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**Maryland**  
Department of  
the Environment

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# Maryland's Fish Consumption Advisory (FCA)

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# Introduction

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Maryland Department of the Environment (MDE) goals:

1. maintaining the health benefit of fish consumption,
2. minimizing the potential for toxic chemical exposures to anglers and those who consume the anglers' catch,
3. using credible and understandable science, and
4. presenting the information in a manner conducive to maximum voluntary compliance.



# HAZARD VS. RISK

## IN FISH CONSUMPTION

### What is a Hazard?

A **hazard** is anything with potential to cause harm.

- Mercury
- Polychlorinated biphenyls (PCBs)
- Per- and polyfluoroalkyl substances (PFAS)
- Microplastics
- Foodborne pathogens (e.g. Bacteria in raw fish)



### Example:

Mercury in Tuna



- **Low Risk** - Eating canned light tuna occasionally
- **High Risk** - Eating quantities of albacore tuna weekly, especially during pregnancy

### What is a Risk?

**Risk** is the likelihood that the harm will actually occur, based on how much and how often you are exposed.

- Amount of Fish Consumed
- Type (Species) of fish
- Size of Fish
- Frequency of consumption
- Vulnerability of the person (e.g., pregnant women, children, age, family history)

$$\text{RISK} = \text{HAZARD} \times \text{EXPOSURE}$$

### Key Takeaways:

#### Hazard ≠ Risk

Just because something *can* harm you doesn't mean that it *will*.

- Risk can be managed by:
  - Choosing smaller fish – smaller fish tend to bioaccumulate less pollutants.
  - Limiting consumption of high-risk species
  - Following state advisories for fish caught in local waters.
  - Be aware of your personal vulnerabilities and the specific risk they contribute to consumption

*Stay informed, eat smart, and enjoy the benefits of fish while minimizing risks!*



## A word about PFAS

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For the purposes of the Fish Consumption Advisory Program, the following information is focused on preventing ingestion of bioaccumulated PFAS in food, not necessarily incidental water ingestion.

Our advisories are based off a screening value derived from drinking water standards. This assumes that the average person will or should be drinking at least 64 ounces of water a day, if you drink 64 ounces of water while swimming...you're doing it wrong.



# Outreach

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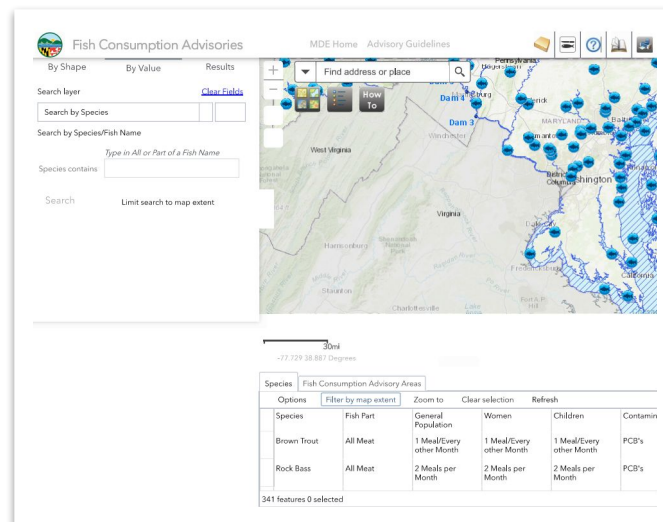
- Brochures available for print or electronic posting in English and Spanish
- Online interactive map that shows fish advisories
  - Locator feature (zoom to your location with one click)
  - Advisories listed by area (including general advisories)
  - Pictures of adult fish (to aid proper identification)
  - Link to video that shows proper cleaning technique that can reduce PCB concentration in meat by up to 80%
- PDF tables of fish consumption advisories for the entire state, sorted by location and species.
- PDF tables of fish consumption advisories for each individual county (including waterbodies in adjacent counties that may be shared)



# MDE Interactive Fish Consumption Advisory Map

Interactive map:

