

**Chapter 1 : Encyclopedia Necrotheurgia - Project Wiki**

*www.nxgvision.com's aim is to blend the joy of pet ownership with an informative yet easy to navigate user interface meant to enrich the lives of owners and their pets.*

Thus, pet keeping can be described as a symbiotic relationship, one that benefits both animals and human beings. As the keeping of pets has been practiced from prehistoric times to the present and as pets are found in nearly every culture and society, pet keeping apparently satisfies a deep, universal human need. The history of pets is intertwined with the process of animal domestication, and it is likely that the dog, as the first domesticated species, was also the first pet. Perhaps the initial steps toward domestication were taken largely through the widespread human practice of making pets of captured young wild animals. Eventually, a working relationship developed between the dogs and their human captors. The dog was swifter, had stronger jaws, and was better at tracking prey; therefore, it could be of great use in hunting and guarding duties. From human beings, on the other hand, the dogs were assured of a constant supply of food as well as warmth from the fire. There is indirect evidence that the dog may have been domesticated and kept as a pet since Paleolithic times, as can be surmised from the paintings and carvings that archaeologists have found in ancient campsites and tombs. In Mesopotamia, dogs that look remarkably like the present-day mastiff were shown participating in a lion hunt. Domestic pets were often depicted in the scenes of family life in ancient Egypt; hunting dogs of the greyhound or saluki type accompany their master to the chase, and lap dogs frequently sit under the chair of their master or mistress. Next to the dog, horses and cats are the animals most intimately associated with human beings. Surprisingly, both these animal groups were domesticated rather late in human history. There is no evidence that horses were domesticated in Paleolithic or Mesolithic times, but by about bce horses used in chariot battles were an established phenomenon throughout the Middle East. It seems that riding astride horses was a practice developed a few centuries later see horsemanship. The cat too does not seem to have been domesticated as a pet until the New Kingdom period about the 16th century bce in Egypt. This is all the more strange as the ancient Egyptians had tamed many types of animals, such as lions, hyenas, monkeys, the Nile goose, and dogs, since the Old Kingdom period. But once cats were finally domesticated, their popularity was enormous. Gradually, the cat became one of the most universally worshiped animals. Boy holding a pet cat. As useful as many of these animals are, what differentiates a pet from other economically useful livestock is the degree of contact between the animals and human beings. Often, this relationship has been unabashedly sentimentalized in myth, art, and literature. The affection between Alexander the Great and his favourite horse, Bucephalus, has become legendary, while in the modern age the popularity of such canine motion-picture stars as Rin Tin Tin and Lassie is further evidence of the importance placed on the relationship between owner and pet. The pet-and-owner relationship, however, is not only founded on companionship; since the earliest period of domestication, pets have fulfilled practical, economic ends. Catching other animals to feed their human masters is one of the most fundamental uses of pets, and not only dogs have served in this capacity but cats, hyenas, and lions have also been used for hunting. The aristocratic, rather arcane sport of falconry made use of the natural talent of hawks to aid in hunting game birds. Pets have also been used for the purpose of guarding—either other livestock, the home or territory of their owners, or the owners themselves. Any pet that has a sharp sense of smell or hearing and that makes a loud noise when aroused can be used as a guard, although dogs are the best-known examples. It is thought that the Nile goose, a favourite household pet of the ancient Egyptians, may have served such a purpose. The herding and guarding of livestock is another practical use of pets, in particular the dog. Over the centuries, many specialized breeds of dog have been developed to suit this purpose. Often, pets have been used as a source of food when other sources become scarce. This has been the case with dogs throughout their history of domestication in both the Old World and the New World. Guinea pigs, domesticated as pets in the New World, also assured a stable food supply. Pets have also been used to eliminate animal pests. Pets that are bred for aesthetic purposes may have full-fledged show careers. Other pets may be bred for racing or other competitive sports, around which sizable industries have been built. Animals kept as pets can be classified according to the type of premises or

