

## Search Plan and Results

### Question

[What are the benefits in relationship to the risks for seafood consumption? \(DGAC 2010\)](#)

### Date Searched

1st search: 7/27/09; 2nd search: 8/13/09; 3rd search: 3/2/10

### Inclusion Criteria

- 2007 to March, 2010 for articles published since Institute of Medicine “Seafood Choices” report and searched for articles back to 2004 that were not cited in that IOM Report
- Ages two years and older
- Populations:
  - Healthy
  - Elevated risk of adverse outcome from foodborne illness
    - Pregnant women and unborn baby (fetus)
    - Young children (two to four years old)
    - Older adults
    - Weakened immune systems (cancer, leukemia, diabetes, liver or kidney disease, HIV/AIDS, autoimmune disease)
    - Poor underlying health.

### Exclusion Criteria

- Medical treatment or therapy
- Diseased subjects (already diagnosed with disease related to study purpose)
- Malnourished or third-world populations or disease incidence not relative to US population (e.g., malaria)
- Animal studies
- In vitro studies
- Articles not peer reviewed (websites, magazine articles, Federal reports, etc.).

### Search Terms: Search Vocabulary

First search: (seafood[mh] OR fishes[mh]) AND (“adverse effects”[Subheading] OR toxicity[subheading])

(seafood[mh] OR fishes[mh]) AND (mercury[mh] OR “Methylmercury Compounds”[mesh])

(seafood[mh] OR fishes[mh]) AND (pregnancy[mh] OR "Prenatal Exposure Delayed Effects"[mesh] OR "Maternal Exposure"[mesh] OR "pregnant women"[mh])

(seafood[mh] OR fishes[mh]) AND ("Risk Assessment"[mesh] OR "risk factors"[mh]) AND mercury OR methylmercury)

(fishes[mh] OR seafood[mh]) AND selenium[mh]

(fishes[majr] OR seafood[majr]) AND (risk OR risks OR benefit\*) AND (intake OR consumption)

Second search: Search Terms used: (wild OR farmed OR ocean OR lake OR rivers[mh]) AND fishes[mesh] and (risk\* OR risks OR risky)

Third search: KW=(fish or seafood) and KW=risk\* and ((persistent organic pollutant\*) or pops or pcbs)

(seafood[mh] OR fishes[mh]) AND( "adverse effects"[Subheading] OR toxicity[subheading] OR "Risk Assessment"[mesh] OR risk OR risks OR "risk factors"[mh]) AND (POPS OR PCBS OR persistent organic pollutant\* OR "Polybrominated Biphenyls" OR "Polychlorinated Biphenyls")

## Electronic Databases

PubMed.

CAB Abstracts; BIOSIS; ASFA (Aquatic Sciences and Fisheries Abstracts DATABASE).

**Total hits from all electronic database searches:** 1058

**Total articles identified to review from electronic databases:** 183

Articles Identified Via Handsearch or Other Means

### **Hand Search (One Article):**

Mozaffarian D, Rimm EB. [Fish intake, contaminants, and human health: Evaluating the risks and the benefits](#). JAMA. 2006 Oct 18; 296(15): 1, 885-1, 899. Review. Erratum in: JAMA. 2007 Feb 14; 297(6): 590. PMID: 17047219.

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Summary of Articles Identified to Review

**Number of Primary Articles Identified:** 7

**Number of Review Articles Identified:** 2

**Total Number of Articles Identified: 9**

**Number of Articles Reviewed but Excluded: 175**

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## List of Articles Included for Evidence Analysis

### ***Systematic Reviews and Meta-analyses***

Gochfeld M, Burger J. [Good fish/bad fish: A composite benefit-risk by dose curve.](#) *Neurotoxicology*. 2005 Aug; 26(4): 511-520. Review. PMID: 15979722.

Mozaffarian D, Rimm EB. [Fish intake, contaminants, and human health: Evaluating the risks and the benefits](#). *JAMA*. 2006 Oct 18; 296(15): 1, 885-1, 899. Review. Erratum in: *JAMA*. 2007 Feb 14; 297(6): 590. PMID: 17047219.

### ***Primary Citations***

Dewailly E, Ayotte P, Lucas M, Blanchet C. [Risk and benefits from consuming salmon and trout: a Canadian perspective](#). *Food Chem Toxicol*. 2007 Aug; 45(8): 1, 343-1, 348. Epub 2007 Jan 20. PMID: 17343969.

Ginsberg GL, Toal BF. [Quantitative approach for incorporating methylmercury risks and omega-3 fatty acid benefits in developing species-specific fish consumption advice](#). *Environ Health Perspect*. 2009 Feb; 117(2): 267-275. Epub 2008 Sep 3. PMID: 19270798; PMCID: PMC2649230.

Guevel MR, Sirot V, Volatier JL, Leblanc JC. [A risk-benefit analysis of French high fish consumption: A QALY approach](#). *Risk Anal*. 2008 Feb; 28(1): 37-48. PMID: 18304105.

Huang X, Hites RA, Foran JA, Hamilton C, Knuth BA, Schwager SJ, Carpenter DO. [Consumption advisories for salmon based on risk of cancer and noncancer health effects](#). *Environ Res*. 2006 Jun; 101(2): 263-274. Epub 2005 Sep 29. PMID: 16198332.

Rawn DF, Forsyth DS, Ryan JJ, Breakell K, Verigin V, Nicolidakis H, Hayward S, Laffey P, Conacher HB. [PCB, PCDD and PCDF residues in fin and non-fin fish products from the Canadian retail market 2002](#). *Sci Total Environ*. 2006 Apr 15; 359(1-3): 101-110. PMID: 15913708.

Sioen I, De Henauw S, Verbeke W, Verdonck F, Willems JL, Van Camp J. [Fish consumption is a safe solution to increase the intake of long-chain n-3 fatty acids](#). *Public Health Nutr*. 2008 Nov; 11(11): 1, 107-1, 116. Epub 2008 Jan 2. PMID: 18167167.

Verger P, Khalifi N, Roy C, Blanchemanche S, Marette S, Roosen J. [Balancing the risk of dioxins and polychlorinated biphenyls \(PCBs\) and the benefit of long-chain polyunsaturated fatty acids of the n-3 variety for French fish consumers in western coastal areas](#). *Food Addit Contam Part A Chem Anal Control Expo Risk Assess*. 2008 Jun; 25(6): 765-771. PMID: 18484304.

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## List of Excluded Articles with Reason

Articles (A to G)	Reason for Exclusion
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<p>Abbalie A, Ballard TJ, Dellatte E, di Domenico A, Ferri F, Fulgenzi AR, Grisanti G, Iacovella N, Ingelido AM, Malisch R, Miniero R, Porpora MG, Risica S, Ziemacki G, De Felip E. <a href="#">Persistent environmental contaminants in human milk: Concentrations and time trends in Italy.</a> <i>Chemosphere</i>. 2008 Aug; 73(1 Suppl): S220-S227. Epub 2008 May 6. PMID: 18462773.</p>	<p>Focuses on risk only.</p>
<p>Abdelouahab N, Vanier C, Baldwin M, Garceau S, Lucotte M, Mergler D. <a href="#">Ecosystem matters: fish consumption, mercury intake and exposure among fluvial lake fish-eaters.</a> <i>Sci Total Environ</i>. 2008 Dec 15; 407(1): 154-164. Epub 2008 Oct 19. PMID: 18937964.</p>	<p>Primary focus is on risks of fish consumption.</p>
<p>Agusa T, Kunito T, Sudaryanto A, Monirith I, Kan-Atireklap S, Iwata H, Ismail A, Sanguansin J, Muchtar M, Tana TS, Tanabe S. <a href="#">Exposure assessment for trace elements from consumption of marine fish in Southeast Asia.</a> <i>Environ Pollut</i>. 2007</p>	<p>Does not answer question (assessment of quantity of trace elements in selected fish categories).</p>
<p>Alves MF, Fraiji NA, Barbosa AC, De Lima DS, Souza JR, Dórea JG, Cordeiro GW. <a href="#">Fish consumption, mercury exposure and serum antinuclear antibody in Amazonians.</a> <i>Int J Environ Health Res</i>. 2006 Aug; 16(4): 255-262. PMID: 16854670.</p>	<p>Study in Third World population (i.e., malaria noted in population).</p>
<p>Andreji J, Stránský I, Massányi P, Valent M. <a href="#">Concentration of selected metals in muscle of various fish species.</a> <i>J Environ Sci Health A Tox Hazard Subst Environ Eng</i>. 2005; 40(4): 899-912. PMID: 15792307.</p>	<p>Focus is on risk from fish in a specific river in Slovakia.</p>
<p>Arain MB, Kazi TG, Baig JA, Jamali MK, Afzal HI, Shah AQ, Jalbani N, Sarfraz RA. <a href="#">Determination of arsenic levels in lake water, sediment, and foodstuff from selected area of Sindh, Pakistan: Estimation of daily dietary intake.</a> <i>Food Chem Toxicol</i>. 2009 Jan; 47(1): 242-248. Epub 2008 Nov 13. PMID: 19041679.</p>	<p>Focus is on risk related to fish from specific area in Pakistan.</p>
<p>Axelrad DA, Goodman S, Woodruff TJ. <a href="#">PCB body burdens in US women of childbearing age 2001-2002: An evaluation of alternate summary metrics of NHANES data.</a> <i>Environ Res</i>. 2009 May; 109(4): 368-378. Epub 2009 Feb 28. PMID: 19251256.</p>	<p>Exposure focus; risk only.</p>

