

FAQs for MAC – Avian Tuberculosis in Miniature Schnauzers (Additional information on the AMSC and PennGen websites)

6/17/2016AE-UGrev

Q: What do I do to test my dogs?

A: First, send an email to AMSCHealthgroup@yahoo.com with your name, address, and number of dogs you wish to test. You will be asked to identify the risk of each dog using the TIER System. The TIER level will be entered in the comment section of the PennGen form for Dr Giger's lab use. A 4-5 generation pedigree will also be sent for each dog being tested.

Q: Should all dogs be tested for MAC?

A: We recommend that all dogs be tested for MAC. It is especially important if your dog is being or planning to be bred, as MAC is fatal. MAC is zoonotic and can be transferred to unaffected dogs and humans with weaker immune systems such as the elderly and young.

Q: How do I collect DNA for this test?

A: You may collect DNA for this test using 2 BRUSH swabs with a plastic handles or by drawing 1-2 mL of EDTA Blood (blood drawn up in a purple topped or EDTA-coated blood tube). You may get a veterinarian to draw the blood for you and the clinic may even have mailing tubes for you to use to send in to PennGen. The AMSC Health Committee is supplying proper brush cheek swabs. There is a very detailed collection process to be sure that the swabs are not contaminated. A copy of the collection instructions is sent to you when swabs are requested.

Q: Is blood better than cheek swabs for DNA testing?

A: Blood is better than cheek swabs in that there is less chance of contamination and there is more than enough DNA in a tube of blood. However, if the cheek swab sample is collected with great care and the instructions for collection are followed carefully, cheek swabs are completely acceptable for DNA testing.

Q: How much does the test cost?

A: The MAC test costs US \$75.

Q: How and when do I pay for my test?

A: After the testing has been completed, the account holder will receive an email to pay securely online by credit card. Note you will not be able to view your test results until the payment has been completed. We currently only accept MasterCard, Visa, Amex, and Discover credit cards and debit cards.

Q: What is the turnaround time?

A: The turnaround time for all DNA tests is 1–4 weeks from time of receiving the sample(s); the variation depends on the incoming sample volume to the PennGen laboratory we have at that specific time.

- You may log in to the [PennGen Sample Submission Website](#) to check on the current status of your sample. It can take a few days from shipping to us until it is logged in as “received”.
- Once the status has been marked as "**Received**", please allow 3–4 weeks before contacting us to inquire about the results/daily.
- If the status still shows "**Waiting to be received**" after a week, please track shipment and check with your shipping company before contacting us.

Q: If both parents test clear for MAC, should their offspring be tested as well?

A: Yes, although the DNA test is considered an accurate test., there is a small risk of error. You should test offspring to ensure that they are healthy and able to be bred.

Q: Will the test identify dogs who could produce MAC but not actually have the disease?

A: Yes. The test identifies clears, carriers AND affected that may not have clinical signs yet.

Q: Can I mail in my submission forms?

A: We are only accepting online submissions. You may go to the PennGen homepage <http://research.vet.upenn.edu/penngen> or just search PennGen on your browser in order to set up your account. Once you have completed your profile you may create one or as many submissions as you would like on same account. Save your login and password information.

Q: Where can I get cheek swabs?

A: The AMSC is currently providing and shipping cheek swabs to those interested in testing their Miniature Schnauzers for MAC. If you would like to purchase additional swabs, you may do so at www.dnakit.eu or www.ezswabs.com.

Q: What kind of swabs can I use?

A: The kind of swabs/brushes you use have to be:

- **Sterile and with plastic handle**
- Wrapped individually or two per pack
- The wrapper must be intact/unopened before sample collection
- Their handles (plastic only; we no longer accept swabs with wooden handles) have to be 6 inches long and the thickness of those handles has to be less than 1/8 of an inch or 0.3 centimeters in diameter.
- We recommend brushes over cotton swabs but we can work with either

Q: Can I test newborns and young puppies for MAC?

A: We generally recommend that you use EDTA blood (0.5 mL) to test your nursing puppies for MAC; this can be easily and safely accomplished from their jugular vein by a veterinary clinician or nurse. Any cheek swabs from puppies still nursing may become contaminated with their mother's milk. Ideally cheek swab samples will be taken after they have been weaned. The instructions for sample collection are on the PennGen website at <http://research.vet.upenn.edu/penngen/InstructionsforSampleSubmission/SampleCollectionShipping/DNATesting/tabid/7606/Default.aspx>.

Q: How do I ship my samples internationally?

A: When shipping internationally, first verify the shipping requirements as described by your choice of delivery service provider (FedEx, UPS, ParcelForce, DHL, etc).

US Customs requires that all international shipments of blood have two written declarations specifying the contents of the package. One declaration should be secured to the outside of the package, and the other should be inserted inside the package. Please copy the following statements onto a piece of paper, preferably your own letterhead, and make sure to sign and date this declaration. For EDTA blood samples you may also be asked to attach a signed letter from your veterinarian on the outside of the package.

Regarding USDA Guidelines for Importation #1102 - Feline and Canine Material

I understand that a USDA import permit is not required for this material since I can provide the following true statements.

1. The material in this shipment is [canine/feline] [blood/serum/fluids].
2. This material does not contain any other animal derived material (i.e., does not contain any livestock or poultry origin material).
3. This material was NOT derived from cats and/or dogs which were inoculated with or exposed to any infectious agents of agricultural concern.

I declare that the above information is true and correct to the best of my knowledge.

Signature:

Veterinarian - Print Name:

Clinic Info / Letter Head:

Q: Should I neuter/spay my dogs that come back as carriers?

A: No, these dogs could have many fine qualities that the breed needs preserved. The important recommendation is to not breed carriers to carriers, but ONLY carriers to clear.

Q: Should I test older dogs who have already been bred?

A: Yes. This will further help identify carriers that may not have been tested yet.

Q: If my dog is actively being bred will I be able to test him or her sooner rather than later?

A: Yes. Contact Patti Henderson and inform her of the situation to obtain cheek swabs.

Q: What is the TIER system?

A: This is a system that uses the pedigree to determine level of risk – simply stated the more risk in your dog’s pedigree the higher your priority for testing. If Future Shock & other known producers which are listed are on BOTH sides of your dogs pedigree, your dog would be the highest level of risk or TIER 1 or TIER 2 based on **your** country of origin; if these known producers are only on 1 side of your dogs pedigree, then your dog will fall in TIER 3 or TIER 4; All others will be in TIER 5.

Q: Why are we using a TIER system?

A: A tier system is being used so the testing lab is not overwhelmed with samples to be tested. This way the dogs with more risk can be tested first. Please send in your samples and note which TIER Level your dog is in.

For additional answers please visit the AMSC Health Committee’s website www.amsc.us/mac and PennGen’s websites. If you still have questions please email PennGen@lists.upenn.edu