habitat they usually occupy. Dogs, cats, and birds such as canaries and parakeets are kept as household pets. Other birds, such as jays, magpies, and members of the crow family, are kept in aviaries. When kept as pets, reptiles and amphibians frequently require special conditions of heat and moisture. For this reason, they are best kept in glassed enclosures called vivaria. The most common vivarium pets are snakes, lizards, turtles, frogs, and toads. Many people keep fish as aquarium pets. Fishes constitute a completely separate section of the pet world, and an international industry exists for catching, breeding, transporting, and supplying stock. Hutch, or cage, pets can be kept indoors or outdoors under protected conditions. These pets include rabbits, guinea pigs, rats, mice, hamsters, gerbils, and, recently, chinchillas. Paddock pets are those that must be stabled outdoors and include such animals as horses, ponies, donkeys, and mules. Several kinds of insects are also kept as pets. These include walking-stick insects kept in simple containers at room temperature and ants kept in artificial nests. Young boy feeding a carrot to a pet rabbit. Rarely are the owners of such pets able to provide the basic nutritional or habitat needs of these animals; most of the animals soon die or are sent to a zoo. Furthermore, in order to obtain the young, which are considered most desirable as pets, many adults of the wild species are killed, seriously depleting populations already endangered. Several countries have passed laws to prohibit the importation of endangered species as pets, but an active black market flourishes.

**Chapter 2 : PET scan: MedlinePlus Medical Encyclopedia**

*A Pet Encyclopedia? www.nxgvision.com's aim is to blend the joy of pet ownership with an informative yet easy to navigate user interface meant to enrich the lives of owners and their pets.*

**Dog anatomy** Domestic dogs have been selectively bred for millennia for various behaviors, sensory capabilities, and physical attributes. Size and weight Dogs are highly variable in height and weight. The smallest known adult dog was a Yorkshire Terrier , that stood only 6. The largest known dog was an English Mastiff which weighed Coat dog Dogs display a wide variation on coat type, density, length, color, and composition The coats of domestic dogs are of two varieties: Domestic dogs often display the remnants of countershading , a common natural camouflage pattern. A countershaded animal will have dark coloring on its upper surfaces and light coloring below, [35] which reduces its general visibility. Thus, many breeds will have an occasional "blaze", stripe, or "star" of white fur on their chest or underside. Docking There are many different shapes for dog tails: In some hunting dogs, however, the tail is traditionally docked to avoid injuries. Domesticated dogs are clearly distinguishable from wolves by starch gel electrophoresis of red blood cell acid phosphatase. Dog health There are many household plants that are poisonous to dogs and other mammals including begonia , Poinsettia and aloe vera. Two serious medical conditions particularly affecting dogs are pyometra , affecting unspayed females of all types and ages, and gastric dilatation volvulus bloat , which affects the larger breeds or deep-chested dogs. Both of these are acute conditions, and can kill rapidly. Dogs are also susceptible to parasites such as fleas , ticks , and mites , as well as hookworms , tapeworms , roundworms , and heartworms. A number of common human foods and household ingestibles are toxic to dogs, including chocolate solids theobromine poisoning , onion and garlic thiosulphate , sulfoxide or disulfide poisoning , [54] grapes and raisins , macadamia nuts , xylitol , [55] as well as various plants and other potentially ingested materials. Dogs can be exposed to the substance by scavenging garbage or ashtrays; eating cigars and cigarettes. Signs can be vomiting of large amounts e. Some other signs are abdominal pain, loss of coordination, collapse, or death. Dogs are also vulnerable to some of the same health conditions as humans, including diabetes , dental and heart disease, epilepsy, cancer, hypothyroidism, and arthritis. Aging in dogs Mixed-breed dogs such as this terrier have been found to run faster and live longer than their pure-bred parents See heterosis In , a study found that mixed breeds live on average 1. The breed with the shortest lifespan among breeds for which there is a questionnaire survey with a reasonable sample size is the Dogue de Bordeaux , with a median longevity of about 5. Canine reproduction Dog nursing newborn puppies In domestic dogs, sexual maturity begins to happen around age six to twelve months for both males and females, [16] [68] although this can be delayed until up to two years old for some large breeds. This is the time at which female dogs will have their first estrous cycle. They will experience subsequent estrous cycles semiannually, during which the body prepares for pregnancy. At the peak of the cycle, females will come into estrus, being mentally and physically receptive to copulation. An average litter consists of about six puppies , [72] though this number may vary widely based on the breed of dog. In general, toy dogs produce from one to four puppies in each litter, while much larger breeds may average as many as twelve. Some dog breeds have acquired traits through selective breeding that interfere with reproduction. Male French Bulldogs , for instance, are incapable of mounting the female. For many dogs of this breed, the female must be artificially inseminated in order to reproduce. Because of the overpopulation of dogs in some countries, many animal control agencies, such as the American Society for the Prevention of Cruelty to Animals ASPCA , advise that dogs not intended for further breeding should be neutered, so that they do not have undesired puppies that may have to later be euthanized. Spaying or castrating dogs helps keep overpopulation down. Neutering reduces problems caused by hypersexuality , especially in male dogs. Mortality due to infection increased significantly with increases in inbreeding. Dog intelligence Dog intelligence is the ability of the dog to perceive information and retain it as knowledge for applying to solve problems. Dogs have been shown to learn by inference. A study with Rico showed that he knew the labels of over different items. He inferred the names of novel items by exclusion learning and correctly retrieved those novel items immediately and also 4 weeks

