



AACT and PEHSU Information on Gulf Coast Oil Spill

The American Academy of Clinical Toxicology ([AACT](#)), and the Pediatric Environmental Health Specialty Units ([PEHSU](#)) Network encourage families, pediatricians, and communities to work together to ensure that children are protected from exposure to environmental hazards.

Children are Vulnerable

Environmental hazards are especially harmful to children. They eat, drink, and breathe more than adults on a pound for pound basis. A child's nose and mouth are closer to the ground than the nose and mouth of an adult; so children more easily breathe in pollutants in the air, which may accumulate close to the ground if they are heavier than air. Because children play on the ground, they are more likely to have skin contact with pollutants than adults. Toddlers may crawl and as a result, may get contaminated soil, sand and other substances on their hands and clothes. They may have increased exposure if their hands aren't washed before eating, if they put their hands in their mouths after crawling through a contaminated area or if there's absorption of chemicals across the skin from clothing, etc. Children are in a critical period of development when toxic exposures can have profound negative effects, and their exploratory behavior often places them in direct contact with materials that adults would avoid. In the aftermath of an oil spill, particular attention should be paid to physical dangers, water contamination, and exposure to substances or situations that could potentially harm children. This situation may become more complex if there are [hurricanes/storms or floods](#).

Steps to Take to Protect Children from Hazards

The oil spill in the Gulf Coast may expose children to a number of hazards and concerns. Until the oil spill is resolved, the following should be kept in mind:

- The US Environmental Protection Agency (US EPA) is undertaking an increasing amount of [testing](#) of environmental air, water, and soil/sediment for various substances ranging from volatile organic compounds or VOCs to particulate matter to Sulfur containing compounds. These substances have the potential to cause various health effects depending upon the level of exposure, the duration of exposure, and the susceptibility of the individuals exposed.
- The Centers for Disease Control and Prevention (CDC) is providing health guidance based upon these [results](#).
- It is important to keep in mind the unique factors described above that may render children especially vulnerable. Parents and caregivers should follow the state health department and local health department and CDC reports and recommendations closely and should urge their children to do the same.
- Local Poison Control Centers (1-800-222-1222 or www.aapcc.org) are available to respond to questions related to acute exposures.

- The PEHSU network is available to assist with additional questions, particularly those regarding low dose, long term exposures [888-347-2632 or www.pehsu.net].

These resources can help families understand and follow environmental testing results and health recommendations.

Recommendations for contact with shore areas or involvement with clean up efforts:

- Children should not be allowed to play in or around areas where the water or beach contains oil or sludge.
- Adults should handle clean-up efforts, including issues related to animals or birds exposed to the oil.
- Children, and whenever possible teens, should not be involved in clean-up efforts but should only return after the area is cleaned up. In short, children should be the last group to return to areas impacted by oil or other toxic substances.

Potential for unknown risk:

There may be unknown risks or health effects from exposure to the oil or other toxic agents.

- The potential for contamination of food and drinking water sources and supplies exists, and residents should be attentive and follow any health alerts or advisories from local authorities.
- Neither children nor anyone else should eat fish or seafood from oily waters.

The oil washing up on shore is referred to as weathered oil. This means it has not only been mixed with seawater but also exposed to sunlight and air. It is not like crude oil coming out of the ground or refined oil like motor oil. For parents and health care providers, understanding the potential risks to children is difficult because so little is known about the toxicity of weathered oil and the resulting weathered oil mixed with sand which are often called “tar balls”. According to the National Institute for Occupational Safety and Health (NIOSH) skin and respiratory problems were the most common complaints from workers who cleaned up previous spills, but little is known about long-term effects. It is prudent to restrict children from touching or playing with oil that makes its way to shore and from swimming in water contaminated with oil or dispersants. Parents should check with local health officials to determine which beaches or shore areas are affected (see links below).

Frequently asked questions:

1. What if my child is exposed to oil?

Wash hands with soap and water after oil contact.

If necessary clean off oil with baby oil or suntan lotion. If these are ineffective, try a low-toxicity product such as a citrus based cleaning agent that states it is safe for use on skin. Do not use gasoline or other dangerous products.

Watch for skin or eye irritation

2. What if there is a bad smell or odor?

The chemicals in the oil can irritate the eyes, nose and throat even at low concentrations. If you smell odors, you should report that information to authorities. For now, if the smell bothers you, stay indoors, close the doors and windows, and turn on your central air conditioning. If you have a window air conditioner, instead of a central unit, it may be better not to use the air conditioner or to turn the settings to the recirculation mode, which closes the outside ventilation feature.

Smelling a bad odor does not automatically mean that the polluted air will cause injury. For many substances related to the spill, the ability to smell an odor may be at levels below those shown, primarily in adults, to cause injury.

There is very little information on these exposures to children, particularly over the long term. Children with chronic respiratory conditions like asthma may be more vulnerable. The most recent data, as of June 16, 2010, indicates that air levels of volatile organic compounds, semi-volatile organic compounds, and sulfur containing compounds are below occupational health references but may be above some individual's odor threshold. In addition, these levels may change over time as conditions in the gulf are changing. It is prudent, therefore, to periodically recheck monitoring information.

3. Should I wear a face mask of some kind?

Wearing a face mask (surgical mask, N95 respirator, etc.) is not recommended and will not help with the smell. The chemicals that can be smelled from the oil spill are called volatile organic compounds or VOCs and can only be filtered by an activated charcoal mask. If you are officially involved with clean up, you should follow the protection and mask recommendations of the authorities involved with the clean up.