<p>Axmon A, Rylander L, Rignell-Hydbom A. <a href="#"><u>Reproductive toxicity of seafood contaminants: Prospective comparisons of Swedish east and west coast fishermen's families.</u></a> <i>Environ Health</i>. 2008 May 28; 7: 20. PMID: 18507855; PMCID: PMC2438351.</p>	<p>Focuses on risk only.</p>
<p>Baeyens W, Leermakers M, Elskens M, Van Larebeke N, De Bont R, Vanderperren H, Fontaine A, Degroodt JM, Goeyens L, Hanot V, Windal I. <a href="#"><u>PCBs and PCDD/FS in fish and fish products and their impact on the human body burden in Belgium.</u></a> <i>Arch Environ Contam Toxicol</i>. 2007 May; 52(4): 563-571. Epub 2007 Mar 29. PMID: 17396213.</p>	<p>Exposure focus; risk only.</p>
<p>Bates CJ, Prentice A, Birch MC, Delves HT. <a href="#"><u>Dependence of blood indices of selenium and mercury on estimated fish intake in a national survey of British adults.</u></a> <i>Public Health Nutr</i>. 2007 May; 10(5): 508-517. PMID: 17411472.</p>	<p>Does not answer the question (focus is on assessment of exposure to Hg and Selenium).</p>
<p>Bayen S, Barlow P, Lee HK, Obbard JP. <a href="#"><u>Effect of cooking on the loss of persistent organic pollutants from salmon.</u></a> <i>J Toxicol Environ Health A</i>. 2005 Feb 27; 68(4): 253-265. PMID: 15799450.</p>	<p>Does not answer the question (focus is on fish preparation methods to reduce POPs).</p>
<p>Bayen S, Barlow P, Lee HK, Obbard JP. <a href="#"><u>Effect of cooking on the loss of persistent organic pollutants from salmon.</u></a> <i>J Toxicol Environ Health A</i>. 2005 Feb 27; 68(4): 253-265. PMID: 15799450.</p>	<p>Does not answer the question (focus is on fish preparation methods to reduce POPs).</p>
<p>Benefice E, Monrroy SJ, Rodriguez RW. <a href="#"><u>A nutritional dilemma: fish consumption, mercury exposure and growth of children in Amazonian Bolivia.</u></a> <i>Int J Environ Health Res</i>. 2008 Dec; 18(6): 415-427. PMID: 19031146.</p>	<p>Indigenous study population with different nutritional status and health than US.</p>
<p>Bergkvist C, Oberg M, Appelgren M, Becker W, Aune M, Ankarberg EH, Berglund M, Håkansson H. <a href="#"><u>Exposure to dioxin-like pollutants via different food commodities in Swedish children and young adults.</u></a> <i>Food Chem Toxicol</i>. 2008 Nov; 46(11): 3, 360-3, 367. Epub 2008 Aug 26. PMID: 18789370.</p>	<p>Exposure focus; risk only; beyond just fish as source of pollutants.</p>
<p>Berntssen MH, Giskegjerde TA, Rosenlund G, Torstensen BE, Lundebye AK. <a href="#"><u>Predicting World Health Organization toxic equivalency factor dioxin and dioxin-like polychlorinated biphenyl levels in farmed Atlantic salmon (<i>Salmo salar</i>) based on known levels in feed.</u></a> <i>Environ Toxicol Chem</i>. 2007 Jan; 26(1): 13-23. PMID: 17269455.</p>	<p>Exposure focus; risk only.</p>

<p>Berr C, Akbaraly T, Arnaud J, Hininger I, Roussel AM, Barberger Gateau P. <a href="#">Increased selenium intake in elderly high fish consumers may account for health benefits previously ascribed to omega-3 fatty acids</a>. <i>J Nutr Health Aging</i>. 2009 Jan; 13(1): 14-18. PMID: 19151902.</p>	<p>Does not answer the question (focus is on benefits regarding Selenium and omega-3 and omega-6 fatty acids, nothing on risks due to contaminants).</p>
<p>Berry MJ, Ralston NV. <a href="#">Mercury toxicity and the mitigating role of selenium</a>. <i>Ecohealth</i>. 2008 Dec; 5(4): 456-459. Epub 2009 Feb 6. PMID: 19198945.</p>	<p>Narrative review.</p>
<p>Bhavsar SP, Fletcher R, Hayton A, Reiner EJ, Jackson DA. <a href="#">Composition of dioxin-like PCBs in fish: an application for risk assessment</a>. <i>Environ Sci Technol</i>. 2007 May 1; 41(9): 3, 096-3, 102. PMID: 17539510.</p>	<p>Focuses on risk assessment only.</p>
<p>Binelli A, Provini A. <a href="#">Risk for human health of some POPs due to fish from Lake Iseo</a>. <i>Ecotoxicol Environ Saf</i>. 2004 May; 58(1): 139-145. PMID: 15087174.</p>	<p>Focus is on risk of fish in a lake in Italy.</p>
<p>Booth S, Zeller D. <a href="#">Mercury, food webs, and marine mammals: implications of diet and climate change for human health</a>. <i>Environ Health Perspect</i>. 2005 May; 113(5): 521-526. PMID: 15866757; PMCID: PMC1257541.</p>	<p>Does not answer the question (study focus is on comparison of risk between cod and whale meat in Faroe Islands).</p>
<p>Bravata DM, Wells CK, Brass LM, Morgan T, Lichtman JH, Concato J. <a href="#">Dietary fish or seafood consumption is not related to cerebrovascular disease risk in twin veterans</a>. <i>Neuroepidemiology</i>. 2007; 28(3): 186-190. Epub 2007 Aug 16. PMID: 17703102.</p>	<p>Does not answer the question (focus is on reducing risk related to stroke and TIA, nothing on risks due to contaminants).</p>
<p>Brustad M, Sandanger TM, Andersen V, Lund E. <a href="#">POP exposure from fish liver consumption and risk of cancer: The Norwegian Women and Cancer Study</a>. <i>J Environ Monit</i>. 2007 Jul; 9(7): 682-686. Epub 2007 May 18. PMID: 17607388.</p>	<p>Exposure focus; risk only.</p>
<p>Budtz-Jørgensen E, Grandjean P, Weihe P. <a href="#">Separation of risks and benefits of seafood intake</a>. <i>Environ Health Perspect</i>. 2007 Mar; 115(3): 323-327. Epub 2006 Dec 14. PMID: 17431478; PMCID: PMC1849938.</p>	<p>Focus is on risk and benefit methodology and confounders in measuring risks and benefits of fish, analyzed data from a cohort study.</p>
<p>Burger J. <a href="#">Fishing, fish consumption, and awareness about warnings in a university community in central New Jersey in 2007, and comparisons with 2004</a>. <i>Environ Res</i>. 2008 Sep; 108(1): 107-116. Epub 2008 Jul 15. PMID: 18632098.</p>	<p>Does not answer question (assesses awareness related to fish advisories).</p>

<p>Burger J, Gochfeld M. <a href="#">Perceptions of the risks and benefits of fish consumption: Individual choices to reduce risk and increase health benefits</a>. <i>Environ Res.</i> 2009 Apr; 109(3): 343-349. Epub 2009 Feb 3. PMID: 19193369.</p>	<p>Does not answer the question (focus is on perceptions of risks and benefits of fish consumption).</p>
<p>Burger J, Gochfeld M. <a href="#">Risk to consumers from mercury in Pacific cod (<i>Gadus macrocephalus</i>) from the Aleutians: fish age and size effects</a>. <i>Environ Res.</i> 2007 Oct; 105(2): 276-284. Epub 2007 Jun 27. PMID: 17599825.</p>	<p>Does not answer the question (focus is on assessing amount of Hg and Selenium in fish).</p>
<p>Burger J, Gochfeld M, Shukla T, Jeitner C, Burke S, Donio M, Shukla S, Snigaroff R, Snigaroff D, Stamm T, Volz C. <a href="#">Heavy metals in Pacific cod (<i>Gadus macrocephalus</i>) from the Aleutians: Location, age, size, and risk</a>. <i>J Toxicol Environ Health A.</i> 2007 Nov; 70(22): 1, 897-1, 911. PMID: 17966061.</p>	<p>Study results pertinent to population living in Aleutian Island communities and focus is on measurement of Hg, Selenium and other heavy metals in fish.</p>
<p>Burger J, Jeitner C, Donio M, Shukla S, Gochfeld M. <a href="#">Factors affecting mercury and selenium levels in New Jersey flatfish: low risk to human consumers</a>. <i>J Toxicol Environ Health A.</i> 2009; 72(14): 853-860.</p>	<p>Does not answer the question (focus is on assessment of amount of Hg and Selenium in specific types of fish).</p>
<p>Cao H, Suzuki N, Sakurai T, Matsuzaki K, Shiraishi H, Morita M. <a href="#">Probabilistic estimation of dietary exposure of the general Japanese population to dioxins in fish, using region-specific fish monitoring data</a>. <i>J Expo Sci Environ Epidemiol.</i> 2008 May; 18(3): 236-245. Epub 2007 Dec 5. Review. PMID: 18059428.</p>	<p>Focus is on risk in region specific fish in Japan.</p>
<p>Carvalho CM, Matos AI, Mateus ML, Santos AP, Batoreu MC. <a href="#">High-fish consumption and risk prevention: assessment of exposure to methylmercury in Portugal</a>. <i>J Toxicol Environ Health A.</i> 2008; 71(18): 1, 279-1, 288. PMID: 18654900.</p>	<p>Does not answer the question (focus on evaluating exposure of International population to Hg).</p>
<p>Castoldi AF, Johansson C, Onishchenko N, Coccini T, Roda E, Vahter M, Ceccatelli S, Manzo L. <a href="#">Human developmental neurotoxicity of methylmercury: impact of variables and risk modifiers</a>. <i>Regul Toxicol Pharmacol.</i> 2008 Jul; 51(2): 201-214. Epub 2008 Feb 13. Review. PMID: 18367301.</p>	<p>Narrative review.</p>

