

# RECIPE for health

OCTOBER 2007

In partnership with Health4U and University Housing

Featured Food:

## APPLES



**Phytochemicals:** plant chemicals with important disease fighting properties.

**Antioxidants:** phytochemicals that reduce or prevent oxidation, preventing cell and tissue damage from free radicals in the body.

**Flavonoids:** a class of antioxidant.

**Quercetin:** a type of flavonoid found in apples.

What do apples and onions have in common? If you said they both contain some special plant chemical, you are right. These frequently eaten foods are rich sources of the antioxidant quercetin. This commonality became apparent with the release of the 2007 USDA database for flavonoid content of food.

Other important facts about apples gleaned from the USDA flavonoid database:

- An unpeeled apple has 4 times the amount of quercetin as a peeled apple.
- Red apples have more quercetin than yellow and green apples.
- Gala and Red Delicious apples are tops when it comes to quercetin quantity.
- Apple juice and cider really don't measure up on the quercetin scale.

Flavonoids have been studied extensively and found to help prevent heart disease. Researchers in Finland followed more than 5,000 men and women for over 20 years. Those who consumed the most flavonoid-rich foods (specifically in this study—apples, onions, and tea) had a 20 % lower risk of heart disease than those who consumed the least of these foods. \*

Quercetin is a powerful antioxidant but it doesn't work alone. In addition to quercetin, apples contain a wide variety of flavonoid compounds, other antioxidants like vitamin C, as well as soluble and insoluble fiber. Therein lies the secret of the apple's power in fighting disease. The combination of antioxidants to bolster the body's immune system and fiber to reduce LDL cholesterol gives the apple a one-two punch.

It comes as no surprise that Michigan is one of the nation's top apple producing states. Harvested late summer to early fall, apples can be stored year-round if stored properly. Even though they look pretty in the fruit bowl, apples don't keep well on the countertop. They ripen six to ten times faster at room temperature than in the refrigerator.

The average American eats 65 fresh apples per year. That's not nearly an apple a day... Boost your apple consumption to boost your immunity.

\*Knekt P, Jarvinen R, Reunanen A, Maatela J. Flavonoid intake and coronary mortality in Finland: a cohort study. *BMJ* 1996 Feb 24; 312(7029): 478-81.

## Apple Ginger Whitefish with Apple Mango Salsa

*from the kitchen of the MSU Residence Halls*

*Serves 6*

- 1.5 lbs. Whitefish fillets
- 1 cup apple juice
- 1 tsp. minced garlic
- 1 tsp. chopped ginger (fresh or jar)

### SALSA:

- 1 Gala apple, diced, skin on
- ½ mango, peeled, diced
- 1 kiwi, peeled, diced
- ½ tsp. chopped ginger
- ½ cup sweet and sour sauce
- 2 tsp. fresh chopped parsley

Mix apple juice, garlic and ginger together. Marinate whitefish in mixture for 3–4 hours.

Make salsa by first dicing the apple, mango and kiwi. Mix the ginger into the sweet and sour sauce. Add the fruit and chopped parsley. Stir all ingredients together and refrigerate until ready to serve. Pan fry whitefish with vegetable oil. Serve fish topped with salsa.

Apple Ginger Whitefish with Apple Mango Salsa will be featured in the MSU Residence Hall Dining Rooms on October 29 for lunch in Yakeley, Wonders, Wilson, Holmes, Shaw, Brody, Case, Akers and McDonel from 11 am – 2 pm. Once you try this delectable dish, you'll want to make it at home! Enjoy. For meal hours, visit [eatatstate.com](http://eatatstate.com)

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