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## Is Raw Seafood Safe To Eat?

*by Jackie Newgent, registered dietitian nutritionist*

People have been eating raw seafood from the beginning of time. But does that mean we should be doing so now?

Our planet has changed over the centuries. Modern conveniences have led to the polluting of our environment—and that includes our open oceans, lakes, seas, rivers and streams. Most of the fish we consume are from these bodies of water, so environmental contamination is one issue to consider when selecting seafood. One contaminant of particular concern is methylmercury, which is found in varying levels in fish and shellfish—whether cooked or raw. Refer to the [Environmental Protection Agency and Food and Drug Administration](#) for advice about mercury in fish and shellfish.

### **Raw Seafood and Food Poisoning**

Besides methylmercury, there are additional concerns if you plan to eat raw seafood. For most healthy people, eating reasonable amounts of raw seafood poses only a small health risk. Nonetheless, there is a risk for everyone. Foodborne illness can be the result, potentially causing severe vomiting, diarrhea and abdominal pain, among other symptoms.

Major types of food poisoning that can result from eating raw or undercooked fish and



shellfish include Salmonella and Vibrio vulnificus. For raw shellfish connoisseurs, especially raw oyster lovers, you specifically need to know about the risk for Vibrio infections. Vibrio vulnificus is a bacterium that lives in warm seawater and is not caused by pollution. While not common, these infections were 43 percent higher in 2012 compared with 2006–2008, according to 2012 FoodNet data.

To prevent any type of food poisoning, know that neither hot sauce nor alcohol kills bacteria, despite popular myth. The best rule of thumb is to follow good food safety practices and properly cook all seafood. Prepare fin fish until it reaches 145°F—or until the flesh is opaque and separates easily with a fork; prepare shellfish until the flesh is opaque; or, for clams, oysters, and mussels, until the shells open.

One other safety tip of interest: If you do decide to eat raw fish, choose fish that has been previously frozen. That's because freezing will kill any potential parasites present. Unfortunately, freezing doesn't kill every harmful organism.

### **High-Risk Individuals**

For people at “high-risk” for foodborne illness, severe and life-threatening illness may result from consuming raw or undercooked fish and shellfish. These individuals include those with compromised immune systems or with decreased stomach acidity, as well as pregnant women, infants, young children and older adults. Raw fish and shellfish consumption is never advised for high-risk individuals. If you're in this category, thoroughly cook fish and shellfish. If unsure of risk level, consult with your physician or registered dietitian nutritionist.

### **Keeping it Safe: from Market to Mealtime**

Follow these key tips when buying, storing and preparing fresh, raw seafood.

#### **At the market:**

- Be sure fresh seafood is properly refrigerated below 40°F or well-packed with ice.
- Look for fish with shiny, firm flesh and no overly "fishy" odor.

#### **In your fridge:**

- Keep fresh fish well wrapped or in air-tight containers for no more than two days.
- Store fresh, pasteurized or smoked seafood between 32°F and 38°F; store live clams, crabs, crayfish, lobsters, mussels and oysters in well ventilated containers.

#### **During preparation:**

- Keep raw and cooked seafood separate, including using separate cutting boards.
- Wash hands, cutting boards, plates and utensils thoroughly between handling raw seafood and any ready-to-eat food.

For more tips on buying, storing, and preparing seafood, read [Keeping Your Seafood Safe](#).

### **Dining Out Advice**

There are a plethora of well-liked raw and undercooked fish and shellfish items on menus today. For healthy individuals, these foods can generally be consumed safely when they're from reputable restaurants or markets that use fresh, high-quality ingredients and follow proper food safety practices. But be aware of these menu items, especially if you're in the "high-risk" category, since they contain raw or undercooked seafood: sushi, sashimi, raw oysters or clams on the half shell, ceviche, crudo, gravlax, poke, tuna tartare and tuna carpaccio.

### **The Bottom Line**

In general, the health benefits associated with eating a variety of properly cooked fish and shellfish outweigh risks in healthy individuals. However, the same does not apply to raw fish and shellfish. Be aware of food safety considerations when eating it. And if you're a high-risk individual, simply do not eat raw seafood.

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