Health Benefits of Eating Fish

Fish are nutritious and good to eat. When properly prepared, fish provide numerous health benefits, especially for the heart. The American Heart Association recommends eating two to three fish meals each week.

The benefits of eating fish include:

- Fish offer high-quality protein with fewer calories than a similar-sized portion of meat. Example: Both catfish and ground beef are about 18% protein. But, for an 8-ounce meal, the catfish will have only about 232 calories, while the regular ground beef will have about 640 calories.
- Fish are low in sodium and are good sources of potassium, vitamins, and other minerals.
- Fish are generally low in cholesterol and saturated fats, which have been associated with high blood pressure and heart disease.
- While the benefits of fish on nutrition are still being studied, much of the current research is focused on various kinds of beneficial fats in fish, particularly a kind of omega-3 fatty acids which are in some fish and fish oils. Some studies have indicated that eating these fatty acids have favorable effects on health conditions such as reducing blood cholesterol levels and high blood pressure and hardening of the arteries.

Contaminants in Fish

Some fish take in contaminants (PCBs, for example) from the water they live in and the food they eat. These contaminants build up in the fish over time. Eating contaminated fish can result in a buildup of these chemicals in your body, so it is important to keep your exposure as low as possible. The meal advisory on the following pages is intended to protect people, especially pregnant and nursing women, women who may become pregnant in the next few years, and small children from potential health problems from eating contaminants in fish.

Fish Consumption Advisories

The West Virginia Fish Consumption Advisories are presented in the following pages. These recommendations are intended to allow you to receive the nutritional benefits from eating fish while keeping the level of contaminants from fish at levels in your body where health problems are not likely. Fish advisories are not intended to discourage you from eating fish, but should be used as a guide to eating fish in the proper amounts so as not to adversely impact your health. You can reduce your risks by eating fish less likely to contain contaminants, cleaning and cooking them properly, and eating portions that correspond to your body weight.

Which fish are less likely to contain contaminants?

Some fish such as sunfish, crappie, and trout eat insects and other aquatic life and are less likely to contain contaminants at levels that might affect your health. If you eat walleye, bass, and other predatory fish, eat the smaller, younger fish that are less likely to contain contaminants. Eat fewer fish like carp and catfish, which feed on the bottom of lakes and rivers and are more likely to contain contaminants.

How should I prepare and cook fish to reduce the amount of contaminants in the fish?

PCBs and Dioxin are contaminants that usually build up in a fish's fat deposits and just underneath the skin. By removing the skin and fat before cooking, you can reduce the levels of these chemicals. Mercury collects in the fish's muscle and cannot be reduced by cleaning and cooking methods.

To reduce PCBs and Dioxin contaminants:

- Fillet fish and throw away the fat, skin, and internal organs (where contaminants are most likely to accumulate) before you cook them. Fat is concentrated on the belly, the middle of the back, the line along the sides, and under the skin.
- Cooking does not destroy the contaminants, but heat from cooking melts some of the fat and allows some of the contaminated fat to drain away. Broil, grill, or bake the trimmed, skinned fish on a rack so the fat drips away. Throw away the fat that comes from cooking fish.

Fish – 2007 WV Consumption Advisories

Water Body	Species	Limit your fish meals to:	Contaminants*
All Waters in West Virginia *except where listed in the specific advisories on page 21.*	Black Bass greater than 12" *(largemouth, smallmouth, spotted)*	1 meal a month	Mercury* PCBs
	Walleye		
	Saugeye		
	White Bass		
	Hybrid Striped Bass		
	Black Bass less than 12" (largemouth, smallmouth, spotted)	2 meals a month	
	Brown Trout		
	Channel Catfish greater than 17"		
	Flathead Catfish		
	Sauger		
	All Suckers		
	Channel Catfish less than 17"	1 meal a week	
	All Other Species		
	Rainbow Trout	No Limit	

How to use this advisory

Follow the advice presented in this regulation, noting the differences between the General Advisories for all West Virginia waters and the Specific Advisories. Find the meal advice for the fish you've caught. "Do Not Eat" means no one should eat those fish because of very high contamination. The other groups ("One Meal a Week", "Two Meals a Month", "One Meal a Month", and "Six Meals a Year") are advice for how often to eat a fish meal. The size of the fish meal depends on your body weight. To adjust serving sizes, follow the advice in the meal size table.

