

# Harmful Algal Bloom-related Illness Surveillance System (HABISS)

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## HAB-RELATED HUMAN ILLNESS REPORT

Problems associated with blooms of unicellular algae, known as Harmful Algal Blooms (HABs), are global and appear to be increasing in severity and extent. HABs have many economic, ecologic, and human health impacts, such as mass mortalities of fish, marine mammals, and seabirds; economic losses from reduced tourism, fish stocks, and shellfish harvests; and a suite of public health problems associated with direct exposure to toxins and the consumption of contaminated fish and shellfish. To assess the public health impacts from HABs, the National Center for Environmental Health (NCEH) created the Harmful Algal Bloom-related Illness Surveillance System (HABISS). HABISS houses data on human and animal HAB-related illnesses (e.g., cyanobacteria poisonings, shellfish poisonings, ciguatera fish poisoning, dermatologic and respiratory complaints) and environmental data characterizing HABs. The primary goal of this surveillance activity is to collect enough data to allow state and local health departments to predict HABs and be proactive in protecting public health.

**This form is for the collection of demographic and health information for persons potentially exposed to a harmful algal bloom (HAB) in fresh, estuarine, or marine waters. Please complete the form as thoroughly as possible.**

# HAB-RELATED HUMAN ILLNESS REPORT

**ODH Use Only**

HABISS # \_\_\_\_\_

Date of this report \_\_\_\_\_

Fresh water: Anatoxin-a poisoning, Anatoxin-a(s) poisoning, microcystin poisoning...

Marine: Ciguatera fish poisoning, domoic acid (amnesic shellfish poisoning - ASP), saxitoxin (paralytic shellfish poisoning - PSP)...

## Identifying information for suspected case:

Name \_\_\_\_\_

Phone \_\_\_\_\_

Address \_\_\_\_\_

County \_\_\_\_\_

ZIP code \_\_\_\_\_

Other contact information \_\_\_\_\_

## Source of report:

- Citizen
- Healthcare Provider
- State Agency
- County Agency
- Poison Control Center
- Other

Address \_\_\_\_\_

Phone number \_\_\_\_\_

## Demographics

Date of birth \_\_\_\_\_ or Age \_\_\_\_\_

Sex  Male  Female

Race  American Indian  
 Asian/Pacific Islander  
 Black  
 White  
 Unknown  
 Other

Hispanic  Yes  No

Height \_\_\_\_\_ inches Weight \_\_\_\_\_ lbs.

## Exposure information

Date of exposure \_\_\_\_\_

Time of exposure \_\_\_\_\_

Duration of exposure \_\_\_\_\_

### Activity at time of exposure

- Occupational \_\_\_\_\_
- Recreational

Circle: Swimming, wading, boating,  
fishing, tubing/skiing, personal watercraft

Unknown Other \_\_\_\_\_

### Location

- At home
- Waterbody name \_\_\_\_\_  
location \_\_\_\_\_
- Beach/shoreline
- Other \_\_\_\_\_

### Route

- Inhalation
- Dermal contact
- Ingestion
- Unknown
- Other \_\_\_\_\_

### Source

- Food
- Brackish water
- Sea water
- Fresh water
- Drinking water
- Other \_\_\_\_\_

### Areas in contact with water

- Head or Face
- Arms or Hands
- Legs or Feet
- Neck
- Trunk
- Other \_\_\_\_\_
- Unknown

### Exposure associated with bloom:

- Yes
- No

If yes, HABISS # \_\_\_\_\_

## Environmental conditions

### Sick or dead animals

- No
- Dead fish count \_\_\_\_\_
- Sick fish count \_\_\_\_\_
- Other dead animals  
count \_\_\_\_\_ species \_\_\_\_\_
- Other sick animals  
count \_\_\_\_\_ species \_\_\_\_\_
- Unknown

### Unusual odors

- No
- Yes  
If yes, describe \_\_\_\_\_
- Unknown

### Waterbody conditions

- Moving
- Stagnant
- Unknown
- Color \_\_\_\_\_
- Clarity \_\_\_\_\_

### Scum present

- Yes
- No
- Unknown

Skip tidal questions for Ohio.

### Tidal conditions

- High tide  Flood tide
- Low tide  Ebb tide
- Slack tide  Unknown

## If source was food

### Type of food

- Shellfish
- Finfish
- Lobster/crab/shrimp
- Other \_\_\_\_\_

### Preparation

- Cooked
- Raw
- Unknown

### Store bought

- Yes, name \_\_\_\_\_
- No
- Unknown

### Restaurant

- Yes, name \_\_\_\_\_
- No
- Unknown

**Signs and Symptoms** (onset is from time of first exposure, duration is from time of onset)

Symptomatic  Yes  No  Unknown

What symptom(s) did the case first experience? \_\_\_\_\_

Chief symptoms

General

Fatigue Onset \_\_\_\_\_ Duration \_\_\_\_\_  Loss of appetite Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Fever Onset \_\_\_\_\_ Duration \_\_\_\_\_  Malaise Onset \_\_\_\_\_ Duration \_\_\_\_\_

