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## The Truth About Tilapia

by [BERKELEY WELLNESS](#)

Famed as the food of pharaohs in ancient times, tilapia is the world's second most farmed fish (after carp)—and the fourth most consumed type of seafood in the U.S. (after shrimp, tuna, and salmon). The term tilapia actually refers to several related fish species that originated in the Middle East and Africa but are now farmed all over the world. Though its production is growing in the U.S., most of the tilapia we eat here is imported from Asia and Latin America.

If you eat fish, you have probably already had tilapia (sometimes called St. Peter's fish) even if you didn't know it. That's because tilapia—like other inexpensive fish—is often fraudulently sold in markets and restaurants as red snapper, grouper, tuna, or other expensive species. In contrast, there's far less chance of bait-and-switch if you order tilapia itself.

Nicknamed "aquatic chicken," this fast-growing fish is both lauded as an excellent source of [protein](#) that's "vital for building muscle" and denounced as a food that's "worse than bacon" (see inset at bottom of article). Advocates assert that tilapia farming can help relieve pressure on the world's diminishing wild fish populations, while opponents cite health and environmental issues. Who's right? The answer is not so black and white.

### Wild vs. Farmed

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Tilapia is a white-fleshed freshwater fish that's mild in flavor, which makes it appealing to people who don't like "fishy" fish. It's relatively low in calories (130 per 3.5-ounce serving, cooked) and rich in protein (26 grams). But if you're looking for a lot of heart-healthy [omega-3 fats](#), tilapia is not a good choice. It has very little fat—2 to 3 grams per serving, of which less than 0.2 grams is omega-3s (in contrast, both wild and farmed salmon have more than 1.5 grams of omega-3s per serving). Farmed tilapia is particularly low in omega-3s

because its diet is predominantly corn- and soymeal-based, in contrast to the omega-3-rich algae and other aquatic plants that wild tilapia feed on.

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Fish farms, when not properly managed, are infamous for having adverse effects on the environment, which include the polluting of water and the spread of disease to wild fish when farmed fish escape their pens. Overseas tilapia farms, like salmon and shrimp farms, tend to have a bad reputation, though new regulations and certification programs may slowly be changing that.

According to the Monterey Bay Aquarium's [Seafood Watch Program](#)—which makes recommendations for purchasing seafood that's fished or farmed in environmentally sustainable ways—farmed tilapia from the U.S., Canada, and Ecuador are “best choices.” And though much (if not most) fish from Asia get a red light, Seafood Watch upgraded tilapia produced in China and Taiwan from its “avoid” list in 2011 to its “good alternative” list in 2014. These fish are still not considered a “best” choice, however, because of continuing concerns about waste management and the use of chemicals. Similarly, the [Seafood Selector](#) from EDF (Environmental Defense Fund) gives tilapia from the U.S. and Ecuador a “best” eco-rating and lists tilapia from China and Taiwan as “okay.”

Tilapia farms in the U.S. and Canada rate well because they typically use closed recirculating tank systems, which alleviate problems of water pollution and fish escapes. In Ecuador, tilapia are typically farmed in freshwater ponds at low density (meaning the fish are not crowded), which reduces disease, the need for chemicals, and water pollution.

And here's a plus for tilapia farming: Because tilapia are fed mostly a grain-based diet rather than fishmeal, production does not further deplete wild fish stocks.



## Does Your Tilapia Pass the Test?

A growing number of tilapia farms are getting third-party certification to show that they meet standards that take into account environmental issues, food safety, and animal welfare, among other factors.

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What about drug residues, a major concern with most imported seafood? Tilapia is not exempt from contamination, though this depends on where and how it's farmed. As we [previously reported](#), veterinary drug residues were detected in tilapia (and other fish) that were inspected by the U.S., Canada, and the European Union between 2000 and 2009, according to a 2011 paper in *Environmental Science and Technology*.

And a 2014 [paper](#) in the *Journal of Hazardous Materials* found antibiotic residues in farmed fish purchased in the U.S., including tilapia from Panama and China. Though levels were relatively low, the authors note that the use of antibiotics in fish farming could nonetheless be contributing to the growing public health problem of drug-resistant bacteria.

On the other hand, an [analysis](#) in the open-access *Journal of Food Processing & Technology* in 2013 reported that of 36 samples of imported tilapia—mostly from Latin America—none tested positive for anti-microbials (chloramphenicol, malachite green, and gentian violet), though results may have differed, the researchers said, had more samples from Asia (particularly China and Vietnam) been included. This study also looked at [mercury](#), cadmium, arsenic, and lead in tilapia. All samples had detectable residues of at least one of these heavy metals, but at levels well below safety action thresholds set by the FDA.



## Tilapia's Worse than Bacon? Baloney!

Tilapia may not be as heart-healthy as fatty fish like salmon because of its low omega-3 levels, but that hardly means it's unhealthy—and the claim that it's worse for you than bacon is ludicrous. Here's how that rumor got started, and why it's bogus.

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The Environmental Working Group considers tilapia one of the safer seafood choices in terms of mercury, especially compared to fish such as tuna, sea bass, shark, and swordfish. According to its [seafood calculator](#), even if a pregnant or nursing woman eats three servings of tilapia a week (and no other fish), she will get less than 10 percent of her weekly mercury limit—but also less than 10 percent of her omega-3 needs.

**Bottom line:** Tilapia is popular for good reason—it's inexpensive and widely available, plus it "goes with everything." And though it's not rich in omega-3s, it's a good source of lean protein and is better for you than fatty meats like burgers and bacon. It can clearly be a part of a healthy diet if you like it, though as with all fish, we recommend you vary your intake and look for responsibly farmed (or wild-caught) sources. You can use seafood guides from such organizations as the Monterey Bay Aquarium and EDF as a starting point, but you still have to ask questions of your fishmonger or waitperson (or chef) and check packages of frozen products if you want to know if the fish meets standards for sustainability (see inset above). Some companies post this information on their websites.

Also see:

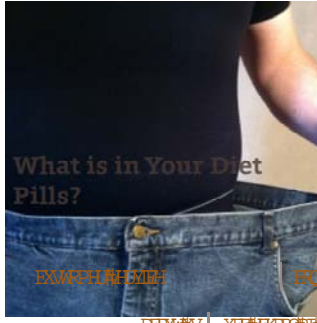
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