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PART FOUR IN A SERIES

The future of purebred dogs is in the hands of today's breeders, and some breeds have suffered catastrophically due to breeding practices gone astray.

If you live with an Irish wolfhound, the odds are you've fallen love with your hound more than you ever thought was possible. We're simply crazy about the breed, this mythic, ancient giant living in our modern world.

The Wild Stare is taking an extended look at genetics, not because I especially enjoy giving myself massive headaches trying to wrap my brains around the intricacies of the science involved in breeding, but because there are signs that the Irish wolfhound, along with most purebred dogs, is in trouble. I hope you'll stick with me through this because understanding it is vital to these hounds we love so deeply...

The upside to purebreds

We picked a purebred because we knew what we were getting. With a registered Irish wolfhound we pretty well know what he or she will look like and largely how they'll act because we know the parents and grandparents. You bred like to get like. It's simple genetics that's been understood for thousands of years. It's how we got Irish wolfhounds in the first place.

The downside

The gene pool is limited in every purebred breed. No matter how many dogs there are in a particular breed today, they all tap into the same canine gene pool that existed when the breed was created. When the studbook was closed, only the genes of the original dogs are available to every dog in that breed today, for better and for worse.

Selective breeding

When nature ran its course, a great many genes were in the mix by pure chance. This dog bred with that dog, wherever they were, and the pool was diverse. When man intervened to ensure he got a hunting dog or a retriever, chance was taken out of the picture. Gene pools narrowed.

Let's say a particular breeder prefers black ears on his dogs. She breeds dogs with black ears to other dogs who have black ears. But, because of the complexities of genetics, what if other traits tagged along with the genes that produced black ears. What if dogs with black ears were also more aggressive or had a higher rate of puppy mortality? Those traits would be passed along, too.

If enough breeders decided black ears look pretty spiffy and started breeding for it, too, genes that produced ears of another color would begin to drop out of the gene pool and eventually be lost forever to that breed of dog.

Now, what if the genes attached to non-black ears were beneficial? What if they lowered the risk of cancer or heart disease? Then those genes would also tag along into oblivion. And the breed would begin to see more cancer and heart woes.

The Popular Sire effect

Irish wolfhounds and many other breeds have fallen into a breeding pattern called the Popular Sire Effect. A hound does very well in the show ring and other breeders perk up. Mr. Popular ends up siring a lot of litters. And all his good characteristics get passed on to his offspring. So do bad ones, even if they are lurking in recessive genes where they may not show up until generations later.

And the genes of the most popular sires begin to crowd out other

genes in the pool. The genes of other hounds that might have made the breed more resilient fade away and eventually fall out of the gene pool. This is when all the hidden negative effects begin to crop up in a great many dogs.

Breeds with genetic problems:

All of them, actually...

But, to name a few:

— **The Cavalier King Charles Spaniel:** One of the more extreme examples. Breeders decided they liked a smaller head and bred for it. Now, increasingly, their skulls are too small for their brains. It also damaged their spinal cord. Some older spaniels can't even look down anymore without severe pain.

— **Bulldogs:** They're now genetically predisposed to have hip dysplasia and can no longer breed without human help. Most bulldog births are now Cesarean because their heads are too large for the birth canal.

— **German Shepherds:** Because breeders increasingly preferred an extremely sloping back, this highly intelligent and magnificent breed now suffers from a range of skeletal and muscular disorders.

— **Dalmatians:** A breed made excessively popular thanks to Walt Disney, 30 percent of Dalmatians are now born partially or completely deaf. The breed also suffers from painful stones in the urinary tract.

— **Golden Retrievers:** A loveable and highly popular breed, smart and highly trainable, today's retrievers have a 60 percent chance of dying from cancer due to genetic problems.

And the list goes on and on...including Irish wolfhounds, where the

rate of cancer, heart problems and a host of other maladies is so sadly on the rise.

And with the genes that could block or fix those problems fading because of decreasing gene pools, the opportunities for long-term improvements to purebred dogs are disappearing.

Please understand, there are no villains here. Today's reputable breeders do extensive health screenings of both parents and examine the lineage of the mother and father for several generations back. They love the breed and puppies are their babies.

But recessive genes can lie dormant for several generations before popping up in a particular dog. Every dog that had it was a carrier, but it was cancelled out by the healthy dominant gene. When one carrier breeds with another, a certain number of their puppies carry it, too. Eventually it becomes prevalent enough to be switched on and the disease become active. It's like the columns in a slot machine lining up, apple, cherry, orange and lime. But genetically, when you get cherry, cherry, cherry, cherry, you don't hit the jackpot, you can trigger hidden health problems that are extremely hard to predict.

When the gene pool shrinks, the odds of getting all cherries increases. So, for the future of our breed, we have to keep as many genes in play as possible.