



**COUNTY OF ORANGE  
HEALTH CARE AGENCY**

**PUBLIC HEALTH  
EPIDEMIOLOGY & ASSESSMENT**

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TO: Orange County Health Care Providers  
RE: **Recall of Frozen Strawberries Potentially Contaminated with Hepatitis A Distributed Nationally, Including in Orange County**

A large recall of frozen strawberries from Egypt has been issued due to the potential for hepatitis A contamination. This voluntary recall was issued as part of an ongoing Food and Drug Administration (FDA) and Centers for Disease Control and Prevention (CDC) investigation of a multi-state hepatitis A outbreak linked to frozen strawberries mainly on the East Coast (<http://www.fda.gov/Food/RecallsOutbreaksEmergencies/Outbreaks/ucm518775.htm>). The recalled frozen strawberries were packaged under multiple brands and distributed for sale throughout the United States, including in California, for use in food service establishments. These were not offered for retail sale to consumers but may have been served in many locations throughout Orange County (see Orange County Health Care Agency Environmental Health website for [Orange County list](#) or California Department of Public Health (CDPH) website for [California list](#)).

**To date, there have not been hepatitis A cases in Orange County associated with this outbreak or this recall. However, Orange County health care providers should be aware of this potential exposure in evaluating patients with signs and/or symptoms of hepatitis A and/or in managing patients who may have consumed the potentially contaminated frozen strawberries from Egypt.**

**Recommendations:**

- Consider hepatitis A virus (HAV) infection in persons with signs and/or symptoms of hepatitis, which include jaundice, dark urine, fever, malaise, anorexia, nausea, diarrhea, and abdominal discomfort, and increased transaminases (AST/ALT). Many cases, especially children have mild or asymptomatic infection. The incubation period for HAV infection ranges from 15–50 days.
- Send serum for HAV IgM in all suspect hepatitis A patients. Testing persons who consumed the recalled strawberries but have NO signs or symptoms of hepatitis is NOT recommended. Total HAV Ab is NOT helpful in the diagnosis of acute hepatitis A.
- **Report any suspect or confirmed hepatitis A patients promptly to Orange County Public Health Epidemiology by phone 714-834-8180 or by fax 714-834-8196.**
- Advise any suspect or confirmed hepatitis A patients to refrain from food preparation for others and stay home from work if in a sensitive occupation (food service, health care, or child care) for at least one week after jaundice onset or symptom onset (if no jaundice), whichever is later. Public Health will advise persons in sensitive occupations when they can return to work.
- Administer post-exposure prophylaxis (PEP) to susceptible (non-immune)\* close personal contacts, including household and sexual contacts, of persons with hepatitis A as soon as possible within two weeks of the last exposure to the case. See the next page for more information about PEP.
- **Consider PEP in susceptible\* persons who have eaten the recalled strawberries in the past 14 days.** See the next page for more information about PEP.

\* Immunity against hepatitis A includes history of previous hepatitis A infection, hepatitis A vaccination (at least one dose of single-antigen HAV vaccine), or testing IgG anti-HAV positive.

For general information about hepatitis A, see [our recent advisory](#), the HCA website ([www.ochealthinfo.com](http://www.ochealthinfo.com)), or call Orange County Public Health Epidemiology at 714-834-8180.

**Post Exposure Prophylaxis (PEP) Recommendations for Hepatitis A**  
**from California Department of Public Health Healthcare Provider Advisory 11-2-16**  
[http://www.cdph.ca.gov/programs/immunize/Documents/CDPH\\_HAV%20PEP%20Clinical%20Guidance.pdf](http://www.cdph.ca.gov/programs/immunize/Documents/CDPH_HAV%20PEP%20Clinical%20Guidance.pdf)

Post-exposure prophylaxis with single-antigen hepatitis A virus (HAV) vaccine or intramuscular (IM) immune globulin (IG) (0.02 ml/kg), or both, is recommended for susceptible people exposed to HAV within the last two weeks. The following PEP regimens are recommended by the California Department of Public Health (CDPH):

Age/years	<1*	1-40	41-59	60-74*	75+*
Healthy	IMIG	Vaccine preferred	Vaccine and/or IG	IMIG; vaccine if IMIG is in short supply or unavailable	IMIG; vaccine if IMIG is unavailable
Other†	IMIG	IMIG	IMIG	IMIG	IMIG
Consider vaccine + IMIG for possible longer-term protection					

\*If IMIG is in short supply or unavailable, single-antigen HAV vaccine may be used for PEP in healthy people 60-74 years of age and in infants >6 months of age. If IMIG is unavailable, single-antigen HAV vaccine may be used for PEP in healthy people 75 years of age and older.

