

An Apple A Day

A Quarterly Health Education Newsletter from the U.S. Apple Association

EDUCATIONAL IDEAS

Apples Take Bite Out Of Dog Days Of Summer

The phrase “dog days of summer” was probably coined by a superheated mom trapped in a sweltering kitchen making the family meals one long-ago July. Instead, summertime living should be, as the famous Gershwin song goes, easy. Summer meals should be fresh, light and healthy – and that means apples! So to take a delicious bite out of those dog days and at the same time eat more healthfully, think cool, crisp apples, sweetly chilled applesauce and cold, refreshing apple juice drinks.

Fresh apples are a natural choice for summer snacking for on-the-go folks. Infinitely portable, apples can go to the pool or

beach, to the park or game. Keep ‘em cold for maximum refreshment – there’s nothing more cooling than biting into a chilled, juice-filled apple. 100% apple juice boxes can also play double duty at summer picnics – freeze them the night before to keep foods chilled in the cooler, they’ll be ready to drink by lunchtime.

Apples are also a great addition to any summer meal, from salads to sandwiches, to yes, even the barbecue. And apples are a natural for summertime desserts, whether baking apples on the grill, freezing applesauce fruit slushies, or pouring up some refreshing apple juice beverages.

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RESEARCH REVIEW

Breathe Easier With Apples, Studies Suggest

Recent research suggests that we might be able to breathe easier, literally, with apples. Here is a recap of recent studies suggesting that apples may promote lung health.

Asthma: Researchers from London’s King’s College and the University of Southampton report that **people who ate at least two apples per week had a 22-32 percent lower risk of developing asthma** than people who ate fewer apples.

Their conclusions were based on a population-based case-control study of 1,471 adults in the United Kingdom that sought to examine how dietary antioxidants might affect asthma risk and severity. (Source: *American Journal of Respiratory and Critical Care Medicine*, November 2001, volume 164, number 10: 1823-1828.)

Lung Function: Researchers from the University of Nottingham in the United Kingdom report that **apple eaters have better lung function and lower risk of respiratory disease such as asthma** than non-apple eaters, based on a nine-year population study of 2,633 adults. This study’s findings are similar to previous findings (see the *Journal of the National Cancer Institute* and *Thorax* studies referenced below.) (Source: American Thoracic Society, unpublished findings presented at the society’s Annual Meeting, May 2001, poster 618.)

COPD: Researchers from the University of Groningen in the

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Summertime Is Apple Time

It's summertime in the orchards! The beautiful white blossoms have given way to tiny apples growing on the limb, now the size of a quarter or more. The spring's flurry of activity has given way to a summer maintenance schedule of mowing, light pruning and thinning, pest control – and preparations are already beginning for this fall's harvest.

Summertime is the perfect time for apples! You'll still find plenty of U.S. apples in stores across the country, as well as U.S.-made processed foods like juice and sauce.

Fresh apples are perfect for picnics, whether eaten out of hand or in a summer salad. If you like baked apples, you'll love grilled apples on the grill. Apple juice spritzers and jigglers are perfect summertime cool-off treats. We've included lots of summertime recipes in this issue for you to share with your audience.

As always, you are welcome to re-use any information you find here. And please, send us your story ideas and questions for future editions.

Next (Fall) issue: The 2002 U.S. apple crop arrives!

H-apple-y yours,

Julia Daly
Julia Stewart Daly
U.S. Apple Association

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(703) 442-8850



USApple, 8233 Old Courthouse Road, Suite 200,
Vienna, VA 22182-3816



jdaly@usapple.org

Lazy Apple Days

SUMMER (from page 1)

Perfect for shorts-and-bathing suit season, apples and processed apple foods such as sauce and juice pack plenty of taste, but without any waistline-widening fat, or heart-damaging cholesterol and sodium.

Apples are one of the best sources available of fiber, which lowers blood cholesterol, helps maintain a healthy weight by crowding out other calories and

creating a feeling of fullness, and maintains digestive regularity. And recent research suggests that apple phytonutrients like the antioxidant flavonoid quercetin may provide a range of health benefits, from promoting heart and lung health to reducing the risk of certain types of cancer.

So instead of slaving in a hot kitchen this summer, enjoy the season with delicious, nutritious, conveniently versatile apples and processed apple foods. Your "dogs" will thank you for it, and so will your stomach!

EDUCATIONAL IDEAS

Lighten Your Summer With Apples



Looking for easy ways to get your "5 A Day" this summer? Move apples and processed apple foods to the center of your plate:

- For a cool appetizer – literally and figuratively! – pair fresh-cut apple slices with an assortment of cheeses and low-fat dips, such as caramel sauce and vanilla yogurt.
- Freeze 100% apple juice or cider in a ring mold and float in your party punch for an extra zing.
- Layer nonfat vanilla yogurt, chunky applesauce and low-fat granola in a tall parfait glass, for a classy-looking breakfast or dessert.
- Dice an apple into your favorite green salad to add a snappy crunch.
- Stir applesauce into prepared baked beans before heating.
- Make a refreshing apple juice spritzer by combining equal amounts of 100% apple juice or cider and tonic water; pour into an ice-filled glass.

