



**Borzoi Health and
Welfare Foundation**

**BORZOI HEART NECROPSY AND SUBMISSION GUIDELINES FOR
VETERINARIANS**

The Borzoi Health and Welfare Foundation 501c3 had previously teamed up with Dr. Kathleen Kelly at Penn State Animal Diagnostic Lab to begin new research on the histopathology of borzoi hearts. Dr. Kelly is leaving academia, so in the interim, any donated sudden death or control hearts and fresh lung will be shipped to Danielle Snyder. Currently, we are focusing our research on borzoi that succumb to sudden death. Unfortunately, there appears to be a hereditary predilection to sudden death in borzoi, but it is currently unknown if this is secondary to occult dilated cardiomyopathy, hypertrophic cardiomyopathy, or a channelopathy (or all of the above). The cardiac histopathology research is one of three studies that is currently focusing on heart disease in the borzoi breed.

To collect samples, we need to enlist the help of local veterinarians, who are willing to collect and ship the hearts for necropsy. Your help is sincerely appreciated in this endeavor.

Collection and Submission Process:

- Attempt to get an accurate weight of the animal.
- The heart should be removed in its entirety. If you are uncomfortable removing the heart from the pluck without damaging the SA node, the entire heart-lung block can be shipped (trim away excess lung tissue).
- If possible, gently flush large blood clots from the heart chambers. This can be done by inserting a red rubber catheter into the chambers (preferred) or make a partial thickness cross section cut about mid-chamber into the ventricles (cutting through from the anterior/ventral RV and LV, but leaving the posterior LV wall uncut as a hinge) and flushing under a tap.
- If possible, attempt to get an accurate weight of the heart if it is removed from the pluck.
- A small sample of fresh lung tissue should also be submitted. The lung tissue is to be using for future DNA analysis, so it should **NOT** be fixed in formalin.
- For weekend/holiday cases, the entire heart can be immersion fixed in 10% formalin for 48-72 hours, double-bagged, and shipped chilled without submersion in formalin during shipping.
- For cases that do not occur over weekends/holidays, pre-refrigerated hearts can be shipped overnight using ice packs or other cooling materials. **Do not freeze the specimen or ship with dry ice.** If the ambient temperatures are very low, see the first option.

Shipping:

- Specimens are to be shipped to:

**Danielle Snyder
1724 Blair Drive
Weatherford, TX 76806**

- A Mammalian Submission Form is available here: <https://borzoihealth.org/s/BHWF-heart-submission-form.pdf>



**Borzoi Health and
Welfare Foundation**

- On the form, please fill out Owner info, your information under Vet/Field Agent, and the Submitter information for the release form should be listed as:

**Borzoi Health and Welfare Foundation/Dr. Danielle Snyder
660 Twilla Trail
Azle, TX 76020
vp@borzoihealth.org**

Payment:

- Borzoi Health and Welfare Foundation will cover the cost of the heart removal and shipping fees at your clinic up to \$400. If the costs for this service are anticipated to exceed \$400, please call us.
- Arrangements have been previously made between BHWF and Penn State ADL for us to cover their submission and heart necropsy/histopathology fees.
- **Any full gross necropsy or histopathology of other organs will be performed at the owner's expense.** In addition, BHWF is unable to cover the cost of body disposal (cremation or burial) and the owner acknowledges that this is also at their expense.
- For remittance of payment for services performed, please call or email:
 - Rita Rice at (817)320-8551; email rita@ariaborzoi.com or
 - Danielle Snyder at (817)909-0817; email sataraborzoi@gmail.com or
 - Alternatively, an invoice can be mailed to:

Borzoi Health and Welfare Foundation
c/o Dr. Danielle Snyder
660 Twilla Trail
Azle, TX 76020

Thank you for your willingness to participate in this always devastating endeavor. No owner or breeder should ever have to experience the heartbreak of losing an, often young, borzoi so tragically. We hope to unlock the answers needed to prevent sudden death in the future. If you have any questions, please do not hesitate to contact us. We can be reached via the email addresses listed on our website, www.borzoihealth.org or via cell.

Sincerely,

Danielle Snyder, DVM
Vice President
Borzoi Health and Welfare Foundation