

In the News – Three Health Safety Alerts

#1 - The CDC has issued an Advisory, via the Health Alert Network, to alert clinicians, hospitals, & health departments to be aware & looking for cases of acute non-viral hepatitis, associated with an alkaline water product, and to report any cases to their local/state public health authorities.

"The FDA advises consumers, restaurants, and retailers not to drink, cook with, sell, or serve Real Water alkaline water until more information is known about the cause of the illnesses." They also advise that it not be given to pets.

The FDA, CDC, and are investigating the definitive cause & source of cases of acute non-viral hepatitis diagnosed in five (5) infants & children, ages 7 months to 5 years. They required hospitalization and transfer to pediatric specialized centers for potential acute liver failure and the possible need for liver transplants. All recovered from their illnesses. Five (5) more adults and children, from the same four households as those diagnosed, had less severe symptoms but were not tested or hospitalized. The cases occurred back in Nov & Dec of 2020, but were not reported to the CDC and FDA until 3/13/21.

Although the investigation continues, along with the search for other possible causes, the only common finding, considered a strong link, among the four (4) affected households is the use of Real Water Alkaline Water. Real Water, Inc has not been cooperating with these agencies and, per the FDA, although they finally announced a Precautionary Recall of their "Real Water" Alkaline products, in all sizes, on March 24, 2021, they have still not notified all those, who purchased or had water delivered, of the recall, have not provided documents requested by the FDA, or allowed access to Real Water, Inc. facilities (in Mesa, AZ & Henderson, NV) to complete the investigation. And, as of 3/31/21, Real Water, Inc. is still promoting the water on social media and was available, in different ways, throughout the country.

Symptoms of hepatitis may include: fatigue, fever, anorexia (loss of appetite), nausea, vomiting, joint pain, **abdominal pain, dark urine, light or clay-colored stools (feces), yellow eyes or skin.**

Immediate medical evaluation of these symptoms, particularly if even one of the **bolded** symptoms are present, is essential.

What EMS & First Responders Can Do:

1. Assure that Real Water Alkaline Water is not being used in your home or workplace. If so, isolate it so it is not used and seek direction. Notify everyone involved that might have ingested it, even in cooking or for pets, and monitor for signs/symptoms of illness listed below. Be alert to its presence if seen while on alarms, particularly if on a call reference any of the symptoms.

2. Although non-viral hepatitis is NOT infectious, there is no way to determine, in the pre-hospital setting, whether these symptoms are caused by any type of hepatitis or something else involving the liver, pancreas, or gallbladder. Since an infectious disease cannot be ruled out, **Standard precautions** (aka Universal) & **Contact precautions** should be in place whenever a GI illness is suspected, whatever the cause. The best approach is to **add** Contact precautions whenever there is vomiting or diarrhea. Alert your Designated Infection Control Officer or other appropriate person if there was a potential exposure. They will follow-up, if appropriate, with the receiving hospital on your behalf.

3. As always, be aware of the baby, child, or adult that can't maintain hydration due to lack of interest, multiple episodes of diarrhea (with a baby or young child, one or two watery stools can be fluid & electrolyte depleting), vomiting, or fever, little to no urine production, or dark urine (either concentrated or brown) should be transported, per protocol & policy, for further evaluation by hospital personnel to both manage and diagnose the cause.

If you see any signs of jaundice, often visible first in the sclera (whites) of the eyes but also in the skin, clay- or light-colored stools, these symptoms are even more likely to involve the liver and should be transported as well, even if their status is otherwise stable, unless otherwise directed by medical oversight. Dark colored urine, which can be a sign of too much bilirubin related to liver issues, but can also point to other issues (i.e., rhabdomyolysis, ingested toxins, bleeding in the GU system, etc) that need immediate follow-up, should be managed the same way.