HEENT

Earache Onset \_\_\_\_\_ Duration \_\_\_\_\_  Nasal congestion Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Headache Onset \_\_\_\_\_ Duration \_\_\_\_\_  Sore throat Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Conjunctivitis Onset \_\_\_\_\_ Duration \_\_\_\_\_  Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_

Respiratory

Cough Onset \_\_\_\_\_ Duration \_\_\_\_\_  Chest tightness Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Short of breath Onset \_\_\_\_\_ Duration \_\_\_\_\_  Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Wheezing Onset \_\_\_\_\_ Duration \_\_\_\_\_

Cardiovascular

Chest pain Onset \_\_\_\_\_ Duration \_\_\_\_\_  Cyanosis Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Irregular beat Onset \_\_\_\_\_ Duration \_\_\_\_\_ (check all that apply: \_\_ arms \_\_ legs \_\_ mouth)  
 Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_  Pale (arms/legs) Onset \_\_\_\_\_ Duration \_\_\_\_\_

Gastrointestinal

Nausea Onset \_\_\_\_\_ Duration \_\_\_\_\_  Vomiting Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Diarrhea Onset \_\_\_\_\_ Duration \_\_\_\_\_  Pain (up R quadrant) Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_  Bad taste in mouth Onset \_\_\_\_\_ Duration \_\_\_\_\_

Genitourinary

Dark urine Onset \_\_\_\_\_ Duration \_\_\_\_\_  Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Blood In urine Onset \_\_\_\_\_ Duration \_\_\_\_\_

Musculoskeletal

Muscle pain Onset \_\_\_\_\_ Duration \_\_\_\_\_  Difficulty walking Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Joint pain Onset \_\_\_\_\_ Duration \_\_\_\_\_  Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_

Neurologic

Confusion Onset \_\_\_\_\_ Duration \_\_\_\_\_  Numbness Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Memory loss Onset \_\_\_\_\_ Duration \_\_\_\_\_  Weakness Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Seizure Onset \_\_\_\_\_ Duration \_\_\_\_\_  Paralysis Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Coma Onset \_\_\_\_\_ Duration \_\_\_\_\_  Vertigo Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_  Tingling/burning Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Vision disturbance Onset \_\_\_\_\_ Duration \_\_\_\_\_

Dermatologic

Itching Onset \_\_\_\_\_ Duration \_\_\_\_\_  Rash Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Blisters Onset \_\_\_\_\_ Duration \_\_\_\_\_  Jaundice Onset \_\_\_\_\_ Duration \_\_\_\_\_  
 Other \_\_\_\_\_ Onset \_\_\_\_\_ Duration \_\_\_\_\_

If rash reported, identify the location of the rash (check all that apply):

Left hand/arm  Right hand/arm  Left foot/leg  Right foot/leg  Face  Neck  Chest  Back  
 Under swimsuit  Other \_\_\_\_\_

Describe the appearance of the rash \_\_\_\_\_

Did the case have multiple exposures  Yes  No  Unknown

If yes, when \_\_\_\_\_

If yes, did symptoms recur  Yes  No  Unknown

Other Symptoms \_\_\_\_\_

**Medical information**

Case interviewed  Yes  No  Unknown

Did the case use a dietary supplement made from blue-green algae or Super Blue-Green?  Yes  No  Unknown

Does the case take herbal supplements or drink herbal teas routinely?  Yes  No  Unknown

If yes, describe \_\_\_\_\_

Does the case use OTC pain medicine containing acetaminophen regularly (more than 5/week)?  
 Yes  No  Don't Know

Did case use any prescribed medication, OTC, or supplements in the month before onset of symptoms?

Yes  No  Unknown

If yes, list ALL \_\_\_\_\_

\_\_\_\_\_

Has the case had a cold or flu in the past 2 weeks?

Yes  No  Don't Know

How often does case drink alcohol containing beverage?

Never  < 1/wk  >1/wk  Daily

How many drinks containing alcohol does case drink in a typical day:

1-2  3-4  >5

Did the case drink alcohol within 24 hours prior to symptoms?

Yes  No  Don't Know

Does the case smoke?  Yes  No  Don't Know

How many packs a day? \_\_\_\_\_

Pre-existing medical condition?  Yes  No  Unknown

- Asthma
- Chronic respiratory disease
- Chronic skin disease
- Diabetes mellitus
- Heart disease
- Immunodeficiency disorder
- Liver disease (hepatitis, cirrhosis, fatty liver, jaundice)
- Malignancy
- Neurologic disorders
- Psychological disorder
- Renal disease
- Transplant recipient

Other \_\_\_\_\_

If female of reproductive age, is case currently pregnant or breastfeeding?

Yes, pregnant  Yes, nursing  No  Don't Know

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Case assessment**

Medical care sought  Yes  No  Unknown

If yes, type  Clinic  ER  Urgent care

Provider \_\_\_\_\_

Location \_\_\_\_\_

Phone number \_\_\_\_\_

Were lab tests conducted  Yes  No  Unknown

If yes, type and results

Blood tests \_\_\_\_\_

Cultures \_\_\_\_\_

Fecal smears \_\_\_\_\_

Histopathology \_\_\_\_\_

Skin biopsies \_\_\_\_\_

Toxins \_\_\_\_\_

Urinalysis \_\_\_\_\_

X-ray \_\_\_\_\_

What is the case's current disposition?

