

PCBs Fish Level Advisories

Great Lakes Uniform Fish Advisories for PCBs:

- The Council of Great Lakes Governors appointed a task force to develop the Great Lakes Uniform Sportfish Advisory to provide a consistent, risk-based approach to setting Great Lakes' advisories.
- The Task Force developed a Uniform Advisory for PCBs in 1993.
- The Uniform Advisory uses PCB "trigger levels" lower than the FDA 2 ppm guideline.

The recommendations are for an adult (70 kgs or 154 lbs) is:

0 to 0.05 ppm - unrestricted consumption

0.06 to 0.2 ppm - 1 meals/week

0.21 - 1.0 ppm - 1 meal/month

1.1 - 1.9 ppm - 6 meals/year

> 1.9 ppm - eat none.

Office of Water Fish Advisories for PCBs:

- In 1997, the Office of Water issued "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. The purpose of the document was to address concerns raised by the state, local, tribal and federal agencies that use various methods to estimate risks to human health from the consumption of chemically contaminated non-commercially caught fish and shellfish.
- The recommendations based on population age, serving size, and health effects are:
 - General population, non-cancer - eat none at concentrations > 0.7 ppm.
 - Women of children bearing age, non-cancer - eat none at concentrations > 0.7 ppm.
 - Young children, non-cancer - eat none at concentrations greater than 0.2 ppm.
 - General population, cancer - eat none at concentrations greater than 1.0 ppm.
- A copy of the risk based tables is attached.

New York State Fish Advisories for PCBs in Hudson:

- Women of child bearing age should eat no fish from Hudson.
- Children under age 15 should eat no fish from Hudson.
- Hudson Falls to Troy Dam - eat no species from this part of the river (catch and release program). Applies to children, women of child bearing age, and adults.
- Shad in Hudson River - "a few meals of Hudson River shad meat and roe, especially using cooking and trimming method that minimize PCB content, would not pose an unacceptable health risk for women of children bearing age and children, assuming this is their only significant exposure to PCBs.

For adults:

- Sherman Island Dam to Feeder Dam at South Glens Falls - eat no more than 1 meal per month.
- Troy Dam south to bridge at Catskill - eat none except:
 - One meal per month for Alewife, blueback herring, rock bass and yellow perch.
 - One meal per week of American Shad.
- Bridge at Catskill south to and including the Upper Bay of New York Harbor - eat no more than one meal per month of American eel, Atlantic needlefish, bluefish, carp, goldfish, largemouth bass, smallmouth bass, rainbow smelt, striped bass, walleye, white catfish and white perch. For blue crab, eat no more than 6 crabs per week.
- Dobbs Ferry south to Greystone eat no American eel. For other fish follow recommendations in previous bullet.

Office of Water
Guidance for Assessing Chemical
Contaminant Data for Use in Fish Advisories

**Table 4-63. Monthly Consumption Limits for Carcinogenic Health Endpoints
for the General Population - PCBs (Total)**

Chemical Concentration In Fish Tissue ^a (mg/kg or ppm)	Recommended Risk - Based Consumption Limit (meals per month) ^b											
	4-oz Meal Size (0.114 kg)			8-oz Meal Size (0.227 kg)			12-oz Meal Size (0.341 kg)			16-oz Meal Size (0.454 kg)		
	ARL			ARL			ARL			ARL		
	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶
<0.0008	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
0.0008	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
0.0001	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
0.0002	>30	>30	>30	>30	>30	23	>30	>30	15	>30	>30	11
0.0004	>30	>30	23	>30	>30	11	>30	>30	7	>30	>30	5
0.0006	>30	>30	15	>30	>30	7	>30	>30	5	>30	>30	3
0.0008	>30	>30	11	>30	>30	5	>30	>30	3	>30	>30	2
0.001	>30	>30	9	>30	>30	4	>30	>30	3	>30	>30	2
0.002	>30	>30	4	>30	23	2	>30	15	1	>30	11	1
0.004	>30	23	2	>30	11	1	>30	7	6/yr	>30	5	6/yr
0.006	>30	15	1	>30	7	6/yr	>30	5	6/yr	>30	3	NONE
0.008	>30	11	1	>30	5	6/yr	>30	3	NONE	29	2	NONE
0.01	>30	9	6/yr	>30	4	NONE	>30	3	NONE	23	2	NONE
0.02	>30	4	NONE	23	2	NONE	15	1	NONE	11	1	NONE
0.04	23	2	NONE	11	1	NONE	7	6/yr	NONE	5	6/yr	NONE
0.06	15	1	NONE	7	6/yr	NONE	5	6/yr	NONE	3	NONE	NONE
0.08	11	1	NONE	5	6/yr	NONE	3	NONE	NONE	2	NONE	NONE
0.1	9	6/yr	NONE	4	NONE	NONE	3	NONE	NONE	2	NONE	NONE
0.2	4	NONE	NONE	2	NONE	NONE	1	NONE	NONE	1	NONE	NONE
0.4	2	NONE	NONE	1	NONE	NONE	6/yr	NONE	NONE	6/yr	NONE	NONE
0.6	1	NONE	NONE	6/yr	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
0.8	1	NONE	NONE	6/yr	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
1	6/yr	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
>1	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

