

Seafood Safety Frequently Asked Questions (FAQs) About Seafood from the Gulf Coast and the Oil Spill

Louisiana seafood is nutritious and tastes great. It's an excellent source of protein, low in fat and saturated fat, and contains heart-healthy omega-3 fatty acids.

Is Louisiana seafood safe to eat following the oil spill?

Consumers can be assured that Louisiana seafood sold in retail stores, supermarkets and served in restaurants will remain safe to consume prior to and during any potential exposure to contamination from the oil spill. Fishing areas impacted by the spill are closed to fishing and oyster collection. Any seafood available at retailers comes from non-closed waters. Seafood that is deemed unsafe will not be allowed on the market by regulatory agencies. According to Dr. Paul Coreil, LSU AgCenter vice chancellor and director of the Louisiana Cooperative Extension Service, "The Louisiana Department of Health and Hospitals, with assistance from the Louisiana Department of Wildlife and Fisheries (LDWF), is regularly sampling and testing all Louisiana seafood, so the state is working diligently to assure that all seafood harvested and in the market today is safe. Any area contaminated by any oil is immediately closed to fishing by LDWF."



Who decides that Louisiana seafood is safe to eat and how do they do it?

The Louisiana Department of Health and Hospitals (DHH) Environmental Health Program is monitoring seafood to ensure it's safe for consumption. According to the Louisiana Seafood Promotion and Marketing Board, "Everything possible is being done to assure the safety of seafood from Louisiana in the face of this manmade disaster, unprecedented in our country's history. The seafood board continues to look towards the experts at the National Oceanic and Atmospheric Administration, Environmental Protection Agency, DHH, Louisiana Department of Wildlife and Fisheries and Food and Drug Administration for advisements on the latest in seafood safety updates. There is daily testing – as never before – of seafood catches by local, state and federal experts and scientists."

How do authorities determine the safety of seafood that may be exposed to an oil spill?

They are conducting both sensory tests (visual tests looking for oil on the surface of water and tests on seafood meat. Traditional food safety controls have been supplemented with additional emergency response plans by the pertinent federal, state and county authorities. Control measures include monitoring of the harvest waters and products, cautionary closures of certain waters and fisheries, analytical and sensory monitoring of products and public advisories.

Standard analytical tests involving sophisticated laboratory instrumentation are used to detect a variety of potential chemical contaminants associated with water, sediments and seafood that have been exposed to oil spills. Likewise, special sensory methods have been developed and successfully used by trained experts to detect certain aromas in seafood exposed to oil spills. The associated contaminants emit strong and easily detected aromas such that sensory monitoring can be cost-effective

and more immediate than the more prolonged analytical procedures. Together, the analytical tests and sensory methods have provided proven measures for product safety. These methods are available through the responsible federal and state programs and various academic research programs that are being positioned for response about the Gulf region. Steve Otwell, Ph.D., Seafood Specialist, Florida Sea Grant College Program, FAQ #42989, May 22, 2010, <http://www.extension.org/faq/42989>

What are the typical contaminants found in seafood exposed to oil spills?

A large variety of chemicals can be involved in an oil spill. The most common contaminants associated with seafood are collectively known as polycyclic aromatic hydrocarbons or PAHs. These are more common because of their water-soluble characteristics, allowing more exposure to aquatic animals. Interestingly, PAHs are found throughout our environment, including our food supply, both raw and cooked. There have been no recorded illnesses due to PAH exposure at most levels encountered in our environment or other foods, but elevated levels will require controls to prevent excessive exposure. There are no established limits for PAH exposure to assure food safety, but from prior experience with other oil spills, guidelines have been calculated for consideration. These guidelines account for both the amount and duration of exposure, and they vary by type of seafood. The guidelines are based on highly sensitive analytical detection of contaminants at concentration levels as low as parts per billion (ppb; one part contaminant per one billion parts of edible seafood). Federal and state authorities will use these guidelines to determine the safety level for seafood and the associated advice for harvest and consumption. Steve Otwell, Ph.D., Seafood Specialist, Florida Sea Grant College Program <http://www.extension.org/faq/42992>, FAQ 42992, May 22, 2010

Should I eat seafood that I catch for myself and family?

In the event of any contamination, state authorities will try to restrict local harvest and recreational activities to coastal waters that are declared open and approved. Public advisories will be posted and broadcast through many agencies, radio stations and televised news. Progressive updates and contact information will be posted on various websites such as the site maintained by the Florida Department of Environmental Protection.

Recreational fishermen should avoid areas with obvious signs of oil contamination on the surface of the water or on the neighboring beaches and vegetation. Also it is not prudent to eat fish that

look distressed, are behaving in a strange manner or have been found dead. The contaminants associated with an oil spill can be detected with simple sensory checks for odors. Any fish or seafood with an oily, fuel-like odor, either when raw or cooked, should not be eaten, and should be reported to authorities. Steve Otwell, Ph.D., Seafood Specialist, Florida Sea Grant College Program FAQ 42990. May 22, 2010, <http://www.extension.org/faq/42990>

Will all exposed seafood remain contaminated?