<p>Chavarro JE, Stampfer MJ, Hall MN, Sesso HD, Ma J. <a href="#">A 22-year prospective study of fish intake in relation to prostate cancer incidence and mortality.</a> <i>Am J Clin Nutr.</i> 2008 Nov; 88(5): 1, 297-1, 303. PMID: 18996866.</p>	<p>Does not answer the question (Possible benefits in lowering risk of prostate cancer, nothing on risks due to contaminants).</p>
<p>Chen DY, Williams VJ. <a href="#">Marine fish food in the United States and methylmercury risk.</a> <i>Int J Environ Health Res.</i> 2009 Apr; 19(2): 109-124. PMID: 19370462.</p>	<p>Does not answer the question (focus is on Hg concentration in fish and purchasing behavior).</p>
<p>Chen MH, Chen CY, Chang SK, Huang SW. <a href="#">Total and organic mercury concentrations in the white muscles of swordfish (<i>Xiphias gladius</i>) from the Indian and Atlantic oceans.</a> <i>Food Addit Contam.</i> 2007 Sep; 24(9): 969-975. PMID: 17691010.</p>	<p>Does not answer the question (focus is on assessment of Hg in swordfish).</p>
<p>Cheng J, Gao L, Zhao W, Liu X, Sakamoto M, Wang W. <a href="#">Mercury levels in fisherman and their household members in Zhoushan, China: Impact of public health.</a> <i>Sci Total Environ.</i> 2009 Apr 1; 407(8): 2, 625-2, 630. Epub 2009 Feb 8. PMID: 19201452.</p>	<p>Does not answer the question (focus is on measuring Hg exposure and potential risk).</p>
<p>Cheung KC, Leung HM, Kong KY, Wong MH. <a href="#">Residual levels of DDTs and PAHs in freshwater and marine fish from Hong Kong markets and their health risk assessment.</a> <i>Chemosphere.</i> 2007 Jan; 86(3): 460-468. Epub 2006 Jul 25. PMID: 16870232.</p>	<p>Focuses on risk assessment only.</p>
<p>Chi QQ, Zhu GW, Alan L. <a href="#">Bioaccumulation of heavy metals in fishes from Taihu Lake, China.</a> <i>J Environ Sci (China).</i> 2007; 19(12): 1, 500-1, 504. PMID: 18277656.</p>	<p>Focus is on risk in locally consumed fish from lake in China.</p>
<p>Chong EW, Kreis AJ, Wong TY, Simpson JA, Guymer RH. <a href="#">Dietary omega-3 fatty acid and fish intake in the primary prevention of age-related macular degeneration: A systematic review and meta-analysis.</a> <i>Arch Ophthalmol.</i> 2008 Jun; 126(6): 826-833. Review. PMID: 18541848.</p>	<p>Does not answer the question (focus is on benefits due to fatty acids, nothing on risk of contaminants).</p>
<p>Chouvelon T, Warnau M, Churlaud C, Bustamante P. <a href="#">Hg concentrations and related risk assessment in coral reef crustaceans, molluscs and fish from New Caledonia.</a> <i>Environ Pollut.</i> 2009 Jan; 157(1): 331-340. Epub 2008 Jul 31. PMID: 18674852.</p>	<p>Does not answer question (focus is on assessment of Hg concentrations in the tissues of several marine taxa from the New Caledonian lagoon).</p>
<p>Cirillo T, Viscardi V, Fasano E, Farina A, Amodio-Cocchieri R. <a href="#">Polychlorinated biphenyls, organochlorine pesticides, and polycyclic aromatic hydrocarbons in wild, farmed, and frozen marine seafood marketed in Campania, Italy.</a> <i>J Food Prot.</i></p>	<p>Exposure focus; risk only.</p>

<a href="#">2009 Aug; 72(8): 1, 677-1, 685. PMID: 19722400.</a>	
Cortes S, Fortt A. <a href="#">Mercury content in Chilean fish and estimated intake levels</a> . <i>Food Addit Contam</i> . 2007 Sep; 24(9): 955-959. PMID: 17691008.	Does not answer question (Focus is on assessment of Hg concentration in fish).
<a href="#">Costa LG. Contaminants in fish: risk-benefit considerations</a> . <i>Arh Hig Rada Toksikol</i> . 2007 Sep; 58(3):367-74. Review. PubMed PMID: 17913692.	Narrative review.
Davidson PW, Myers GJ, Weiss B, Shambaye CF, Cox C. <a href="#">Prenatal methyl mercury exposure from fish consumption and child development: a review of evidence and perspectives from the Seychelles Child Development Study</a> . <i>Neurotoxicology</i> . 2006 Dec; 27(6):1106-9. Epub 2006 Apr 15. PubMed PMID: 16687174.	Out of date range and focus is primarily on risks alone: neurotoxicity of MeHg in relation to child development.
Davidson PW, Strain JJ, Myers GJ, Thurston SW, Bonham MP, Shambaye CF, Stokes-Riner A, Wallace JM, Robson PJ, Duffy EM, Georger LA, Sloane-Reeves J, Cernichiari E, Canfield RL, Cox C, Huang LS, Janciuras J, Clarkson TW. <a href="#">Neurodevelopmental effects of maternal nutritional status and exposure to methylmercury from eating fish during pregnancy</a> . <i>Neurotoxicology</i> . 2008 Sep; 29(5): 767-775. Epub 2008 Jun 11. PMID: 18590763; PMCID: PMC2580738.	Focus of study analysis was on infants and children below 30 months of age.
Dawson J, Sheeshka J, Cole DC, Kraft D, Waugh A. Fishers weigh in: benefits and risks of eating Great Lakes fish from the consumer's perspective. <i>Agriculture and Human Values</i> . 2008; 25(3): 349-364. (Not currently indexed for MEDLINE, no hyperlinked abstract) (CAB Abstracts)	Does not answer the question (focus is on risks and benefits of fish consumption based on qualitative data from tape recorded interviews of consumers).
Dewailly E, Ayotte P, Lucas M, Blanchet C. <a href="#">Risk and benefits from consuming salmon and trout: a Canadian perspective</a> . <i>Food Chem Toxicol</i> . 2007 Aug; 45(8): 1, 343-1, 348. Epub 2007 Jan 20. PMID: 17343969.	Does not answer question (focus is on measurement of contaminants and fatty acids in wild or farmed fish).
Dewailly E, Chateau-Degat L, Suhas E. <a href="#">Fish consumption and health in French Polynesia</a> . <i>Asia Pac J Clin Nutr</i> . 2008; 17(1): 86-93. PMID: 18364332.	Does not answer question (focus is on exposure to Hg and Se and fatty acids in fish, the eating population).

Dewailly E, Rouja P, Dallaire R, Pereg D, Tucker T, Ward J, Weber JP, Maguire JS, Julien P. Balancing the risks and the benefits of local fish consumption in Bermuda. <i>Food Additives and Contaminants</i> . 2008; 25(11): 1, 328-1, 338. (not indexed in PubMed, no hyperlinked abstract) (CAB Abstracts)	Does not answer question (provides data on the content of mercury, selenium and PUFA in the most consumed fish species in Bermuda).
Dewailly E, Suhas E, Mou Y, Dallaire R, Chateau-Degat L, Chansin R. <a href="#">High fish consumption in French Polynesia and prenatal exposure to metals and nutrients</a> . <i>Asia Pac J Clin Nutr</i> . 2008; 17(3): 461-470. PMID: 18818168.	Does not answer question [focus is on prenatal exposure to Hg (and other items such as Selenium and fatty acids) in fish].
DeWeese AD, Kmiecik NE, Chiriboga ED, Foran JA. <a href="#">Efficacy of risk-based, culturally sensitive Ogaag (walleye) consumption advice for Anishinaabe tribal members in the Great Lakes Region</a> . <i>Risk Anal</i> . 2009 May; 29(5): 729-742. Epub 2009 Feb 9. PMID: 19220800.	Focus is on risk related to fish from one specific lake region in US.
Díez S, Delgado S, Aguilera I, Astray J, Pérez-Gómez B, Torrent M, Sunyer J, Bayona JM. <a href="#">Prenatal and early childhood exposure to mercury and methylmercury in Spain, a high-fish-consumer country</a> . <i>Arch Environ Contam Toxicol</i> . 2009 Apr; 56(3): 615-622. Epub 2008 Oct 4. PMID: 18836676.	Does not answer question (focus is on prenatal and early childhood exposure to Hg in fish).
Domingo JL, Bocio A. <a href="#">Levels of PCDD/PCDFs and PCBs in edible marine species and human intake: a literature review</a> . <i>Environ Int</i> . 2007 Apr; 33(3): 397-405. Epub 2007 Jan 30. Review. PMID: 17270272.	Exposure focus; risk only.
Domingo JL, Bocio A, Martí-Cid R, Llobet JM. <a href="#">Benefits and risks of fish consumption Part II. RIBEPEIX, a computer program to optimize the balance between the intake of omega-3 fatty acids and chemical contaminants</a> . <i>Toxicology</i> . 2007 Feb 12; 230(2-3): 227-233. Epub 2006 Nov 21. PMID: 17178182.	Does not answer question [focus is on a method of assessing risk and benefit using a special computer program to quantitatively establish the intake of pollutants (risks) vs. that of EPA + DHA (benefits)].
Domingo JL, Bocio A, Falcó G, Llobet JM. <a href="#">Benefits and risks of fish consumption Part I. A quantitative analysis of the intake of omega-3 fatty acids and chemical contaminants</a> . <i>Toxicology</i> . 2007 Feb 12; 230(2-3): 219-226. Epub 2006 Nov 19. PMID: 17161894.	Study results focus on benefits related to intake of EPA and DHA rather than health outcomes per se.

