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Animal Crackers

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Symposium. The Veterinary Hospital of the University of Pennsylvania presented its Thirteenth Annual Symposium, *Your Veterinarian and Your Dogs* to a capacity crowd.

Dr. Donald F. Patterson spoke on Disorders of Sexual Development. In mammals, including dogs,



the sex chromosome of the male is XY and that of the female is XX. Males with the XXY Syndrome develop as males but are sterile, females with the XO syndrome develop as females but are sterile. This is diagnosed by microscopic study of the chromosomes.

There are five types of intersexes (often called hermaphrodites) recognized in dogs where it is not possible to tell definitely by observation whether the animal is a male or female. There are also male pseudohermaphrodites with XY chromosomes but incomplete masculinization. Female pseudohermaphrodites have XX chromosomes and ovaries but their other genital organs are masculinized and the animals may be raised as males. In some cases, this condition has been shown to result from administration of male hormones during pregnancy.

Dr. Patterson said that cryptorchidism is the most common defect of sexual development in dogs, occurring in 10-13 percent of male dogs presented to veterinary clinics. Based on present evidence, a substantial reduction in the frequency of cryptorchidism could be brought about if unilateral cryptorchid males, as well as their parents, are excluded from breeding.

Dr. Peter F. Jezyk's topic was *New Developments in the Understanding of Inherited Metabolic Disease*. These diseases are the result of altered structure and function of proteins and enzymes. The results may be inconsequential or lethal. Testing procedures are available to detect these conditions which may be one of the causes of neonatal death.

Dr. Mark E. Haskins described *Lysosomal Storage Disease in Dogs*. These are genetic diseases caused by enzyme malfunction. Six diseases have been described in dogs, some have a neurologic course resulting in death before one year of age. In some of the diseases, abnormal facial characteristics are seen. Children have diseases almost identical to those in the dog.

Canine Epilepsy was discussed by Dr. George C. Farnbach. He emphasized that 'seizures' and 'epilepsy' are not identical. Seizures are signs of disease. Dogs with true epilepsy have seizures as part of an as yet undefinable disease. The American Canine Epilepsy Service has been established to study the disease.

Dr. Michael H. Goldschmidt's topic was *Cancer in the Dog*. Diagnosis is by microscopic examination of tumor tissue which helps determine if the tumor is benign or malignant (life-threatening). The most frequent sites of growths submitted to the Pathology Laboratory at the University of Pennsylvania, School of Veterinary Medicine, are skin and connective

tissue, mammary glands, lymphoid organs, including the spleen, oral cavity, male genital system, respiratory system and bone. The incidence of cancer in the dog is not known—it could be more than 1,100 new cases per 100,000 dogs per year.

Inherited Skin Diseases were covered by Dr. Vicki J. Scheidt. She described a hereditary blistering disorder (Epidermolysis Bullosa) reported in Collies and Shelties and *Canine Color Mutant Alopecia*, an abnormality primarily affecting the hair follicle in color mutants (blue, fawn) of certain breeds. She

also discussed familial diseases: allergic inhalant dermatitis, hypothyroidism, seborrheic dermatitis and generalized demodectic mange.

Tapeworms are a common intestinal parasite of dogs and cats and can be difficult to control. Usually they are not harmful to the animal, but the segments are unsightly and owners become concerned.

There are several species of tapeworms and all require an intermediate host. *Dipylidium caninum* is the common dog tapeworm and its life cycle requires the flea (or louse). The flea ingests eggs which have been passed in the tapeworm segments, the parasite develops in the flea and the dog swallows the flea. The worm matures in the dog's intestinal tract and its head becomes firmly imbedded in the lining of the intestine. The head produces segments which eventually are passed. These segments may be seen "crawling" over fresh fecal material and around the dog's tail. The segments soon dry up and look like grains of rice.

