



Bulldog Update

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Breeders are Encouraged to Health Test Dogs & Participate in CHIC

Although she has only been breeding Bulldogs for conformation dog shows for five years, Donna Moreno has quickly learned the importance of health testing dogs prior to breeding. Thus, Moreno, who breeds under the Saint Brides Bulldogs prefix, complies with health testing recommended by the Bulldog Club of America (BCA).

As Moreno recently prepared to breed her 4-year-old Bulldog bitch, CH Saint Lola of Brides, she had the dog tested for congenital heart disease and patellar luxation, a condition in which the stifle (kneecap) pops out of place. Both tests are recommended by the parent club. She also had the dog tested for tracheal hypoplasia, a respiratory disorder caused by a narrow or underdeveloped trachea.

"I feel it's important to test your breeding stock," says Moreno of Chesapeake, Va. "I test to alleviate my own fears and those of people who buy my dogs for companions.

"Even when breeding two dogs that pass all the health clearances, you could have a puppy with too small a trachea or slipping kneecaps. Health testing helps to ensure you're doing everything possible to breed healthy puppies."

The Bulldog Club of America recommends that breeders and owners register health test results with the Canine Health Information Center

(CHIC), a central database and DNA bank that collects health information about individual dogs. Sponsored by the Orthopedic Foundation for Animals (OFA) and the Canine Health Foundation, CHIC provides health information about Bulldogs that are tested for heart disease and patellar luxation. CHIC recognizes a breed's specific health concerns, with parent clubs choosing the health tests needed for its breed.

The CHIC database for Bulldogs includes health tests for:

- Patellar luxation performed at a minimum of 1 year of age, with results accepted from OFA; and
- Heart disease based on an OFA evaluation, preferably by a board-certified cardiologist using echocardiogram testing, though not required.

Test results from the OFA database are shared automatically with CHIC at no cost to owners. Annual testing is recommended for cardiac disease. As new results are recorded, an updated CHIC report is generated.

'A Starting Point' for Health Testing

"Patellar luxation and heart disease were selected by the BCA Health Committee as a starting point for recommended health testing," says Elizabeth Hugo-Milam, head of the committee and an active breeder

under the Milam's Hug-O-Bull prefix for 30 years.

"The health tests for these conditions don't require anesthesia and can be done easily at health clinics, such as those held at specialty shows," she says. "They are neither invasive nor intrusive and do not affect a dog that is being shown. Yet these problems are significant enough in the breed that the committee decided it was valid to encourage testing of all Bulldogs."

Hugo-Milam notes that the health committee conducted an informal poll of veterinarians to learn the most common health conditions they see in Bulldogs. Among the top 10 health conditions were patellar luxation and heart disease.

"These two diseases certainly affect the quality and health of our breed," she says. "Our first goals are to increase participation in the patella and cardiac evaluations and raise awareness of the CHIC program."

In patellar luxation, dogs as young as 8 weeks old can have occasional or chronic slippage in one or both stifles. Mild cases may go unrecognized for many years. Considered a genetic disease, it is diagnosed by palpation and radiographs. Signs include hopping, lameness and locked knees.

Bulldogs are susceptible to developing several congenital cardiac diseases. These include: pulmonary stenosis, tetralogy of fallot, aortic stenosis, mitral valve disease, patent ductus arteriosus, and ventricular septal defect. Many of these conditions are associated with heart murmurs, although murmurs can also be benign. Murmurs detected with a stethoscope may require noninvasive echocardiography for a definitive diagnosis of congenital heart disease.

Erika Werne, director of education and communications for the Canine Health Foundation, encourages breeders to screen dogs for health conditions and register the results with CHIC. "Reporting health tests publicly in the CHIC database provides a tool for breeders when making decisions about which dogs to breed," she says.

Health Clinics at Specialty Shows Promote Testing

Health test clinics held during two specialty shows last fall helped breeders and owners test their dogs for genetic heart disease and patellar luxation, both of which are recommended by the Bulldog Club of America.

The Texoma Bulldog Club of Wichita Falls, Texas, screened 15 dogs at its show last September. A veterinarian assisting with the clinic donated her time. Patella and cardiac testing were performed for \$20, with the club raising \$300.

Meanwhile, the Bulldog Club of Greater Seattle held its first health clinic last August, with 10 dogs tested. Club president Melanie Trichler says \$25 was charged for the testing that included taking cheek swabs for the CHIC DNA bank. She expects the clinic will be held annually at the specialty.

"I feel it's really important to know as much as possible about your own dogs — their physical conformation, health and temperament — before considering them for a breeding program," says Trichler who breeds under the MnM's Bulldogs prefix in Renton, Wash. "Although our breed is still fairly new to health testing, we have to start somewhere. The more we learn about our dogs, the better breeding decisions we can make and improve our breed as a whole."

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Health Tests

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"Even though there is no genetic test for either congenital heart disease or patellar luxation, test results from multiple dogs within a bloodline can reveal inheritance patterns across generations," Werne says. "A breeder can look up a particular sire or dam and see how that dog's family tested for patellar luxation or heart defects. The point is to have one central database where you can go to find information about individual dogs and their families."