<p>Dovydaitis T. <a href="#">Fish consumption during pregnancy: an overview of the risks and benefits. <i>J Midwifery Womens Health.</i> 2008 Jul-Aug; 53(4): 325-330. Review. PMID: 18586185.</a></p>	<p>Narrative review.</p>
<p>Drouillet P, Kaminski M, De Lauzon-Guillain B, Forhan A, Ducimetière P, Schweitzer M, Magnin G, Goua V, Thiébaut Georges O, Charles MA. <a href="#">Association between maternal seafood consumption before pregnancy and fetal growth: Evidence for an association in overweight women. The EDEN mother-child cohort. <i>Paediatr Perinat Epidemiol.</i> 2009 Jan; 23(1): 76-86. PMID: 19228317.</a></p>	<p>Does not answer question (focus is on benefits of fish for fetal growth, nothing on risk of contaminants).</p>
<p>Easton MD, Luszniak D, Von der GE. <a href="#">Preliminary examination of contaminant loadings in farmed salmon, wild salmon and commercial salmon feed. <i>Chemosphere.</i> 2002 Feb; 46(7): 1, 053-1, 074. PMID: 11999769.</a></p>	<p>Published before January 2007 and is referenced in IOM 10/2006 report on Seafood Choices.</p>
<p>Engeset D, Andersen V, Hjartåker A, Lund E. <a href="#">Consumption of fish and risk of colon cancer in the Norwegian Women and Cancer (NOWAC) study. <i>Br J Nutr.</i> 2007 Sep; 98(3): 576-582. Epub 2007 Apr 10. Erratum in: <i>Br J Nutr.</i> 2008 Mar; 99(3): 696. PMID: 17419892.</a></p>	<p>Does not answer question (Focus is on benefits in lowering risk of colon cancer, nothing on risks due to contaminants).</p>
<p>Erdogru O, Covaci A, Schepens P. <a href="#">Levels of organochlorine pesticides, polychlorinated biphenyls and polybrominated diphenyl ethers in fish species from Kahramanmaraş, Turkey. <i>Environ Int.</i> 2005 Jul; 31(5): 703-711. PMID: 15910967.</a></p>	<p>Focus is on risk in fish from area in Turkey.</p>
<p>Fields S. <a href="#">Great Lakes: Resource at risk. <i>Environ Health Perspect.</i> 2005 Mar; 113(3): A164-A173. Erratum in: <i>Environ Health Perspect.</i> 2005 May; 113(5): A297. PMID: 15743704; PMCID: PMC1253773.</a></p>	<p>Commentary and published before January 2007 and is referenced in IOM report on Seafood Choices.</p>
<p>Fitzgerald EF, Hwang SA, Langguth K, Cayo M, Yang BZ, Bush B, Worswick P, Lauzon T. <a href="#">Fish consumption and other environmental exposures and their associations with serum PCB concentrations among Mohawk women at Akwesasne. <i>Environ Res.</i> 2004 Feb; 94(2): 160-170. PMID: 14757379.</a></p>	<p>Article published before 2005 (focuses on PCB risk only, no mention of Hg or Se, not risk/benefit focus).</p>
<p>Flegel TW. Review of disease transmission risks from prawn products exported for human consumption. <a href="#"><i>Aquaculture.</i> 2009 May; 290(3-4): 179-189.</a></p>	<p>Focus is on shrimp viral transmission.</p>

<p>Fok TF, Lam HS, Ng PC, Yip AS, Sin NC, Chan IH, Gu GJ, So HK, Wong EM, Lam CW. <a href="#"><u>Fetal methylmercury exposure as measured by cord blood mercury concentrations in a mother-infant cohort in Hong Kong</u></a>. <i>Environ Int.</i> 2007 Jan; 33(1): 84-92. Epub 2006 Sep 8. PMID: 16962662.</p>	<p>Does not answer question (focus on Hg exposure to fetus from fish in maternal diet).</p>
<p>Foran JA, Carpenter DO, Hamilton MC, Knuth BA, Schwager SJ. Risk-based consumption advice for farmed Atlantic and wild Pacific salmon contaminated with dioxins and dioxin-like compounds. <i>Environ Health Perspect.</i> 2005 May; 113(5): 552-556. PMID: 15866762; PMCID: PMC1257546.</p>	<p>Published before January 2007 and is referenced in IOM 10/2006 report on Seafood Choices.</p>
<p>Foran JA, Good DH, Carpenter DO, Hamilton MC, Knuth BA, Schwager SJ. <a href="#"><u>Quantitative analysis of the benefits and risks of consuming farmed and wild salmon</u></a>. <i>J Nutr.</i> 2005 Nov; 135(11): 2, 639-2, 643. PMID: 16251623.</p>	<p>Published before January 2007 and is referenced in IOM 10/2006 report on Seafood Choices.</p>
<p>Foran JA, Hites RA, Carpenter DO, Hamilton MC, Mathews-Amos A, Schwager SJ. <a href="#"><u>A survey of metals in tissues of farmed Atlantic and wild Pacific salmon</u></a>. <i>Environ Toxicol Chem.</i> 2004 Sep; 23(9): 2, 108-2, 110. PMID: 15378985.</p>	<p>Published before January 2007 and is referenced in IOM 10/2006 report on Seafood Choices.</p>
<p>Fotuhi M, Mohassel P, Yaffe K. <a href="#"><u>Fish consumption, long-chain omega-3 fatty acids and risk of cognitive decline or Alzheimer disease: A complex association</u></a>. <i>Nat Clin Pract Neurol.</i> 2009 Mar; 5(3): 140-152. Review. PMID: 19262590.</p>	<p>Does not answer question (focus is on benefits in lowering risk of cognitive decline and Alzheimer disease, nothing on risks due to contaminants).</p>
<p>Gale CR, Robinson SM, Godfrey KM, Law CM, Schlotz W, O'Callaghan FJ. <a href="#"><u>Oily fish intake during pregnancy: Association with lower hyperactivity but not with higher full-scale IQ in offspring</u></a>. <i>J Child Psychol Psychiatry.</i> 2008 Oct; 49(10): 1, 061-1.068. Epub 2008 Apr 15. PMID: 18422546.</p>	<p>Does not answer question (focus is on benefits from oily fish on IQ and hyperactivity in kids based on mat diet, nothing on risk of contaminants).</p>
<p>Galli C, Risé P. <a href="#"><u>Fish consumption, omega 3 fatty acids and cardiovascular disease. The science and the clinical trials</u></a>. <i>Nutr Health.</i> 2009; 20(1): 11-20. Review. PMID: 19326716.</p>	<p>Does not answer question (focus is on benefits based on fatty acids in fish, not on risk of contaminants).</p>
<p>Gao Y, Yan CH, Tian Y, Wang Y, Xie HF, Zhou X, Yu XD, Yu XG, Tong S, Zhou QX, Shen XM. <a href="#"><u>Prenatal exposure to mercury and neurobehavioral development of neonates in Zhoushan City, China</u></a>. <i>Environ Res.</i> 2007 Nov; 105(3): 390-399. Epub 2007</p>	<p>Primarily focuses on risks of MeHg from fish.</p>

Jul 25. PMID: 17655840.	Geelen A, Schouten JM, Kamphuis C, Stam BE, Burema J, Renkema JM, Bakker EJ, van't Veer P, Kampman E. <a href="#">Fish consumption, n-3 fatty acids, and colorectal cancer: A meta-analysis of prospective cohort studies</a> . <i>Am J Epidemiol.</i> 2007 Nov 15; 166(10): 1, 116-1, 125. Epub 2007 Sep 6. PMID: 17823383.	Does not answer question (meta-analysis: Focus on benefits of fish and fatty acids re: colorectal cancer, not on risk of contaminants in fish).
	Gibicar D, Horvat M, Logar M, Fajon V, Farnoga I, Ferrara R, Lanzillotta E, Ceccarini C, Mazzolai B, Denby B, Pacyna J. <a href="#">Human exposure to mercury in the vicinity of chlor-alkali plant</a> . <i>Environ Res.</i> 2009 May; 109(4): 355-367. Epub 2009 Mar 14. PMID: 19286175.	Does not answer question (focus is on exposure to mercury from industrial plant).
	Gladyshev MI, Sushchik NN, Anishchenko OV, Makhutova ON, Kalachova GS, Gribovskaya IV. Benefit-risk ratio of food fish intake as the source of essential fatty acids vs. heavy metals: A case study of Siberian grayling from the Yenisei River. <i>Food Chemistry.</i> 2009; 115(2): 545-550 (CAB Abstracts).	Primarily focuses on risks of MeHg from fish rather than risk or benefit; also, does not compare risks of different types of fish and the focus is on river fish in a specific river in China.
	Guldner L, Monfort C, Rouget F, Garlantezec R, Cordier S. <a href="#">Maternal fish and shellfish intake and pregnancy outcomes: a prospective cohort study in Brittany, France</a> . <i>Environ Health.</i> 2007 Oct 24; 6: 33. PMID: 17958907; PMCID: PMC2211746.	Includes discussion of benefits and risks; authors note they could not estimate either fatty acid or contaminant intake as did not obtain information on type of fish consumed.

Articles (H to O)	Reason for Exclusion
Hall MN, Chavarro JE, Lee IM, Willett WC, Ma J. <a href="#">A 22-year prospective study of fish, n-3 fatty acid intake, and colorectal cancer risk in men</a> . <i>Cancer Epidemiol Biomarkers Prev.</i> 2008 May; 17(5): 1, 136-1, 143. Erratum in: <i>Cancer Epidemiol Biomarkers Prev.</i> 2008 Oct; 17(10): 2, 901. PMID: 18483335.	Does not answer question (focus on benefits of fish and fatty acids for colorectal cancer, not on risk of contaminants in fish).
Halldorsson TI, Meltzer HM, Thorsdottir I, Knudsen V, Olsen SF. <a href="#">Is high consumption of fatty fish during pregnancy a risk factor for fetal growth retardation? A study of 44, 824 Danish pregnant women</a> . <i>Am J Epidemiol.</i> 2007 Sep 15; 166(6): 687-696. Epub 2007 Jul 13. PMID: 17631607.	Does not include specific benefit and risk ratio analysis.

<p>Harris SA, Jones JL. <a href="#">Fish consumption and PCB-associated health risks in recreational fishermen on the James River, Virginia</a>. <i>Environ Res.</i> 2008 Jun; 107(2): 254-263. Epub 2008 Apr 18. PMID: 18395199.</p>	<p>Does not answer question (focuses on risks without benefits and on PCBs and compared risks of consuming specific fish in river in Virginia, not on mercury or selenium).</p>
<p>Harper BL, Harris SG. <a href="#">A possible approach for setting a mercury risk-based action level based on tribal fish ingestion rates</a>. <i>Environ Res.</i> 2008 May; 107(1): 60-68. Epub 2007 Jul 13. PMID: 17631290.</p>	<p>Focuses on a possible approach for examining risk and benefit, but not quantitative.</p>
<p>Harvey J, Harwell L, Summers JK. <a href="#">Contaminant concentrations in whole-body fish and shellfish from US estuaries</a>. <i>Environ Monit Assess.</i> 2008 Feb; 137(1-3): 403-412. Epub 2007 Jun 13. PMID: 17564799.</p>	<p>Focuses on risk only.</p>
<p>He K, Song Y, Daviglus ML, Liu K, Van Horn L, Dyer AR, Greenland P. <a href="#">Accumulated evidence on fish consumption and coronary heart disease mortality: A meta-analysis of cohort studies</a>. <i>Circulation.</i> 2004 Jun 8; 109(22): 2,705-2,711. PMID: 15184295.</p>	<p>Focuses more on benefits of fish in reducing CHD mortality.</p>
<p>Herreros MA, Iñigo-Nuñez S, Sanchez-Perez E, Encinas T, Gonzalez-Bulnes A. <a href="#">Contribution of fish consumption to heavy metals exposure in women of childbearing age from a Mediterranean country (Spain)</a>. <i>Food Chem Toxicol.</i> 2008 May; 46(5): 1,591-1,595. Epub 2008 Jan 8. PMID: 18280025.</p>	<p>Does not answer question (focus is on exposure of women of childbearing age to heavy metals in fish).</p>
<p>Hibbeln JR, Davis JM, Steer C, Emmett P, Rogers I, Williams C, Golding J. <a href="#">Maternal seafood consumption in pregnancy and neurodevelopmental outcomes in childhood (ALSPAC study): An observational cohort study</a>. <i>Lancet.</i> 2007 Feb 17; 369(9,561): 578-585. PMID: 17307104.</p>	<p>Study focus is mostly on benefits (just some discussion of risk).</p>
<p>Hites RA, Foran JA, Carpenter DO, Hamilton MC, Knuth BA, Schwager SJ. <a href="#">Global assessment of organic contaminants in farmed salmon</a>. <i>Science.</i> 2004 Jan 9; 303(5,655): 226-229. PMID: 14716013.</p>	<p>Published before January 2007 and is referenced in IOM 10/2006 report on Seafood Choices.</p>
<p>Hsu CS, Liu PL, Chien LC, Chou SY, Han BC. <a href="#">Mercury concentration and fish consumption in Taiwanese pregnant women</a>. <i>BJOG.</i> 2007 Jan; 114(1): 81-85. Epub 2006 Nov 1. PMID: 17081179.</p>	<p>Does not answer question (focus is on assessment of amount Hg consumed and Hg in maternal cord blood, and placenta).</p>

