

A TERRIBLE BEAUTY

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Reported by Ann Blackman/Washington, Dan Cray/Los Angeles and Wendy Cole/Chicago

HIGHLIGHT:

An obsessive focus on show-ring looks is crippling, sometimes fatally, America's purebred dogs

BODY:

FOUR YEARS AGO, AMANDA AND BOB Metzger of Exton, Pennsylvania, saw an ad for golden retriever puppies in the local newspaper and went to have a look. "Once we saw them," says Amanda, "we fell in love. We couldn't have left the place without one." They decided on a dog they named Jake -- but being careful consumers, the Metzgers made sure the breeders had a solid reputation, insisted on an American Kennel Club certification of Jake's pedigree and got assurances that his parents were free of health problems before they handed over \$ 325 for their dog.

Their troubles started three months later. Jake began to limp on his left front leg; the vet diagnosed osteochondritis, an inherited bone condition, and had to operate. The bill came to \$ 650. Six months later, Jake went lame again, and X rays showed severe dysplasia, a hereditary weakness of the joints, in both hips. A \$ 750 operation relieved his pain, but even with a dose of aspirin almost daily, Jake still walks stiffly. On top of that, he has severe allergies, dry skin and a poor coat. He has recently started having seizures as well. "He's a medical mess," says Amanda Metzger. "It just breaks my heart because he wants to play like a puppy, but he can't."

It would be tempting to put Jake's problems down to plain bad luck -- but in fact the odds were against him from the start. While most golden retrievers are healthier than Jake, a shocking 60% of them end up with the dysplasia that may yet cripple him, according to the University of Pennsylvania's School of Veterinary Medicine. Many are born with an undescended testicle, another hereditary condition vets say can cause the gland to become cancerous.

Yet even if they had chosen another breed, the Metzgers would have been taking a chance. The appalling truth is that as many as 25% of the 20 million purebred dogs in America -- 1 in 4 animals -- are afflicted with a serious genetic problem. German shepherds, for example, run an even higher risk of hip dysplasia than do golden retrievers. Labrador retrievers are prone to dwarfing. At least 70% of collies suffer from genetic eye trouble, and 10% eventually go blind. Dalmatians are often deaf. Cocker spaniels tend to have bad tempers. Great Danes have weak hearts. English bulldogs have such enormous heads that pups often have to be delivered by cesarean section. Newfoundlands can drop dead from cardiac arrests. Chinese Shar-Peis, the wrinkly dogs that don't seem to fit into their skin, have congenital skin disorders. And Irish setters, laments veterinarian Michael Fox, a vice president of the Humane Society of the U.S., "are so dumb they can't find their way to the end of the leash."

The list goes on and on, running to more than 300 separate genetic disorders that subject dogs to enormous pain, roil the emotional life of their owners and, estimates Dr. William Schall, a genetic specialist at Michigan State University, cost almost \$ 1 billion in vet bills and lost revenues from stillborn pups, which cannot be sold.

Bad genes are a universal hazard of life, of course; practically every species suffers from inherited diseases. But golden retrievers and other purebreds are not like most other animals. They are in a very real sense artificial, molded over thousands of years through selective breeding to satisfy human needs. For most of that time, those needs have largely been companionship and labor, and dogs have prospered.

Within the past century, though, and especially over the past 50 years, the most popular types have been bred almost exclusively to look good -- with "good" defined by breed-specific dog clubs and the American

Kennel Club (AKC). "Form has been separated from function," says Brian Kilcommons, a dog trainer in Middletown, New York. "Styles come in vogue. The competition at dog shows is geared almost exclusively to looks." This focus on beauty above all means that attractive but unhealthy animals have been encouraged to reproduce -- a sort of survival of the unfittest. The result is a national canine-health crisis, from which few breeds have escaped.

The astonishing thing is that despite the scope of these diseases, veterinary researchers know next to nothing about what causes them or how to cure them. Only 23 of the hundreds of known disorders can currently be picked up by genetic lab tests. Biologists know far more about the heredity of the fruit fly, in fact, than they do about canine genetics. That is because there are fewer than 100 canine geneticists in the world, working at just a handful of major universities -- and they are constantly scraping for funding.

The lack of research money is especially disconcerting when one considers that dogs are the nation's most popular pets. Almost 36 million households have them, compared with the 29.2 million that keep cats, according to the Humane Society of the U.S. More Americans spend more than \$ 8 billion a year on their dogs, not counting the initial purchase. The AKC alone raked in \$29 million last year, about three-fourths of it from the \$ 25 or more it charges to register each pedigreed pup and provide a copy of its family tree. But the AKC annual report shows that the club cut its grants for education and research into the health of dogs from \$ 1.675 million in 1992 to \$ 575,000 in 1993.