Health test results can be entered in the CHIC database regardless whether a dog has normal results, however, the results can only be listed in the open registry if an owner chooses to share the information publicly. A dog receives CHIC certification if the results are open, which encourages owners to share information publicly even when a dog doesn't pass the required tests.

The benefits of health testing and reporting the results publicly in the CHIC database are multifaceted. CHIC provides a parent club with recommended health screening protocols and standardizes testing methods. It also provides a database to archive data, promote more informed breeding decisions, increase awareness of health issues and testing, and promote betterment of the breed through the pursuit of breeding healthier dogs. The data can also be used by researchers who study demographic information across breeds.

Supporting Bulldog Research

In recent years, the Bulldog Club of America Charitable Fund (BCACF) has supported research of several health conditions that affect Bulldogs among other breeds. The research, conducted at veterinary schools across the country, is funded by the Canine Health Foundation. Among the research supported by the BCACF are hypothyroidism, cystinuria, epilepsy, alopecia, uric acid stones, systemic inflammatory response syndrome, and canine pyometra.

The BCACF also is funding two pilot studies investigating health issues that particularly impact Bulldogs. One is a study, being conducted by OFA, to determine the prevalence of tracheal hypoplasia, a respiratory disorder caused by an abnormal, narrow trachea.

Tracheal hypoplasia is a congenital form of tracheal stenosis that occurs when the cartilage rings of the windpipe are abnormally small and abnormally shaped. Signs of the disorder can be continuous or intermittent, and include coughing, respiratory distress and infection. Restricted activity and medications are used to treat tracheal hypoplasia.

The OFA is creating a database of radiographs showing trachea diameters and shapes submitted by Bulldog owners and breeders. "The goal is to develop objective measurements and standards for determining if a dog's

Purina Parent Club Partnership (PPCP) Program Aids Research Funding

The Bulldog Club of America (BCA) is one of 167 parent clubs that earn funding to support health research when they participate in the Purina Parent Club Partnership (PPCP) Program. The funds may also be used for education or rescue. Here's how it works.

Purina Pro Club members must declare their participation in PPCP and identify the Bulldog Club of America to receive credit for their weight circle submissions from participating *Purina* brand dog foods. *Pro Club* tracks weight circle submissions. For every \$100 of qualifying weight circle points earned by *Pro Club* members, Purina donates \$10 to BCA. Points are accumulated all year, and a check representing 10 percent of the value of the submitted weight circles is evenly split between the BCA and the Canine Health Foundation via the club's donor advised fund.

Pro Club members may declare their participation in the PPCP Program and identify the parent club that will receive matching weight circle points online at www.purinaproclub.com or by calling toll-free 877-PRO-CLUB or 877-776-2582.

trachea is normal, equivocal or hypoplastic," says Greg Keller, D.V.M., chief of veterinary services for OFA.

To encourage participation, the Bulldog Club of America is offering reimbursement of \$50 to Bulldog breeders and owners who are among the first 100 to submit radiographs. "We feel this is a problem in which conscientious breeding can help reduce the disease incidence," says Hugo-Milam.

For information about the tracheal hypoplasia study and how to participate, visit <http://bcahealth.homestead.com/trachealstudy.html>. Applications are available at www.offa.org/trachhy_poappbw.pdf.

In the second pilot study, investigators hope to learn more about the genetic cause of canine anasarca in Bulldogs. The condition causes "water puppies," or neonates born with extreme fluid retention that generally are still-born or die shortly after birth. In humans, anasarca is most often caused by immune-related blood diseases and chromosomal or fetal heart anomalies.

Brachycephalic breeds are more susceptible, says Michael Hughes, Ph.D., principle investigator of the study being conducted at the University of Southern California in Los Angeles and a member of the BCA Health Committee. The study involves testing blood from dams and affected puppies for antibodies, hormones, hormone receptors and viruses associated with anasarca.

"The goal is to provide information for a more comprehensive study that potentially one day will lead to a genetic test," Hughes says. "Collecting health test information about anasarca on CHIC would also one day be valuable."

To participate in the anasarca project, breeders and owners of Bulldogs should contact Hughes at mwhughes@usc.edu.

The Bulldog Club of America Charitable Fund is considering funding research of cleft palate, spina bifida and brachycephalic airway syndrome. "The parent club aims to aid researchers studying these congenital diseases in hopes of finding the genetic mutations," says Hughes. "Cleft palate and spina bifida affect all breeds of dog, as well

as humans, and may be preventable with careful breeding."

Cleft palate and spina bifida are developmental defects that occur when puppies are in the womb. Cleft palate is caused by an opening between the nasal and oral cavities, and spina bifida is due to an incompletely formed spinal cord.

Health research and the subsequent genetic tests that may result are imperative, says Hugo-Milam. "It is so important for a parent club to stay on top of diseases that affect a breed. Funding research and tracking health test results through CHIC ultimately will help make Bulldogs a healthier breed." ■

Purina appreciates the support of the Bulldog Club of America and particularly Elizabeth Hugo, chairwoman of the BCA Health Committee, in helping to identify topics for the *Purina Pro Club Bulldog Update* newsletter.

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