<p>Ingelido AM, Ballard T, Dellatte E, di Domenico A, Ferri F, Fulgenzi AR, Herrmann T, Iacovella N, Miniero R, Päpke O, Porpora MG, De Felip E. <a href="#">Polychlorinated biphenyls (PCBs) and polybrominated diphenyl ethers (PBDEs) in milk from Italian women living in Rome and Venice.</a> <i>Chemosphere</i>. 2007 Apr; 67(9): S301-S306. Epub 2007 Jan 25. PMID: 17257648.</p>	<p>Exposure focus; risk only.</p>
<p>Jaikanlaya C, Settachan D, Denison MS, Ruchirawat M, van den Berg M. <a href="#">PCBs contamination in seafood species at the Eastern Coast of Thailand.</a> <i>Chemosphere</i>. 2009 Jun; 76(2): 239-249. Epub 2009 Apr 17. PMID: 19375780.</p>	<p>Assessment of PCB levels.</p>
<p>Jedrychowski W, Maugeri U, Pac A, Sochacka-Tatara E, Galas A. <a href="#">Protective effect of fish consumption on colorectal cancer risk. Hospital-based case-control study in Eastern Europe.</a> <i>Ann Nutr Metab</i>. 2008; 53(3-4): 295-302. Epub 2009 Jan 26. PMID: 19169007.</p>	<p>Does not answer question (focus is on benefits of fish re: colorectal cancer, not on risk of contaminants in fish).</p>
<p>Jedrychowski W, Perera F, Jankowski J, Rauh V, Flak E, Caldwell KL, Jones RL, Pac A, Lisowska-Miszczuk I. <a href="#">Fish consumption in pregnancy, cord blood mercury level and cognitive and psychomotor development of infants followed over the first three years of life: Krakow epidemiologic study.</a> <i>Environ Int</i>. 2007 Nov; 33(8): 1, 057-1, 062. Epub 2007 Jul 23. PMID: 17643489.</p>	<p>Primarily focuses on risks of fish consumption.</p>
<p>Jedrychowski W, Perera F, Rauh V, Flak E, Mróz E, Pac A, Skolicki Z, Kaim I. <a href="#">Fish intake during pregnancy and mercury level in cord and maternal blood at delivery: an environmental study in Poland.</a> <i>Int J Occup Med Environ Health</i>. 2007; 20(1): 31-37. PMID: 17708016.</p>	<p>Does not answer question (focus on Hg exposure to fetus from maternal fish consumption).</p>
<p>Jewett SC, Duffy LK. <a href="#">Mercury in fishes of Alaska, with emphasis on subsistence species.</a> <i>Sci Total Environ</i>. 2007 Nov 15; 387(1-3): 3-27. Epub 2007 Sep 7. Review. PMID: 17825359.</p>	<p>Narrative review.</p>
<p>Jiang Q, Hanari N, Miyake Y, Okazawa T, Lau RK, Chen K, Wyrzykowska B, So MK, Yamashita N, Lam PK. <a href="#">Health risk assessment for polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins and dibenzofurans, and polychlorinated naphthalenes in seafood from Guangzhou and Zhoushan, China.</a> <i>Environ Pollut</i>. 2007 Jul; 148(1): 31-39. Epub 2007 Jan 24. PMID: 17254684.</p>	<p>Focuses on risk only.</p>

<p>Jin L, Liang L, Jiang G, Xu Y. <a href="#">Methylmercury, total mercury and total selenium in four common freshwater fish species from Ya-Er Lake, China. Environ Geochem Health. 2006 Oct; 28(5): 401-407. Epub 2006 Jun 3. PMID: 16752127.</a></p>	<p>Focus is on risk in locally consumed fish from one lake in China.</p>
<p>Karouna-Renier NK, Ranga Rao K, Lanza JJ, Rivers SD, Wilson PA, Hodges DK, Levine KE, Ross GT. <a href="#">Mercury levels and fish consumption practices in women of child-bearing age in the Florida Panhandle. Environ Res. 2008 Nov; 108(3): 320-326. Epub 2008 Sep 23. PMID: 18814872.</a></p>	<p>Does not answer question (focus is on practices and awareness of advisories).</p>
<p>Kelly BC, Ikonomou MG, Higgs DA, Oakes J, Dubetz C. <a href="#">Mercury and other trace elements in farmed and wild salmon from British Columbia, Canada. Environ Toxicol Chem. 2008 Jun; 27(6): 1, 361-1, 370. Epub 2008 Jan 22. PMID: 18211126.</a></p>	<p>Does not answer question (focus is on measurement of level of Hg in wild vs. farmed salmon).</p>
<p>Kim SA, Jeon CK, Paek DM. <a href="#">Hair mercury concentrations of children and mothers in Korea: Implication for exposure and evaluation. Sci Total Environ. 2008 Aug 25; 402(1): 36-42. Epub 2008 May 27. PMID: 18502474.</a></p>	<p>Does not answer question (focus is on exposure to Hg from fish in children and mothers).</p>
<p>Knobeloch L, Gliori G, Anderson H. <a href="#">Assessment of methylmercury exposure in Wisconsin. Environ Res. 2007 Feb; 103(2): 205-210. Epub 2006 Jul 10. PMID: 16831413.</a></p>	<p>Does not answer question (focus is on exposure assessment of mercury in state of Wisconsin).</p>
<p>Knuth BA, A Connelly N, Sheeshka J, Patterson J. <a href="#">Weighing health benefit and health risk information when consuming sport-caught fish. Risk Anal. 2003 Dec; 23(6): 1, 185-1, 197. PMID: 14641893.</a></p>	<p>Published before Jan. 2007 and is referenced in the IOM Seafood Choices report of 10/2006.</p>
<p>Lee JJ, Jang CS, Liang CP, Liu CW. <a href="#">Assessing carcinogenic risks associated with ingesting arsenic in farmed smeltfish (Ayu, <i>Plecoglossus altivelis</i>) in arseniasis-endemic area of Taiwan. Sci Total Environ. 2008 Sep 15; 403(1-3): 68-79. Epub 2008 Jun 26. PMID: 18584852</a></p>	<p>Focus is on risk related to fish from specific area in Taiwan.</p>
<p>Lee KT, Lee JH, Lee, JS, Park KH, Kim SK, Shim WJ, Hong SH, Im UH, Giesy J, Oh JR. Human exposure to dioxin-like compounds in fish and shellfish consumed in South Korea. <a href="#">Hum Ecol Risk Assess. 2007 Jan; 13(1): 223-235.</a></p>	<p>Exposure focus; risk only.</p>

<p>Li X, Gan Y, Yang X, Zhou J, Dai J, Xu M. Human health risk of organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs) in edible fish from Huairou Reservoir and Gaobeidian Lake in Beijing, China. <i>Food Chem.</i> 2008 Jul; 109(2): 348-354.</p>	<p>Focus is on risk related to fish from specific reservoir and lake in China.</p>
<p>Ling MP, Liao CM. <a href="#">A human PBPK/PD model to assess arsenic exposure risk through farmed tilapia consumption</a>. <i>Bull Environ Contam Toxicol.</i> 2009 Jul; 83(1): 108-114. Epub 2009 May 19. PMID: 19452117.</p>	<p>Does not answer question; focus is on developing a biologically based risk assessment model for human health through consumption of arsenic (As) contaminated farmed tilapia).</p>
<p>Llobet JM, Falcó G, Bocio A, Domingo JL. <a href="#">Human exposure to polychlorinated naphthalenes through the consumption of edible marine species</a>. <i>Chemosphere.</i> 2007 Jan; 66(6): 1, 107-1, 113. Epub 2006 Aug 7. PMID: 16890979.</p>	<p>Exposure focus; risk only.</p>
<p>Lockhart WL, Stern GA, Low G, Hendzel M, Boila G, Roach P, Evans MS, Billeck BN, DeLaronde J, Friesen S, Kidd K, Atkins S, Muir DC, Stoddart M, Stephens G, Stephenson S, Harbicht S, Snowshoe N, Grey B, Thompson S, DeGraff N. <a href="#">A history of total mercury in edible muscle of fish from lakes in northern Canada</a>. <i>Sci Total Environ.</i> 2005 Dec 1; 351-352: 427-463. Epub 2005 Sep 16. PMID: 16169059.</p>	<p>Study focused on Hg in fish in regional lakes in Canada (covered by local and state fish advisories).</p>
<p>Mahaffey KR, Clickner RP, Jeffries RA. <a href="#">Adult women's blood mercury concentrations vary regionally in the United States: Association with patterns of fish consumption (NHANES 1999-2004)</a>. <i>Environ Health Perspect.</i> 2009 Jan; 117(1): 47-53. Epub 2008 Aug 25. PMID: 19165386; PMCID: PMC2627864.</p>	<p>Does not answer question (focus is on exposure by blood Hg levels in US).</p>
<p>Mahaffey KR, Clickner RP, Jeffries RA. <a href="#">Methylmercury and omega-3 fatty acids: Co-occurrence of dietary sources with emphasis on fish and shellfish</a>. <i>Environ Res.</i> 2008 May; 107(1): 20-29. Epub 2007 Nov 8. PMID: 17996230.</p>	<p>Does not answer question (focus is on exposure, not benefit and risk).</p>
<p>Marques RC, Garrofe Dórea J, Rodrigues Bastos W, de Freitas Rebelo M, de Freitas Fonseca M, Malm O. <a href="#">Maternal mercury exposure and neuro-motor development in breastfed infants from Porto Velho (Amazon), Brazil</a>. <i>Int J Hyg Environ Health.</i> 2007 Jan; 210(1): 51-60. Epub 2006 Sep 29. PMID: 17011234.</p>	<p>Indigenous study population with different nutritional status and health than US.</p>

