

## FISH IS A HEALTH HAZARD

“CSPI says that its analysis of outbreaks over the past decade showed that **seafood is by far the most hazardous food to eat**, in terms of the number of illnesses-per-pound of food consumed.” ~ Disease Detectives are Solving Fewer Foodborne Illness Cases, National Public Radio, April 7, 2014

“**Fish is one of the most polluted foods you could put into your body.** Because our oceans have become giant dumping grounds for most of our environmental pollutants, fish contain toxins such as DDT, dioxin, mercury, and PCB’s. You are essentially consuming the lifetime’s worth of exposure to these harmful chemicals being collected in [their] flesh. Further, fish is high in animal protein, which may contribute to chronic disease. Finally, fish do not contain antioxidants, phytonutrients, and fiber which you can find in plant proteins. **Omega-3 fatty acids, the type that aggrandizes fish as a health food, can easily be found in plant foods such as walnuts, flaxseeds, hemp seeds, and soybeans.**” ~ Julieanna Hever, M.S., R.D., C.P.T., The Plant-Based Dietitian

### Uninspected, Irradiated and Mislabeled

Over 90% of the seafood consumed in the U.S. is **imported** [1], much of it from Asia [2]. The safety of food from these countries is cause for concern [3], particularly regarding seafood [4, 5, 6, 7]. The FDA only inspects some 2% of it, of which only a tiny fraction is analyzed for banned chemicals or other adulterants (e.g., 0.1% in 2009) [8]. Seafood was involved in 45% of the disease outbreaks caused by imported food from 2005 to 2010 [9]. Regardless of source, seafood remains by far the overall most hazardous food, in terms of illnesses per pound of food consumed [10]. Toxic seafood is frequently the subject of consumer warnings (“advisories”) [11, 12]. Additionally, an estimated one-third of seafood sold by retailers and restaurants in the U.S. is **mislabeled**, further adding to human health concerns [13, 14].

The U.S. Food and Drug Administration has begun to allow the use of **irradiation** on some aquatic species in an attempt to control foodborne pathogens and extend shelf life. Food & Water Watch warns that this practice will allow other countries “to continue to raise their seafood products in **filthy and unsanitary factory fish farms** since irradiation will be used as the ‘magic bullet’” [15]. Radiation does not destroy all pathogens [16], would make fish unpalatable [17], and poses potential health **risks** of its own [18].

### Mercury and Other Toxins

Fish consume harmful environmental pollutants that concentrate in their bodies. These **accumulations** are then passed on to human consumers. Fish and other aquatic wildlife are almost exclusively the source of methyl mercury, the most dangerous form of mercury [19]. Prenatal exposure can result in neurological problems such as IQ deficits, abnormal muscle tone, and reduced attention, motor function, and visuospatial performance. Childhood and adulthood exposure can damage the nervous system and kidneys [20], and possibly cause diabetes [21]. Methyl mercury is believed to be one of

the greatest risk factors for autoimmune diseases, even at low levels [22], and it can also counter the beneficial effects of omega-3 fatty acids [23].

**Dioxins**, chemical compounds produced by industrial processes, can interfere with hormones, damage the immune system, and cause cancer and reproductive and developmental problems. Fish and other animal products are the primary source of human exposure to them [24]. Fish is also the most common source of exposure to **polychlorinated biphenyls (PBs)**, dangerous chemicals shown to cause cancer and a variety of adverse effects on the reproductive, neurological, hormonal and immune systems [25].

### **Cholesterol & Saturated Fat**

Aquatic animals can also be high in **cholesterol**. For example, a three ounce T-bone steak contains 70 milligrams of cholesterol whereas three ounces of shrimp contain 161 milligrams [26]. Fish also has **saturated fat**. Between 15 and 30 percent of the fat in fish is actually saturated fat, which stimulates the liver to produce more cholesterol. [27] Fish and other animal products are also devoid of fiber [28].

### **Omega-3 Fatty Acids**

Fish and fish oil are often touted for the benefits of omega-3 fatty acids in the prevention of heart disease but plant-sourced fatty acid has been found to be as effective [29]. In addition to contamination problems, fish oil tends to go rancid, becoming a health hazard [30]. Good vegan sources of omega-3s include: walnuts, soy products, flaxseed and flaxseed oil, chia seeds, hemp products, and acai berries, algae supplements (algae being the source from which fish obtain omega-3s).

### **Better Choices**

The great news is that all the nutrients derived from fish (and fish oil) can be obtained more **healthfully, humanely and environmentally responsibly** from plant sources. This includes marvelous vegan versions of virtually every type of seafood (and other food) imaginable. They're better for us, for the other animals, and for the environment. They're also delicious! Visit the Fish Feel website for recipes, products, and other vegan seafood resources.

"Wise seafood choices may be an oxymoron" - Dr. Marion Nestle, Paulette Goddard Professor in the Department of Nutrition, Food Studies, and Public Health, New York University [31]. Not if they're vegan seafood choices!

The content provided here is for informational purposes only. It is not intended as medical advice. For the list of references, please visit our website or contact Fish Feel: [Info@FishFeel.org](mailto:Info@FishFeel.org)

FISH FEEL is the sole organization devoted exclusively to promoting the recognition of fish as sentient beings deserving of respect and protection: <http://www.FishFeel.org> & <https://www.Facebook.com/FishFeel.org>

[1] "Over 90 percent of the seafood consumed in the United States is imported, measured by edible weight."

FISHERIES OF THE UNITED STATES, NOAA Fisheries, 2013

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Economic Research Service (USDA), November 4, 2015

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[3] NEW LAWS IN CHINA TO TACKLE RAMPANT FOOD SAFETY PROBLEMS

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Food Safety News, Cathy Siegner, November 11, 2013

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NATIONAL LISTING OF FISH ADVISORIES

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