ARL = Acceptable Risk Level.

NONE = No consumption recommended.

6/yr = Consumption of no more than

6 meals per year is recommended.

> 30 = Although consumption of more than 30 meals/month is allowed,

EPA advises limiting consumption to 30 meals in 1 month (1 meal per day).

^a Shaded values are below detection limit, 5×10^{-2} mg/kg.

^b Instructions for modifying the variables in this table are found in Section 3.3.

Consumption limits are calculated based on an adult body weight of 70 kg

and using a cancer potency factor of 2.0 per mg/kg/d.

References for cancer potency factors are found in Section 5.

All values were rounded down to the nearest whole meal size.

Table 4-60. Monthly Consumption Limits for Chronic Systemic Health Endpoints for the General Population - PCBs (Aroclor 1254)

Chemical Concentration in Fish Tissue ^a (mg/kg or ppm)	Recommended Risk - Based Consumption Limit (meals per month) ^b			
	4-oz Meal Size (0.114 kg)	8-oz Meal Size (0.227 kg)	12-oz Meal Size (0.341 kg)	16-oz Meal Size (0.454 kg)
<0.004	>30	>30	>30	>30
0.004	>30	>30	>30	23
0.005	>30	>30	24	18
0.006	>30	>30	20	15
0.007	>30	26	17	13
0.008	>30	23	15	11
0.009	>30	20	13	10
0.01	>30	18	12	9
0.02	18	9	6	4
0.03	12	6	4	3
0.04	9	4	3	2
0.05	7	3	2	1
0.06	6	3	2	1
0.07	5	2	1	1
0.08	4	2	1	1
0.09	4	2	1	1
0.1	3	1	1	6/yr
0.2	1	6/yr	6/yr	NONE
0.3	1	6/yr	NONE	NONE
0.4	6/yr	NONE	NONE	NONE
0.5	6/yr	NONE	NONE	NONE
0.6	6/yr	NONE	NONE	NONE
0.7	6/yr	NONE	NONE	NONE
>0.7	NONE	NONE	NONE	NONE

NONE = No consumption recommended.

6/yr = Consumption of no more than 6 meals per year is recommended.

> 30 = Although consumption of more than 30 meals/month is allowed, EPA advises limiting consumption to 30 meals in 1 month (1 meal per day).

^a Instructions for modifying the variables in this table are found in Section 3.3.

Consumption limits are calculated based on an adult body weight of 70 kg and using $RfD=2 \times 10^{-5}$ mg/kg/d. References for RfDs are found in Section 5.

Shaded values are below the detection limit, 5×10^{-2} mg/kg.

All values were rounded down to the nearest whole meal size.

^b Monthly limits are based on the total dose allowable over a 1-month period (based on the RfD).

When this dose is consumed in less than 1 month (e.g., in a few large meals), the daily dose will exceed the RfD (see Section 2.3).