Abdominal pain may also be present in hepatitis and other causes. Be suspicious of hepatitis if combined with some of the other listed symptoms and treat/transport per protocol. If there are multiple people in the same household, multiple households (whether they know each other or not), or there are reports in the community with the same symptoms, as above, transport for further assessment & care, as per protocol & policy.

Notify the receiving facility of other known cases in the area, as well as your Medical Director and/or Designated for case follow-up. Fever, often high, fatigue, and loss of appetite are also part of the symptom set for hepatitis, as well as other illnesses so, in the absence of more disease-specific symptoms, treat per protocol.

4. Obtain a careful history when symptoms associated with hepatitis are found, when multiple people are ill or there is notice of a GI illness in the community. Ask about medications, supplements, water sources for drinking as well as bathing and animal care/handling, wild collection of food such as herbs, mushrooms or other plants. Report responses, as indicated, when transferring the patient(s) to other medical personnel.

CDC -- Health Alert Network (HAN) Advisory on Acute Non-Viral Hepatitis:
<https://emergency.cdc.gov/han/2021/han00441.asp>

FDA -- Order to Not Drink Real Water Alkaline Water with Pictures of Products:
<https://www.fda.gov/food/outbreaks-foodborne-illness/investigation-acute-non-viral-hepatitis-illnesses-real-water-brand-alkaline-water-march-2021>

FDA – Investigation Briefing on Real Water & Possibly Linked Bottled Water:
<https://www.fda.gov/news-events/fda-brief/fda-brief-fda-investigates-source-non-viral-hepatitis-cases-possibly-linked-bottled-alkaline-water>

FDA -- Post of REAL Water, Inc. Company's Recall of All Real Water:
<https://www.fda.gov/safety/recalls-market-withdrawals-safety-alerts/real-water-inc-issues-precautionary-recall-all-sizes-real-water-brand-drinking-water-due-possible>

Southern Nevada Health District Announcement:
<https://www.southernnevadahealthdistrict.org/faq-non-viral-hepatitis-linked-to-real-water-brand-alkaline-water/>

Food Safety News -- Real Water, Inc. Is Not Responding to FDA; Records Ordered:
https://www.foodsafetynews.com/2021/03/fda-demands-records-from-bottled-water-company-linked-to-hepatitis-outbreak/?utm_source=Food+Safety+News&utm_campaign=de9bafba66-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_f46cc10150-de9bafba66-40133463

Arstecnica – Article by their Medical Writer Regarding the Real Water Co. Failure to Respond to FDA Concerns & Demands Regarding Non-Infectious Hepatitis:
<https://arstecnica.com/science/2021/04/water-company-linked-to-liver-failure-spars-with-fda-cant-find-plant-manager/>

#2 - Salmonella Outbreak Likely Associated with Songbirds in 8 States:

The CDC is investigating an outbreak of illness caused by the bacteria, Salmonella. It's suspected to be from contact with songbirds, either directly or indirectly via their feeders, birdbaths, waste, or contact with other animals/pets that have had contact with the birds.

Infections in 8 states have resulted in 19 infections in humans from 2 months to 89 years. This has resulted in 8 hospitalizations so far. There have been NO deaths. Birds appear healthy while carrying Salmonella and infection is most often picked up without seeing any sign of contaminated debris or stool.

Most people weather Salmonella infection well, recovering in 4-7 days without antibiotics. However, those under age 5 or 65 and older, others with compromised immune systems from birth, diseases, age \geq 50 with chronic illnesses, or due to immune suppressing

medications are often prescribed antibiotics to prevent serious illness, complications or death. All those infected need to maintain adequate hydration & electrolytes from the diarrhea and/or vomiting. Basic symptoms include fever, diarrhea, GI cramps (see #2 below for more serious signs & symptoms requiring aid).