Released  Still hospitalized  Unknown  Dead

Notes: \_\_\_\_\_

If deceased, was an autopsy performed?

Yes  No  Pending  Unknown

[If yes, attach copy]

Case report status  Complete

Follow-up required (describe in follow-up section below)

Diagnosis

Not a HAB-related case

Not likely a HAB-related case

Suspect HAB-related case\*

Probable HAB-related case\*

Confirmed HAB-related case\*

If not HAB-related, what diagnosis \_\_\_\_\_

Notes \_\_\_\_\_

Source of final diagnosis \_\_\_\_\_

Follow-up needed  Yes  No

Photos  Yes  No (If yes, attach a signed release)

Report by (name) \_\_\_\_\_

\* based on CDC case definitions on page 5

**Other exposed people** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Description \_\_\_\_\_

\_\_\_\_\_

HABISS # (s) \_\_\_\_\_

\_\_\_\_\_

**Disease associated with this report**

*Primarily associated with freshwater:*

- Anatoxin-a poisoning
- Anatoxin-a(s) poisoning
- Cylindrospermopsis poisoning
- Lyngbyatoxin poisoning
- Microcystin poisoning
- Saxitoxin poisoning (Paralytic shellfish poisoning - PSP)
- Other \_\_\_\_\_

*Primarily associated with marine water:*

- Azaspiracid poisoning
- Brevetoxin poisoning
- Ciguatera fish poisoning
- Domoic acid poisoning (amnesic shellfish poisoning - ASP)
- Lyngbyatoxin poisoning
- Saxitoxin poisoning (Paralytic shellfish poisoning - PSP)
- Okadaic acid poisoning (Diarrhetic shellfish poisoning-DSP)
- Other \_\_\_\_\_

**CDC case definition summary for selected toxins** (for complete description see CDC *Proposed Case Definitions for Algal Toxin-related Diseases*)

**NOTE: We do not have definite case definitions for these poisonings. We cannot rule out that a person may present with symptoms immediately after exposure or days after exposure.**

Poison	Causative organism	Vector	Onset
Anatoxin-a	<i>Anabaena</i> spp. <i>Aphanizomenon</i> spp. <i>Planktothrix</i> spp.	Contaminated fresh water	minutes to hours
Anatoxin-a(s)	<i>Anabaena flos-aquae</i>	Contaminated fresh water	minutes to hours
Azaspiracid	<i>Protoperdinium</i>	Shellfish: clams, scallops, mussels, oysters	<24 hours
Brevetoxin	Dinoflagellates <i>Karenia brevis</i> Other <i>Karenia</i> spp.	Contaminated marine waters and shellfish	<24 hours
Ciguatoxins	Dinoflagellates <i>Gambierdiscus toxicus</i> <i>Gambierdiscus</i> spp	Many fish species: eel, grouper, mackerel, snapper...	<24 hours
Cylindrospermopsis	<i>Cylindrospermopsis raciborskii</i> , <i>Aphanizomenon ovalisporum</i>	Contaminated fresh water and possibly fish	hours to days
Domoic acid	<i>Pseudo-nitzschia</i> spp. <i>Nitzschia pungens</i>	Shellfish: crab, clams, scallops, mussels, oysters	<24 hours
Lyngbyatoxin	<i>Lyngbya</i> sp.	Contaminated fresh or marine waters	<24 hours
Microcystins	<i>M. Aeruginosa</i> <i>Anabaena</i> spp. <i>Planktothrix</i> spp.	Contaminated fresh water	hours to days
Okadaic acid	<i>Dinophysis</i> sp.	Shellfish: crab, clams, scallops, mussels, crabs	minutes to hours
Saxitoxins	Dinoflagellates and Cyanobacteria ( <i>Aphanizomenon</i> sp. <i>Anabaena circinalis</i> )	Shellfish (clams, cockles, mussels, oysters, whelks) or puffer fish  Contaminated fresh water	<24 hours  Unknown

**Suspect Case**

Exposure to water or to seafood with a confirmed algal bloom AND onset of associated signs and symptoms within a reasonable time after exposure AND without identification of another cause of illness

**Probable Case**

Meets criteria for *Suspect Case* AND there is laboratory documentation of a HAB toxin(s) in the water.

**Confirmed Case**

Meets criteria for a *Probable Case* combined with professional judgment based on medical review.

**Healthcare Providers:** Please fax form to the local health department of the residence of the ill individual. A list may be found at:

<http://odhlogin.sso.odh.ohio.gov/LHDdirectory/NetMgr/ODHList.aspx>

If you are unable to identify the residence, please send to your local health department.

**Local health departments please fax forms to: (614) 564-2456**

Harmful Algal Blooms (HAB)

Outbreak Response and BT Investigation Team (ORBIT)

Ohio Department of Health (ODH)



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