Factors Affecting the Health of Puppies

Raising healthy puppies is the goal of every breeder. By developing a firm understanding of the primary factors that can impact the health of puppies more closely, breeders are in better position to reach that goal.

When puppies are born many of their systems are still quite immature forcing them to rely on both their mother and the environment for survival. As breeders, we are in a unique position because we have a responsibility to intervene when necessary to help ensure that the puppies born under our watch reach the age where we have the privilege of sending them on to a new life in their forever home. While the majority of puppies are healthy, every breeder will find themselves in a situation when they are faced with a sick or struggling puppy. When this happens, breeders try to diagnose and medically treat the ailments they’ve determined based on the signs or symptoms they’ve observed. In the past when very young puppies were sick it was suspected that there was an underlying genetic disease but more often than not that was an educated guess at best. When this happens, your veterinarian is a vital partner.

Genetic Testing

Fortunately with the advancements of science today, veterinarians have a variety of tools that diagnose a wide array of genetic diseases that can affect any breed. The observations and feedback of breeders have played a fundamental role in the development of many of these tools and that is something this community should take pride in. Accurate pedigree analysis is a vital element that enables breeders to determine the mode of inheritance of a disease. Once the disease has been accurately diagnosed, it can lead down the path to a genetic test. Many diseases that affect puppies spark the interest of breeders because they are caused by more than one gene mutation, ultimately making them more difficult to map. Adding to the difficulty is the appearance of a disease can be altered by factors such as nutrition, exercise or trauma. Some genetic diseases show up early in life and in a variety of ways. Cryptorchid puppies are a great example. This is a condition breeders commonly deal with. That being said, this condition can affect one testis (or testicle) or both. The testes may be found in the abdomen or near their intended position in the scrotal sac. Meanwhile, there are other diseases that only manifest clinical signs much later in life. Genetic testing is a tool that should be supported by breeders to reduce the incidence of disease in our selected breeds.

To learn more about genetic testing visit the Royal Canin® Genetic Health Analysis™ website at http://www.royalcaninusa.com/. This test scans your dog’s DNA, both for ancestry information and specific genetic markers. Your veterinarian can use this information to create a custom health and wellness plan based on your dog’s genetic code.

Kennel Management

In a breeding kennel, the location where adult dogs live and puppies are whelped is of paramount importance. Proper kennel management and the practice of standard hygiene protocols are primary factors that influence the overall health and well-being of puppies. For the purpose of this article, references to a kennel will be the area where the mother and puppies are located. Temperature, humidity and ventilation levels are often overlooked as important risk factors of disease. Vaccination procedures also fall into the category of kennel management. Another key factor to determine is the timing of routine worming for the mother and her puppies. Parasite screenings are critical to keeping puppies healthy because parasites such as coccidia and giardia often play an underlying role in diseases seen in puppies. One primary factor that is often overlooked and should be considered a serious component of kennel management is how breeders disinfect the area in which the dogs live. Neonates and older puppies have different needs but are both susceptible and at risk for disease nonetheless. A comprehensive understanding of all of the factors that fall under kennel management mentioned above will allow you to more effectively promote the health and welfare of the puppies born in your kennel.

Nutrition

Another factor that is often not taken into consideration by breeders is nutrition. Recognizing the imperative role of proper nutrition and how it has a significant impact on puppies as well as adult dogs is important. Too often in today’s world nutrition is either an afterthought or seems to be acquired knowledge that was found on the internet. Remember – you cannot believe everything you find on the internet to be true and I’ve found that common saying to be rather accurate in this case specifically. Breeders must look at nutrition as more than just the cheap or expensive pet food they feed their dogs. It should be considered the fuel that allows a pregnant bitch to thrive during pregnancy and lactation translating into more healthy litterers. Breeders must remember that precise nutrition is so much more than simply ingredients that you see listed on a pet food label but rather nutrients that are absorbed and delivered to the body to promote a puppy’s survival and growth stages. Nutrients provide the energy for the functions the body performs on a daily basis. Too often in the breeding world, it is believed that just adding “more” replaces proper nutrition. This is simply not true. I’d like to take this opportunity to provide a few examples of how precise nutrition can affect the health of puppies that are especially relevant in the breeder community. Folic acid is a B vitamin that is an essential component of DNA and therefore essential for all cells involved in reproductive processes and growth. In the early stage of development in puppies, called embryogenesis, rapid cell division occurs that requires increasing amounts of folic acid. A folic acid deficiency has been shown to play a role in the development of spinal bifida, a neural tube malformation, and cleft palates, a more common birth defect that is often associated with certain brachycephalic breeds.

45 years of HEALTH NUTRITION
be the role of antioxidants and the amazing effect they have on the immune system. Antioxidants have been found to protect the destruction of the immune cells from free radicals while enhancing a puppy’s response to vaccinations.

Perhaps the most visible evidences of proper nutrition can be seen in a puppy’s rapid musculoskeletal growth and healthy skin and coat. A large portion of the protein and energy derived from puppy food support the development and preservation of the skin and coat. A diet with poor quality nutrients or low digestibility will eventually result in a poor coat and most likely skin problems. Since the skin is the largest organ found in dogs it is understandable that poor nutrition would be discernable. When breeders observe puppies and notice a dull and dry coat, there is always a need to investigate the nutrition of the puppy. EPA and DHA deficiencies should also be observable. A patented combination of four vitamins and an amino acid has been shown to increase the health of the skin barrier which will prevent loss of water and provide for more protection from invaders. It is common in puppies to see diseases of the skin such as demodicosis, bacterial impetigo, generalized scaling and ringworm that lead to licking and scratching that further damages the skin barrier. Keeping the skin healthy with proper nutrition will lower the risk of damage seen in these conditions.

SOCIALIZATION

We have talked at length about three primary factors that affect the health of puppies but we have not covered them all. One additional factor I would like to close with is not one usually talked about in the sense of contributing to puppy’s health and well-being but one I personally believe to be critical for not only the health of the puppy but one that contributes to their long-term quality of life. That would be the understanding of socialization and the affect it has on the human animal bond. We know that early socialization of puppies involves exposing them to differing stimuli and handling them early and often. We also believe that socialization events can influence puppies that take place before and right after puppies are born.

As a responsible breeder, you must have the knowledge of all of the factors addressed in this article to raise healthy puppies. Remember, knowledge is power. Thinking about all of these factors can be overwhelming when we add up all the variables that go into dog breeding but the results are our reward. The puppies you send home enrich the lives of that family or individual and love their puppies when we add up all the variables that go into dog breeding but the results are our reward.

Dr. Kesler has nearly thirty years of experience as a practicing veterinarian and has a special interest in reproduction. As a former breeder and current Scientific Services Veterinarian at Royal Canin, he is actively engaged with the breeder community and continues to share his knowledge by speaking at education seminars across the country. Dr. Kesler works directly with breeders and pet owners on a daily basis to consult on kennel management, nutrition and reproduction techniques. His passions include neonatology and educating breeders on how to reduce the incidence of brucellosis.

Studies show that approximately 15% of breeding females have a folic acid deficiency when they go into heat and a complete and balanced diet have shown to reduce the incidence of this condition. Eicosapentaenoic Acid and Docosahexaenoic Acid, more commonly known as EPA and DHA, are Omega-3 fatty acids that play a vital role in the development and growth of the central nervous system. This is essential for the development of a proper cognitive function and eyesight in the growing fetus. It has been show that diets with the proper amounts of EPA and especially DHA have been shown that diets with the proper amounts of EPA and especially DHA have beneficial effect on learning abilities in puppies. Another great example would

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