Who is to blame for the shabby treatment of humanity's best friend? The AKC, with its focus on pedigrees and beauty pageants rather than canine well-being? Legitimate breeders, who supply customers with beautiful but sometimes damaged puppies? Puppy mills, which do the same but at much higher volume and in search of greater profits? Or the public, more insistent with each passing year that a mutt -- a "randomly bred dog," to be politically correct -- simply won't do?

They are all partly at fault. But it is hard to avoid putting the AKC high on the list. While the club is not the only dog registry in the country, it is certainly the biggest, best known and most powerful. It is because of this power that the AKC has been largely unchallenged over the years. "Criticize the AKC, and there will be retribution," says one New York dog trainer. "Judges may find they are no longer getting assignments. Breeders might discover their dogs are no longer winning prizes." The AKC acknowledges that it is perceived as overbearing. "I think it's a fact of life that people have that fear, and it's unfortunate," responds John Mandeville, the club's vice president for planning.

The AKC does not need to resort to intimidation, however, to have an overwhelming influence. It sponsors most of the nation's dog shows, events that reinforce the insidious notion that beauty is a dog's paramount virtue. It also keeps track of purebred pedigrees, yet it requires no proof of good health to certify an animal. All it takes to get AKC certification is proof of pedigreed parentage. Says Fox: "The best use of pedigree papers is for housebreaking your dog. They don't mean a damn thing. You can have an immune-deficient puppy that is about to go blind and has epilepsy, hip dysplasia, hemophilia and one testicle, and the AKC will register it."

No one at the kennel club denies this. AKC certification "is absolutely not a Good Housekeeping seal of approval, unfortunately," says Mandeville. "It's acquired a lot of these trappings because the idea of 'AKC-registered' is so widely known."

Or, to be blunt, because it has such snob appeal. The American Kennel Club was founded 110 years ago by a group of American bluebloods who pledged "to do everything to advance the study, breeding, exhibiting, running and maintenance of purity of thoroughbred dogs." At the time purebreds were status symbols, owned exclusively by the wealthy and prized for their strength, skill and intelligence as much as for their looks.

But during the 1940s, as the middle class sucked in vast numbers of new members with aspirations of gentility, these Americans began to insist on purebreds too, and their popularity took off. In 1944 the AKC registered 77,400 dogs; that jumped to 235,978 in 1949, and by 1970, the club was issuing papers on a million dogs a year. (The total last year: 1.4 million.)

The number of AKC-sponsored dog shows has increased just as dramatically. In 1894 there were a mere 11 all-breed shows. By 1954 there were 384, and last year a total of 1.3 million dogs competed in 1,177 different exhibitions. Then as now, the idea was to show off the owners' prize breeding stock.

BUT THE CONCEPT OF WHAT MAKES A dog valuable for breeding has changed. While obedience and field trials were once considered at least as important as beauty contests, the canine equivalent of the swimsuit competition has all but taken over. Historians have yet to explain this ideological shift, but the AKC has one idea: "You could almost say this venerable institution with its great credibility and history has been infiltrated slowly by the type of people it was not intended to deal with," says Wayne Cavanaugh, the group's spokesman. Whatever the reason, animals with names such as Rainbow's Maggie Rose O'Koehl and Jrees Buddy Holly are brushed, hairsprayed, beribboned and otherwise tarted up before going in front of the judges. Says Buddy Holly's owner, Jan Smith of Wichita, Kansas, a longtime exhibitor of Great Danes (and herself the runner-up for Miss Congeniality in the 1965 Miss Arkansas pageant): "When the ears are too flat, we use cement to make them perky. We use chalk to color the legs, which is fine as long as you don't use copious amounts."

That's just the final polish, though: no dog can hope to be a champion without conforming to a very narrow standard of physical perfection set by individual dog clubs and ratified by the AKC. And customer-conscious breeders have obliged by creating prizewinning dogs with specific traits, such as long ears in cocker spaniels or sloping hips in German shepherds.

Biologically, this is just asking for trouble. For one thing, the characteristics judges and clubs have decreed to be gorgeous can themselves be bad for the animals' health -- huge heads on bulldogs that make it difficult for them to be born naturally, for example, or the wrinkled skin on Shar-Peis that sets them up for rashes. For another, the best way to produce a puppy with a specific look is to mate two dogs who have that same look. As with any species, though, the closest resemblances are found among the closest relatives. So breeders often resort to inbreeding, the mating of brothers and sisters or fathers and daughters. Or they "line-breed," having grandparents mate with grandchildren or cousins with each other. "If we did that in humans," says Mark Derr, who wrote a scathing indictment of America's dog culture for the March 1990 Atlantic Monthly, "we'd call it incest."

