

Soy contains high quality (“complete”) protein. In addition to traditional nutrients, soy is also rich in phytochemicals like isoflavones, saponins, and sterols that offer many health benefits. Using gypsum (calcium sulphate) as a coagulant makes a tofu that is very high in calcium; use of nigari (magnesium chloride) yields a high-magnesium tofu.

**1/2 cup regular tofu made with calcium sulfate:**

94 calories  
10 g protein  
2 g carbohydrate  
6 g fat (0.9 g saturated fat)  
0.4 g dietary fiber  
434 mg calcium

Source: USDA Nutrient Database

**1/2 cup okara:**

47 calories  
2 g protein  
8 g carbohydrate  
1 g fat (0.1 g saturated fat)  
2.5 g dietary fiber  
49 mg calcium

Source: USDA Nutrient Database

# Make Your Own Tofu



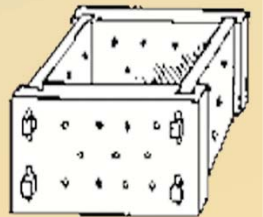
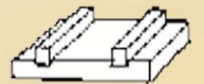
Tofu is a tasty, highly digestible soy food made from soymilk. Its bland flavor takes well to a variety of seasonings and tofu has many uses. Sliced tofu can be baked, pan-fried, or grilled; marinate it in a flavorful liquid before cooking, if desired. Puréed tofu may be used as a base for spreads and dips. Blend tofu with juice and frozen berries for a tofu pudding or shake. Small cubes of plain tofu may be given as a finger food to toddlers.

**Equipment and Ingredients**

Tofu is prepared from soymilk, but preparation of the beans to make tofu is somewhat different than the preparation to make soymilk. Start with dry yellow soybeans and not prepared soymilk, as the high heat used in preparing regular soymilk will prevent proper coagulation.

A coagulant is needed to form the tofu curd in the soymilk. Gypsum (calcium sulfate), available at some pharmacies and Asian groceries, is a standard coagulant for making tofu. Nigari (magnesium chloride) may also be used as a coagulant.

You can make tofu using utensils commonly available in the kitchen. You can also buy a tofu mold (see picture) to press out the excess liquid. To make your own tofu mold, use a colander or punch a few holes in the bottom of a plastic container. Set your mold on a wire rack or elevate it in some way to allow the liquid to drain from the curd. You will also need a pan filled with water or some other weight to place on top of the tofu to press it. Clean muslin or cheesecloth (several layers if it is very loosely woven) is good for draining the tofu. Be sure the cloth is clean and do not use fabric softener in washing it. Detailed directions for making tofu are inside.



**Storage**

Tofu is highly perishable and should be used the day it is made, or stored in the refrigerator for up to several days. Store the tofu in water to keep it from drying out, and change the water daily. Tofu may also be frozen for longer storage; remove the tofu from the water before freezing. Thaw the frozen tofu in the refrigerator, then squeeze out the excess moisture. The texture will be different from fresh tofu, but thawed tofu can be crumbled and used in soups, stews and casseroles as a replacement for ground meat.



**ILLINOIS**  
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

**International Soybean Program  
National Soybean Research Laboratory  
University of Illinois at Urbana - Champaign**

# Basic Preparation of Tofu

## Ingredients\*

- 3 cups (400 g, 14 oz.) dry soybeans, debris removed  
water for soaking
- 3 qts. (2.8 liters) water for making soymilk
- 3 Tbsp. (15 g, 1/2 oz.) gypsum dissolved in 6 Tbsp. (100 ml) water

*\*General proportions are 1 part dry beans to 7 parts water for soymilk by weight, gypsum at 0.25% to 0.50% by weight of cooked soymilk (or substitute half as much nigari for the gypsum).*

