

CAV UPDATE

Mandatory tests for the Dogs NZ Accredited Breeders Scheme

Dogs NZ have a list of recommended health tests for each breed they register available on their website (<https://www.dogsnz.org.nz/pdfs/breed-health-tests.pdf>). The tests include DNA sampling, cardiac and eye certification, along with orthopaedic assessments through radiographs and examinations. To support this list, CAV have compiled a list of the mandatory tests required for the Dogs NZ Accredited Breeders Scheme with information on when to perform the test, who performs it, when it needs to be repeated and how it should be reported.

It is important that, as veterinarians, we encourage open reporting of health results to Dogs NZ. To build a true representation of the health of a breed, all test results should be submitted, not just those that are “acceptable”. It is only by testing and accurate recording of the results that the resultant data will have the power to transform the health and welfare of the pedigree breeds by reliably informing breeding decisions.

The days of breeders being stigmatised for poor test results are long gone. Those breeders that have the foresight to undertake the responsibility and costs associated with testing then using those results to improve the health and welfare of their puppies must be celebrated and supported.

Cardiac certificate

Age:	Any age
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating.
Performed by:	Veterinarian
What is involved:	Identify the dog presented for testing by microchip. Testing involves heart auscultation by a veterinarian and completion of a Dogs NZ Application for Congenital Cardiac Database form. Include the microchip number of the dog examined. The method is detailed on the form. If findings are normal, the certificate is valid for 12 months. If a murmur or abnormal rhythm is noted, referral to a cardiologist or veterinarian with a special interest in cardiology is recommended.
Reporting:	Complete the Application for Congenital Cardiac Database form (available from the CAV website)

Dermoid sinus checks in puppies

Age:	From 6 weeks of age
Repeat:	No need to repeat once tested.
Performed by:	Most breeders do this themselves on neonatal puppies, then repeat weekly until they go to their new home. Veterinarians may be asked to certify a dermoid sinus isn't present at the first vaccination visit.
What is involved:	Identify the dog presented for testing by microchip. A dermoid sinus can be felt in young puppies. It is characterized by the presence of a tuft of hair protruding from each sinus and is sometimes complicated by infection. The skin from the back of the head to the tail is examined visually and by palpation. The most common places for this defect to occur are on the midline at the back of the neck and on the midline of the rump – so in front of and behind the ridge. If there is any doubt as to whether a sinus is present or not shaving the hair in the suspected area can reveal the external opening in the skin. The Rhodesian Ridgeback Association has more information on this condition on their website: http://www.nzridgebackassn.co.nz/dermoid-sinus/
Reporting:	Report the result of the physical examination in a letter, including the dog's microchip number and pedigree name (if known)

DNA testing

Age:	Can be performed at any age
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian or approved microchip implanter
What is involved:	Identify the dog presented for testing by microchip. Check the Dogs NZ breed health test list on their website to find which DNA tests are recommended for the breed of dog you are testing. Testing kits are provided by the DNA testing companies. The test kits will provide a return package for the sample that usually includes any biosecurity labelling requirements if sending outside of New Zealand. The microchip must be verified and recorded at the time of sampling. Include the pedigree name on the submission form if it is available. Accepted Dogs NZ providers for this test include: Orivet, Animal Network and Equine Parentage Animal Genetics (based at Massey University).
Reporting:	Provide a copy of test results to the breeder.



Elbow dysplasia

Age:	12 months of age and over. The NZVA scheme has an option to score at 1 year of age, those with a 0 score are eligible for rescore after 2 years of age.
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian
What is involved:	Identify the dog presented for testing by microchip. A radiograph of a flexed mediolateral view of each elbow (one view per radiograph). General anaesthesia, while not mandatory, is recommended. The microchip number and if known, pedigree name should be included on the form and radiographs The radiograph is submitted to a recognised scheme for scoring. Dogs NZ recognised schemes include the NZVA elbow dysplasia scheme, the Australian Canine Hip and Elbow Dysplasia Scheme (CHEDS), the Orthopaedic Foundation for Animals (OFA) and the British Veterinary Association elbow dysplasia scheme.
Reporting:	Complete Application for Hip/Elbow Dysplasia Database (available on the CAV website) and provide a copy of the original Elbow Scoring Report.