Both practices increase the likelihood of genetic disease. It is not that purebreds have more defective genes than other dogs, or that inbreeding somehow causes healthy genes to go bad. Most hereditary disorders in dogs are caused by recessive genes; as long as an animal has a good copy of the gene from one parent, it will override a bad copy from the other parent. But if both parents pass on the same bad gene -- which is more likely if mother and father come from the same family -- the puppy has a problem.

The problem intensifies with what experts call "the popular sire effect," the result of a single desirable male's being used to sire a large number of litters. Says Michigan State's Schall: "If it is later determined that the male that looked perfect has a genetic disease, he will have dispersed it widely before it gets discovered."

Hereditary weakness can be introduced even when there is no underlying genetic defect at all. The biological interplay between individual genes can be extremely complicated, and breeding to enhance one characteristic can have unintended consequences. Vets believe the retinal disease that afflicts most collies may fall into this category. The gene responsible may lie very close to the one that gives collies their long noses and closely set eyes -- traits that have been deliberately emphasized by breeders. Says Dr. Donald Patterson, chief of the medical genetics section at the University of Pennsylvania's School of Veterinary Medicine: "Many people have bred dogs for desired traits, but in the process of doing this they have also got undesirable ones. The objective should be to combine breeding for good traits with more careful planning to get rid of genetic defects. Unfortunately, not much attention has been paid to that."

The AKC insists that it is not at fault: the breeders are. Asked why club-sponsored shows put much more emphasis on appearance than health, Mandeville responds that "this is America. If this size is good, this size is better. We reflect, unfortunately, the breeding of dogs [that] people register with us. Are there

genetic problems? Absolutely. Are there temperament problems? Absolutely. Are there people making poorly informed breeding decisions? Far too many."

The club is just a registry, he says, so "don't rely on a registry to make an informed decision for you." Why don't AKC registrations carry health and temperament requirements -- as comparable certification does in Germany and Sweden? Says Mandeville: "It's the Big Brother argument. At what point does regulation of the individual for the greater good step on the individual's toes?"

Mandeville also claims that any attempt by the AKC to limit registration would trigger government sanctions. "We would like to be able to say, 'I'm sorry, we're not registering your dog,' but we would be in court faster than your head would spin. The Federal Trade Commission has rules and regulations in this country about restriction of trade."

Plenty of dog owners reject this sort of reasoning -- and shun the blessings of American Kennel Club membership as well. The U.S. Border Collie Club is vigorously resisting AKC efforts to add border collies to the 137 breeds it formally recognizes (there are more than 300 breeds worldwide). The border-collie owners and breeders are convinced that AKC recognition would create pressure to breed the dogs for their looks at the inevitable expense of their intelligence and herding instincts. "We are concerned that the working ability of our dogs would be completely lost," says Donald McCaig, a breeder in Williamsville, Virginia, and a spokesman for the club.

The Cavalier King Charles Spaniel Club voted overwhelmingly last May to reject AKC recognition for another reason: their conviction that the AKC values its own revenues over a dog's welfare. Cavalier breeders do not allow the dogs to be sold in pet stores, which are infamous for buying animals from shady sources, including puppy mills. In fact, most dog experts routinely warn buyers not to deal with pet stores at all. The AKC insists, though, that the Cavalier club drop its prohibition as a condition of affiliation. Why would it take such a position? Perhaps because some 7% of the group's \$21 million in dog-registration earnings comes from pet-store sales. "They simply want to gain as many registrations as possible because money is power," says the Humane Society's Fox.

Greed cuts both ways, of course. Six Labrador retriever breeders say they have filed a class action against the AKC and the Labrador Retriever Club Inc. for changing the breed standard to favor slimmer, longer-legged animals over the traditional stockier, shorter ones -- thereby devaluing the out-of-date model. And some owners of a relatively rare dog called the Havanese, which arrived in this country from Cuba in the mid-1970s, are actively seeking AKC recognition, despite worries by other owners that they are inviting overbreeding and genetic problems.

"It's a competitive world, and money talks," says one Havanese breeder. "For many people, winning dog shows is a thrill and makes them proud, and the AKC has a lot of shows." Perhaps more to the point, once the Havanese join the high-profile AKC fold, the going rate for puppies, according to some breeders, could go as high as \$ 2,000, up from about \$ 750 now. On average, registered puppies go for 10 to 20 times the price of paperless dogs, and champion purebreds can sell for as much as \$ 50,000.

