What is the Safest Way to Handle the Fish I Catch?

To avoid the risk of foodborne illness, proper care and handling of fish is critical when you catch, clean, store, cook, and serve the fish you catch.

Catching Fish

If you plan to release the fish, it is best to wear disposable gloves to protect the fish and its slime coat. If you plan to keep the fish, use a stringer, mesh bucket, or live well to keep the fish alive until you're ready to clean them. All fish are best if cleaned and iced as soon as they die because digestive enzymes will spoil them quickly.

Keep on hand items to help you handle fish safely as you catch them. These should include: a sharp filet knife, cutting board, paper towels, disposable gloves, sealable food storage bags and clean water to wash hands and utensils. Put cleaned fish into sealable storage bags and store the fish in an ice-packed cooler. Keep fish chilled at or below 40°F as soon as possible and up to the time they are cooked.

Cleaning Fish

When cleaning fish, take precautions to ensure your fish are handled properly:

- Wear disposable gloves to prevent cross-contamination.
- Wash your hands, knife, and cutting boards often with warm, soapy water.
- Use clean water, pre-moistened wipes, or alcohol swabs to clean your knife frequently or between cuts to keep from dragging bacteria into the flesh.
- Remove skin and fat deposits to reduce exposure to pesticides or other toxins that concentrate in fatty parts of the fish.
- When filleting fish, rinse the fillet in cold, clean water to remove blood, bacteria and digestive enzymes.

- Dry the fish surface and clean with paper towels, put them in sealable storage bags, and place on ice.
- Quickly cool the fish to 30°F to 40°F to prevent bacterial growth. Ice is the key to fresh-tasting and safe fish.

Storing and Cooking Fish

- Store fresh fish in a covered container in the refrigerator if using within two days. Keep raw fish separated from other refrigerated foods to prevent cross-contamination.
- To freeze fish, put meal-size portions in a single layer in a freezer container, cover with cold water, and freeze; or
- Wrap fish tightly in freezer wrap, heavy-duty aluminum foil, freezer storage bags, or vacuum pack. Freeze at 0˚F or lower.
- When properly wrapped, lean fish will store in the freezer for six months and fatty fish, like catfish and lake trout, will store well for two to three months.
- NEVER refreeze fish.

If frozen, thaw fish in the refrigerator, in a container placed in cold water, or defrost in the microwave. If you use a microwave, cook the fish immediately. Cook fish 10 minutes for every inch of thickness. Fish is done when the flesh is just turning from translucent to opaque, is firm but moist, flaky, and reaches an internal temperature of 145°F as measured on a food thermometer.

What Are the Health Benefits and Hazards of Eating Fish?

Benefits of Eating Fish

The American Heart Association recommends eating at least two 3-ounce servings of fish a week. Fish is an excellent source of protein,
B vitamins, trace minerals, and Omega-3 fatty acids. Omega-3 fatty acids are essential to human health but cannot be manufactured by the body. Studies suggest that Omega-3 fatty acids may improve heart health. Fish with high levels of Omega-3 include albacore tuna, water-packed tuna, herring, sardines, lake trout, salmon, and whitefish.

**Fish Consumption Advisory**

Most fish are safe to eat, but some fish contain more contaminants than others depending upon the contaminants they are exposed to and the type, age, and size of the fish. Mercury and PCBs are the major contaminants found in Minnesota lakes and rivers. Air pollution is the major source of mercury found in most Minnesota waters. PCBs are man-made substances banned in 1976 but still found in the environment — mainly in Lake Superior and major rivers such as the Mississippi River. Contaminants are absorbed by fish and accumulate in fish (and people) over the course of a lifetime. Mercury accumulates in the muscle, but PCBs accumulate in the fat of fish. This is why larger fish, older fish, and fatty fish have higher amounts of contaminants. Fish that feed on other fish — such as walleye, northern pike, and bass — can have higher amounts of mercury in their meat. You can’t see, smell, or taste mercury or PCBs in fish.

In humans, mercury can cause damage of kidneys and nervous system, numbness in hands and feet, changes in vision, damage to developing brains of children, and affect a child’s behavior and ability to learn — young children under age 15, developing fetuses, and breast-fed babies are at most risk. PCBs may cause developmental problems in children whose mothers consumed high levels of PCBs prior to and/or during pregnancy. PCBs also may increase the risk of cancer. The Minnesota Department of Health fish consumption guidelines are intended to keep the mercury and PCB levels in your body below levels that damage human health.

**Tips for Safe Fish Consumption**

- Space fish meals out over time to reduce the amount of mercury exposure.
- Eat smaller, younger fish; eat less big fish and eat them less often.
- Eat more panfish and fewer predatory and fatty fish.
- Remove skin and trim fat, and broil, bake, or grill fish to reduce PCBs. No method of cleaning or cooking fish reduces mercury in the fish.
- Children and woman of childbearing age should limit consumption of mercury-contaminated fish.

**Source:** University of Minnesota Extension Service Faculty.

### Want to know more?

**INFORMATION ON THE WEB**

These publications are available for free by contacting the Minnesota Department of Health:

- [http://www.health.state.mn.us/divs/eh/fish/forms/index.html](http://www.health.state.mn.us/divs/eh/fish/forms/index.html)
- (800) 657-3908
- [Eat fish often? A Minnesota Guide to Eating Fish](http://www.health.state.mn.us/divs/eh/fish/forms/index.html)
- [An Expectant Mother’s Guide to Eating Minnesota Fish](http://www.health.state.mn.us/divs/eh/fish/forms/index.html)

- Minnesota DNR
  - Fish consumption guidelines searchable by lake: [http://www.dnr.state.mn.us/lakefind/index.html](http://www.dnr.state.mn.us/lakefind/index.html)
- [Fish Oil and Your Health](http://www.seagrant.umn.edu/fish/index.html)
  - [http://extension.umn.edu/foodsafety](http://extension.umn.edu/foodsafety)

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