

## Collection of Swabs for Diagnosis of Respiratory Pathogens by PCR

1. PCR is a very sensitive and accurate diagnostic tool for identification of respiratory pathogens on swabs. Care should be taken in collection of swabs to avoid contamination. ***Clean exam gloves should be worn during collection of swabs and the person collecting the swabs must change gloves between EACH DOG to avoid cross-contamination.***
2. Polyester-tipped swabs with plastic handles are preferred. If these are not available, use bacterial culturettes or ear swabs. After swabbing, the swab tips should be placed in a sterile plain red top tube with no additives.
3. Two swabs should be collected from each dog and pooled together in one red top tube to maximize detection of respiratory pathogens.
  - a. A video demonstration of swab collection is available at:  
<https://www.youtube.com/watch?v=wYP4cFh398>
  - b. **For each dog**, collect a nasal swab and pharyngeal swab and **place both swabs in the same tube** to be processed together as one sample.
  - c. For the **nasal swab**, insert the swab tip as far into a nostril as possible and rub to remove epithelial cells. Most dogs will tolerate this once, but may not hold still for more attempts. Open the red top tube, insert about one-third of the swab stick, then snap or cut the handle so that the swab tip falls into the tube. Close the tube tightly.
  - d. For the **pharyngeal swab**, ask an assistant to open the mouth. Then vigorously swab the back of the oropharynx near the tonsils, taking care to avoid the tongue and heavy saliva contamination. Add this swab to the same tube with the nasal swab.
  - e. Label the tube with the dog's ID using a permanent marker such as a Sharpie pen and drop the tube into a small baggie held open by an assistant. Remove gloves. Label the outside of baggie with the dog's ID. The baggie will prevent mixup of samples and potential cross contamination.
  - f. Store the bagged samples in the refrigerator (not frozen) pending shipping. No liquids should be added to the swabs or tubes.
  - g. Complete the laboratory test submission form. Choose a laboratory that provides a comprehensive PCR panel to detect all known respiratory pathogens, including H3N2 CIV.
  - h. Contact the reference laboratory for courier pick up or other instructions for sample submission.