after the initial exposure. Dogs have advanced memory skills. A study documented the learning and memory capabilities of a border collie, "Chaser", who had learned the names and could associate by verbal command over 1,000 words. An experimental study showed compelling evidence that Australian dingos can outperform domestic dogs in non-social problem-solving, indicating that domestic dogs may have lost much of their original problem-solving abilities once they joined humans. As a result of this physical and social evolution, dogs, more than any other species, have acquired the ability to understand and communicate with humans, and they are uniquely attuned to human behaviors. These gene variations were unlikely to have been the result of natural evolution, and indicate selection on both morphology and behavior during dog domestication. These genes have been shown to affect the catecholamine synthesis pathway, with the majority of the genes affecting the fight-or-flight response [95] [96].

**Dog communication** Dog communication is about how dogs convey information to other dogs, how they understand messages from humans, and how humans translate the information that dogs are transmitting. Humans communicate to dogs by using vocalization, hand signals and body posture.

**Ecology** Population The global dog population is estimated at billion and rising. In the developing world dogs are more commonly feral, or village or community dogs, with pet dogs uncommon. Leopards in particular are known to have a predilection for dogs, and have been recorded to kill and consume them regardless of their size. Dogs can healthily digest a variety of foods, including vegetables, fruits and grains, and can consume a large proportion of these in their diet, and some sources do not recommend all-meat diets for dogs, due to their lack of calcium and iron. Notable exceptions once included: Aboriginal Tasmanians, who were separated from Australia before the arrival of dingos on that continent The Andamanese, who were isolated when rising sea levels covered the land bridge to Myanmar Certain Pacific islands whose maritime settlers did not bring dogs, or where dogs died out after original settlement, notably: Dog breed

Different dog breeds show a range of phenotypic variation The domestic dog is the first species, and the only large carnivore, known to have been domesticated. These breeds can vary in size and weight from a 0.5 kg to 30 kg. Phenotypic variation can include height measured to the withers ranging from 20 cm to 100 cm. Some breeds demonstrate outstanding skills in herding, retrieving, scent detection, and guarding, which demonstrates the functional and behavioral diversity of dogs. The first dogs were domesticated from shared ancestors of modern wolves, however the phenotypic changes that coincided with the dog-wolf genetic divergence are not known.

**Dog type** Roles with humans Gunnar Kaasen and Balto, the lead dog on the last relay team of the serum run to Nome Domestic dogs inherited complex behaviors, such as bite inhibition, from their wolf ancestors, which would have been pack hunters with complex body language. These sophisticated forms of social cognition and communication may account for their trainability, playfulness, and ability to fit into human households and social situations, and these attributes have given dogs a relationship with humans that has enabled them to become one of the most successful species on the planet today. Dogs perform many roles for people, such as hunting, herding, pulling loads, protection, assisting police and military, companionship, and, more recently, aiding handicapped individuals. In some cultures, however, dogs are also a source of meat. Although one writer [1] even suggests that the use of sled dogs may have been critical to the success of the waves that entered North America roughly 12,000 years ago, [2] the earliest archaeological evidence of dog-like canids in North America dates from about 9,000 years ago. Dogs as pack animals may have contributed migration of the Apache and Navajo tribes 1,000 years ago. This use of dogs in these cultures often persisted after the introduction of the horse to North America. From the 19th century, there have been changes in the role of the pet dog, such as the increased role of dogs in the emotional support of their human guardians. However it has been disputed that "trying to achieve status" is characteristic of dog-human interactions. There does not seem to be any gender preference among dogs as pets, as the statistical data reveal an equal number of female and male dog pets. Yet, although several programs are ongoing to promote pet adoption, less than a fifth of the owned dogs come from a shelter. The latest study using magnetic resonance imaging MRI comparing humans and dogs showed that dogs have same response to voices and use the same parts of the brain as humans do. This gives dogs the ability to recognize emotional human sounds, making them friendly social pets to humans.