Women of childbearing age, children and people who regularly eat fish are particularly susceptible to contaminants that build up over time. If you fall into one of these categories, you should be especially careful to follow the meal sizes and space fish meals out according to the advisory tables.

Your body can get rid of some contaminants over time. Spacing the meals out helps prevent the contaminants from building up to harmful levels in the body. For example, if the fish you eat is in the "One Meal a Month Group", wait a month before eating another meal of fish from any restricted category. Occasionally eating fish in quantities slightly greater than the advisories recommend, such as during an annual fishing vacation, should not present a health hazard.

Meal Sizes	
A person weighing between	should eat no more than this amount per meal
pounds	**ounces of precooked fish**
20 or less	1.0
21-35	1.5
36-50	2.0
51-70	3.0
71-90	4.0
91-110	5.0
111-130	6.0
131-150	7.0
151 and over	8.0
Remember that 3.0 ounces of precooked fish is about the size of the palm of your hand or a deck of cards	
Remember that 1.5 ounces of precooked fish is about one-half the size of the palm of your hand or one-half the size of a deck of cards	

For Additional Information:

The advisory listing was current at the time this summary went to press. Other fish consumption advisories may have been issued or lifted since that time. Notice of such actions is released to the public through press releases. For further information or the most current advice contact:

WVDHHR: (304) 558-2981 • www.wvdhhr.org/fish
WVDNR: (304) 558-2771 • www.wvdnr.gov
WVDEP: (304) 926-0495 • www.wvdep.org
USEPA: epa.gov/ost/fish

2007 WV Consumption Advisories – Fish

Specific Advisories – species not listed below can be eaten as indicated on page 20.

Water Body	Species	Limit your fish meals to:	Contaminants*
Bluestone River	Carp	1 meal a month	PCBs
Flat Fork Creek	Carp	Do not eat	PCBs *
	Channel Catfish, all sizes		
	Suckers		
Hughes River	Sauger	1 meal a month	Mercury*
Kanawha River *downstream of I-64 bridge in Dunbar including all backwaters, Armour Creek, Heizer Creek, Manila Creek, Pocatalico River (lower two miles)*	Flathead Catfish, all sizes	Do not eat	Dioxin* Mercury PCBs
	Channel Catfish, all sizes		
	Carp		
	Hybrid Striped Bass		
	Suckers		
	All other species	1 meal a month	
Kanawha River *upstream of I-64 bridge in Dunbar*	Channel Catfish less than 17”	2 meals a month	Mercury PCBs*
Meadow River	Rock Bass	2 meals a month	Mercury*
Middle Island Creek	Spotted Bass less than 12”	1 meal a month	Mercury* PCBs
Monongahela River	Channel Catfish all sizes	6 meals a year	PCBs*
Potomac River *main stem*	All non-game fish	Do not eat	Dioxin*
North Branch of Potomac River	All non-game fish	Do not eat	Dioxin*
North Fork of South Branch of Potomac River	Rock Bass	2 meals a month	Mercury*
South Fork of South Branch of Potomac River	Smallmouth Bass less than 12”	1 meal a month	Mercury*
	Sunfish	2 meals a month	
Ohio River *entire length in WV*	Carp	Do not eat	Dioxin Mercury PCBs*
	Channel Catfish greater than 17”		
	Channel Catfish less than 17”	6 meals a year	
	Flathead Catfish, all sizes		
	Drum, Smallmouth Buffalo	1 meal a month	
R. D. Bailey Lake	Channel Catfish greater than 17”	6 meals a year	PCBs*
Shenandoah River	Carp	Do not eat	Mercury PCBs*
	Channel Catfish greater than 17”		
Sleepy Creek Lake	Yellow Bullhead	2 meals a month	Mercury*
Wheeling Creek	Smallmouth Bass less than 12”	1 meal a month	Mercury*

**Contaminant: Meal Limits are determined by the chemical with the asterisk. Other listed chemicals would have an advisory at a less restrictive level.*
PCBs: Polychlorinated Biphenyls