4. My child has asthma, what should I do?

Children with asthma may be more sensitive to health effects from breathing polluted air than others. In general, consult with your primary care provider. As always, consult your local health department for ozone alert and other routine air pollutant levels as well as allergen levels if your child has these as potential triggers. In addition, check as described above for any oil spill specific coastal air monitoring data. When in doubt, avoid directly affected beach and coastal areas.

5. What about seafood contamination?

Crude oil has the potential to taint seafood with flavors and odors caused by contamination with hydrocarbon chemicals and render seafood unfit to eat. Federal and State authorities are monitoring the waters from which seafood is harvested and they have already closed some areas to commercial fishing. It is very important to learn about changing closures and to strictly obey all fishing and oyster bed restrictions. As of June 16, 2010, seafood caught in areas that remain open for fishing are recognized by public health and food experts as being safe to eat. However, to be safe, follow the usual rules and do not eat food that has an unpleasant or unusual smell or that tastes differently than expected.

6. Is it safe for my children to play on the beach or go in the ocean?

Oil is coming up on some beaches around the gulf coast, but most beaches are so far free of contamination. Before heading to the beach, it's a good idea to check with local or state authorities about beach conditions. The US EPA and local authorities are closely monitoring the situation.

Common sense would suggest that beachgoers should avoid swimming in water that's visibly contaminated by oil. Remember that children tend to swallow water when they swim unlike most adults. Crude oil contains many toxic chemicals, including volatile and semi-volatile organic compounds. Fresh crude oil is a skin irritant that may cause redness, burning and even ulcers with

prolonged contact. Not surprisingly, children can be more vulnerable to environmental contaminants than adults. Fortunately the more toxic chemicals tend to disperse and evaporate and the spill is far off shore. Most of the oil washing up along the coast has been 'weathered' into tar balls that are less toxic. Even so, it is prudent to discourage your children from touching or playing with any tar balls or oil slicks. Though the oil washing up on the beaches probably isn't as harsh, it's still a good idea to keep it off your skin.

7. How long should children be allowed to play outdoors when we can smell the oil?

Some children may be more sensitive to health effects than others, particularly children with asthma. As long as public health authorities continue to report extremely low levels of air contaminants, outdoor play continues to be appropriate. Each child, however, should be considered individually, recognizing that parents should minimize exposure if odors prove irritating.

8. Is my water safe to drink?

The oil spill is currently not expected to affect drinking water. Experts do not expect oil to migrate far enough up the Mississippi River to where drinking water intakes begin, but of course this situation could change. If you live near that region or even just visiting, pay attention to information being distributed by local authorities and water utilities. If you use well water, oil is not expected to impact domestic wells. If you detect any changes in the taste or smell of your water, contact your water supplier. If you have a private well, consider getting your water tested and seek a different source of drinking water in the unlikely event of contamination.

9. Members of my family are working on clean-up. Are there precautions we should take?

There is no indication of exposures being brought home on clothes from clean-up works. However, simple precautions can be taken. If workers have been wearing protective outdoor gear, they should remove it before entering either their home or family car. If they are not wearing protective outdoor gear, whenever possible, workers should shower and change clothes before entering the family car or home. When this is not possible, they should shower immediately upon returning home and their work clothes should be washed separately from family laundry.

Talking to Children and Helping them to Cope is Important

- When children are exposed to situations that are beyond the scope of their usual experience, they may have difficulty understanding and coping with the events.
- Talking to children about the oil spill can help them understand the situation, including the risks they may be exposed to on a day-to-day basis, and what they can do to keep themselves safe.
- Some children may develop a range of stress-related symptoms. For example, it may be upsetting for them to see dead or oil-covered birds or animals. Adults may need to take steps to promote adjustment and [help children cope](#).
- Some children may develop a range of stress-related symptoms. Parents should watch for signs of stress such as sleep difficulties, behavior pattern change, change in school performance, increased fighting with siblings, and substance abuse. It is important to make your child's doctor aware if your child or teen develops any of these problems. Adults may need to take steps to promote adjustment and help children cope. Raising a family and taking care of children is challenging when there are tough economic conditions. Children can sense stress and become anxious or upset if no one communicates with them. Adults should [talk to kids](#) about the economy and the potential economic effects of the oil spill.
- Communities may need to designate or identify outdoor areas (parks, playgrounds, yards, etc.) that are clean and free from safety and environmental hazards. This would include

ensuring that routes to and from living, learning, and playing places are cleaned and made free of safety and environmental hazards.

Resources

What You Can Do (US Environmental Protection Agency)

<http://www.epa.gov/bpspill/whatyoucando.html>

CDC (Centers for Disease Control and Prevention)

<http://emergency.cdc.gov/gulfoilspill2010/>

Food and Drug Administration (FDA)

<http://www.fda.gov/Food/ucm210970.htm>

Deepwater BP Oil Spill and Federal Response (White House)

<http://www.whitehouse.gov/deepwater-bp-oil-spill/>

American Academy of Pediatrics Children and Disasters Web site

<http://www.aap.org/disasters/index.cfm>

Pediatric Environmental Health Specialty Units

www.pehsu.net

State Health Department Websites:

Louisiana: <http://www.dhh.louisiana.gov/offices/?ID=378>

Alabama: <http://www.adph.org/riskcommunication/Default.asp?id=4362>

Mississippi: http://msdh.ms.gov/msdhsite/_static/23,9689,195.html

Florida: <http://www.dep.state.fl.us/deepwaterhorizon/>

Disclaimer: Based upon interpretation of the current literature, the organizations listed above are providing this guidance for persons who wish to take a precautionary approach to personal decisions, and is not meant to substitute for personal medical consultation with your health care provider.

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