**Chapter 3 : Pet - Wikipedia**

*A pet or companion animal is an animal kept primarily for a person's company, protection, or entertainment rather than as a working animal, livestock, or laboratory animal. Popular pets are often noted for their attractive appearances, intelligence, and relatable personalities.*

PET is produced by the step-growth polymerization of ethylene glycol and terephthalic acid. The presence of the large benzene rings in the repeating units PET is produced by the polymerization of ethylene glycol and terephthalic acid. Ethylene glycol is a colourless liquid obtained from ethylene, and terephthalic acid is a crystalline solid obtained from xylene. When heated together under the influence of chemical catalysts, ethylene glycol and terephthalic acid produce PET in the form of a molten, viscous mass that can be spun directly to fibres or solidified for later processing as a plastic. In chemical terms, ethylene glycol is a diol, an alcohol with a molecular structure that contains two hydroxyl OH groups, and terephthalic acid is a dicarboxylic aromatic acid, an acid with a molecular structure that contains a large, six-sided carbon or aromatic ring and two carboxyl CO<sub>2</sub>H groups. Under the influence of heat and catalysts, the hydroxyl and carboxyl groups react to form ester CO-O groups, which serve as the chemical links joining multiple PET units together into long-chain polymers. Water is also produced as a by-product. The overall reaction can be represented as follows: The presence of a large aromatic ring in the PET repeating units gives the polymer notable stiffness and strength, especially when the polymer chains are aligned with one another in an orderly arrangement by drawing stretching. The stiffness of PET fibres makes them highly resistant to deformation, so they impart excellent resistance to wrinkling in fabrics. They are often used in durable-press blends with other fibres such as rayon, wool, and cotton, reinforcing the inherent properties of those fibres while contributing to the ability of the fabric to recover from wrinkling. PET is also made into fibre filling for insulated clothing and for furniture and pillows. When made in very fine filaments, it is used in artificial silk, and in large-diameter filaments it is used in carpets. Among the industrial applications of PET are automobile tire yarns, conveyor belts and drive belts, reinforcement for fire and garden hoses, seat belts an application in which it has largely replaced nylon, nonwoven fabrics for stabilizing drainage ditches, culverts, and railroad beds, and nonwovens for use as diaper topsheets and disposable medical garments. PET is the most important of the man-made fibres in weight produced and in value. At a slightly higher molecular weight, PET is made into a high-strength plastic that can be shaped by all the common methods employed with other thermoplastics. Magnetic recording tape and photographic film are produced by extrusion of PET film often sold under the trademarks Mylar and Melinex. Molten PET can be blow-molded into transparent containers of high strength and rigidity that are also virtually impermeable to gas and liquid. In this form, PET has become widely used in carbonated-beverage bottles and in jars for food processed at low temperatures. PET is the most widely recycled plastic. PET bottles and containers are commonly melted down and spun into fibres for fibrefill or carpets. When collected in a suitably pure state, PET can be recycled into its original uses, and methods have been devised for breaking the polymer down into its chemical precursors for resynthesizing into PET. The recycling code number for PET is 1. PET was first prepared in England by J. Rex Whinfield and James T. Dickson of the Calico Printers Association during a study of phthalic acid begun in 1929. Because of wartime restrictions, patent specifications for the new material were not immediately published. Meanwhile, by DuPont had independently developed a practical preparation process from terephthalic acid, and in 1939 the company began to produce Dacron fibre. PET soon became the most widely produced synthetic fibre in the world. In the 1940s, improved stretch-molding procedures were devised that allowed PET to be made into durable crystal-clear beverage bottles—an application that soon became second in importance only to fibre production.

