

## BPA In Seafood - Is It Safe?

BY STEVE HENTGES | FEBRUARY 20TH 2017 03:40 PM

It's not hard these days to find stories in the popular media about the presence of various chemical contaminants in our environment. Included in this genre are stories about trace levels of chemicals in common consumer products, in the air we breathe, and in the water we drink. Almost inevitably the stories suggest that even minor exposures are harming our health.

Making it worse, the consumer media is famous for producing scare stories that are short on scientific rigor. If you're a scientist with a lot of spare time on your hands, you can always conduct your own scientific assessment of the safety of a particular contaminant. But that's not an easy task and even few scientists will have the time or detailed knowledge to do a thorough assessment.

Perhaps the most emotionally compelling stories involve trace levels of contaminants in the food we eat. If we're concerned about safety, we may be able to avoid certain consumer products, but we can't avoid food. In particular it's difficult, and not advisable, to avoid foods that provide important nutritional benefits.

As consumers, that leaves us in a difficult position that may feel like we're picking our poison. Do we risk our health by eating foods that may contain trace levels of a potentially harmful contaminant, or do we avoid the contaminant and risk our health by missing out on essential nutrients?

A good example is the case of [bisphenol A \(BPA\)](#). It's well known that we're exposed to low levels of BPA and that most of the exposure comes from our diet. Government bodies around the world have concluded that BPA is safe at typical exposure levels. But beyond those general aspects, it's not easy to know how much BPA is in specific foods, and to confirm whether those levels are safe.

A new and easy to use on-line tool known as [FishChoice](#) now allows consumers to easily calculate intake of BPA, and more than 20 other common contaminants, from consumption of fresh and canned seafood based on individual consumer consumption patterns. In accordance with recommendations of international

organizations, calculated intakes are compared with health-based guidance values to determine if the intake is healthy.

For BPA, the tool reveals that even high consumption of seafood is unlikely to result in an unhealthy intake of BPA. Based on internationally accepted guidelines, we can confidently enjoy seafood and receive its nutritional benefits without concern about BPA.

### **Why Eat Seafood?**

Along with simply liking seafood, it's well recognized that fish and shellfish are an important part of a healthy diet. Not only does seafood provide protein, but it also provides nutrients including vitamins, minerals, and omega-3 polyunsaturated fatty acids.

The latter is particularly important since a reduced risk of cardiovascular disease has been linked to consumption of omega-3 fatty acids. Some fish are particularly enriched in these fatty acids and [international health agencies](#) recommend 1-2 fish servings per week, at least partly for that reason.

Although consumption of seafood has clear health benefits, seafood can also be a source of various environmental contaminants, which could introduce health risks if consumption is too high. Balancing health benefits with potential risks is important, but may not be so easy for consumers to evaluate the trade-offs and make rational decisions.

### **How Does FishChoice Help Consumers?**

A European Union (EU) funded project known as [ECsafeSEAFOOD](#) is aimed at assessing food safety issues related to various contaminants in seafood and their impact on human health. In a key output from this project, contaminant data from analysis of seafood samples from throughout the EU were integrated with nutrient information in a new on-line tool named [FishChoice](#).

Along with the on-line tool, the researchers who created the tool have recently published a [guide](#) to the tool in the peer-reviewed scientific literature. The tool is freely available for use by consumers, and additional information can be accessed upon request in the Pro version of the tool.

Essentially what the tool does is calculate intake of various common contaminants from consumption of seafood, compare the intake with health-based guidance values from authoritative sources, and provide a simple graphical answer to indicate if the intake is safe. Although the answer may be simple, quite a bit of work has gone on behind the scenes to ensure that the answer is scientifically defensible – work that would be difficult, if not impossible, for consumers to do on their own.

Along with information on contaminants, [FishChoice](#) also provides information on intake of key nutrients and comparison of those intakes with recommended levels. For both contaminants and nutrients, intakes are individually customized for specific consumption patterns (i.e., >20 types of fresh and canned seafood, up to 7 servings of 3 portion sizes, 8 demographic profiles), which allows consumers to make rational decisions on whether and how to change their consumption patterns.

### What Does FishChoice Tell Us About BPA in Seafood?

The utility of [FishChoice](#) is demonstrated with BPA as an example of a contaminant that might be a concern to consumers. For example, selecting a demographic category (children 3-9 years), a seafood (canned tuna), portion size (80 grams), and number of weekly servings (7) results in a graphic showing a “green fish,” which indicates that the low level of BPA in the seafood is healthy, whereas a red fish would indicate that changes in consumption patterns are needed.



### SIMPLE CALCULATOR



The actual BPA intake numbers (available in the Pro version) indicate the BPA exposure in this example is more than 70 times below the maximum recommended exposure, which is based on the most stringent safe exposure limit recently set by the European Food Safety Authority (EFSA). Given the large margin of safety, it would be virtually impossible to take in an unhealthy amount of BPA from eating seafood.

The results for BPA are consistent with EFSA's recent conclusion on the safety of BPA ("[BPA poses no health risk to consumers](#) of any age group (including unborn children, infants and adolescents) at current exposure levels.") Similarly, the U.S. Food and Drug Administration, based on its assessment, answers the question "[Is BPA safe?](#)" with the straightforward answer "Yes." With [FishChoice](#), we can see that these overall conclusions are clearly applicable to seafood.