Exocrine pancreatic insufficiency

Age:	Awaiting confirmation from Dogs NZ
Repeat:	Likely 12-monthly, but awaiting confirmation from Dogs NZ
Performed by:	Veterinarian
What is involved:	Identify the dog presented for testing by microchip. Submit a blood sample for a TLI assay.
Reporting:	Provide a copy of the test results to breeder.

Eye certificate

Age:	Any age
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating
Performed by:	Dogs NZ-approved eye vet
What is involved:	Refer the breeder to an approved Dogs NZ eye vet for this assessment. See the Dogs NZ website (http://ab.dogsnz.org.nz/Health/Health%20Test%20Info) for a list of currently approved veterinarians and their contact details.

Gonioscopy

Age:	Performed from 12 months of age.
Repeat:	This is a specific test for glaucoma, and once performed does not need to be repeated.
Performed by:	Dog NZ-approved eye vet
What is involved:	Refer breeder for this assessment. See the Dogs NZ website (http://ab.dogsnz.org.nz/Health/Health%20Test%20Info) for a list of currently approved veterinarians and their contact details.

Hemivertebrae

Age:	From 12 months of age. No need to repeat test.
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian takes radiographs and submits for scoring
What is involved:	Identify the dog presented for testing by microchip. A lateral and VD view of the spine from C1 to L7 is required. The microchip number and, if known, pedigree name should be included on the form and radiographs. There are no schemes for scoring hemivertebrae in NZ. It is suggested that veterinarians submit their radiographs to Dr Mariano Makara in Australia. See her website (http://www.vetscoring.com/) for forms and instructions for uploading x-ray files. This site gives useful information on the condition for breeders: http://www.veterinarypartner.com/Content.plx?P=A&A=2554&S=1&SourceID=42
Reporting:	Finalised report provided to breeder.

Hip dysplasia – PennHIP method

Age:	From 16 weeks of age. No repeat testing needed.
Repeat:	No need to repeat once tested.
Performed by:	PennHIP accredited veterinarian
What is involved:	<p>Identify the dog presented for testing by microchip.</p> <p>PennHIP assessment consists of three separate radiographs taken under general anaesthetic or heavy sedation: the distraction view, the compression view and the hip-extended view.</p> <p>The distraction view and compression view are used to obtain accurate and precise measurements of joint laxity and congruity.</p> <p>The hip-extended view is used to obtain supplementary information regarding the existence of osteoarthritis (OA) of the hip joint. (The hip-extended view is the conventional radiographic view used to evaluate the integrity of the canine hip joint.)</p> <p>The PennHIP technique is more accurate than other schemes, and it has been shown to be a better predictor for the onset of OA. For more information refer to Antech Medical (http://info.antechimaging.com/pennhip/navigation/general/what-is-PennHIP.html) who administer the scheme.</p> <p>They have information on becoming accredited to take and submit PennHIP radiographs. There is no charge to complete the training to become accredited.</p> <p>These Youtube video by Andrew Worth: (https://www.youtube.com/watch?v=8akAM3BF-xc&feature=youtu.be) explain why NZVA have moved to PennHIP for veterinarians.</p>
Reporting:	Complete the Application for Hip/Elbow Dysplasia Database (available on the CAV website) and include a copy of the original PennHIP report.

Hip dysplasia – Willis method

Age:	Minimum age for testing depends on the scheme. The Australia National Kennel Club will accept a submission from 12 months of age, however the Orthopaedic Foundation for Animals has a minimum age at testing of 2 years.
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian
What is involved:	<p>Verify the presented dogs identity by microchip.</p> <p>A radiograph of a VD view of the hips, including femurs and patella. The use of general anaesthesia or heavy sedation is highly recommended. See this site from Veterinary Imaging Associates for advice on positioning for hip scoring (http://www.online-vets.com/Hip_Elbow_Dysplasia_Evaluation_Tips_Submission.pdf).</p> <p>The microchip number and if known, pedigree name should be included on the form and X-rays.</p> <p>Australian National Kennel Club administer the Canine Hip and Elbow Dysplasia Scheme (CHEDS) that scores hips based on the Willis/BVA method. The form to make submissions can be downloaded from this website: http://ankc.org.au/media/6592/ankc-canine-hip-v7.pdf.</p> <p>Send them to one of the veterinarians listed here: http://ankc.org.au/media/6593/ankc-ltd-cheds-radiologist-panelv6.pdf.</p> <p>Other Dogs NZ recognised schemes include the Orthopaedic Foundation for Animals (OFA) and the British Veterinary Association (BVA)</p>
Reporting:	Complete Application for Hip/Elbow Dysplasia Database (available on the CAV website) and include original CHED report.