**Chapter 4 : The Encyclopedia of Natural Pet Care: C.J. Puotinen: [www.nxgvision.com](http://www.nxgvision.com): Books**

*The Pet Encyclopedia [Frank Manolson] on [www.nxgvision.com](http://www.nxgvision.com) \*FREE\* shipping on qualifying offers. Describes the care requirements of dogs, cats, horses, and a variety of other pets, points out symptoms of common illnesses.*

This tracer is given through a vein IV , usually on the inside of your elbow. It travels through your blood and collects in organs and tissues. The tracer helps the radiologist see certain areas or diseases more clearly. You will need to wait nearby as your body absorbs the tracer. This usually takes about 1 hour. Then, you will lie on a narrow table, which slides into a large tunnel-shaped scanner. The PET scanner detects signals from the tracer. A computer changes the results into 3D pictures. The images are displayed on a monitor for your doctor to read. You must lie still during test. Too much movement can blur images and cause errors. The test takes about 90 minutes.

**How to Prepare for the Test** You may be asked not to eat anything for 4 to 6 hours before the scan. You will be able to drink water. Tell your health care provider if: You are afraid of close spaces have claustrophobia. You may be given a medicine to help you feel sleepy and less anxious. You are pregnant or think you might be pregnant. You have any allergies to injected dye contrast. You take insulin for diabetes. You will need special preparation. Sometimes, medicines can interfere with the test results.

**How the Test will Feel** You may feel a sharp sting when the needle containing the tracer is placed into your vein. A PET scan causes no pain. The table may be hard or cold, but you can request a blanket or pillow. An intercom in the room allows you to speak to someone at any time. There is no recovery time, unless you were given a medicine to relax. A breast PET scan is used only after a woman has been diagnosed with breast cancer. If you have breast cancer, your doctor may order this scan: Soon after your diagnosis to see if the cancer has spread After treatment if there is concern that the cancer has come back During treatment to see if the cancer is responding to treatment A PET scan is not used to screen for, or diagnose, breast cancer.

**Normal Results** A normal result means there are no areas outside the breast in which the radiotracer has abnormally collected. This result most likely means the breast cancer has not spread to other parts of the body. Very small areas of breast cancer may not show up on a PET scan.

**What Abnormal Results Mean** Abnormal results may mean that the breast cancer has spread. Blood sugar or insulin level may affect the test results in people with diabetes.

**Risks** The amount of radiation used in a PET scan is low. It is about the same amount of radiation as in most CT scans. Also, the radiation does not last for very long in your body. Women who are pregnant or breastfeeding should let their doctor know before having this test. Infants and babies developing in the womb are more sensitive to the effects of radiation because their organs are still growing. It is possible, although very unlikely, to have an allergic reaction to the radioactive substance. Some people have pain, redness, or swelling at the injection site.

Positron emission tomography PET - diagnostic. Laboratory Tests and Diagnostic Procedures. Updated August 11, Accessed October 12, National Comprehensive Cancer Network. Review provided by VeriMed Healthcare Network.

*Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.*

URL of this page: It uses a radioactive substance called a tracer to look for disease in the body. A positron emission tomography PET scan shows how organs and tissues are working. These tests show the structure of, and blood flow to and from organs. The tracer is given through a vein IV. The needle is most often inserted on the inside of your elbow. The tracer travels through your blood and collects in organs and tissues. This helps the radiologist see certain areas more clearly. You will need to wait as the tracer is absorbed by your body. This takes about 1 hour. Then, you will lie on a narrow table that slides into a large tunnel-shaped scanner. The PET detects signals from the tracer. A computer changes the signals into 3D pictures. The images are displayed on a monitor for your health care provider to read. You must lie still during the test. Too much movement can blur images and cause errors. How long the test takes depends on what part of the body is being scanned.