Most of these genetic problems would disappear if Americans could somehow be persuaded to abandon purebreds in favor of mutts. While individual mixed-breed dogs have problems, the animals on average are a lot healthier than their high-class cousins. "Mutts are the Hondas of the dog world," says syndicated animal columnist Mike Capuzzo of the Philadelphia Inquirer. "They're cheap, reliable and what nature intended in the first place. They are what you would get at a canine Club Med if you left them alone for six years." There are "breeds" in the mutt world, just as there are among purebreds. The most popular: a cross between a Labrador retriever and a German shepherd.

But even if the U.S. cannot be cured of its addiction to purebreds -- probably a safe assumption -- there is plenty that can be done to improve overall canine health. One factor that is forcing breeders to pay closer attention to genetic problems is the emergence of puppy lemon laws in a dozen states, including New York, Massachusetts, California and Florida. If a dog is found to have a debilitating defect, owners can get a refund or a healthy dog in exchange, or they can force the breeder to pay the vet bills to repair a

problem.

The laws are not entirely fair to breeders, though, says George Padgett, a veterinary pathologist at Michigan State University. "Some may be penalized unfairly because no one has taught them about genetic defects." Agrees Penn's Dr. Donald Patterson, founder of the genetic section of the University of Pennsylvania's School of Veterinary Medicine and widely acknowledged as the dean of canine genetic research, "The common misconception is that breeders are cavalier." The real problem, he says, is that they have not had the scientific information to detect hidden defects and thus avoid bad breeding decisions.

That is starting to change. One new tool that should prove helpful is a computerized genetic-disease data base developed at Patterson's lab that lists more than 300 genetic problems plaguing dogs. Another is the university's PennHIP program, a hip-disease-detection system that took 11 years and \$1 million to develop. It involves taking detailed measurements of hip X rays to grade the severity of dysplasia. The program is being marketed by International Canine Genetics Inc., a research company based in Malverne, Pa., which is already training vets to use it. "A tighter-fitting hip joint is better, and we now have the technology to determine which hips are tighter," says Dr. Gail Smith, an engineer and veterinarian who developed the test. "This will help people select the best breeding dogs."

Lists and detection systems are not the same as cures, but Patterson points out that veterinary researchers are finally beginning to have some insight into the causes of these disorders. "Canine genetic diseases," he says, "are now being defined at the molecular level, and the mapping of the canine genome is at last under way." Scientists have located the genes that cause muscular dystrophy in golden retrievers, and "shaking pup" syndrome in Welsh springer spaniels. They're working on identifying the genes responsible for failure-to-thrive metabolic problems in giant Schnauzers, bleeding disorders in Scottish terriers and Doberman pinschers, and the hereditary deafness that affects about 30% of Dalmatians. And they believe hip dysplasia, the crippling condition that afflicts Jake the golden retriever and his kin, may be the result of several defective genes working in concert -- not an unusual situation with hereditary disorders.

On the supply side, critics of the AKC argue that the kennel club should follow the lead of its European counterparts by imposing health standards as part of its registration process. Rather than wait for that step, individual-breed clubs are taking their own action. At least three Rottweiler clubs have ruled that dogs missing more than one tooth, which can be a sign of a genetic defect, may not be bred. English springer spaniel owners are encouraging one another not to breed dogs with temperament problems; they want to eliminate what they call the "rage syndrome," a type of brain seizure that makes some dogs lose control. And the Portuguese Water Dog Club requires breeders who advertise in its magazine to submit copies of hip, eye and heart clearances to prove that their dogs are not suffering from genetic defects.

The Portuguese Water Dog Club is perhaps the most active organization in policing genetic defects. Water dogs tend to suffer from progressive retinal atrophy, which causes blindness, and from an enzyme deficiency that can kill dogs by storing toxins in the nervous system. The club offered in 1987 to finance several researchers at major veterinary schools to develop screening tests for the diseases. The result is a blood test that found 16% of the dogs to be carriers in 1990. Club members stopped breeding the afflicted animals, and by 1993 the incidence had dropped to 7%.

With such grass-roots pressure, and perhaps a bit battered by bad publicity and lawsuits, the AKC has lately shown some interest in promoting this kind of research itself. In October it sponsored its first-ever canine-genetics conference, where 25 leading researchers gave talks to an audience of some 150 veterinary scientists from around the world. And during the past month there have been discussions within the club about setting up a scientific advisory panel that would recommend research projects the club might support. If the ancient American Kennel Club is finally thinking of altering its culture, there may yet be hope for the family dog.

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- Picture 2, Cover: German shepards run a high risk of hip dysplasia. descColor: German shepard with hind quarter problem -- contents page., NO CREDIT;
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- Picture 7, GREAT DANE Bred for huge size, this dog has a body too large for its overworked heart, which often leads to early death Many of them suffer from bone cancer as well. descColor: Dog., RON KIMBALL;
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