

**CHILDREN'S ENVIRONMENTAL HEALTH CENTER OF THE HUDSON VALLEY**  
**PROTECTING CHILDREN AGAINST ENVIRONMENTAL THREATS**

[www.ChildrensEnvironment.org](http://www.ChildrensEnvironment.org)

**JUNE 24, 2010 - CHILDREN'S HEALTH ADVISORY - GULF OF MEXICO OIL SPILL**

**June 24, 2010:** The [Children's Environmental Health Center of the Hudson Valley](http://www.ChildrensEnvironment.org) released its second Children's Health Advisory regarding the potential effects on children's health from the ongoing oil leak in the Gulf of Mexico.

Children are particularly sensitive to any environmental hazard, including those that may be related to the oil leak. Children breathe more air and eat or drink more, relative to their body weight. Some pollutants can even be absorbed through their skin. Young children may be less able to detoxify chemicals, and since they are still growing and developing, toxic agents may do lifelong harm. For all of these reasons, we all must pay particular attention to protecting our children.

It has been almost two weeks since our last advisory. The amount of oil being collected from the leak has gradually increased, but even that process has proven difficult. Hopefully, we are getting closer to the day when the leak is completely stopped, but no one really knows for sure when this will happen. In the meantime, estimates of the total spill seem to increase every week. It will be quite a while before all short-term or long-term health effects of the spill are completely understood.

**Frequently Asked Questions:**

**Why is oil spilled into the ocean so difficult to clean up?**

As explained by [Dr. Diane Heck](#), Professor and Chair of Environmental Health Sciences at New York Medical College, "The major human health-related problem following an oil spill is the formation of persistent water in the crude oil emulsion. The formation of viscous emulsions increases the volume of oil residue by three to four times and makes it difficult to recover. These emulsions seriously impact coastal activities by creating messy, slippery, hazardous conditions and are very difficult to clean up."

**What chemicals do we have to worry about?**

When crude oil is first exposed to air, various chemicals including benzene and polycyclic aromatic hydrocarbons, that are known to be harmful to humans, are released. However, studies from previous oil spills revealed that many components of spilled oil rapidly evaporate into the atmosphere ("off-gas"). Following evaporation of the volatile components and interaction with sunlight and sea water, the resulting "weathered" oil is the form of spill-derived oil most commonly encountered on beaches and in estuaries. In the case of the Deepwater Horizon incident, the oil is released far below the surface, and a mix of seawater, naturally occurring minerals, and oil is formed before the oil even reaches the surface. We have never before encountered such an extensive contamination with this form of mixture, but scientists are learning more about this mixture on a daily basis.

**What about the chemical dispersants that we are hearing about?**

The dispersants being sprayed on the oil, as it reaches the surface, are an additional concern. These dispersants are largely made of chemicals that come from distilling crude oil, with the addition of some common components of everyday plastics. Although there are cautions for the workers handling of these dispersants, the small amounts that reach the shoreline in the oil mix are unlikely to generate additional human health concerns. However, since chemical dispersants are being used in unprecedented amounts, the consequences of this strategy must be carefully studied.

**Is it safe for my children to play on the beach or swim in the Gulf or the ocean?**

For parents, understanding the potential risks to children is difficult because so little is known about the toxicity of this form of weathered oil and the resulting weathered oil and sand "tar balls". According to the Preparedness at the Potomac Institute for Policy Studies, 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 eating, touching or playing with oil that makes its way to shore.

Oil is coming up on some beaches around the gulf coast, most recently spreading into Florida. But most beaches remain free of contamination. Before heading to the beach, it's a good idea to check with State or local authorities about health conditions. They, along with the EPA, are closely monitoring the situation.

Crude oil contains many toxic chemicals, including volatile and semi-volatile organic compounds. Beachgoers should avoid swimming in water that's visibly contaminated by oil. Children are more vulnerable to environmental contaminants, including those associated with oil spills, and should not be allowed to touch or play with any tar balls or oil slicks. Fresh crude oil is an irritant that may cause redness, burning and even ulcers with prolonged contact. Though the oil washing up on the beaches probably isn't as harsh, it's still a good idea to keep it off of your skin.

