

# **CYANOTOXIN SAMPLING AND HANDLING PROTOCOL FOR VETERINARIANS**

**REGIONAL SCIENCE CONSORTIUM  
CANINE CYANOTOXIN TESTING PROGRAM**

**PARTNERS:**

**THE REGIONAL SCIENCE CONSORTIUM (RSC)  
SUNY SYRACUSE, NY, TOXINS ANALYSIS LABORATORY**

**AND**

**PARTICIPATING VETERINARIAN OFFICES**

**EFFECTIVE: JUNE 1, 2021 – SEPTEMBER 31, 2021**

## SAMPLE KIT CONTENTS

- Three (3) Falcon Tubes, 5 mL, sterile
- One (1) Cryovial, 20 mL, sterile
- Plastic bags
- Submission forms
- Sample labels
- Shipping container

Each sampling kit can be utilized for one canine and should include the following samples as time and procedures allow them to be obtained:

- One hair sample
- One urine sample
- One gut contents sample (if animal vomits or this can be extracted post-mortem if possible)
- One post-mortem liver tissue sample (if possible)

## WHEN TO COLLECT SAMPLES:

Please collect the appropriate samples if the canine exhibits any of these symptoms or a combination of symptoms:

- Extreme fatigue
- Staggering
- Dizziness
- Vomiting
- Diarrhea
- Weakness
- Salivation
- Difficulty breathing
- Convulsions/Seizures
- Death

## **SAMPLE COLLECTION:**

### **Hair Sample:**

1. Please take an approximate 1cm X 1cm hair sample from an affected canine (peri- or post-mortem)
2. Place hair in one sterile Falcon Tube
3. Place tube in plastic bag
4. Label with your Facility Name, date sample was taken, and circle HAIR
5. Refrigerate until shipped

### **Urine Sample:**

1. Please take a 5 mL free-catch urine sample from an affected canine (peri- or post-mortem)
2. Place urine in one sterile Falcon Tube
3. Place tube in plastic bag
6. Label with your Facility Name, date sample was taken, and circle URINE
4. Refrigerate if shipping same day
5. Freeze if shipping next day or several days later

### **Gut Contents Sample:**

1. Please take about 5 mL gut content sample from an affected canine if animal has vomited (peri- or post-mortem)
7. Place gut contents in one sterile Falcon Tube
8. Place tube in plastic bag
2. Label with your Facility Name, date sample was taken, and circle GUT
3. Refrigerate if shipping same day
4. Freeze if shipping next day or several days later

### **Liver Sample:**

1. Postmortem only
2. Please take about 200 mg liver biopsy of affected, deceased canine
3. Place liver sample in sterile Cryovial
4. Place Cryovial in plastic bag
5. Label with your Facility Name, date sample was taken, and circle LIVER
6. Refrigerate if shipping same day
7. Freeze if shipping next day or several days later

## SAMPLE LABEL

Please use one 2" X 2" sample label fully filled out and sample type circled. The labels are slightly larger than the Falcon tubes, so please apply the label in the way seen below:

<b>Regional Science Consortium CCTP Sample</b>
<u>Facility Name:</u>
<u>Date Taken:</u> ____ / ____ /2020
<u>Sample Type: (circle one)</u>
Hair    Urine    Gut    Liver



A small amount of the side of the label will come out and attach the opposite side so the whole label can be read.

Please cross out the 2020 on the label and change to 2021 manually.

## OBTAINING WATER CONTACT INFORMATION

We are trying to build a relationship between canine cyanotoxin poisonings and cyanotoxins in natural water bodies. It is imperative that we take a water sample from locations where a canine may have been exposed to the cyanotoxins as soon as possible after exposure. Please help us achieve this goal by following the steps below:

If a sample is taken for the following reasons, please follow the Water Contact Steps in numbers 1-3 below to notify the RSC of a cyanotoxin poisoning so we can take a water sample:

- Extreme fatigue
- Staggering
- Dizziness
- Vomiting
- Diarrhea
- Weakness
- Salivation
- Difficulty breathing
- Convulsions/Seizures
- Death

### Water Contact Steps:

1. Ask the client: “Has the dog been swimming in a lake, stream, or reservoir in the last 7 days?”
2. If yes, please obtain the following information:
  - a. When was the dog swimming?
  - b. Where was the dog swimming?
    - i. Exact water body and as close as can be determined to swimming location
3. After above information is obtained, please...
  - a. **Email** the Regional Science Consortium ([amber@regsciconsort.com](mailto:amber@regsciconsort.com)) as soon as possible after client has been seen/treated
    - i. Write **HAB-Vet Emergency** in subject line
    - ii. Include **date** of swimming
    - iii. Include **location** of swimming
    - iv. Include **contact information** for veterinary office
4. The RSC will take a water sample from locations relevant to the study and submit it separately to the SUNY-Syracuse Lab.

## SHIPPING AND SAMPLE FORM

**Samples must be shipped overnight on Monday, Tuesday, Wednesday, or Thursday.**

Samples that are taken on Friday should be stored in a freezer until they can be shipped. This is due to the lab processing and receiving. If samples are shipped on a Friday, they will not be received by lab personnel until Monday morning.

Packages can be dropped off at your closest FedEx. Please take this address below with you and our account number: **673344976**

Ship to:

Greg Boyer  
Toxins Analysis Laboratory  
320 Jahn Laboratory  
Syracuse, NY 13210  
315-470-6825  
[glboyer@esf.edu](mailto:glboyer@esf.edu)

Bill to account: 673344976

Ship via FedEx Priority Overnight (only ship on Monday-Thursday)

Please notify the RSC if you need shipping containers or other supplies by emailing [amber@regsciconsort.com](mailto:amber@regsciconsort.com)

Please include a completed sample form with every shipment. This information is critical for the laboratory to keep a record of each sample.

## INVOICING

Invoices for service fees to collect samples can be sent directly to [amber@regsciconsort.com](mailto:amber@regsciconsort.com)

Please bill to Regional Science Consortium

If mailing invoices is preferred, they can be sent to 301 Peninsula Drive, Erie, PA 16505

## SAMPLE SUBMISSION CHECKLIST

- Samples in proper containers
  - Hair (Falcon tube/glass)
  - Urine (Falcon tube/glass)
  - Gut contents (Falcon tube/glass)
  - Liver if possible (Cryovial/plastic)
- Samples properly labeled
- Sample in ziplock bag
- Completed sample submission form folded inside ziplock bag
- Ice or cold pack
- Correct shipping address and RSC FedEx account number
- Possible water contact has been notified to the Regional Science Consortium if information was available
- Samples shipping same day, or frozen and shipped on next available day
  - Monday-Thursday
  - Overnight only

**If you have any questions about the Canine Cyanotoxin Testing Program (CCTP) they can be directed to the following RSC personnel:**

**Amber Stilwell**  
**Research Coordinator**  
**Regional Science Consortium**  
**301 Peninsula Drive**  
**Erie, PA 16505**  
**[amber@regsciconsort.com](mailto:amber@regsciconsort.com)**  
**814-335-6891**