<https://mdewin64.mde.state.md.us/WSA/FCA/index.html>



County PDFs:

<https://mde.maryland.gov/programs/Marylander/fishandshellfish/Pages/fishconsumptionadvisory.aspx#>

## Maryland Fish Consumption Advisories

for Recreationally Caught Fish in Anne Arundel County, MD

Guidelines for Recreationally Caught Fish Species in Maryland Fresh, Estuarine, and Marine Waters

Recommended Meal Size: 8 oz or 9 crabs - General Population and Women; 3 oz or 4 crabs - Children

Note: Consumption recommendations based on spacing of meals to avoid elevated exposure levels

1 Women = women of childbearing age (women who are pregnant or may become pregnant, or are nursing)

2 Children = all young children up to age 6

3 Fish contains more than 1g beneficial fatty acids in a fillet the size of 2 decks of cards

4 Fish where all dark meat and/or belly fat has been removed

Contaminant present in fish: \* Mercury A PCBs + Pesticides

Species	Waterbody	Recommended Meals/Month			
		General Population	Women <sup>1</sup>	Children <sup>2</sup>	
American Eel	Patuxent River/Baltimore Harbor	Δ	Avoid	Avoid	
	Patuxent River	Δ	3	3	3
	South River	Δ	2	2	1
Blue Crab	Back River, Middle River or Patuxent River including Baltimore Harbor	Δ	6	6	5
	Chesapeake Bay and Tributaries	Δ	No Limit	No Limit	No Limit
Blue Crab "Mustard"	Back River, Middle River or Patuxent River including Baltimore Harbor	Δ	Avoid	Avoid	Avoid
	Chesapeake Bay and Tributaries	Δ	Eat Sparingly	Eat Sparingly	Eat Sparingly
Brown Bullhead Catfish	Magothy	Δ	8	8	7
	Mid Bay, Middle to Patuxent	Δ	5	5	5
	Patuxent River/Baltimore Harbor	Δ	1 every other month	1 every other month	1 every other month
Brown Trout	South River	Δ	6	6	5
	Savage River	Δ	5	5	3
Channel Catfish	Patuxent River/Baltimore Harbor	Δ	1 every other month	1 every other month	1 every other month
	Patuxent River	Δ	2	2	1
Common Carp	Rhode & West	Δ	7	7	7
	South River	Δ	2	2	1
Large and Smallmouth Bass	Patuxent River/Baltimore Harbor	Δ	3	3	2
	Patuxent River	Δ	No Limit	No Limit	No Limit



# Signs – Materials

- 18" x 18", 0.08" thick, gloss with laminate, aluminum signs
  - Signs are now more cost effective



**FISH CONSUMPTION ADVISORY**

A consumption advisory is in effect for certain fish caught in these waters. Please read the information on fish advisories for this area online using our interactive map via computer or cell phone at <http://mde.maryland.gov/FCA>

Please read the information on fish advisories for Baltimore County online at <https://mde.maryland.gov/BaltimoreCountyFCA>







**AVISO SOBRE EL CONSUMO DE PESCADOS**

Aviso vigente sobre el consumo de ciertos pescados capturados en estas aguas.

Usando su computadora o su teléfono celular, vaya a esta página de internet: <http://mde.maryland.gov/FCA>. Ahí podrá acceder nuestro mapa interactivo, el cual contiene la información que usted necesita saber acerca del consumo de pescados capturados en esta área.

Información específica acerca del consumo de pescados capturados en ríos en el Condado de Baltimore la puede encontrar en esta página de internet: <https://mde.maryland.gov/BaltimoreCountyFCA>







# New Signs – New Information

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- Each sign is customized for the County
- Signs link to the county-specific PDF Consumption Advisory and to interactive FCA Map
  - Signs no longer need to be updated, PDF is updated, so they will always have the most current advisories
- Signs are available in English and Spanish
  - Other languages are available upon request
- Each sign has QR codes for quick response to links on signs.







# New Stickers – New Information

- Link to English and Spanish Statewide Consumption Advisories.





# Contact Information

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