**How to Prepare for the Test** You may be asked not to eat anything for 4 to 6 hours before the scan. You will be able to drink water but not other beverages including coffee. If you have diabetes, your provider will tell you not to take your diabetes medicine before the test. These medicines will interfere with the results. Tell your provider if: You are afraid of close spaces have claustrophobia. You may be given a medicine to help you feel sleepy and less anxious. You are pregnant or think you might be pregnant. You have any allergies to injected dye contrast. Always tell your provider about the medicines you are taking. Let your provider know about the medicines you bought without a prescription. Sometimes, medicines may interfere with the test results.

**How the Test will Feel** You may feel a sharp sting when the needle with the tracer is placed into your vein. A PET scan causes no pain. The table may be hard or cold, but you can request a blanket or pillow. An intercom in the room allows you to speak to someone at any time. There is no recovery time, unless you were given a medicine to relax. The most common use for a PET scan is for cancer, when it may be done: To see how far cancer has spread. This helps to select the best treatment approach. To check how well your cancer is responding, either during treatment or after treatment is completed. This test can also be used to:

## Chapter 6 : Dog - Wikipedia

*In the - National Pet Owners Survey, the APPMA estimates that pet owners spent \$ billion in on veterinary services. Risks to People The largest health risks to people from pets are zoonoses and animal bites.*

Pet trade Pets are part of human cultures all around the world. We keep animals to admire their beauty or to enjoy their companionship or devotion. The pet trade is big business throughout the world but with its positive aspects, there are distinct negative ones as well. As with any commodity, economics dictates that the rarer an item is, the more valuable it becomes in the market place. Many rare species thus become quite valuable to wealthy collectors, who are willing to pay exorbitant prices to black market dealers for certain species—even though they are protected by international treaties and laws. Because these illegal pets must be smuggled into the market arenas, concealment almost always requires physical abuse of the animals. This may be in the form of constrictive bindings, overcrowded or confined spaces, exposure to extreme heat, or lack of oxygen due to these restrictions. Therefore, collectors and smugglers must over-collect specimens in order to ensure the delivery of a sufficient quantity to realize a profit. Two groups, monkeys and parrots, have been the recipients of the bulk of this treatment. Due to their popularity as pets, there is a lucrative business in their illegal trade, and because the rarer species bring a higher price, these practices further threaten extinction of certain species. This problem extends beyond the black market trade in birds and mammals. Other animal groups, as well as the legal pet trade, are also involved. Exotic reptiles, snakes and lizards in particular, are a target group. Legitimate pet dealers get involved in this problem when they, often unknowingly, purchase pets that were illegally caught or smuggled. The aquarium trade has also faced illegal collecting. Over-collecting and poor handling of specimens during shipment have been problems in the freshwater segment of this business, but recent years have produced rampant abuses in the marine aquarium trade. Advances in technology over the past twenty years have made marine aquaria more accessible to the general public, and the sheer beauty of the brilliant, often neon-like, colors of many of the coral reef fish has fascinated a new breed of aquarists. The main problems here still include the removal of large numbers of specimens of localized populations of rare or low density species and their illegal trade. Now, new and profound problems exist in the capture of these marine creatures: Since most of the target species use coral reefs as hiding places, collectors use a squeeze bottle filled with sodium cyanide to force the fish out into the open water. The stunned, gasping fish are thus more easily caught, but the section of coral reef sprayed with poison, and the animals that did not escape, are now dead. Public awareness and some governmental regulations have eased some of the abuses of these animals, but the illegal pet trade is still a profitable business. As long as people are willing to purchase rare species, the illegal pet trade will threaten the very species the collectors hold in high esteem.

**Chapter 7 : Pet - Simple English Wikipedia, the free encyclopedia**

*Pet: Pet, any animal kept by human beings as a source of companionship and pleasure. While a pet is generally kept for the pleasure that it can give to its owner, often, especially with horses, dogs, and cats, as well as with some other animals, this pleasure appears to be mutual.*