Once exposure ceases, many marine animals can gradually eliminate the contaminants encountered in an oil spill. The rate of elimination can vary from days to months depending on the amount and type of oil exposure and the metabolism of the particular animals. The levels of contamination will be progressively monitored by authorities before, during and after exposure to assure seafood safety before allowing commercial and recreational harvest. Steve Otwell, Ph.D., Seafood Specialist, Florida Sea Grant College Program, FAQ #42991 <http://www.extension.org/faq/42991>, May 22, 2010

Can I eat Louisiana seafood (oysters, fish, shrimp)?

Yes. DHH's Environmental Health Program is monitoring seafood to ensure it's safe for consumption. Fishing areas impacted by the spill are closed to fishing and oyster collection. Any seafood available at retailers comes from non-closed waters. Seafood that is deemed unsafe will not be allowed on the market by regulatory agencies. <http://www.dhh.louisiana.gov/offices/?ID=378>

How can I tell if an oyster is contaminated by oil?

If an oyster is contaminated by oil, it will have an oily smell and taste and an oily appearance.

If an oyster bed is closed, how long will it stay closed?

The oyster harvesting area will remain closed until sampling comes back equivalent to the baseline samples taken before the oil spill. There is not a predetermined amount time for reopening the beds. To find out about oyster bed closures, go to www.dhhemergencynews.com.

If I'm on the water and I notice the presence of oil, who do I call?

Leave the area and call the DHH Molluscan Shellfish Program's 24 hour hotline at 1-800-256-2775, or the BP 24 hour hotline at 1-866-448-5816.

What can I do?

Help our fishermen by buying Louisiana seafood. Many of them fish and work with several species, so buying all Louisiana seafood is important. Our crawfish, catfish and alligator production is currently operating at 100 percent but the live crawfish season will be ending in a couple of weeks according to the Louisiana Seafood Promotion and Marketing Board – July 2, 2010.

What is the best way to store seafood safely?

Since seafood is perishable, it should be stored immediately after purchase - on ice, in the refrigerator to be used within two days or in the freezer.

The following guidelines will help to ensure safe storage of your valuable seafood:

- **Shrimp**—Shrimp can be frozen raw or cooked, in or out of the shell. For maximum storage life and quality, freeze shrimp raw, with heads removed, but shells still on. Be sure to wash and drain the shrimp if frozen uncooked. Shrimp may also be frozen in water in a freezer container or zip lock bag.
- **Crabmeat**—Freeze crabmeat in a sealed bag (preferably vacuum-sealed). Do not add water to prevent flavor and texture loss.
- **Crawfish**—Peel cooked or blanched crawfish tails and rinse with cold water to remove all fat. To blanch, put live crawfish in boiling water to cover them, bring back to a boil, and boil for 7-8 minutes for a large pot. To prevent darkening, dip peeled tails in a solution of lemon juice and water (one third cup lemon juice to 1 quart water.) Drain and package in freezer bags, removing as much air as possible.
- **Oysters**—Freeze oysters in juice in freezer bags or freezer containers for use in cooked or baked products.
- **Freezing fish fillets**—Vacuum packaging is the best way to freeze fish fillets or steaks to prevent freezer burn and development of off-flavors. If you don't have vacuum packaging equipment, use heavy-duty freezer bags or moisture/vapor-proof plastic wrap. Place each fillet in a separate freezer bag or wrap individually in plastic wrap without adding water. Eliminate as much air as possible from the freezer bag or wrapped fish. Freeze individually wrapped fish as quickly as possible. The frozen fish may be packed together in larger bags or other containers.
- **Small fish with skin** on freeze well in water. Place in a waxed milk carton or other water-tight container, add ice water and freeze.
- **Whole dressed fish**—leave skin on and wrap in moisture/vapor-proof plastic wrap or glaze the fish. Glazing helps prevent both dehydration and

freezer burn. To glaze, freeze the fish quickly, remove from freezer and dip in ice-cold water. The water freezes and forms a thin layer of ice. To protect the glaze from cracking or chipping, wrap fish with freezer paper or heavy duty aluminum foil. Before placing in the freezer, label fish and seafood products with the type of product, quantity and date.

- Store fish and shellfish in the refrigerator 1 -2 days. Store frozen fish 3- 8 months and frozen shellfish 3 – 12 months in the freezer.
- Storage times for leftover fish and shellfish dishes are 3-4 days in the refrigerator and 3 months in the freezer.
- Thaw frozen fish and shellfish in the refrigerator on a bottom shelf to prevent dripping on other foods. For faster thawing, place frozen fish or seafood in a waterproof bag in a pan in the sink under cold running water or in the microwave following manufacturer's directions. Cook immediately after thawing.

For additional information about storing and using Louisiana seafood, contact the LSU AgCenter Extension agent in your parish.

References and Resources

- Frequently Asked Questions About Seafood from the Gulf Coast and the Oil Spill, Advisory prepared by Steve Otwell, Ph.D., Seafood Specialist, Florida Sea Grant College Program, Department of Food Science and Human Nutrition, University of Florida http://www.flseagrant.org/index.php?option=com_content&view=article&catid=1:latest-news&id=221:oil-spills-and-seafood-safety-faq-
- Sea Grant Extension Seafood Network Information Center, National Sea Grant Library <http://www.dhh.louisiana.gov/offices/?ID=378>
- EPA website on oil dispersants
Louisiana Seafood Promotion and Marketing Board Talking Points
- USDA, Food Safety and Inspection Service, http://www.fsis.usda.gov/Fact_Sheets/Keep_Food_Safe_Food_Safety_Basics/index.asp

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