**What should I do if oil does get on my children's skin?**

Oil tar is sticky and difficult to remove. If oil gets on your children's bare skin, wash it off as soon as you can. If soap and water are inadequate, try petroleum jelly or a commercially sold de-greaser that's made to be used on the skin. People have been known to use gasoline to remove tar from their skin -- a bad idea all around. Inspect your children for rashes or dark, sticky spots on their skin that are hard to wash off. If you see any of these symptoms, see your doctor or other health care provider.

Young children often taste and eat substances, which adults would avoid. Unfortunately, the chemical dispersants used may impart a slightly sweet taste to the oil, and some children might find this appealing. It is important to tell children not to put the oil in their mouths, eyes or nose. If they do so anyway, the advice and assistance of a medical professional should be sought.

**What about teenagers?**

Teenagers are naturally more likely to ignore warnings (particularly when they come from their parents), and often think of themselves as invulnerable. In addition, some may want to get involved in clean up efforts. But, they are still growing and developing, and remain more vulnerable to environmental risks than adults.

**Should I be concerned about odors at the beach?**

There are odors being reported from some of the gulf coastline, related to volatile organic compounds (VOCs). The smell is similar to those near a gasoline station. The EPA is testing air, water and sediment, and the results thus far are reassuring. The current levels of these chemicals are unlikely to cause serious harm.

[Dr. Allen J. Dozor](#), Director of the [Children's Environmental Health Center of the Hudson Valley](#) and Chief of [Pediatric Pulmonology](#), states: "Children with asthma may be bothered by any chemical that you can smell."

These chemicals 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 recirculating mode, which closes the outside ventilation feature.

**Is it safe for my children to eat seafood that may come from the Gulf Coast?**

The FDA does not believe at this time that any contaminated products have made their way to the market. Federal and State authorities are monitoring the waters from which seafood is harvested, and to keep the food supply safe, they have already closed some areas to commercial fishing. Crude oil could potentially taint seafood with flavors and odors caused by contamination with hydrocarbon chemicals. However, the US Food and Drug Administration (FDA) indicates that at the current time, "there is no reason to believe that any contaminated product has made its way to the market." In addition, the National Oceanic and Atmospheric Administration has closed extensive areas of the Gulf to fishermen. Seafood products with oil or gas-like flavors should be avoided.

**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 this information could change. If you live near that region or are even just visiting, pay attention to information being distributed by local authorities and water utilities. If you detect any changes in the taste or smell of your water, contact your water supplier.

If you use well water, oil is not expected to impact domestic wells. Keep in mind that annual testing of well water is recommended.

**Can the oil harm my unborn baby if I'm pregnant?**

Although oil may contain chemicals that could cause harm to an unborn baby, as of this writing, the CDC does not feel the levels measured by the EPA are in high enough concentration to cause harm to unborn babies or pregnant women. The EPA and CDC are continuously monitoring levels of oil and chemicals in case the situation changes. Like everyone else, pregnant women should avoid oil and spill-affected areas.

**How can I reassure my children?**

The gulf oil spill has created anxiety for all of us. Children may be more aware of this unfolding story than we realize, even if we haven't discussed it with them. Children may have significant misperceptions about the actual risks of the leak, and feel quite anxious. Some may harbor real fears that last long after the story is no longer at the top of the news. Our suggestion is to include them in the conversation, and give them as much information as they want or need. Parents are in the best position to judge how much detail their children need to hear. Try to determine if they are feeling stressed about the situation. Adults are experienced in handling bad news and putting things into proper perspective. Children may need our help in this regard.

**How can I get more information?**

The situation is constantly changing and no one really knows at this point the full extent of risk to our children's health. In addition to TV, radio, and newspapers, there is a tremendous amount of information on the web. The EPA has very current results from all of the testing they are doing at [www.epa.gov](http://www.epa.gov) and the FDA is charged with ensuring seafood safety and has lots of information on their website: [www.fda.gov/food](http://www.fda.gov/food). The CDC (Centers for Disease Control and Prevention) is also carefully monitoring any potential health effects of the oil spill. Their website is: [www.cdc.gov](http://www.cdc.gov).

With office locations conveniently located in Westchester County and several other sites in the Hudson Valley, the [Children's Environmental Health Center of the Hudson Valley](#) provides clinical consultations for children and their families by appointment.

Visit [www.ChildrensEnvironment.org](http://www.ChildrensEnvironment.org) or call (914) 493-7585 for more information.