<p>Martí-Cid R, Bocio A, Llobet JM, Domingo JL. <a href="#">Intake of chemical contaminants through fish and seafood consumption by children of Catalonia, Spain: health risks</a>. <i>Food Chem Toxicol.</i> 2007 Oct; 45(10): 1, 968-1, 974. Epub 2007 May 3. PMID: 17559998.</p>	<p>Does not answer question (focus is on exposure and intake levels in children).</p>
<p>Maurakis EG, Grimes DV, Bobori D, Hale R, Jones J. Assessment of human health risks from chemically contaminated lake fishes in Greece. <i>Virginia Journal of Science.</i> 2005; 56(3): 141-154.</p>	<p>Focus is on risk in locally consumed fish from lakes in Greece.</p>
<p>Maycock BJ, Benford DJ. <a href="#">Risk assessment of dietary exposure to methylmercury in fish in the UK</a>. <i>Hum Exp Toxicol.</i> 2007 Mar; 26(3): 185-190. PMID: 17439921.</p>	<p>Focuses on risk of MeHg from fish, and risk assessment, little on benefits.</p>
<p>McClain WC, Chumchal MM, Drenner RW, Newland LW. <a href="#">Mercury concentrations in fish from Lake Meredith, Texas: implications for the issuance of fish consumption advisories</a>. <i>Environ Monit Assess.</i> 2006 Dec; 123(1-3): 249-258. Epub 2006 Oct 13. PMID: 17054010.</p>	<p>Focus is on risk in locally consumed fish from one lake in Texas.</p>
<p>Mendez MA, Plana E, Guxens M, Foradada Morillo CM, Albareda RM, Garcia-Estebar R, Goñi F, Kogevinas M, Sunyer J. <a href="#">Seafood consumption in pregnancy and infant size at birth: results from a prospective Spanish cohort</a>. <i>J Epidemiol Community Health.</i> 2010 Mar; 64(3): 216-222. Epub 2009 Aug 25. PMID: 19710045.</p>	<p>Exposure focus; risk only.</p>
<p>Meng XZ, Zeng EY, Yu LP, Mai BX, Luo XJ, Ran Y. <a href="#">Persistent halogenated hydrocarbons in consumer fish of China: Regional and global implications for human exposure</a>. <i>Environ Sci Technol.</i> 2007 Mar 15; 41(6): 1, 821-1, 827. PMID: 17410770.</p>	<p>Exposure focus; risk only.</p>
<p>Middaugh JP, Arnold SM, Verbrugge LA. <a href="#">Risk-based consumption of dioxin-contaminated farmed salmon</a>. <i>Environ Health Perspect.</i> 2005 Oct; 113(10): A655-A656; author reply A656-A657. PMID: 16203223; Central PMCID: PMC1281301.</p>	<p>Commentary.</p>
<p>Mieiro CL, Pacheco M, Pereira ME, Duarte AC. <a href="#">Mercury distribution in key tissues of fish (<i>Liza aurata</i>) inhabiting a contaminated estuary-implications for human and ecosystem health risk assessment</a>. <i>J Environ Monit.</i> 2009 May; 11(5): 1, 004-1, 012. Epub 2009 Mar 24. PMID: 19436858.</p>	<p>Does not answer question (focus is on mercury in fish tissues).</p>

<p>Miyamoto S, Miyake Y, Sasaki S, Tanaka K, Ohya Y, Matsunaga I, Yoshida T, Oda H, Ishiko O, Hirota Y; Osaka Maternal and Child Health Study Group. <a href="#">Fat and fish intake and asthma in Japanese women: Baseline data from the Osaka Maternal and Child Health Study</a>. <i>Int J Tuberc Lung Dis.</i> 2007 Jan; 11(1): 103-109. PMID: 17217138.</p>	<p>Does not answer question (focus is on fish fatty acids and possible benefits re asthma in women, not risk of contaminants).</p>
<p>Moon HB, Choi HG. <a href="#">Human exposure to PCDDs, PCDFs and dioxin-like PCBs associated with seafood consumption in Korea from 2005 to 2007</a>. <i>Environ Int.</i> 2009 Feb; 35(2): 279-284. Epub 2008 Aug 9. PMID: 18694597.</p>	<p>Exposure focus; risk only.</p>
<p>Moon HB, Kim HS, Choi M, Yu J, Choi HG. <a href="#">Human health risk of polychlorinated biphenyls and organochlorine pesticides resulting from seafood consumption in South Korea, 2005-2007</a>. <i>Food Chem Toxicol.</i> 2009 Aug; 47(8): 1, 819-1, 825. Epub 2009 May 3. PMID: 19406197.</p>	<p>Exposure focus; risk only.</p>
<p>Mos L, Jack J, Cullon D, Montour L, Alleyne C, Ross PS. <a href="#">The importance of marine foods to a near-urban first nation community in coastal British Columbia, Canada: Toward a risk-benefit assessment</a>. <i>J Toxicol Environ Health A.</i> 2004 Apr 23-May 28; 67(8-10): 791-808. PMID: 15192869.</p>	<p>Published before January 2007 and is referenced in IOM report on Seafood Choices.</p>
<p>Mozaffarian D. <a href="#">Fish, mercury, selenium and cardiovascular risk: Current evidence and unanswered questions</a>. <i>Int J Environ Res Public Health.</i> 2009 Jun; 6(6): 1,894-1, 916. Epub 2009 Jun 23. Review. PMID: 19578467; PMCID: PMC2705224.</p>	<p>Narrative review .</p>
<p>Myers GJ, Davidson PW, Strain JJ. <a href="#">Nutrient and methyl mercury exposure from consuming fish</a>. <i>J Nutr.</i> 2007 Dec; 137(12): 2, 805-2, 808. PMID: 18029503.</p>	<p>Narrative review.</p>
<p>Naito W, Murata M. <a href="#">Evaluation of population-level ecological risks of dioxin-like polychlorinated biphenyl exposure to fish-eating birds in Tokyo Bay and its vicinity</a>. <i>Integr Environ Assess Manag.</i> 2007 Jan; 3(1): 68-78. PMID: 17283596.</p>	<p>Risk only related to fish-eating birds.</p>
<p>Nawa Y, Hatz C, Blum J. <a href="#">Sushi delights and parasites: the risk of fishborne and foodborne parasitic zoonoses in Asia</a>. <i>Clin Infect Dis.</i> 2005 Nov 1; 41(9): 1, 297-1, 303. Epub 2005 Sep 22. Review. PMID: 16206105.</p>	<p>Focus is on risk of sushi in Asian countries.</p>

<p>Ohta S, Tokusawa H, Nakao T, Aozasa O, Miyata H, Alaee M. <a href="#">Global contamination of coplanar polybrominated/chlorinated biphenyls (Co-PXBs) in the market fishes from Japan</a>. <i>Chemosphere</i>. 2008 Aug; 73(1 Suppl): S31-S38. Epub 2008 Jun 2. PMID: 18514257.</p>	<p>Focus is on risk only.</p>
<p>Oken E, Østerdal ML, Gillman MW, Knudsen VK, Halldorsson TI, Strøm M, Bellinger DC, Hadders-Algra M, Michaelsen KF, Olsen SF. <a href="#">Associations of maternal fish intake during pregnancy and breastfeeding duration with attainment of developmental milestones in early childhood: a study from the Danish National Birth Cohort</a>. <i>Am J Clin Nutr</i>. 2008 Sep; 88(3): 789-796. PMID: 18779297.</p>	<p>Does not answer question (focus is on benefits only regarding fish and developmental milestones in children).</p>
<p>Oken E, Radesky JS, Wright RO, Bellinger DC, Amarasiriwardena CJ, Kleinman KP, Hu H, Gillman MW. <a href="#">Maternal fish intake during pregnancy, blood mercury levels, and child cognition at age 3 years in a US cohort</a>. <i>Am J Epidemiol</i>. 2008 May 15; 167(10): 1, 171-1, 181. Epub 2008 Mar 18. <a href="#">PMID: 18353804</a>; <a href="#">PMCID: PMC2590872</a>.</p>	<p>Did not calculate risk benefit ratio.</p>
<p>Olsen SF, Østerdal ML, Salvig JD, Kesmodel U, Henriksen TB, Hedegaard M, Secher NJ. <a href="#">Duration of pregnancy in relation to seafood intake during early and mid pregnancy: Prospective cohort</a>. <i>Eur J Epidemiol</i>. 2006; 21(10): 749-758. Epub 2006 Nov 17. PMID: 17111251.</p>	<p>Does not answer question (focus is on benefits only regarding fish and duration of pregnancy).</p>
<p>Oterhals A, Nygård E. <a href="#">Reduction of persistent organic pollutants in fishmeal: A feasibility study</a>. <i>J Agric Food Chem</i>. 2008 Mar 26; 56(6): 2, 012-2, 020. Epub 2008 Feb 20. PMID: 18284205.</p>	<p>Focuses on POPs in fishmeal.</p>

