Penn State Extension

Creating Health & Nutrition Fact Sheets

Soy Protein and

Soy Isoflavones

S oy foods are popular because of the health benefits they provide.

- Soybeans contain about 40 percent protein, 20 percent fat, 35 percent carbohydrate, and 5 percent minerals, like calcium. They are also a good source of fiber.
- Processing soybeans breaks the bean into two parts—oil and solids, with most of the solids being protein and carbohydrate.
- Soy protein products can be a good substitute for meat, poultry, and other animal-based foods because of their high-quality protein.
- Eating about 25 grams of soy protein from foods has been shown to help lower LDL (bad) cholesterol in the blood.
- Foods that contain soy protein include tofu, soymilk, soy flour, textured soy protein,

tempeh (a chewy cake of whole, cooked soybeans used as a meat substitute), miso (fermented soybean paste used for seasoning), and edame (raw soy beans in their pod).

 Soy isoflavones are special substances in soybeans that may work in combination with the soy protein to provide health benefits such as decreased risk of heart disease and, in some cases, decreased risk of cancer.

Shopping Tips

Soy foods that have 61/4 grams of soy protein per serving can state on the label that a "diet low in saturated fat and cholesterol that includes 25 grams of soy protein a day may reduce the risk for heart disease. A serving of [food name] supplies [] grams of soy protein."

Ways to Add Soy

- Use soy milk to prepare soups, casseroles, muffins, cereal, or fruit smoothies.
- Use soy deli meats,

soy nut butter, or soy cheese for sandwiches.

- Top pizzas with soy cheese, soy sausages, or other soy foods.
- Cube and stir fry tofu or tempeh and add to a salad.
- Eat soy roasted nuts or a soy protein bar snack.
- Order soy-based foods like spicy bean curd and miso soup at Asian restaurants.

Tips Affecting Different Age Groups

- Young women who eat soy foods appear to have a lower risk of developing breast cancer later in life.
 For postmenopausal women, eating soy products may increase risk. Check with your doctor if concerned about your risk.
- Soy protein may decrease the risk for prostate cancer if men consume it throughout their lives.

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Food			
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Example: Stir fry

What I buy now Beef cubes What I plan to try Tofu to replace beef cubes Prepared by Sharon McDonald, extension educator, Blair County.

Source: *Calcium Rich Eating*, Lesson 4, "Boosting Calcium Intake with Tofu," Penn State Extension.

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My Goal:

Lasagna

Serving size: Makes 10 servings

INGREDIENTS

pound lasagna noodles
pound mushrooms, sliced
Tablespoon vegetable oil
ounces tofu, drained
cup grated Parmesan cheese
to 2 cloves garlic, crushed
cup chopped fresh parsley, or 1 Tablespoon dried
to 2½ cups canned tomato sauce
cups grated part-skim mozzarella cheese

DIRECTIONS

Boil the lasagna noodles until just tender. Do not overcook. Drain. Sauté the mushrooms in the oil until tender. Mash the tofu in a bowl and mix with the Parmesan cheese and garlic. Preheat oven to 350°F. Lightly oil an 8½-by-11-inch baking pan. Line bottom of pan with a layer of noodles. Spread with half the tofu mixture, then add half the mushrooms, half the parsley, about half the sauce, and one-third the grated cheese. Add another layer of noodles and repeat the process. Place noodles on top. Sprinkle with the rest of the grated cheese. Top with remaining tomato sauce. Bake 45 minutes or until nicely browned. Refrigerate leftovers.

NUTRIENT INFORMATION

One serving: 350 calories, 19 g protein, 49 g carbohydrate, 4 g fiber, 9 g fat, 3.5 g saturated fat, 580 mg sodium, and 30% DRI for calcium.

Use half tofu and half lean ground beef in the recipe as a way to introduce soy to your family.

Tip Not sure you're ready for tofu?