

## RECOMMENDED CTCC HEALTH TESTING

Tests/Examinations	Who To Test	Frequency	Where to test	Comments/Recommendations	Research
<b>Globoid Cell Leukodystrophy (GCL)</b>	Any adult Cairn (dog or bitch prior to breeding)	Test once as results will not change over time.	cheek swabs <b>or</b> blood sample sent to HealthGene in Canada.	All dogs intending to be bred should be tested. If dam and sire test "clear", resulting litter of puppies will also be clear. If either parent has one copy of the mutation causing GCL, then that dog will be healthy but could pass on it's carrier status to offspring if mated with a non-carrier dog, or produce dogs with GCL if mated with another carrier.	<a href="http://healthgene.com/canine/tests.asp?testcode=C118">http://healthgene.com/canine/tests.asp?testcode=C118</a>
<b>Paired Serum Bile Acids or ammonia testing</b> , for Liver Portosystemic Vascular Anomaly (PSVA) and Microvascular Dysplasia (MVD)	Any adult Cairn (dog or bitch prior to breeding) if it has not tested normal as a puppy.	Bile Acid Tests (paired pre and post meal samples) prior to breeding one time (see puppy recommendation) or Bac II Testing for the same	Veterinarian clinic for Bile Acids, or University of Geulph (in house) for BAC II testing	It is recommended that all affected dogs as well as their parents, parents siblings and any other related dogs be tested to characterize kindred trait prevalence. Breeders in Ontario who have access to BAC II Ammonia testing, should contact the University of Guelph	Dr. Sharon Center at Cornell University is conducting research to identify the gene(s) which produces PSVA and MVD. sac6@cornell.edu Dr. Steve Kruth, DMV, Guelph, is overseeing BAC II Blood Ammonia testing. Contact Alison Downie for booking: adowne@ovc.uoguelph.ca
<b>Paired Serum Bile Acids, or Ammonia testing:</b> Puppy Recommendation for Liver Portosystemic Vascular Anomaly (PSVA) and Microvascular Dysplasia (MVD)	All puppies before placement	Optimal testing for bile acids recommended by Dr. Center, no earlier than 16 weeks of age. May be done earlier, but retest any abnormal readings at 16 weeks. BAC II analysis may be done at 8 weeks of age	Veterinarian clinic for Bile Acids, or University of Geulph (in house) for BAC II testing	Bile acid testing relies on normal "mature" gastrointestinal physiology. Best strategy is to test at 16 weeks of age or older. Bile acid values should be made available to inform owners and veterinarians of bile acid status that may influence future health assessments.	Dr. Center continues to recruit DNA samples from Cairn Terriers diagnosed with PSVA.
<b>Eye Testing</b> (Canine Eye Registry Foundation or CERF)	By 1 year of age and then yearly for breeding stock	Prior to breeding bitch or stud dog if not done in 1+ years	Veterinarian Ophthalmologist	It is recommended that the eyes of parents and grandparents of breeding animals be examined when available	Dr. Simon Petersen-Jones is conducting OM research in Cairns. Encourage breeders/owners to participate in research by

					sending, for dogs with OM: removed eyes, eye exam results, cheek swabs, blood samples + pedigrees.
<b>Ocular Melanosis (OM)</b> Note: this examination can be part of the CERF exam and should be done before the eyes are dilated.	Any adult Cairn	Yearly after 3 yrs of age. Prior to breeding bitch or stud dog if not done in 1+ years	[Veterinary Ophthalmologist who has seen Cairns with OM in their practice]	It is recommended that the eyes of parents and grandparents of breeding animals be examined when available	As described above
<b>Cardiac Exam</b> [Veterinarian - if abnormalities detected - may need to be examined by a Veterinary Cardiologist]	Any adult Cairn (dog or bitch prior to breeding)	Examine once	Veterinarian	Anemia and infection (including dental infection) can cause temporary heart mummurs which disappear when the anemia or infection is successfully treated. Further work-up could include an echo cardiogram.	No research at present
<b>Patella Exam</b>	All puppies before placement, and adult Cairns (dog or bitch prior to breeding)	Puppies - test with puppy Veterinarian vist. Adults - test once prior to breeding		Veterinarian- if abnormalities detected, may require a Veterinarian Orthopedist	No research at present

**ADDITIONAL HEALTH TESTING - breeders may consider these tests depending on health issues in their breeding programs**

<b>Kidney Ultrasound</b> for missing kidney (aplasia) or deformed kidney (dysplasia)	Any adult Cairn (dog or bitch prior to breeding), and puppies at 12-15 weeks of age	Test once	Board certified Veterinary Ultrasonographer	It is recommended that dogs or bitches intended to bred have renal ultrasounds. Bloodwork will not detect a kidney problem until 75% of the kidney function is destroyed	Research on kidney issues is by Maggie Casal DVM of the University of PA.
<b>Hip x-rays</b>	Any adult Cairn (dog or bitch prior to breeding)	Test once	Board certified Veterinary for OFA or Penn-Hip	If a breeder has hip or Legg Perthes conditions in their breeding program, all resulting puppies should have hips x-rayed	No formal research at present. Dr. Alison Starr PhD is undergoing research on Legg Perthes at Clemson University (USA).