taken hip dysplasia seriously, working to reduce the instances of HD in the breed. Therefore, it is important to ask breeders to perform these screenings on their breeding pairs. Radiographs are taken by a local veterinarian under specific guidelines and submitted to the OFA for evaluation of hip dysplasia and certification of hip status.

The Orthopedic Foundation for Animals (OFA) states:

“Veterinarians and responsible breeders of purebred dogs and cats are well aware that hip dysplasia is reported to be an inherited disease that can be controlled by careful, selective breeding programs.”

Using a seven-point scoring system, hips are scored as normal (excellent, good, fair), borderline dysplastic, or dysplastic (mild, moderate, severe). Dogs with hips scored as borderline or dysplastic are not eligible to receive OFA breeding numbers; rather, they are graded for the severity of the disease. Both the certificates and grades are issued based upon the quality of the dog's hips in

relation to other dogs of the same breed at the same age. The OFA certificate does not guarantee that the animal or its pups will never have hip dysplasia at sometime in his/her life, but by eliminating known carriers, breeders are doing their part to breed healthy puppies.

This useful screening tool does have a drawback. The OFA states:

“Even though the radiographic criteria for diagnosis of CHD [Canine Hip Dysplasia] are well-documented, radiographic interpretation and application of these criteria differs among veterinarians.”

What one veterinarian interprets as an “excellent” hip, another may see as a “fair” hip. Another point to remember is that if a veterinarian or technician who takes the films is not skilled in producing quality films for this exact test or if the hips are not positioned properly, an accurate assessment of the hips may not be given. Additionally, bitches filmed near estrus (heat) may be more susceptible to a lesser grade as their hips prepare for breeding than when they are not in heat. For these reasons, the OFA allows a new set of films to be resubmitted after six months for a reevaluation. You can check any certified or graded dog’s results at the OFA’s website: www.offa.org.

► Penn-HIP screenings...

An alternative screening for hips is the Penn-HIP, a diagnostic method used by the University of Pennsylvania Hip Improvement Program (Penn-HIP) to distract & compress radiographic views to identify and quantify laxity in the hip joint. The dog is placed under heavy sedation to perform the test.

Two views are taken of the hips in neutral position to maximize joint laxity. Weights are then used to help push the ball of the femur further in or away from the acetabulum. A Distraction Index (DI) is used to quantify the amount of femoral head displacement (joint laxity). Graded in decimals ranging from 0 to 1, the DI is calculated by measuring the distance in which the ball moves laterally from the center of the socket and dividing it by the radius of the ball. A DI of “0” measures a very tight joint. A DI of “1” shows complete luxation (dysplasia) with little or no coverage of the femoral head. A hip with a distraction index of .6 is 60% luxated and is twice as lax as a hip with a DI of .3. When the DI was compared the OFA scores for 65 dogs, all dogs scored as mildly, moderately, or severely dysplastic by the OFA method had a DI above “.3”.

Because of its newness, the validity of this tool has not yet exceeded the current OFA tests, though it has potential to do so. The concerns with this particular test to some breeders are:

- (1) The heavy sedation in which the Dane is placed to perform the test,
- (2) The forced movement with weights to show luxation, and
- (3) The specialized training and certification the veterinarians need to perform this test properly. Currently there are few vets who offer this or perform this to the standard.
- (4) Additionally, the dogs screened have not been tested throughout the duration of their lives to see exactly what the rating means to the physical condition of the dog during his life-span.

Growth Chart

Based on 13 Great Dane litters from 1973–1998, below shows an average growth rate of Great Dane puppies. As pups become adults, there is obviously a wider range of weight depending on the breeding and gender of that animal.

