PCBs in Food

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Poly-Chlorinated Biphenyls (PCBs)
PCB Exposures

- Ingestion
- Inhalation
- Skin-absorption (occupational, rare)
Diet History Questionnaire (DHQ) II

Food Selection

Columbus Junction, Iowa

East Chicago, Indiana

Lake Michigan

PCBs

4

Map data ©2019 Google United States
Selected 26 Foods
Local Stores
Total PCBs in Foods

Concentration (pg g\textsuperscript{-1} WW)

- Marine Fish
  - Salmon
  - Canned Tuna
  - Beef Steak
  - Butter
  - Fried Chicken
  - Catfish
- Meat
  - Ground Beef
  - Hamburger
  - Hot Dog
  - Ground Pork
  - Tilapia
  - Cheese
  - Poultry
  - Shrimp
  - Ice Cream
  - Pizza
  - Margarine
  - Liver
  - Sausage
  - French Fries
  - Sliced Ham
  - Meat-Free Dinner
  - 2% Milk
  - Eggs
  - Luncheon Meat
  - Vegetable Oil

- mono-, di-, and tri–CBs
- tetra–CBs
- penta–CBs
- hexa–CBs
- hepta, octa–, nona–, and deca–CBs

Vegetable-origin
PCB Dietary Exposure =

Diet History Questionnaire (DHQ) II

PCBs

mono-, di-, and tri-CBs
tetra-CBs
penta-CBs
hexa-CBs
hepta, octa-, nona-, and deca-CBs
Dietary

μg year$^{-1}$

East Chicago

Columbus Junction

Mothers  Girls  Boys  Mothers  Girls  Boys

$^{a}$Ampleman et al. (2015) and $^{b}$Marek et al. (2017)
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- PCB level in food is decreasing
- Dietary $\approx$ Inhalation
- Meat $>$ Marine Fish