**†People who should receive IG for PEP regardless of age**

CDC recommends that the following people, regardless of age, receive IMIG PEP because they are at increased risk of severe hepatitis A infection or may have a decreased immune response to vaccine. Vaccine may be given in addition to IMIG to potentially provide longer-term protection, but vaccine response may be limited. Clinical guidance should be obtained if patient's immune status is unclear.

- Persons with chronic liver disease (e.g., cirrhosis)
- Immunocompromised persons, including persons:
  - With HIV/AIDS;
  - Undergoing hemodialysis;
  - Who have received solid organ, bone marrow or stem cell transplants;
  - Receiving high dose steroids (>2mg/kg/day);
  - Receiving chemotherapy, immune modulating and/or biologic medications,‡ and
  - Persons who are otherwise less capable of developing a normal response to immunization.

‡mercaptapurine, methotrexate, infliximab, adalimumab, etanercept, tacrolimus, mycophenolate, etc.

There is only one manufacturer of IMIG in the United States. GamaSTAN® is available in 2 mL and 10 mL single use vials. One source of IMIG is FFF Enterprises, which can be reached 24/7 at: 1-800-843-7477.

For more information, see:

- [https://www.cdph.ca.gov/programs/immunize/Documents/CDPH\\_HAV%20PEP%20Clinical%20Guidance.pdf](https://www.cdph.ca.gov/programs/immunize/Documents/CDPH_HAV%20PEP%20Clinical%20Guidance.pdf)
- <https://www.cdph.ca.gov/programs/immunize/Documents/CdphHavIGPepGuidance.pdf>

**Screening Tool to Evaluate Patients for Hepatitis A PEP Who Report Consuming Recalled Frozen Strawberries from Egypt**

(Adapted from California Department of Public Health and Colorado Department of Public Health and Environment guidance)

**Exposure:**

Did you eat strawberries at a restaurant or other facility on the list of facilities with recalled strawberries?

Yes  No  Not sure

If yes, did you eat any of them in the last 14 days?  Yes  No  Not sure

*If person consumed recalled strawberries but not within the past 14 days, s/he will not be eligible for PEP. Counsel person on symptoms of hepatitis A and ask them to contact you if they develop symptoms. Discontinue screening and do NOT administer PEP.*

**Immunity:**

Have you ever been diagnosed with hepatitis A?  Yes  No  Not sure

Have you ever received the hepatitis A vaccine?  Yes  No  Not sure

*If yes:* When? \_\_\_\_\_ How many doses?  1  2  Not sure

Have you received an immune globulin (IG or gamma globulin) shot in the last 3 months?

Yes  No  Not sure *If yes:* When? \_\_\_\_\_

*If person said "yes" to any of the above immunity questions, s/he will NOT need PEP. A previous history of hepatitis A infection or A vaccination (at least one dose of hepatitis A vaccine, at least one month before exposure, is considered protection against hepatitis A). Discontinue screening and do NOT administer PEP.*

**Recent illness:**

During the past two months have you had:

Dark urine (like tea or a cola drink)  Yes  No  Not sure

Yellow skin or eyes  Yes  No  Not sure

*If person said "yes" to these symptoms questions, s/he should be evaluated for hepatitis A infection before PEP is administered to determine if s/he possibly has hepatitis A. See "Recommendations" on first page of this advisory.*

**PEP eligibility:** A person is eligible for PEP (vaccine or IMIG as appropriate) if all of the following criteria are met:

1. The person ate strawberries at a restaurant or other facility that served recalled strawberries.
2. The person ate the recalled strawberries within the last 14 days.
3. The person does not have a previous history of hepatitis A infection or hepatitis A vaccination. At least one dose of hepatitis A vaccine, at least one month before exposure, is considered protection against hepatitis A.
4. The person has not had jaundice (yellow skin or eyes) or dark urine (like tea or cola) within the last two months.

**Eligible for PEP:**  Yes  No