



# Bioaccumulation of Mercury in Sharks

## Part 1 a

Watch this 12-minute video on Mercury and Seafood, answering the following questions.

Video URL: <http://www.source2seafood.org>.

1. Where does mercury pollution come from? List at least two anthropogenic (caused by humans) sources.
2. How does mercury travel from its source into the tissue of sharks?
3. What are some ways you can help reduce mercury emissions?
4. What risk does mercury pose to human health?
5. What are the "Big Four" fish to avoid eating due to high mercury levels?
6. What are some fish that would be better choices to eat? List at least five.



## Part 1 b

After you finish the video and the above questions, expand upon your knowledge with these discussion questions. You will need to conduct some research of your own with the following resources to answer these questions. If you gather information from other online sources, please be sure they are credible sources and that you cite them in your answers.

Provided Resources:

EPA General Info on Mercury - <http://www.epa.gov/mercury/about.htm>

FDA Mercury Levels in Seafood - <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Seafood/ucm092041.htm>

World Health Organization Key Facts on Mercury - <http://www.who.int/mediacentre/factsheets/fs361/en/index.html>

Monterey Bay Aquarium Sustainable Seafood Guide - [http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw\\_factsheet.aspx](http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw_factsheet.aspx)

The Mercury Cycle - [http://people.uwec.edu/piercech/Hg/mercury\\_water/cycling.htm](http://people.uwec.edu/piercech/Hg/mercury_water/cycling.htm)

Discussion Questions

1. Describe how mercury bioaccumulates in the marine food web, and which trophic level would have the highest concentration of mercury.
2. What is the FDA's recommended maximum level of mercury consumption in ppm (also known as "Action Level")?
3. List at least five types of seafood that are both relatively **low in mercury** (average less than 0.1 ppm) and also **sustainably harvested** (as deemed by the Seafood Watch Guide). Are any of these five harvested locally (in the Caribbean or Florida)?