PRODUCT INFORMATION

Cider, Or Juice?

Have you ever wondered what the difference is between apple "cider" and "juice"? As it turns out, the answer is as clear as, well, cider, depending upon where you hail from.

Say "cider" to an Easterner, particularly a New Englander, and you'll conjure up images of that hearty beverage of harvest time and football season. Say "cider" to a Westerner, on the other hand, and you'll likely get a blank stare — they call the same beverage "juice."

Whether you call it cider or juice, the basic process is the same: grind up whole apples, and press out the juice. "Cider" is only lightly filtered, so small bits of apple flesh and skin floating in the juice oxidize, giving it a gorgeous caramel

color and opacity. "Juice" is usually completely filtered, leaving only the tasty pale yellow juice. Both "cider" and "juice" have been pasteurized to ensure safety.

"Cider" is sold chilled in farmers' markets, or in your grocer's produce department or dairy aisle. Treat "cider" just like you would milk — keep it refrigerated, and enjoy it promptly.

The "juice" found in bottles, cans or juice boxes in your grocer's juice aisle is shelf-storable until it has been opened.

Say "cider" to a European, and you'll get a whole different response — to them "cider" means the fermented, alcoholic brew that we call "hard" cider on this side of the pond.

Summertime Apple Recipes

Apple Tortellini Salad

For pasta salad lovers, this one is hard to beat. Healthful, low in fat, and high in fiber, this recipe has lots of flavor, texture and color. It makes a wonderful addition to a party buffet or a tasty lunch for school or work.

Dressing Ingredients

- 3 Tbsp frozen apple juice concentrate, thawed
- 3 Tbsp light corn syrup
- 2 tsp brown sugar
- 1 tsp apple cider vinegar
- 1/8 tsp garlic salt
- Ground white pepper, to taste

Salad Ingredients

- 1 9-ounce package refrigerated or frozen cheese-filled tortellini
- 3 medium sweet-tart apples, cored and sliced (about 2 cups)
- 2 C shredded salad greens
- 1 C sliced fresh strawberries
- 1/2 C thinly sliced celery
- 1/2 C sliced scallions
- 2 Tbsp toasted pine nuts (optional)

FOR DRESSING, combine apple juice concentrate, corn syrup, brown sugar, vinegar, garlic salt and pepper in a screw-top jar; shake well and refrigerate.



FOR SALAD, cook tortellini according to package directions. Drain, and cool by rinsing pasta under cold water. Shake gently to drain thoroughly.

In a large mixing bowl, combine tortellini, apples, salad greens, strawberries, celery and scallions. Toss salad gently with chilled dressing. Sprinkle with pine nuts, if desired, and serve. Makes 6 to 8

Tuna Apple Tortilla Wraps

The flour tortillas make this a light, quick-and-easy lunch that is lean and healthful.

- 2 tortillas (8-inches each)
- 2 Tbsp spread, such as herbed cream cheese, pureed roasted peppers, hummus, or baba ghanousch
- 1 large sweet-tart apple, washed, cored, and thinly sliced
- 1 can (6.5 ounces) tuna in water, drained
- 1/2 to 1 Tbsp reduced-fat mayonnaise or sour cream
- Freshly ground pepper, to taste
- Mild curry powder (optional)
- 2 scallions with green tops, cut in half then sliced lengthwise

Place the tortillas on dinner plates and spread each with your choice of spread. Arrange apple slices down the center of tortillas, staying 1 inch away from the edges.

In a small bowl, flake tuna; combine with mayonnaise and pepper. Spoon tuna mixture over apple slices. Sprinkle with a dash of mild curry powder, if desired. Top with scallions.



Roll wraps from front to back; serve immediately. Makes 2 wraps.

Approximate Nutritional Analysis (per serving): calories, 360; protein, 26 g; carbohydrates, 42 g; dietary fiber, 5 g; fat, 10 g; cholesterol, 40 mg; sodium, 549 mg.

Source: Olwen Woodier, *The Apple Cookbook* (Storey Books, 2001).

Apple Juice Jigglers

- Nonstick cooking spray
- 1- 1/2 Tbsp unflavored gelatin
- 3/4 C water
- 1 6-oz. can frozen apple juice concentrate

Very lightly coat a 9" x 5" loaf pan with nonstick cooking spray. Soften gelatin in water in a saucepan for 5 minutes. Heat over low heat, stirring constantly until gelatin dissolves. Remove from heat. Add frozen apple juice concentrate; mix well.

Pour into pan. Cover and refrigerate. Chill until set, about 2-3 hours. Cut into one-inch cubes, or cut out with cookie cutters, and serve as snacks.