AGE	WEIGHT (lbs)
Birth	1-3
Week 1	2-3
Week 2	3-5
Week 3	5-7
Week 4	7-10
Week 5	10-15
Week 6	14-18
Week 7	17-22
Week 8	20-26
Week 9	24-30
Week 10	29-36
Week 11	34-40
Week 12	35-45
4 months	50-60
5 months	65-95
6 months	100-115
7 months	110-135
8 months	110-140
9 months	110-145
10 months	115-150
11 months	115-155
12 months	118-160
18 months	120-165
2 years	125-185
3 years	135-203



BEN - 9 Days Old
Breeder: Nuttree Great Danes



ROCKET - @3 Months Old
[Rocket is Ben's Grampa]



BEN - @ 5 Months Old



ROCKET - @ 6 Years Old

Poisons

► FOODS

- ♥ Chocolate, tea, coffee, cola: Theobromine, a naturally occurring compound found in chocolate, can trigger epileptic seizures in dogs prone to or at risk of epilepsy. The size of the dog will also be a major factor: the smaller the dog, the more affected it is by the same amount than a larger dog. Therefore, toxicity is described on a mg/Kg basis. Theobromine can cause cardiac irregularity, especially if the dog becomes excited. Cardiac arrhythmia can precipitate a myocardial infarction which can kill the dog. Theobromine also irritates the GI tract and can cause internal bleeding which in some cases kills them a day or so later.
- ♥ Grapes: Grapes are believed to cause kidney failure in some dogs.
- ♥ Nuts: Walnuts are poisonous to dogs and should be avoided. A fungus in walnuts (especially wet deadfall walnuts) can cause severe episodes of seizures. Nuts are high in phosphorous and may lead to bladder stones.
- ♥ Onions: Especially raw onions, have been shown to trigger Heinz-body hemolytic anemia in dogs.
- ♥ Potatoes: Poisonings among people and dogs have occurred due to the Solanum alkaloids can be found in green sprouts and green potato skins, which occurs when the tubers are exposed to sunlight during growth or after harvest. Note that cooked, mashed potatoes are fine for dogs, actually quite nutritious and digestible, but removing the skin may be safer.
- ♥ Turkey skin: Currently thought to cause acute pancreatitis in dogs.

► PLANTS (house plants and outdoor plants)

Many of the toxic plants rarely cause problems because most dogs don't chew them-- the exceptions being, of course, young puppies who are inclined to taste anything. Oleander, for example, is rather toxic, but most cases of poisoning involve grazing livestock, puppies and human babies/toddlers. Dumb Cane, however, needs only one nibble to have a potentially fatal outcome. The risk to your animal depends upon its behavioral characteristics. You can best assess whether your pet is at true risk.

♥ PLANTS CAUSING RASH OR CONTACT DERMATITIS:

chrysanthemum	poinsettia	spider mum
creeping fig	pot mum	weeping fig

♥ IRRITATIONS, POSSIBLE ASPHYXIATION:

arrowhead vine	majesty	red princess
boston ivy	marble queen	philodendron
colodium	neththytis ivy	
emerald duke	pathos	

♥ TOXIC:

amaryllis	elephant ears	pot mum
asparagus fern	glocal ivy	ripple ivy
azalea	heart ivy	spider mum
bird of paradise	ivy	sprangeri fern
creeping charlie	jerusalem cherry	umbrella plant
crown of thorns	needlepoint	

♥ POISONOUS:

almond
american yew
angel's trumpet
apricot
bittersweet
black locust
buttercup
castor bean
cherry
daffodil
delphinium
dologeton
dumb cane
english holly
english yew

foxglove
ground cherry
horse chestnut
indian turnip
japanese plum
jasmine
jimson weed
larkspur
loco weed
lupine
matrimony vine
may apple
mock orange
monkey pod
moonseed

mushrooms
nightshade
peach
pear
pig weed
poison hemlock
poke weed
privet
rhubarb
spinach
tomato vine
water hemlock
western yew
wild cherry
woody wisteria

♥ HALLUCINOGENS:

loco weed
marijuana

morning glory
nutmeg

payote
periwinkle

♥ CONVULSIONS:

china berry
coriaria

moon weed
nux vomica

water hemlock

▶ HOUSEHOLD ITEMS

Acetaminophen
Antifreeze
Aspirin
Bleach
Boric Acid
Brake Fluid
Carbon Monoxide
Carburetor Cleaner
Christmas Tinsel
Cleaning Fluid
Deodorants/Deodorizers
Detergent
Disinfectants
Drain Cleaner
Dye