What EMS & First Responders Can Do:

1. Keep a look out for symptoms of Salmonella, particularly for those at risk or more serious illness, as above. Assess, treat for dehydration, as needed, and transport those in the high-risk category for further evaluation. At a minimum, it should be made clear that anyone with symptoms should be monitored closely and contact with their health care provider made. Someone other than the patient may be more appropriate to do the monitoring.
2. **Signs & symptoms requiring transport or urgent medical follow-up include diarrhea & a fever greater than 102° F (38.9° C), diarrhea for more than 3 days that is not improving, bloody diarrhea, or vomiting that prevents the ability to keep fluids down. Any signs of dehydration -- not urinating enough, dry mucous membranes, sunken eyes, tenting skin (in infants, their fontanel [soft spots] may be sunken/depressed), feeling dizzy when standing or moving around, and/or loss of consciousness or other AMS** also require supportive care & transport to a hospital ED for evaluation & further care.
3. **Standard precautions** (aka Universal) & **Contact precautions** should be in place whenever a GI infection is suspected, whatever the cause. The best approach is to add Contact precautions whenever there is vomiting or diarrhea.
4. If you find a sick or dead bird, or someone brings or reports one to you, don gloves before touching or handling it. The best thing to do is report it to your state wildlife agency (see link below), and follow their instructions. Some counties and states will pick up sick or dead birds to evaluate for diseases that occur in birds, often an early warning sign of this or other infectious diseases. Make sure that anyone who has had contact with the bird or its surroundings, wash their hands, or anything that came in contact with the bird, with bactericidal soap for at least 30 seconds. Clothing or other cloth items should be washed in hot water and a disinfectant.

CDC – Investigation of Salmonella in Songbirds in Multiple States Causing Illness:
<https://www.cdc.gov/salmonella/typhimurium-04-21/index.html>

CDC – Salmonella Investigation Details:

<https://www.cdc.gov/salmonella/typhimurium-04-21/details.html>

CA Dept of Fish & Wildlife --

<https://cdfgnews.wordpress.com/2021/02/08/salmonellosis-outbreak-causing-songbird-deaths/>

Assoc. of Fish & Wildlife Agencies – List & Links to Agencies in the US & Canada:

<https://www.fishwildlife.org/landing/membership/member-list>

CDC – Questions & Answers on Salmonella:

<https://www.cdc.gov/salmonella/general/index.html>

#3 - The Canadian Food Inspection Agency (CFIA), during regular testing, has found excessive toxic levels of amygdalin in certain imported apricot kernels (pits of the fruit). This would present as cyanide poisoning if too many are ingested (or they are eaten by babies, children, or others with lower toxic level thresholds).

This food-related item has not caused any known injuries (poisonings), but are still in-date and may be worth knowing about to share with family and friends, and professionally, for use with EMS response calls that might involve any of these products.

The European Food Safety Authority proffered in 2016, according to *Food Safety News* (News Desk, Mar 17, 2021- see Links below), that eating more than 3 small raw apricot kernels or less than a half of a large kernel, in one serving, can exceed safe levels. Canada lowered the toxic threshold for amygdalin in January 2020 and are testing products accordingly. Amygdalin is naturally occurring in the raw pits of apricots, peaches, plums, cherries, apples and bitter almonds (many other plants contain small amounts of amygdalin but the stone fruits and bitter almonds carry larger amounts). Once ingested, the body converts it to cyanide, which in small amounts the body eliminates without harm. But, more than a small amount of cyanide can lead to serious poisoning and even death. Raw apricot pits, as well as others, have been touted for health benefits, including a reportedly false claim of curing cancer.

The first recall was on **3/11/21** for **Organic Traditions Apricot Kernels**, followed by a second **3/17/21** recall for **two different packages, marked with Chinese characters, & labeled Bitter Apricot Kernels (Mandes D'abricot); packaged by Wah Yan Tong**. There was a third recall on **3/24/21** for **Double Happiness apricot seed mix**.

CYANIDE is a cellular asphyxiant (causes cellular suffocation).