Articles (P to Z)	Reason for Exclusion
<p>Passos CJ, Da Silva DS, Lemire M, Fillion M, Guimarães JR, Lucotte M, Mergler D. <a href="#">Daily mercury intake in fish-eating populations in the Brazilian Amazon</a>. <i>J Expo Sci Environ Epidemiol</i>. 2008 Jan; 18(1): 76-87. Epub 2007 Sep 5. PMID: 17805232.</p>	<p>Primarily focuses on risks of MeHg from fish consumption; probably third-world population.</p>
<p>Passos CJ, Mergler D, Lemire M, Fillion M, Guimarães JR. <a href="#">Fish consumption and bioindicators of inorganic mercury exposure</a>. <i>Sci Total Environ</i>. 2007 Feb 1; 373(1): 68-76. Epub 2007 Jan 2. PMID: 17198723.</p>	<p>Does not answer question (primarily focuses on risks of MeHg from fish consumption).</p>

<p>Pham TM, Fujino Y, Kubo T, Ide R, Tokui N, Mizoue T, Ogimoto I, Matsuda S, Yoshimura T. <a href="#">Fish intake and the risk of fatal prostate cancer: findings from a cohort study in Japan</a>. <i>Public Health Nutr.</i> 2009 May; 12(5): 609-613. Epub 2008 Jul 29. PMID: 18664313.</p>	<p>Does not answer question (focus is on benefits of fish in terms of reducing risk of prostate cancer, not on risk of contaminants in fish).</p>
<p>Poole EM, Bigler J, Whitton J, Sibert JG, Kulmacz RJ, Potter JD, Ulrich CM. <a href="#">Genetic variability in prostaglandin synthesis, fish intake and risk of colorectal polyps</a>. <i>Carcinogenesis</i>. 2007 Jun; 28(6): 1, 259-1, 263. Epub 2007 Feb 2. PMID: 17277229.</p>	<p>Focus is more on benefits of fatty acids in fish.</p>
<p>Ralston NV. <a href="#">Selenium health benefit values as seafood safety criteria</a>. <i>Ecohealth</i>. 2008 Dec; 5(4): 442-455. Epub 2009 Apr 14. PMID: 19365692.</p>	<p>Commentary article.</p>
<p>Ramón R, Ballester F, Aguinagalde X, Amurrio A, Vioque J, Lacasaña M, Rebagliato M, Murcia M, Iñiguez C. <a href="#">Fish consumption during pregnancy, prenatal mercury exposure, and anthropometric measures at birth in a prospective mother-infant cohort study in Spain</a>. <i>Am J Clin Nutr</i>. 2009 Oct; 90(4): 1, 047-1, 055. Epub 2009 Aug 26. PMID: 19710189.</p>	<p>Does not answer the question (focus is on fish and fetal growth; the other B/R studies have not concentrated on this outcome).</p>
<p>Reis AT, Rodrigues SM, Araújo C, Coelho JP, Pereira E, Duarte AC. <a href="#">Mercury contamination in the vicinity of a chlor-alkali plant and potential risks to local population</a>. <i>Sci Total Environ</i>. 2009 Apr 1; 407(8): 2, 689-2, 700. Epub 2009 Feb 11. PMID: 19211131.</p>	<p>Does not answer question (focus is on exposure to mercury from industrial plant).</p>
<p>Rignell-Hydbom A, Axmon A, Lundh T, Jönsson BA, Tiido T, Spano M. <a href="#">Dietary exposure to methyl mercury and PCB and the associations with semen parameters among Swedish fishermen</a>. <i>Environ Health</i>. 2007 May 8;6:14. PMID: 17488503; PMCID: PMC1871583.</p>	<p>Primarily focuses on risks of fish consumption.</p>
<p>Romieu I, Torrent M, Garcia-Estebe R, Ferrer C, Ribas-Fitó N, Antó JM, Sunyer J. <a href="#">Maternal fish intake during pregnancy and atopy and asthma in infancy</a>. <i>Clin Exp Allergy</i>. 2007 Apr; 37(4): 518-525. PMID: 17430348.</p>	<p>Does not answer question (focus is on fish fatty acids and possible benefits regarding atopy and asthma in infancy related to maternal fish intake, not risk of contaminants).</p>

<p>Rubio C, Gutiérrez A, Burgos A, Hardisson A. <a href="#">Total dietary intake of mercury in the Canary Islands, Spain</a>. <i>Food Addit Contam Part A Chem Anal Control Expo Risk Assess.</i> 2008 Aug; 25(8): 946-952. PMID: 18629690.</p>	<p>Does not answer question (focus is on assessment of intake of Hg in fish-eating population).</p>
<p>Rylander C, Sandanger TM, Brustad M. <a href="#">Associations between marine food consumption and plasma concentrations of POPs in a Norwegian coastal population</a>. <i>J Environ Monit.</i> 2009 Feb; 11(2): 370-376. Epub 2008 Nov 28. PMID: 19212595.</p>	<p>Exposure focus; risk only.</p>
<p>Rylander L, Strömberg U, Hagmar L. <a href="#">Weight and height at 4 and 7 years of age in children born to mothers with a high intake of fish contaminated with persistent organochlorine pollutants</a>. <i>Chemosphere.</i> 2007 Mar; 67(3): 498-504. Epub 2006 Nov 22. PMID: 17123573.</p>	<p>Does not answer question (focus is on POPs not mercury and effect of high fish intake on growth of children).</p>
<p>Rypel AL, Arrington DA, Findlay RH. <a href="#">Mercury in southeastern U.S. riverine fish populations linked to water body type</a>. <i>Environ Sci Technol.</i> 2008 Jul 15; 42(14): 5, 118-5, 124. PMID: 18754357.</p>	<p>Does not answer the question (focus is on assessing mercury in fish from different bodies of water in different parts of the US).</p>
<p>Sahuquillo I, Lagarda MJ, Silvestre MD, Farré R. <a href="#">Methylmercury determination in fish and seafood products and estimated daily intake for the Spanish population</a>. <i>Food Addit Contam.</i> 2007 Aug; 24(8): 869-876. PMID: 17613074.</p>	<p>Does not answer the question (focus is on assessing amount of mercury in fish and seafood samples and estimating daily mercury intake in international population).</p>
<p>Santerre CR. Balancing the risks and benefits of fish for sensitive populations. <i>Journal of Foodservice.</i> 2008; 19(4): 205-212. (CAB Abstracts and Aquatic Sciences and Fisheries Abstracts DATABASE).</p>	<p>Narrative review.</p>
<p>Schantz SL, Gardiner JC, Aguiar A, Tang X, Gasior DM, Sweeney AM, Peck JD, Gillard D, Kostyniak PJ. <a href="#">Contaminant profiles in Southeast Asian immigrants consuming fish from polluted waters in northeastern Wisconsin</a>. <i>Environ Res.</i> 2010 Jan; 110(1): 33-39. Epub . PMID: 19811781; PMCID: PMC2795147.</p>	<p>Exposure focus; risk only.</p>
<p>Scott LL, Staskal DF, Williams ES, Luksemburg WJ, Urban JD, Nguyen LM, Haws LC, Birnbaum LS, Paustenbach DJ, Harris MA. <a href="#">Levels of polychlorinated dibenzo-p-dioxins, dibenzofurans, and biphenyls in southern Mississippi catfish and estimation of potential health risks</a>. <i>Chemosphere.</i></p>	<p>Assessment of risk only.</p>

<p><a href="#">2009 Feb; 74(7): 1, 002-1, 010. Epub 2008 Dec 23. PMID: 19108868.</a></p>	
<p>Sioen I, Leblanc JC, Volatier JL, De Henauw S, Van Camp J. <a href="#">Evaluation of the exposure methodology for risk-benefit assessment of seafood consumption. Chemosphere. 2008 Nov; 73(10): 1, 582-1, 588. Epub 2008 Oct 10. PMID: 18848717.</a></p>	<p>Focuses on exposure methodology.</p>
<p>Sirot V, Guérin T, Mauras Y, Garraud H, Volatier JL, Leblanc JC. <a href="#">Methylmercury exposure assessment using dietary and biomarker data among frequent seafood consumers in France CALIPSO study. Environ Res. 2008 May; 107(1): 30-38. Epub 2008 Feb 7. PMID: 18261721.</a></p>	<p>Focuses on exposure to and intake of MeHg and risk, little mention of benefits.</p>
<p>Smith KM, Barraj LM, Kantor M, Sahyoun NR. <a href="#">Relationship between fish intake, n-3 fatty acids, mercury and risk markers of CHD (National Health and Nutrition Examination Survey 1999-2002). Public Health Nutr. 2009 Aug; 12(8): 1, 261-1, 269. Epub 2008 Nov 6. PMID: 18986590.</a></p>	<p>Cross-sectional analysis of risk and benefit of fish intake from NHANES survey.</p>
<p>Someya M, Ohtake M, Kunisue T, Subramanian A, Takahashi S, Chakraborty P, Ramachandran R, Tanabe S. <a href="#">Persistent organic pollutants in breast milk of mothers residing around an open dumping site in Kolkata, India: Specific dioxin-like PCB levels and fish as a potential source. Environ Int. 2010 Jan; 36(1): 27-35. Epub 2009 Oct 25. PMID: 19854513.</a></p>	<p>Exposure focus; risk only.</p>
<p>Sontrop JM, Campbell MK, Evers SE, Speechley KN, Avison WR. <a href="#">Fish consumption among pregnant women in London, Ontario: Associations with socio-demographic and health and lifestyle factors. Can J Public Health. 2007 Sep-Oct; 98(5): 389-394. PMID: 17985681.</a></p>	<p>Does not answer the question (focus is on association between fish consumption and demographic factors in pregnant women).</p>
<p>Stahl LL, Snyder BD, Olsen AR, Pitt JL. <a href="#">Contaminants in fish tissue from US lakes and reservoirs: a national probabilistic study. Environ Monit Assess. 2009 Mar; 150(1-4): 3-19. Epub 2008 Dec 9. PMID: 19067201.</a></p>	<p>Study focused on POPs in fish in lakes in US (which are covered by local and state fish advisories).</p>
<p>Stern AH. <a href="#">Public health guidance on cardiovascular benefits and risks related to fish consumption. 2007 Oct 23; 6: 31. PMID: 17956606; PMCID: PMC2164937.</a></p>	<p>Commentary.</p>