Shelters came under increasing pressure to focus on welfare issues besides public health and nuisance concerns. Some municipal governments began contracting their shelter operations to nonprofit animal welfare organizations, such as local humane societies and rescue groups. These organizations held fund-raisers and were able to secure private donations to help shelters operate. However, most shelters continued to euthanize large numbers of animals as the homeless animal population surged out of control. Euthanasia The word euthanasia comes from a Greek term meaning "good death. In the twentieth century euthanasia of shelter animals was conducted on a massive scale. However, euthanasia rates have been generally declining since the late twentieth century. The HSUS reports that the number of euthanized cats and dogs has dropped considerably in the United States, from about 10 million in 1990 to 6 million in 2000. Animal People is an animal organization that issues the monthly publication Animal People News. Each year in its July-August edition the newspaper compiles data collected over the three previous fiscal years on the number of animals killed in shelters in selected representative cities and states around the country. These data are used to estimate national shelter killing rates. In Animal People News [http: According to Animal People](http://www.animalpeople.org), there are regional differences in shelter killing rates. In general, shelters located in the Northeast have the lowest euthanasia rates, whereas shelters in the Southeast have the highest rates. This is attributed to several factors, including the weather, the availability of low-cost spay-neuter programs, and animal control policies. The cold winters in the Northeast lower the fertility rates of cats and dogs and claim the lives of stray animals so that fewer end up in shelters. Animal welfare organizations are much more predominant in the Northeast and provide low-cost spay-neuter programs that help control populations of unwanted animals. Many northeastern municipalities charge pet owners licensing fees with higher amounts for unfixed animals. This is far less common in the South. Euthanasia Methods Although the public assumes that animals euthanized at shelters are killed by lethal injection, this is not always true. In [Guidelines for Humane Euthanasia of Animals](http://www.hsus.org) , [http: In addition](http://www.hsus.org), the technique should minimize distress and anxiety experienced by the animal prior to loss of consciousness. The report notes that injection of barbiturates intravenously within a vein is the preferred method of euthanasia for horses, dogs, cats, and other small animals. Advantages include rapid and smooth action, minimal physical distress to the animal if the procedure is performed correctly, and relatively low cost compared with other options. The main disadvantages are that each animal must be personally restrained for the procedure, and personnel must be properly trained in giving injections. Also, barbiturates are federally controlled substances that can be purchased only using a U. Drug Enforcement Administration registration and order form. Their use is controlled by state law, and there are specific record-keeping requirements that must be met. Intravenous injection is the recommended route of delivery, but intraperitoneal within the peritoneal cavity in the abdomen injection is considered acceptable for cats, kittens, and puppies in which intravenous injections cannot be administered easily. Intracardiac injection within the heart is considered acceptable only if the animal is already unconscious. Intrahepatic injection within the liver is not considered acceptable because of lack of scientific study on the procedure. The HSUS recommends that euthanasia of each animal be carried out by two people—one to hold the animal and one to administer the injection. Lethal injection is a hands-on procedure in which animals and personnel come into close physical contact. When shelters began practicing humane euthanasia, it was thought that a hands-off approach would be easier for the workers performing euthanasia. Gas chambers were common because the euthanizer could perform the procedure from outside the chamber by opening a valve or flipping a switch. Many shelters still use gassing to euthanize unwanted animals. Although the use of poisonous gases is considered acceptable by the AVMA, the organization notes that "any gas that is inhaled must reach a certain concentration in the alveoli before it can be effective; therefore, euthanasia with any of these agents takes some time. In California passed a law prohibiting the use of carbon monoxide