Treatment will be ineffective unless the head of the worm is destroyed. A new injectable drug (Praziquantel) is giving good results. However, even if all the tapeworms are removed, re-infection is probable unless the intermediate host is eliminated. Flea control must be considered part of the treatment for *Dipylidium*.

Taenia is another species of tapeworm found in the dog. It is found more commonly in country dogs which acquire the worms by eating infected rabbits, mice or other rodents which are the intermediate host.

There are a number of other tapeworms which may be found in the dog. A textbook on parasitology would be required to cover the subject. There have been many reports of "epidemics" of tapeworms which do not respond to treatment. It's surprising how many owners don't understand the problem. Worming the dog is only part of the solution.

Identification. A photograph might help identify a dog if there are unusual markings, but describing a "lost" dog can be difficult especially when so many breeds appear identical—Black Cocker Spaniels for example. Tattooing is a way to be sure a dog can be correctly identified. Usually a number is placed on the hairless skin of the inner hind leg. It lasts a lifetime. Another advantage is positive identification of show dogs. It might be difficult to find where proper equipment is available but tattooing is being done and is a simple procedure.

Heartworm Prevention. Heartworm Disease occurs in almost every part of the United States. It is transmitted by mosquitoes and preventive medication may be recommended by your veterinarian. This is not a do-it-yourself situation. It is important that a blood test be done to determine whether or not infection exists. Preventive medication should be used only if tests are negative. The medication must be given daily. Your decision may be based on the mosquito population in your area, whether or not the dog is outside at night when mosquitoes are most active or even the cost of medication. Your veterinarian is the one to help with your decision.

Somali Cats. A reader writes that the Somali is a long-haired Abyssinian and, except for the medium-long coat, is exactly like an Abyssinian. In the last issue of *Bellwether* (#6), cat coats were described as Short-hair or Longhair. The Somali has a medium-length coat—the tail is a very full brush, and was incorrectly described as Shorthaired.

In the same paragraph, the Rex was shown as Red. That was a typographical error. The Rex is a Shorthaired cat with curly hair.

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An excellent reference is *A Standard Guide to Cat Breeds* edited by Richard H. Gebhardt, Grace Pond and Dr. Ivor Raleigh (McGraw-Hill).

Popular Breeds of Dogs. The American Kennel Club has released registration figures for 1982. Based on numbers of each breed registered, Poodles were in first place (88,650), followed by Cocker Spaniels (87,218), Doberman Pinschers (73,180), Labrador Retrievers (62,465), Golden Retrievers (51,045), Miniature Schnauzers (36,502), Beagles (35,538), Dachshunds (32,835) and Shetland Sheepdogs (30,512). Of the 125 breeds of dogs and the 1,037,149 total registrations, the bottom of the list includes Sealyham Terriers, American Foxhounds, English Toy Spaniels, Curly-Coated Retrievers, Belgian Malinois, Harriers, Otter Hounds, Field Spaniels, Sussex Spaniels and English Foxhounds. Foxhounds are not a "rare" breed but owners use other registries.

Age of Dogs and Humans. Any comparison is an "educated guess" but it's often said that one year in the life of a dog is the equivalent of seven years in man. A recently published chart states that it has a more accurate measure:

Dog	Human
1 yr.	15 yrs.
2 yrs.	24 yrs.
3 yrs.	28 yrs.
6 yrs.	40 yrs.
9 yrs.	52 yrs.
12 yrs.	64 yrs.

There is no hard and fast rule, as there are great variations in different breeds. The small breeds seem to mature earlier and live longer. Giant breeds mature more slowly and their average lifespan is shorter.

In animals, including dogs, the teeth can be a guide in determining the age. Puppies have no teeth at birth, but the baby teeth come in at three to four weeks. At four to five months of age, the permanent teeth come in. After about one year of age, the amount of wear is an indication of age, but there is so much variation in individuals, it becomes a guessing game. A dog is considered a puppy until it is one year old, so the teeth can do little more than indicate whether or not it is puppy or adult.