4. RISK-BASED CONSUMPTION LIMIT TABLES

Table 4-61. Monthly Consumption Limits for Developmental Health Endpoints for Women of Reproductive Age - PCBs (Aroclor 1254)

Chemical Concentration in Fish Tissue ^a (mg/kg or ppm)	Recommended Risk - Based Consumption Limit (meals per month) ^b			
	4-oz Meal Size (0.114 kg)	8-oz Meal Size (0.227 kg)	12-oz Meal Size (0.341 kg)	16-oz Meal Size (0.454 kg)
<0.004	>30	>30	>30	>30
0.004	>30	>30	>30	23
0.005	>30	>30	24	18
0.006	>30	>30	20	15
0.007	>30	26	17	13
0.008	>30	23	15	11
0.009	>30	20	13	10
0.01	>30	18	12	9
0.02	18	9	6	4
0.03	12	6	4	3
0.04	9	4	3	2
0.05	7	3	2	1
0.06	6	3	2	1
0.07	5	2	1	1
0.08	4	2	1	1
0.09	4	2	1	1
0.1	3	1	1	6/yr
0.2	1	6/yr	6/yr	NONE
0.3	1	6/yr	NONE	NONE
0.4	6/yr	NONE	NONE	NONE
0.5	6/yr	NONE	NONE	NONE
0.6	6/yr	NONE	NONE	NONE
0.7	6/yr	NONE	NONE	NONE
>0.7	NONE	NONE	NONE	NONE

NONE = No consumption recommended.

6/yr = Consumption of no more than 6 meals per year is recommended.

> 30 = Although consumption of more than 30 meals/month is allowed, EPA advises limiting consumption to 30 meals in 1 month (1 meal per day).

^a Instructions for modifying the variables in this table are found in Section 3.3.

Consumption limits are calculated based on an adult body weight of 70 kg and using $RfD=2 \times 10^{-5}$ mg/kg/d.

References for RfDs are found in Section 5.

Shaded values are below the detection limit, 5×10^{-2} mg/kg.

All values were rounded down to the nearest whole meal size.

^b Monthly limits are based on the total dose allowable over a 1-month period (based on the RfD).

When this dose is consumed in less than 1 month (e.g., in a few large meals), the daily dose will exceed the RfD (see Section 2.3).

Table 4-62. Monthly Consumption Limits for Developmental health Endpoints for Children - PCBs (Aroclor 1254)

Chemical Concentration in Fish Tissue ^a (mg/kg or ppm)	Recommended Risk - Based Consumption Limit (meals per month) ^b			
	3-oz Meal Size (0.085 kg)	4-oz Meal Size (0.114 kg)	8-oz Meal Size (0.227 kg)	12-oz Meal Size (0.341 kg)
<0.0009	>30	>30	>30	>30
0.0009	>30	>30	>30	28
0.001	>30	>30	>30	25
0.002	>30	>30	19	12
0.003	>30	25	12	8
0.004	25	19	9	6
0.005	20	15	7	5
0.006	17	12	6	4
0.007	14	11	5	3
0.008	12	9	4	3
0.009	11	8	4	2
0.01	10	7	3	2
0.02	5	3	1	1
0.03	3	2	1	6/yr
0.04	2	1	6/yr	6/yr
0.05	2	1	6/yr	6/yr
0.06	1	1	6/yr	NONE
0.07	1	1	6/yr	NONE
0.08	1	6/yr	NONE	NONE
0.09	1	6/yr	NONE	NONE
0.1	1	6/yr	NONE	NONE
0.2	6/yr	NONE	NONE	NONE
>0.2	NONE	NONE	NONE	NONE

NONE = No consumption recommended.

6/yr = Consumption of no more than 6 meals per year is recommended.

> 30 = Although consumption of more than 30 meals/month is allowed, EPA advises limiting consumption to 30 meals in 1 month (1 meal per day).

^a Instructions for modifying the variables in this table are found in Section 3.3.

Consumption limits are calculated based on a body weight of 14.5 kg and using $RfD=2 \times 10^{-5}$ mg/kg/d. References for RfDs are found in Section 5.

Shaded values are below the detection limit, 5×10^{-2} mg/kg.

All values were rounded down to the nearest whole meal size.

^b Monthly limits are based on the total dose allowable over a 1-month period (based on the RfD).

When this dose is consumed in less than 1 month (e.g., in a few large meals), the daily dose will exceed the RfD (see Section 2.3).