Legg-Calve-Perthes disease

Age:	From 12 months of age.
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian
What is involved:	Check with Dogs NZ
Reporting:	Complete the Application for Legg-Calve-Perthes Database form (available on the CAV website).

Nephritis

Age:	As old as possible prior to first mating.
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating.
Performed by:	Veterinarian
What is involved:	<p>Verify the presented dogs identity by microchip.</p> <p>Collect urine sample and send to laboratory for a urine protein creatinine ratio. Breeding stock should have a protein:creatinine ratio no greater than 0.3.</p>
Reporting:	Veterinarian completes the Application for Kidney Database form (available on the CAV website). Note the form has not been updated from the previous 0.5 cutoff limit.



Patella luxation

Age:	Minimum of 1 year of age.
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating.
Performed by:	Veterinarian
What is involved:	Verify the presented dog's identity by microchip. Palpate the patellae. Record and grade the laxity and position of the patellae. The following are grades of patella luxation: <ul style="list-style-type: none">• Grade 1 – The patella can be luxated manually at full extension of the stifle joint, but returns to the trochlear groove when released.• Grade 2 – There is frequent patellar luxation, but the patella naturally returns to the trochlea.• Grade 3 – The patella remains in a luxated position, though it can be manually returned to the trochlea.• Grade 4 – The patella is permanently luxated, and cannot be returned to the trochlea. Instructions for the examination are available from the Dogs NZ form.
Reporting:	Veterinarian completes Application for Patellar Luxation Database form (available on the CAV website).

Polycystic kidney disease

Age:	Test as late as possible prior to breeding.
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating.
Performed by:	Veterinarian skilled in ultrasonography with access to an ultrasound that produces diagnostic quality images.
What is involved:	Verify the presented dogs identity by microchip. Ultrasound examination of the kidneys. Affected animals show at least three renal cysts, with cysts present in both kidneys. Other family members with cysts confirm that they are inherited and not an insignificant finding or due to another disease. If fewer than three cysts are detected, or if cysts are only seen in one kidney a retest in 6–12 months is recommended to ensure the dog is not in the early stages of the disease. The dog should not enter the breeding programme until after the test has been repeated.
Reporting:	Report from veterinarian performing the test, including the microchip number.

Portosystemic shunt (PSS)

Age:	Prior to first mating.
Repeat:	No need to repeat if test results are normal. If abnormal results, further investigation is required. If PSS can be ruled out by the further testing, there is no need to repeat.
Performed by:	Veterinarian
What is involved:	Verify the presented dog's identity by microchip, include this on the submission form. Perform a fasting and 2-hour post prandial serum bile acid test. This test is not specific for PSS, so if suspicious results are received, particularly in animals with no clinical signs of PSS, further investigation is warranted. Consider repeating the test in 4–8 weeks, and/or referral to a specialist for an abdominal ultrasound.
Reporting:	Copy of the blood test results provided to breeder

Thyroid testing

Age:	Test as late as possible prior to breeding.
Repeat:	Annually while in breeding programme. Examination must have been performed within 12 months of mating.
Performed by:	Veterinarian
What is involved:	Verify the presented dog's identity by microchip, and include this on the submission form. Collect a serum blood sample. 2 mL of serum is needed for testing. If specimen is to be stored for more than 12 hours prior to shipping, frozen storage of separated serum is recommended. Submit to Gribbles Laboratory for the NZKC ABS Thyroid Panel (Free T4, TSH and TgAA). Interpret results using the guidelines provided on the form
Reporting:	Complete Application for Thyroid Database form (available on the CAV website) and provide breeder with a copy of the test results.

Transitional vertebrae

Age:	From 12 months of age.
Repeat:	No need to repeat once tested.
Performed by:	Veterinarian
What is involved:	Verify the presented dog's identity by microchip. Perform VD and lateral views of the caudal lumbar and sacral vertebra. The microchip number and if known, pedigree name should be included on the radiographs. Examine the radiograph for transitional vertebrae. If any concerns refer to a radiologist for interpretation.
Reporting:	Copy of an radiograph report provided to breeder.