**Tilapia** is a tender, flaky white fish that has long been a staple source of protein in developing nations. Most recently, tilapia has been growing in popularity in developed countries, including the U.S., where it ranks 8th in the top 10 seafoods consumed. Lacking the fishy taste associated with most types of seafood, tilapia has a mild flavor that allows it to absorb flavors of other spices or sauces. High in protein, vitamin B12 and potassium, but low in fat, tilapia is identified as one of the more healthy fish that doctors recommend eating twice a week to protect against heart disease.

Unlike other fish, the nearly 100 species of tilapia are natural omnivores that fare well as herbivores feeding on plankton and algae. Their diet prevents them from accumulating pollutants and toxins in their bodies. It also allows them to be effectively farm-raised because they can be fed on grains rather than other fish. Of the approximately 2.3 million metric tons of tilapia produced annually, 73 percent is farmed. In fact, tilapia is the most popular farmed fish today, but its popularity can be traced to more than 4,000 years ago in Egypt. The Nile tilapia was given its own hieroglyphic because it was such an important food. A spotted tilapia is known as “St. Peter’s fish,” because it was believed that Peter took a coin out of its mouth to pay the temple tax. Today, China is the leading cultivator of tilapia, yet the U.S. imports most of its tilapia from Latin America.

---

**Healthy ingredient contribution**

**PROTEIN:** Tilapia is an affordable and healthy source of protein, which is needed to build muscles and provide long-lasting energy for the body.

**PHOSPHORUS:** Tilapia is a good source of phosphorus, a mineral that influences the way the body handles and stores energy.

**POTASSIUM:** Aiding in muscle contraction, fluid balance, nerve function and transmission of electrical impulses related to the heart, potassium is needed for all sorts of bodily functions, and tilapia is a good source of this important mineral.

**SELENIUM:** Tilapia provides selenium that helps make antioxidants for improving fertility and heart conditions.

**NIACIN:** Niacin, also known as vitamin B3, is also supplied by tilapia. Niacin acts in the breakdown and use of foods and, therefore, is necessary for healthy digestion.

**VITAMIN B12:** Tilapia is high in vitamin B12, which the body needs to help process energy from the food you eat.

**AMINO ACIDS:** Considering tilapia is a good source of protein, it is only natural that tilapia also supplies the “building blocks” of proteins known as amino acids. Amino acids are needed to repair muscles, organs and skin.

**ESSENTIAL FATTY ACIDS:** Tilapia provides both omega-3 and omega-6 fatty acids, which are essential to human health but cannot be produced by the body. Omega-3 fatty acids control blood clotting, build cell membranes and protect against heart disease.

---

**Varieties and uses**

There are many different species of tilapia. They include tiger tilapia (Tilapia buttikoferi), spotted tilapia (Tilapia mariae), Nile tilapia (Oreochromis niloticus), Mozambique tilapia (Oreochromis mossambicus), blue tilapia (Oreochromis aureus) and wami tilapia (Oreochromis urolepis hornorum). These species can be distinguished by their appearance and their natural environment. Each of them thrives in different conditions, ranging from brackish water to salt water and from cold to warm environments. In different parts of the world, different species of tilapia are raised according to their natural environment and the qualities preferred in that region, such as the rate at which they grow, color of meat (dark or light) and breeding traits.

Tilapia can be used as feed for other fish, including catfish, since it reproduces so fast and eats almost anything, including grains and aquatic plants. Tilapia can be used in recipes instead of another fish, and can be baked, broiled, pan-fried, deep-fried or grilled.
Storage
Like most fish, the length of time that tilapia can stay fresh stored depends on how fresh it is or, specifically, when it was caught. Fish that was caught the day before you purchased it can be stored for about four days, while fish that was caught the week before can only be stored for a day or two. To extend the shelf life of tilapia, wrap it well in plastic and place it in the coldest part of the freezer, where it will keep for two to three weeks.

Serving size
Tilapia fillet (4 oz. cooked):

- 145 calories
- 3 grams fat (1 gram saturated)
- 29 grams protein
- 153 milligrams omega-3
- 429 milligrams potassium

**PANKO-PARMESAN CRUSTED TILAPIA FILLETS WITH TOMATO BASIL RELISH**

Yield: 4 servings (serving size: 4 oz. tilapia and ¼ cup relish)

**Ingredients:**
- 6 plum tomatoes, diced
- 2 garlic cloves, minced
- 3 T. chopped fresh basil, divided
- 1 T. extra-virgin olive oil
- 2 t. balsamic vinegar
- ½ t. salt, divided
- ¼ t. freshly ground pepper, divided

**Olive oil cooking spray, as needed**
- ½ cup all-purpose flour
- ¼ cup egg substitute
- 1 lb. tilapia fillets
- 2/3 cup panko
- 3 T. grated Parmesan cheese
- 1 t. lemon pepper
- ½ t. garlic powder

**Method:**
Preheat oven to 475°F. Prepare relish: Combine tomatoes, garlic, 2 T. basil, olive oil, balsamic vinegar, ¼ t. salt and ¼ t. pepper; let stand for 30 minutes. Set wire rack on baking sheet; coat with olive oil cooking spray. Place flour in shallow dish. In another dish, combine egg substitute and remaining salt and pepper. In another shallow bowl or pie plate, combine panko, Parmesan, remaining basil, lemon pepper and garlic powder. One at a time, dredge tilapia fillets in flour, dip in egg substitute, then dredge in breadcrumb mixture, coating both sides evenly. Arrange fish on rack. Coat evenly with cooking spray on all sides. Bake at 475°F for 7-9 minutes. Turn fillets over; bake an additional 7-9 minutes or until golden and cooked through. Serve with relish.

**Nutrition Information**

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>Fat</th>
<th>Sat. Fat</th>
<th>Carbs</th>
<th>Fiber</th>
<th>Protein</th>
<th>Vitamin A</th>
<th>Vitamin C</th>
<th>Calcium</th>
<th>Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>270</td>
<td>7g</td>
<td>2g</td>
<td>22g</td>
<td>2g</td>
<td>29g</td>
<td>20%</td>
<td>20%</td>
<td>8%</td>
<td>15%</td>
</tr>
</tbody>
</table>

This recipe was tested by Clemson University’s Culinary Nutrition Undergraduate Student Research Group.

Contributions to this article were made by Rebecca Phifer.

AMERICAN CULINARY FEDERATION
180 Center Place Way
St. Augustine, FL 32095
800.624.9458 | www.acfchefs.org