<p>Storelli MM. <a href="#">Potential human health risks from metals (Hg, Cd, and Pb) and polychlorinated biphenyls (PCBs) via seafood consumption: Estimation of target hazard quotients (THQs) and toxic equivalents (TEQs).</a> <i>Food Chem Toxicol.</i> 2008 Aug; 46(8): 2, 782-2, 788. Epub 2008 May 17. PMID: 18584931.</p>	<p>Focuses on risk only.</p>
<p>Storelli MM, Barone G, Piscitelli G, Marcotrigiano GO. <a href="#">Mercury in fish: Concentration vs. fish size and estimates of mercury intake.</a> <i>Food Addit Contam.</i> 2007 Dec; 24(12): 1, 353-1, 357. PMID: 17852384.</p>	<p>Does not answer the question (focus is on assessing mercury levels in fish related to fish size).</p>
<p>Strøm M, Mortensen EL, Halldorsson TI, Thorsdottir I, Olsen SF. <a href="#">Fish and long-chain n-3 polyunsaturated fatty acid intakes during pregnancy and risk of postpartum depression: a prospective study based on a large national birth cohort.</a> <i>Am J Clin Nutr.</i> 2009 Jul; 90(1): 149-155. Epub 2009 May 27. PMID: 19474139.</p>	<p>Does not answer the question (focus is on fish fatty acids and possible benefits from effects on postpartum depression, not risk of contaminants).</p>
<p>Sunderland EM. <a href="#">Mercury exposure from domestic and imported estuarine and marine fish in the U.S. seafood market.</a> <i>Environ Health Perspect.</i> 2007 Feb; 115(2): 235-242. Epub 2006 Nov 20. PMID: 17384771; PMCID: PMC1817718.</p>	<p>Does not answer the question (focus is on geographic variability of mercury exposure from fish in the US).</p>
<p>Sweeney AM, Peck JD, Gillard D, Kostyniak PJ. <a href="#">Contaminant profiles in Southeast Asian immigrants consuming fish from polluted waters in northeastern Wisconsin.</a> <i>Environ Res.</i> 2010 Jan; 110(1): 33-9. Epub. PMID: 19811781; PMCID: PMC2795147.</p>	<p>Exposure focus; risk only.</p>
<p>Tan J, Li QQ, Loganath A, Chong YS, Xiao M, Obbard JP. <a href="#">Multivariate data analyses of persistent organic pollutants in maternal adipose tissue in Singapore.</a> <i>Environ Sci Technol.</i> 2008 Apr 1; 42(7): 2, 681-2, 687. PMID: 18505016.</p>	<p>Exposure focus; risk only.</p>
<p>Tard A, Gallotti S, Leblanc JC, Volatier JL. <a href="#">Dioxins, furans and dioxin-like PCBs: Occurrence in food and dietary intake in France.</a> <i>Food Addit Contam.</i> 2007 Sep; 24(9): 1, 007-1, 017. PMID: 17691015.</p>	<p>Exposure focus; risk only.</p>
<p>Thurston SW, Bovet P, Myers GJ, Davidson PW, Georger LA, Shamlaye C, Clarkson TW. <a href="#">Does prenatal methylmercury exposure from fish consumption affect blood pressure in childhood?</a> <i>Neurotoxicology.</i> 2007 Sep; 28(5): 924-930. Epub 2007 Jun 16. PMID: 17659343; PMCID: PMC2104472.</p>	<p>Focuses on risk of MeHg in fish consumed prenatally on blood pressure in children, little mention of benefits.</p>

<p>Tomasallo C, Anderson H, Haughwout M, Imm P, Knobeloch L. <a href="#">Mortality among frequent consumers of Great Lakes sport fish</a>. <i>Environ Res</i>. 2010 Jan; 110(1): 62-69. Epub. PMID: 19811780.</p>	<p>Focuses on risk.</p>
<p>Tsuchiya A, Hinnens TA, Burbacher TM, Faustman EM, Mariën K. <a href="#">Mercury exposure from fish consumption within the Japanese and Korean communities</a>. <i>J Toxicol Environ Health A</i>. 2008; 71(15): 1, 019-1, 031. PMID: 18569611.</p>	<p>Does not answer the question (focus is on assessment of exposure to mercury in fish; Asian populations).</p>
<p>Tuomisto JT, Tuomisto J, Tainio M, Niittynen M, Verkasalo P, Vartiainen T, Kiviranta H, Pekkanen J. <a href="#">Risk-benefit analysis of eating farmed salmon</a>. <i>Science</i>. 2004 Jul 23; 305(5, 683): 476-477; author reply 476-477. PMID: 15273377.</p>	<p>Letter to editor on another article.</p>
<p>Turunen AW, Verkasalo PK, Kiviranta H, Pukkala E, Jula A, Männistö S, Räsänen R, Marniemi J, Vartiainen T. <a href="#">Mortality in a cohort with high fish consumption</a>. <i>Int J Epidemiol</i>. 2008 Oct; 37(5): 1, 008-1, 917. Epub 2008 Jun 25. PMID: 18579573.</p>	<p>Study focused primarily on risks (but high fish consumers had lower mortality).</p>
<p>Urban JD, Tachovsky JA, Haws LC, Wikoff Staskal D, Harris MA. <a href="#">Assessment of human health risks posed by consumption of fish from the Lower Passaic River, New Jersey</a>. <i>Sci Total Environ</i>. 2009 Dec 20; 408(2): 209-224. Epub 2009 Apr 23. PMID: 19395001.</p>	<p>Exposure focus; risk only.</p>
<p>Usydus Z, Szlinder-Richert J, Polak-Juszczak L, Kanderska J, Adamczyk M, Malesa-Ciecwierz M, Ruczynska W. Food of marine origin: between benefits and potential risks. Part I. Canned fish on the Polish market. <i>Food Chemistry</i>. 2008; 111(3): 556-563 (Not indexed in Medline, no hyperlinked abstract) (CAB Abstracts).</p>	<p>Does not answer the question (focus is on assessment of nutrients and contaminants in varieties of canned fish on Polish market).</p>
<p>Usydus Z, Szlinder-Richert J, Polak-Juszczak L, Komar K, Adamczyk M, Malesa-Ciecwierz M, Ruczynska W. <a href="#">Fish products available in Polish market: Assessment of the nutritive value and human exposure to dioxins and other contaminants</a>. <i>Chemosphere</i>. 2009 Mar; 74(11): 1, 420-1, 428. Epub 2009 Jan 14. PMID: 19147175.</p>	<p>Does not answer the question (focus is on assessment of mercury and selenium in fish in international population).</p>
<p>Verbeke W, Vanhonacker F, Frewer LJ, Sioen I, De Henauw S, Van Camp J. <a href="#">Communicating risks and benefits from fish consumption: Impact on Belgian consumers' perception and intention to eat fish</a>. <i>Risk Anal</i>. 2008 Aug; 28(4): 951-967. Epub 2008 Jul 4.</p>	<p>Does not answer question (focuses on communicating risks and benefits of fish consumption).</p>

PMID: 18627545.	
Verger P, Houdart S, Marette S, Roosen J, Blanchemanche S. <a href="#">Impact of a risk-benefit advisory on fish consumption and dietary exposure to methylmercury in France</a> . <i>Regul Toxicol Pharmacol</i> . 2007 Aug; 48(3): 259-269. Epub 2007 Apr 30. PMID: 17566619.	Does not answer the question (focus is on assessing consumers reactions to French consumer advisory warning on fish to avoid).
Virtanen JK, Siscovick DS, Longstreth WT Jr, Kuller LH, Mozaffarian D. <a href="#">Fish consumption and risk of subclinical brain abnormalities on MRI in older adults</a> . <i>Neurology</i> . 2008 Aug 5; 71(6): 439-446. PMID: 18678827; PMCID: PMC2676980	Does not answer the question (focus is on possible benefits of fish to brain physiology, not on risk of contaminants).
Weintraub M, Birnbaum LS. <a href="#">Catfish consumption as a contributor to elevated PCB levels in a non-Hispanic black subpopulation</a> . <i>Environ Res</i> . 2008 Jul; 107(3): 412-417. Epub 2008 Apr 14. <a href="#">Review</a> . PMID: 18407261.	Focuses on risk only.
Weis IM. <a href="#">Mercury concentrations in fish from Canadian Great Lakes areas of concern: An analysis of data from the Canadian Department of Environment database</a> . <i>Environ Res</i> . 2004 Jul; 95(3): 341-350. PMID: 15220068.	Study focused on mercury in fish in lakes in Canada (covered by local and state fish advisories).
Weis P, Ashley JT. <a href="#">Contaminants in fish of the Hackensack Meadowlands, New Jersey: Size, sex, and seasonal relationships as related to health risks</a> . <i>Arch Environ Contam Toxicol</i> . 2007 Jan; 52(1): 80-89. Epub 2006 Nov 14. PMID: 17106790.	Focuses on risk assessment only.
Wennberg M, Bergdahl IA, Stegmayr B, Hallmans G, Lundh T, Skerfving S, Strömberg U, Vessby B, Jansson JH. <a href="#">Fish intake, mercury, long-chain n-3 polyunsaturated fatty acids and risk of stroke in northern Sweden</a> . <i>Br J Nutr</i> . 2007 Nov; 98(5): 1, 038-1, 045. Epub 2007 May 31. PMID: 17537290.	Did not determine benefit risk ratio; relatively low level of fish intake in population.
Wu RS, Chan AK, Richardson BJ, Au DW, Fang JK, Lam PK, Giesy JP. <a href="#">Measuring and monitoring persistent organic pollutants in the context of risk assessment</a> . <i>Mar Pollut Bull</i> . 2008; 57(6-12): 236-244. Epub 2008 Jun 5. PMID: 18522862.	Focuses on risk only.
Xue F, Holzman C, Rahbar MH, Trosko K, Fischer L. <a href="#">Maternal fish consumption, mercury levels, and risk of preterm delivery</a> . <i>Environ Health Perspect</i> . 2007 Jan; 115(1): 42-47. PMID: 17366817; PMCID: PMC1797831.	Focuses primarily on risks, not benefits of fish consumption.

Yorifuji T, Tsuda T, Takao S, Harada M. [Long-term exposure to methylmercury and neurologic signs in Minamata and neighboring communities.](#)  
*Epidemiology*. 2008 Jan; 19(1): 3-9. PMID: 18091411.

Does not answer the question  
(related to mercury poisoning  
in Minamata, Japan).