Source: *Processed Apples Institute*

servings.

Approximate Nutritional Analysis (per serving, including pine nuts): calories, 191; protein, 4 g; carbohydrates, 35 g; dietary fiber, 4 g; fat, 5 g; cholesterol, 36 mg; sodium, 73 mg.

Source: Olwen Woodier, *The Apple Cookbook* (Storey Books, 2001).

Apple Smoothie

Really hot day? Pop the applesauce in the freezer for 15 to 20 minutes in advance.

- 2 C unsweetened applesauce
- 1 C 100% apple juice or cider
- 1 C orange juice
- 2 Tbsp honey
- 1/2 tsp ground cinnamon
- 1/2 tsp ground nutmeg

Place all ingredients in a blender, and blend until smooth. Serve immediately, or keep chilled until serving time. Garnish with additional cinnamon, if desired. Makes 2 servings.

Approximate Nutritional Analysis (per serving): calories, 377; protein, 1 g; carbohydrates, 97 g; dietary fiber, 13 g; fat, 1 g; cholesterol, 0 mg; sodium, 14 mg.

Studies Link Apples, Lung Health

RESEARCH (from page 1)

Netherlands report that eating fruits and vegetables, and in particular **an apple a day, may reduce smokers' risk of developed chronic obstructive pulmonary disease (COPD)**, based on their case-control study of long-term heavy smokers. This is the first known study to suggest smokers could benefit from eating more apples.

(Source: American Thoracic Society, unpublished findings presented at the society's Annual Meeting, May 2001, poster 617.)

Lung Cancer:

Researchers at the University of Hawaii found that **increased consumption of quercetin was associated with a reduced risk of lung cancer** in their population-based, case-control study involving 600 lung cancer patients and 600 cancer-free persons.

Researchers found a statistically significant inverse association between lung cancer risk and intake of the flavonoid quercetin, found primarily in apples and onions, and the flavonoid naringin, found in white grapefruit. No association was found for other important flavonoid food sources.

This study validated similar findings published in 1997 (see the *American Journal of Epidemiology* study, below). (Source: *Journal of the National Cancer Institute*, 2000, 92: 154-160.)

Lung function: British researchers report that apple eaters had better lung function than non-apple eaters, as measured by forced expiratory volume. Re-

searchers at London's St. George's Hospital found a strong positive association between lung function and the number of apples eaten each week, after analyzing dietary records and health outcomes of 2,512 men studied for five years.

Although it had been suggested by other researchers that vitamin C from fresh fruit was responsible for improving lung function, this research found to

the contrary.

Researchers postulated the healthful effect may be due to antioxidants in apples (e.g., flavonoids like quercetin).

(Source: *Thorax*, 2000, 55:102-108)

Cancer and Lung Cancer:

Epidemiologists from Finland's National Public Health Institute report that consumption of a

flavonoid-rich diet — and particularly **flavonoid-rich apples — was associated with a reduced risk of developing cancer**. Their study of 9,959 cancer-free men and women, begun in 1965, revealed that people who regularly consumed the most flavonoid-rich foods during the 24-year study were about 20 percent less likely to develop cancer.

They also found that lung cancer was 46 percent lower among those whose diets contained the highest amount of flavonoids, particularly from apples. Of the major dietary flavonoid sources, apples showed the greatest inverse association with lung cancer incidence. (Source: *American Journal of Epidemiology*, 1997, 146: 223-230.)

Population studies have associated apple consumption with improved lung function, and reduced risk of lung cancer and lung disease.

FAQs

Q

We couldn't buy U.S. apples this time of year when I was little. How come we can now?

A

Thanks to the invention of a new cold storage technology in the 1960s, most apple varieties can now be stored year-round, supplies permitting — meaning you can get a crisply crunchy U.S. apple even in the summertime.

Apples scheduled to be marketed shortly after fall harvest are stored in refrigerated storage rooms. Apples to be marketed later are stored in special "controlled atmosphere" (CA) storerooms. The modified atmosphere in these specially-sealed rooms — low oxygen, high nitrogen, compared to room air — slows the apples' respiration, in effect putting them into a state of suspended animation. Apples stored in CA rooms come out tasting the same as they did the day they went in.

Q

Why does my apple have a sticker on it?

A

That sticker has a four-digit number on it called a price look-up (PLU) number. As the number of items in the average produce department has exploded in recent years, retailers began requiring these price look-up (PLU) stickers on many produce items to make your cashier's job easier. PLU stickers offer you, the consumer, several benefits, including speedier checkouts, ensuring correct billing, and brand and variety identification.

The stickers and their ingredients are approved by the Food and Drug Administration as "food grade", meaning they are safe to eat should we inadvertently chow one down.

See the Nutrition Ed section of www.usapple.org, USApple's Web site, for a complete listing of apple research summaries and cites.



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