Fungicides
Furniture Polish
Gasoline
Hair Colorings
Herbicides
Insecticides
Kerosene
Laxatives
Lead
Lye
Matches
Metal Polish
Mineral Spirits
Mothballs
Nail Polish & Remover

Paint & Remover
Perm Solutions
Photo Developer
Rat Poison
Rubbing Alcohol
Shoe Polish
Sleeping Pills
Soaps
Suntan Lotions
Tar
Turpentine
Windshield Fluid
Wood Stains

▶ POISONOUS "CRITTERS"

Black Widow

Bufo Toads

Brown Recluse Spider

RAINBOW BRIDGE

Perhaps they are not stars in the sky
but rather openings where
our loved ones shine down upon us
to let us know they are happy

Euthanasia

Losing a dog is heartbreaking but having to make the decision to euthanize your dog can be torment. When is the right time? Is it the right decision? Should you leave it in God's hands or should you spare his or her suffering yourself? Should you be with your dog during the final moments or should you leave? Those all questions that swirl around your head when you begin to realize you're running out of time with your Dane.



With euthanasia, the time it takes for a dog to “go to sleep” is usually less than a minute. Typically, the injection is in the front leg, since it's closer to the heart than the back leg. With a long-term illness like kidney failure or cancer, the dog's veins may have shrunk from dehydration. Your vet may use a back leg instead or insert an IV with sedation before administering the lethal drug. The dog will relax very quickly, take a few final breaths, and then will pass. What seems like an eternity is waiting for the vet to prepare the injection and approach you and your dog that final time.

If you are planning a burial, see if it's possible to euthanize your dog in your vehicle. Your dog may be more comfortable in a familiar environment. Keep in mind that the dog will empty its bowels and bladder about five minutes after passing so you will want to bring a plastic sheet to place beneath him while traveling home. If you are planning cremation, it may be easier to perform the procedure in the vet's office. Wherever you and your dog are most comfortable, though, is where you should choose for your own peace of mind.

Final Arrangements

Not a pleasant subject to deal with but one that should be decided long beforehand is what to do with the body when your Dane has passed.

Burial may be prohibitive because of city ordinances, bad weather or frozen ground, living on a small parcel of land or renting property, or the sheer physical inability of burying a giant breed dog. If you are able to and choose to bury your dog, plan where your dog will rest ahead of time and be sure to have some sort of grave marker. Expect to spend about an hour digging a hole at least 4' deep, 3' wide and 6' long. Additionally, consider that moving or lifting a body of this size even a short distance can be awkward and quite a burden. Burial in a pet cemetery is an alternative.

Leaving a body with a veterinarian to dispose of may mean your dog will be taken to the county landfill. If this concerns you, take the initiative to ask your

vet what will happen to if you leave the disposal to them.

Cremation can be expensive, exceeding \$200, and may not be available in all areas. You can keep the ashes with you or bury them when returned to you. Usually, pet cremation services will pick up the body at your veterinarian. It takes a few days to return the ashes, but if you request not to have the ashes returned, the cremation service may have an alternate solution at their facility. A phone call to the cremation service ahead of time may ease your mind about how your dog's body is treated in their care.

About Grief

Psychologist Elizabeth Kubler-Ross in her ground-breaking book *On Death and Dying* revealed her Five Stages of Grief: Denial, Anger, Bargaining, Depression, and Acceptance.

Denial is the "this can't be happening to me" feeling where there is little emotion but just that – denial. Anger is the "why me" stage where you want to fight back and change the outcome. With Bargaining, people often make deals with God or beg for help from whoever may appear to have control (in the case of dog owners this may be a vet or breeder). Depression is the bitterness and sense of helplessness. Finally, Acceptance is when you are able to find the good, accept comfort, and begin to heal.