chambers for euthanizing shelter animals. Animal shelter workers have an incredibly stressful and emotionally demanding job. Most humane organizations believe that the solution to the euthanization problem lies in aggressive sterilization campaigns, better education of pet owners, and successful adoption programs. Spaying and Neutering Overpopulation of cats and dogs is a tremendous problem. It is aggravated by the fact that these animals reproduce at high rates. Experts generally agree that massive and sustained birth control methods must be implemented on cat and dog populations to bring the problem under control. Surgical sterilization of female animals is called spaying, or removal of the ovaries, fallopian tubes, and uterus. Male animals are neutered or castrated by having their testicles removed. Pet owners commonly refer to these sterilization procedures as fixing or altering an animal. Increasingly, animal groups use the term neuter to refer to sterilization of either males or females. Veterinarians have been promoting spaying and neutering of pets for several decades. Female pets do not go into heat have fertile cycles during which scents are emitted that attract male animals. Sterilization eliminates the problems associated with male animals that gather and often fight over females in heat. Sterilization usually stops male cats toms from marking their territory by spraying strong-smelling urine. Sterilization makes pets more likely to stay at home than wander. Sterilized females cannot develop ovarian or uterine infections and are less likely to develop mammary cancer. Sterilized males usually become less aggressive. Sterilization helps reduce the number of stray and unwanted animals in the community. This is advantageous for public health and safety reasons and reduces the enormous cost to taxpayers and private agencies of capturing, impounding, and destroying millions of unwanted animals each year. Some pet owners are resistant to spaying and neutering their pets. Their reasons can include one or more of the following common myths: Surgery costs too much or is too painful for the pet. Having a litter can be good for the pet and educational for children. Fixed animals get fat and lazy. Backyard breeding is a fun hobby that brings in extra money. Male animals do not need to be fixed because they do not have litters. Neutering male dogs robs them of their masculinity and makes them less protective as guard dogs. Many states and municipalities actively encourage spaying and neutering of pets as a means to reduce overpopulation. Those with licensing programs usually charge pet owners a lower registration fee if their pets are sterilized. Increasingly, animal shelters spay and neuter cats and dogs before adoption or require new owners to do so within a certain time period after adoption. In California passed a law that requires preadoption sterilization of cats and dogs. Low-cost clinics are often run by humane organizations. They operate under nonprofit status, which allows them to save on overhead and tax costs. They offer discounted rates either to the general public or to those people who have adopted an animal from their shelter. The rates can be substantially lower than those charged by veterinarians in private practice. Such clinics are not without controversy. Some veterinarians complain that the clinics have an unfair advantage because of their nonprofit status. Advocates of the clinics insist that they provide a much-needed service and help reduce animal overpopulation. In the past veterinarians recommended sterilization for cats and dogs around six months of age. Most clinics practicing ESN will perform the surgery on kittens and puppies at least eight weeks old. Shelters flooded with kittens and puppies have heartily embraced the practice because it allows them to sterilize young animals before they are adopted. However, as of no definitive scientific studies had proven this. Veterinarians report that kittens and puppies that undergo ESN recover from the surgery much quicker than their older counterparts. In April the U. Food and Drug Administration FDA approved use of the drug Neutersol zinc gluconate neutralized by arginine for chemical sterilization of three- to ten-month-old puppies. The drug is injected into the testicles and works by stopping the production of sperm. It does not eliminate the hormone testosterone, as traditional neutering does. This may be a drawback, as testosterone is considered a major factor in behavior problems seen in unaltered dogs. The FDA recommends that puppies be sedated before the injection to eliminate movement and to help with any pain. Neutersol is expected to be used mostly at animal shelters that wish to sterilize dogs before adoption but do not have ready access to a surgical clinic. No-Kill Shelters Some animal welfarists and members of the public criticize shelters for using euthanasia at all. They believe that every animal that enters a shelter deserves the opportunity to be adopted no matter how long it takes. Critics say that this viewpoint is unrealistic. They point out that some animals are too aggressive, injured, or sick to be adopted. There is no practical alternative but to euthanize them. Also, some pet owners rely on shelters rather than private

veterinarians to euthanize their sick and elderly pets. During the s the concept of no-kill shelters became popular. The name implies that no animals are ever euthanized in these sheltersâ€”an idea that appeals to many people. In reality, most no-kill shelters still euthanize animals that are unadoptable because of illness or temperament. Some traditional shelters or open-admission shelters, as they are called do not like the use of the term "no-kill. Welfare organizations argue among themselves about the exact definition of no-kill and which animals are adoptable. The truth is that all shelters public and private operate with limited space, personnel, and financial budgets.

### Chapter 8 : Encyclopedia of Canine Veterinary Medical Information

*Pet trade Pets are part of human cultures all around the world. We keep animals to admire their beauty or to enjoy their companionship or devotion. The pet trade is big business throughout the world but with its positive aspects, there are distinct negative ones as well.*

### Chapter 9 : Petopia: A complete guide to hunter pets in the World of Warcraft.

*A pet is a domesticated animal that lives with people, but is not forced to work and is not eaten, in most instances. In most cases, a pet is kept to entertain people or for companionship. In most cases, a pet is kept to entertain people or for companionship.*