

Calculations for the Maximum Recommended Number of Meals per Month of Fish Containing Variable Concentrations of Methylmercury

In its simplest form, the formula for this calculation is:

$$\frac{\text{Maximum Recommended Intake of Mercury}}{\text{Month}} = \text{Number of Meals / Month}$$

$$\frac{\text{Intake of Mercury}}{\text{Meal}}$$

- Assumptions:
- 1) there are 30.44 days / month
 - 2) one meal consists of 0.227 kilograms of fish (0.227 Kg = 227g or approximately 8 oz.)
 - 3) the Interim Reference Dose for methylmercury is 0.1 micrograms of methylmercury per kilogram of body weight per day
RfD = 0.1 g/Kg-d

Conversion Factor: 1) 1 lb = 0.454 Kg

I. Calculate your body weight in kilograms:

$$(\text{_____ lbs}) \times (0.454 \text{ kg/lb}) = \text{_____ Kg}$$

II. Calculate your maximum recommended daily intake of methylmercury:

(your weight in kilograms) x (RfD) = maximum recommended intake per day

$$(\text{_____ Kg}) \times (0.1 \text{ g/Kg-d}) = \text{_____ g/day}$$

III. Calculate your maximum recommended intake of methylmercury per month:

(daily maximum recommended intake) x (ave. # days/month) =
maximum recommended intake of methylmercury per month

$$(\text{_____ g/day}) \times (30.44 \text{ days/month}) = (\text{_____ g/month})$$

IV. Calculate your intake of methylmercury per meal:

(g mercury per gram fish) x (ave. quantity fish per meal) =
intake of mercury/meal

$$(\text{_____ g/g}) \times (227 \text{g/meal}) = \text{_____ g/meal}$$

V. Calculate your maximum recommended number of meals per month:

(maximum recommended intake methylmercury per month) /
(intake of methylmercury per meal) = maximum recommended
number of meals per month)

$$(\text{_____ g/month}) / (\text{_____ g/meal}) = \text{_____ meals/month}$$

To calculate the maximum recommended number of meals of Tuna and Swordfish that you could eat each month, go to:

<http://vm.cfsan.fda.gov/~dms/mercury.html>

and locate the table that shows the average concentration of methylmercury in those species. _____