With humans, funerals can lead to a quicker healing process and closure. With dogs, however, funerals are highly uncommon. But there are other choices that help in reaching the Acceptance stage: designing a website as a tribute of your dog's life with you, creating a photo album or memory book, logging in your dog's name to the Rainbow Bridge website, reading spiritual books, or going to chat rooms or internet groups to discuss your memories with others.

When is it time to move on? When is it time to get a new puppy...right away or waiting a bit for the wounds to heal? That's entirely a personal choice – but when your fears and doubts are overcome with happiness and love, that's the right time.



If tears could build a stairway
and memories a lane
I'd walk right up to heaven
and bring you home again.

RECOMMENDED READING

Health & Nutrition

Complementary and Alternative Veterinary Medicine by Susan G. Wynn, DVM... a MUST-HAVE reference for those interested in holistic health care.
▶ ISBN-0815179944

Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats - authority Dr. Pitcairn covers numerous aspects of nutrition and natural health.
▶ ISBN-0875962432

Emerging Therapies-Using Herbs and Nutraceutical Supplements for Small Animals by Susan Wynn, DVM... A treasure for breeders, vets, and vet technicians.
▶ ISBN-1583260102

Pet Allergies by Martin Zucker.
▶ ISBN-0961545208

The Miracle of MSM by Martin Zucker. This nutraceutical is as popular as glucosamine & chondroitin sulfate for assisting with healthy joint growth.
▶ ISBN-0425172651

Vaccine Guide for Dogs and Cats - What Every Pet Lover Should Know by Catherine Diodoti. This covers the controversial issues of how safe vaccines really are and offers case studies on vaccine-related problems (vaccinosis).
▶ ISBN-1881217345

Veterinarians' Guide to Natural Remedies for Dogs by Martin Zucker.
▶ ISBN-0609803727

The Great Dane

A New Owner's Guide to the Great Dane by author/breeder Jill Swedlow.
▶ ISBN-0793827647

Great Danes - by Joe Stahlkuppe...Small handbook from the Barron series, a budget book that touches important topics.
▶ ISBN-0812014189

Owners Guide to a Healthy, Happy Pet by author/breeder Jill Swedlow.
▶ ISBN-0876054459

The Great Dane by longtime breeder Anna Katherine Nicholas.
▶ ISBN-0866221220

The Great Dane - Model of Nobility by breeder/author Jill Swedlow...Excellent up-to-date guide on Great Danes.
▶ ISBN-0876050305

Purebred Dogs

Breeding a Litter: The Complete Book of Prenatal and Postnatal Care by breeder Beth J. Finder-Harris.

▶ ISBN-0876054149

The Complete Dog Book - a fantastic resource on all breeds by the American Kennel Club.

▶ ISBN-087605047X

The International Encyclopedia of Dogs by Anne Rogers Clark and Andrew Brace. Recognized from her numerous appearances on the television airing of Westminster Kennel Club, Mrs. Clark is a well-respected dog show judge and authority on all breeds.

▶ ISBN-0876056249

Showing Dogs

Dog Showing, an Owner's Guide by Connie Vanacore.

▶ ISBN-0876055242

Dog Showing for Beginners by Lynn Hall.

▶ ISBN-0876054084

Preparation and Presentation of the Show Dog by Jeff Brucker...Thorough basic book of showing by top handler, Jeff Brucker.

▶ ISBN-0931866804

The Winning Edge by George Alston and Connie Vanacore...Excellent mental preparation tips for winning in the ring by retired professional handler George Alston of the Alston Handling Clinic fame and Connie Vanacore.

▶ ISBN-0876058349

Raw Diet & Natural Feeding

Give Your Dog A Bone by Dr. Ian Billinghurst...The raw diet approach by Dr. Ian Billinghurst, the authority on natural feeding.

▶ ISBN-0646160281

Grow Your Pups with Bones - continuation of raw food diet by Dr. Billinghurst

▶ ISBN-0958592500

Natural Nutrition For Dogs & Cats by Kymythy Schultze. The second book that continues Schultze's *Ultimate Diet* of the Bones And Raw Food (BARF) method of feeding pets naturally.

