

Oysters

Delicious and Nutritious Food



The US oyster industry produced approximately 35.6 million pounds of oysters with a value of \$136.5 million in 2009. The Gulf of Mexico region led in oyster landings with approximately 63 percent of the national total; the coastal gulf of Mississippi on the Gulf of Mexico traditionally has a commercial oyster industry with an economic impact of approximately \$20 million annually.

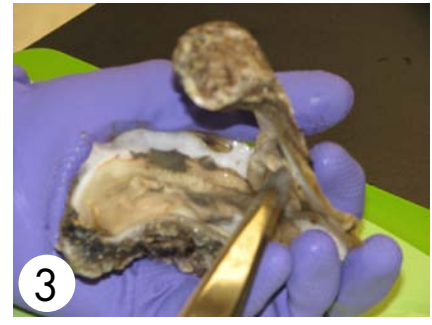
There are more than 50 kinds of edible oysters worldwide. The United States produces two major species of oysters: Atlantic oyster/Eastern oyster (*Crassostrea virginica*; 80 percent of US oyster production), and Pacific oyster (*Crassostrea gigas*). In 2009, 7.6 million pounds of oysters were exported from the United States with a value of \$22.2 million; 20.5 million pounds were imported to the United States with a value of \$55.7 million.

Many people around the world love to eat oysters. Oysters have been a favorite of shellfish consumers for centuries because oysters are not only delicious but also nutritious food. Oysters are low in energy, with raw oysters containing approximately 25 percent carbohydrates, 30 percent fat, and 45 percent high-quality protein (on a dry matter basis). One dozen raw oysters contains approximately 110 calories. Oysters are rich in zinc, selenium, iron, calcium, phosphorus, calcium, and polyunsaturated fatty acid. Oysters are also an excellent source of vitamins A, B1, B2, B3, C, and D. Oysters can be served raw or cooked (in different ways, such as fried, grilled, or baked).

Oysters are frequently sold in whole shells (live), in half shells, or shucked. When purchasing freshly shucked oysters, choose those that are plump and have some natural creamy liquid. When purchasing whole shell oysters, make sure they are alive; live oysters hold their shells tightly closed. Oysters also slightly open their shells when they are breathing. Test if the oysters are live by tapping on the slightly opened oysters. Live oysters will respond by tightly closing their shells. Oysters that do not respond are dead and should be discarded. Fresh live oysters can be kept at refrigerator temperature (41°F) for up to 10 days when they are covered with a damp, wet cloth.



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To safely enjoy eating oysters, it is important to know how to shuck oysters without injuring yourself. Use a pair of heavy gloves and a special oyster-shucking knife. An oyster-shucking knife has a heavy, wedge-shaped blade and handle. It is designed to withstand the pressure required to open oyster shells. Insert the knife into the crevice between the shells at the hinge, and then carefully twist the knife while pushing it firmly into the opening to break the hinge. Once the hinge is broken, slide the knife along the inside of the top shell to cut the adductor muscle away from the top shell. After that, remove the top shell and slip the knife under the body of the oyster and cut the adductor muscle away from the bottom shell. Then carefully remove any remaining shell particles that may be attached to the oyster. Add lemon juice or your favorite sauce, and *bon appétit!*

References

- Greg, L. C. Sambidi, P. and Harrison, R. W. (2011). Oyster profile. <http://www.agmrc.org/commodities-products/aquaculture/oyster-profile.cfm>
- Mahmoud, B. S. M. (2009). Reduction of *Vibrio vulnificus* in pure culture, half shell and whole oysters (*Crassostrea virginica*) by X-ray. *International Journal of Food Microbiology* 130: 135-139.
- NOAA, 2010. Import and Exports of Fishery Products 2010. <http://www.st.nmfs.noaa.gov/st1/trade/documents/TRADE2010.pdf>
- USDA (2012). National Nutrient Database. <http://ndb.nal.usda.gov/index.html>

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