Signs & Symptoms of Cyanide Poisoning include headache, nausea/vomiting, confusion, dyspnea (difficulty breathing/SOB), tachypnea (rapid breathing), tachycardia (rapid heart rate), & hypotension (low blood pressure). If the amount ingested is large

enough, the presentation may worsen to bradypnea/apnea (abnormally slow breathing/no breathing), seizure, coma, complete cardiovascular collapse, and death. Note: pulse ox readings will typically be normal, but EtCO₂, particularly with larger doses, will not be since there is very little, if any, O₂/CO₂ exchange occurring in the cells.

This occurs because there is plenty of oxygen (O₂) saturated on the hemoglobin of the red blood cells, but the cells of the tissues that desperately need the O₂, can't use it due to the mechanism of the cyanide on all the tissue cells. Therefore, the O₂ typically remains saturated on the RBCs unless an antidote is introduced, or the dose is small enough that the body eliminates it over time. So, low doses of cyanide that the body can handle may have normal pulse ox and even EtCO₂ numbers, but serious or severe cases will likely have normal/high pulse ox readings, particularly if receiving O₂ or BVM/BVT therapy, but EtCO₂ numbers will be low or steadily declining as the cells no longer function (die).

Note: there is another, more typical alarm, in which cyanide often has at least some effect on those that have symptoms. This occurs during a fire or when someone has smoke inhalation. Cyanide gas is released when plastics or treated lumber burn, so even someone not burned, but in the area where the fire occurred, or was pulled out unconscious or in shock should be evaluated for carbon monoxide and cyanide poisoning.

What EMS & First Responders Can Do:

1. Be aware of the signs & symptoms of cyanide poisoning, both mild & severe (see above). Remember that this is one of the limited, but not the only, scenarios when the patient will likely be starved for oxygen but have normal pulse ox readings. Use CO₂ to help narrow the likely presentation differential, and look for both medical/food/supplement history, as well as scenario history to determine what may have happened. Consult Medical Control and/or your Poison Control Center (in Canada, centers are area specific, see https://safemedicationuse.ca/tools_resources/poison_centres.html or in the US 1-800-222-1222), if indicated and part of your protocol. Use cyanide treatments [e.g., Cyanokit(s)], if available & indicated, part of your protocol, and approved by medical control.
2. Efficiently transport anyone whose presentation suggests there may be cyanide poisoning, preferably to a place that can do cyanide testing and treatment. Take any bags of product with you to the A&E/ED.

3. Give the results of all the scene & history assessments to Medical Control and/or the receiving hospital, per policy & protocol, so that a team can be assembled to receive the patient. A toxicologist, at bedside or by phone, can be very helpful in identifying signs/symptoms, suggesting labs and other assessments, as well as treatment(s).

Food Safety News Report (3/11/21) - Canadian Food Inspection Agency (CFIA) - 1st Recall of Apricot Kernels (Organic Traditions) because of Excessive Toxins Level:
https://www.foodsafetynews.com/2021/03/apricot-kernels-with-excessive-levels-of-toxin-recalled-cyanide-risk-cited/?utm_source=Food+Safety+News&utm_campaign=1502682bfb-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_f46cc10150-1502682bfb-40133463

Food Safety News (3/17/21) – CFIA – 2nd Recall of Certain Imported Apricot Kernels:
<https://www.foodsafetynews.com/2021/03/cfia-warns-consumers-about-certain-apricot-kernel-products-that-may-cause-cyanide-poisoning/#>

Food Safety News (3/24/21) -- CFIA 3rd Recall of Apricot Kernels (Double Happiness) Since Early March:
<https://www.foodsafetynews.com/2021/03/more-apricot-kernels-recalled-for-risk-of-cyanide-poisoning/#>

Global News – Report on Health Canada Releasing Warning for Apricot Kernels (Seeds):
<https://globalnews.ca/news/3899719/health-canada-apricot-kernels-warning-cyanide/>