▶ ISBN-1561706361

The Ultimate Diet by Kymythy Schultze. Her first book on the raw food approach. May be a special order item but her second book covers the important things, too.

▶ ISBN-0966474910

SOURCES

Supplies

♥ Care-A-Lot	1-800-343-7680	www.carealotpets.com
♥ Cherrybrook	1-800-524-0820	www.cherrybrook.com
♥ Doctor's Foster Smith	1-800-826-7206	www.drsfostersmith.com
♥ Dog's Outfitter	1-800-367-3647	www.dog.com
♥ Heartland Vet Supply	1-800-934-9398	www.heartlandvetsupply.com
♥ J-B Wholesale Pet Supplies	1-800-526-0388	www.jbpet.com
♥ Jemar Pet Supply	1-800-458-6598	www.jemarpet.com
♥ Jeffers Pet Supply	1-800-533-3377	www.jefferspet.com
♥ KV Pet Supply	1-800-423-8211	www.kvvet.com
♥ Omaha Vaccine	1-800-367-4444	(www.omahavaccine.com)
♥ Orvis	1-800-548-9548	www.orvis.com
♥ Pet Edge	1-800-738-3343	www.petedge.com
♥ Dr Petmeds	1-800-PETMEDS	www.drpetmeds.com
♥ That Pet Place	1-888-842-8738	www.thatpetplace.com
♥ UPCO	1-800-254-8726	www.upco.com
♥ Valley Vet Supply	1-800-419-9524	www.valleyvet.com

Supplements

♥ Bronson Vitamins	1-800-294-5507	www.bronsonvitamins.com
♥ Designing Health	1-800-458-6598	www.designinghealth.com
♥ First Choice Naturals	1-800-937-1104	www.firstchoicenaturals.com
♥ Heartland Vet Supply	1-800-934-9398	www.heartlandvetsupply.com
♥ Kelp Products of Florida	1-800-932-7089	www.kelpproductsofflorida.com
♥ Nature's Pharmacy	1-800-733-4981	www.naturespharmacy.com
♥ Nupro Supplements	1-800-360-3300	www.nupro-supplements.com

Homeopathic Medicines & Remedies (phone consults)

♥ Dr. Charles Loops, Pittsboro, NC	(919) 542-0442	www.charlesloopsdvm.com
♥ Natural Rearing, Marina Zacharias, Jackson, OR	(541) 899-2080	www.naturalrearing.com

The Sport of Purebred Dogs

♥ American Kennel Club	(919) 233-9767	www.akc.org
♥ Great Dane Club of America		www.gdca.org
♥ AKC Canine Health Found.	1-888-682-9696	www.akcchf.org

Show Info

♥ MBF Dog Show (INFODOG)	(336) 379-9352	www.infodog.com
♥ Onofrio Dog Show	(405) 427-8181	www.onofrio.com
♥ Roy Jones Dog Shows	(260) 925-0525	www.royjonesdogshows.com
♥ Jim Rau Dog Shows	(610) 376-1880	www.raudogshows.com
♥ Int'l All Breed Club Assoc	(503) 316-9160	www.iabca.com

Magazines & Books

- | | | |
|--------------------------|----------------|--|
| ♥ Dane World Magazine | (540) 439-2907 | www.daneworld.com |
| ♥ Dog & Cat Book Catalog | 1-800-776-2665 | www.dogwise.com |
| ♥ The Canine Chronicle | (352) 369-1104 | www.caninechronicle.com |

Health & Information Websites

- ♥ www.altvetmed.org
- ♥ www.peteducation.com
- ♥ www.ginnie.com
- ♥ <http://netvet.wustl.edu/>
- ♥ www.offa.org
- ♥ www.pet-zone.com
- ♥ www.veternet.com
- ♥ www.sierradanes.com
- ♥ www.nuttreedaneancestors.homestead.com/files/ancestorsindex.html