## Method

- Soak the beans.** Soak the soybeans in several times their volume of water for 8 hours or overnight. If you plan to soak the beans longer than 8 hours, soak them in the refrigerator or the beans will begin to ferment. Drain and rinse the beans with cold water. The weight of the soaked, drained beans should be about double the starting weight.
- Grind the beans.** Put the beans with a generous 3 quarts tap water into a blender and grind for 3 minutes at high speed to completely pulverize the beans. You will probably need to work in batches.
- Filter the beans.** Line a colander or strainer with muslin or cheesecloth and place it over a large bowl or pot. Pour the slurry through and squeeze gently to drain out all the liquid. You should have just over 3 quarts of liquid. Put the liquid portion (soymilk) into a pot and set aside the solid portion (okara) for another use.
- Heat the soymilk.** Bring the soymilk to a boil and then reduce it to a simmer. Simmer the soymilk, keeping it very slightly bubbling, for 10 minutes. Remove the soymilk from the heat and cool to 176°F (80°C). Monitor the temperature closely, as slight variations in temperature will affect the texture of the tofu.
- Make the curd.** Preheat the coagulant solution so that it will be approximately the same temperature as the soymilk when they are combined. When the soymilk reaches 176°F (80°C), remove from heat and stir the coagulant solution into the soymilk. To prevent the coagulant from settling out, keep stirring until a curd begins to form and then immediately stop stirring. Let the curd set without disturbance for 10 minutes.
- Drain the curd.** Use a spoon to gently break up the curd and then transfer the coagulated solution into a tofu mold lined with clean muslin or cheesecloth. Fold the cloth over the curd and press for 15 minutes. (If using a homemade tofu mold, set a pan half filled with water on top of the mold.)
- Remove tofu from the mold.** Remove the lid, unfold the cloth, and remove the tofu from the mold. Cut the tofu into pieces and put them in cold water in the refrigerator for storage.

*Note: The okara may be used in baked goods, formed into vegetable patties, combined with ground meat, stirred into casseroles, etc. Store the okara in the refrigerator for a few days or freeze it for later use. Always cook the okara before eating. For more information on okara, see Make Your Own Soymilk, part of the Soy At Home series.*

# Broccoli and Peanut Stir Fry

## Sauce:

- 2/3 cup hoisin\* or stirfry sauce
- 1/2 cup water or more if needed
- 1 Tbsp. soy sauce
- 1 Tbsp. cornstarch
- 1 Tbsp. sesame oil, divided
- 1 Tbsp. vegetable oil, divided
- 16 oz. firm regular tofu, cut into 1/2" cubes or small triangles
- 2 cloves garlic, minced
- 1 tsp. fresh ginger, minced
- 1 large carrot, peeled and sliced on the slant into thin diagonal slices, about 1 cup
- 4 cups broccoli florets
- 1/4 cup water
- 1 bunch green onions, the white and light green parts in 1/2" pieces
- 1/4 cup roasted peanuts or cashews

- Combine all sauce ingredients and set aside.
- Heat 1/2 tablespoon of the sesame oil and 1/2 tablespoon of the vegetable oil in a nonstick skillet or wok over medium-high heat. Add the tofu and stir fry until the tofu is golden on all sides, about 4 or 5 minutes. Remove tofu from the pan and set aside.
- Heat the remaining 1/2 tablespoon sesame oil and 1/2 tablespoon vegetable oil in the pan. Add the garlic and ginger and stir fry a few seconds. Add the carrot and broccoli and stir fry for another minute. Add 1/4 cup water and continue to stir fry until the vegetables are almost tender and the water is evaporated. Add the green onions and peanuts and stir fry another minute. Add the tofu and sauce ingredients and continue to cook, stirring constantly, until the sauce thickens. Remove from the heat and serve over rice, if desired.

Makes 4 servings

Nutrient information per serving: 385 calories, 18 g protein, 46 g carbohydrate, 19 g fat (2.8 g saturated), 5.6 g dietary fiber

\*Hoisin sauce is a soy-based Chinese condiment found in many supermarkets.

# Vegetarian Lasagna

- 2 jars (26 oz. each) of prepared spaghetti sauce (or 6 cups homemade)
- 1 lb. lasagna noodles, uncooked
- 1 lb. regular tofu, mashed
- 4 cups meltable soy cheese or part-skim mozzarella cheese
- 1 cup water
- grated Parmesan cheese (optional)

- Preheat the oven to 350°F.
- Cover bottom of baking pan (9-inch x 13-inch or 10-inch x 15-inch) with a thin layer of sauce, then a layer of uncooked lasagna noodles, another layer of sauce, a layer of tofu, and then a layer of cheese. Continue layering noodles, sauce, tofu, and cheese, ending with cheese.
- Pour 1 cup water along the edges between the lasagna and the pan. Cover with foil and bake at 350°F for 1 hour to 1 hour 15 minutes, until noodles are tender. Uncover and bake for an additional 15 minutes to allow the sauce to thicken.
- Let the lasagna stand for 10 minutes before cutting and serving. If desired, sprinkle with grated Parmesan cheese.

Makes 12 servings

Nutrient information per serving: 312 calories, 18 g protein, 43 g carbohydrate, 9 g fat (0.9 g saturated), 2.0 g dietary fiber