

Cooperative Extension

The Juice on Juicing

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Juicing and juice cleanses have become overwhelmingly popular within the last five years. The juicing fad has claimed to show improved health benefits including weight loss, boosted immunity, flushed toxins, and increased energy. Despite these claims, there is no concrete scientific evidence that extracted juices are healthier than whole fruits. A juice cleanse usually consists of a three to ten day detoxification, where juice makes up a large portion of the person’s diet. As a consumer, it is important to know the facts before exploring these rising diet trends.

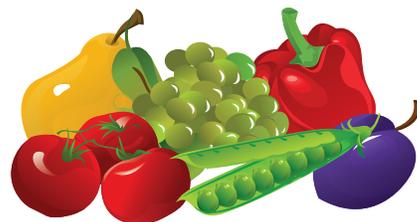


What is Juicing?

Juicing is the act of extracting juices from fresh whole fruits and uncooked vegetables.

PROS

- Fruit juice contains vitamins and minerals, as well as phytochemicals found in the whole fruits.
- Juicing can add more plant-derived nutrients to a person’s typical diet.
- If you dislike fruit or vegetables, juicing is a great way to meet your daily recommendations, however juicing should not replace consumption of whole fruits and vegetables.



CONS

- Whole fruits and vegetables contain fiber which can be lost in the juicing process: juice extractors remove the fiber-containing pulp from the fruits and vegetables which results in a decreased fiber intake.
- The calories can add up! A medium piece of fruit has about 60 calories and yields approximately 4 ounces of juice. A cup of vegetables can have about 25 calories. The calorie and sugar content become a concern when you are using pure fruits and not adding vegetables and when drinking 8-ounces or more of a juice.
- Juicing machines can be expensive! There are different types of juicers and they range from \$50-\$500.

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A Closer Look into Food Allergies

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A food allergy is an abnormal response to food triggered by the body's immune system. When a food allergy affects the human body, the immune system produces abnormally high levels of an antibody named immunoglobulin E.

Immunoglobulin E identifies and fights the food allergen (enemy) by releasing histamine with other chemicals, triggering the symptoms of an allergic reaction. The first time a person with a food allergy is exposed to the food, no symptoms occur, but that first exposure prepares the body to respond the next time the food is eaten again. Food allergies generally develop early in life but can develop at any age. In infants and children the most common food allergies are to egg, milk, peanut, tree nuts, soy, and wheat.

Children often outgrow allergies to egg, milk and soy. However, children rarely outgrow an allergy to peanuts, tree nuts or shellfish. Individuals that develop food allergies in their adult life usually have the allergy for life. In adults, the most common food allergies are to shellfish (shrimp, crayfish, lobster, and crab), peanut, tree nuts, and fish.

Currently, there is no cure for food allergies. The only preventive solution is to avoid the allergic reaction. Reading food labels is important as allergens may appear in prepared foods that normally are not associated with that food. Since 2006, U.S. manufacturers are required by law to list the ingredients of prepared foods on the label. Manufacturers must also state if the product contains any of the top eight allergic foods – egg, milk, peanut, tree nuts, soy, wheat, shellfish or fish. See the chart for unexpected food sources of common allergens.



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Unexpected Food Sources of Allergens

SHELLFISH: Fish stock, Seafood flavoring, Surimi

FISH: Caesar salad or dressing, Worcestershire sauce, Meatloaf, Barbeque sauce, Caponata (Sicilian eggplant relish)

WHEAT: Certain brands of ice cream marinara sauce, potato chips, rice cakes, turkey patties, hot dogs. May be present in baking mixes, breakfast cereals, candy, crackers, processed meats, soy sauce, soup, salad dressings, Non-food: play dough

SOY: May be present in baked goods, canned tuna and meat, cereal, cookies, crackers, high-protein energy bars and snacks, infant formulas, low-fat peanut butter, processed meats, sauces, canned broths and soups, Asian cuisine dishes, vegetarian foods

PEANUTS: Granola & energy bars, Chili sauce, Hot sauce, Pesto, Gravy, Mole sauce, Salad dressings, Puddings, Hot chocolate, Egg rolls, Pancakes, Glaze Marmalades, Vegetarian food products advertised as meat substitutes, Pet food & treats

TREE NUTS: Cereals, Crackers, Cookies, Candy, Chocolate, Energy and granola bars, Flavored coffee, Frozen desserts, Marmalades, Barbeque sauce, Cold cuts- Mortadella, Alcoholic beverages

MILK: Meat slicers used to cut meat and cheese products, Canned tuna fish containing casein(milk protein), Non-dairy products(many contain casein), Products made with milk substitutes (i.e. soy, nut or rice based dairy products) manufactured on same equipment as milk

EGGS: Baked goods, Egg substitutes, Lecithin, Macaroni, Marzipan, Marshmallow, Nougat, Pasta, Foam or topping in specialty coffee drinks, Egg wash sometimes on pretzels before being topped with salt



ALERT!

FOOD ALLERGIES

Is Fresh or Frozen Produce Better to Buy?

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Does fresh or frozen produce contain more nutrients? Which is more healthful to buy and why? It turns out the best produce primarily depends on the condition of the food item when it is ready to be consumed. If the produce was frozen at peak harvest and properly stored, as compared to the fresh produce option that has been sitting on the shelf for weeks, the frozen option is more likely to be chockfull of nutrients.

Research shows that fresh produce, with a long farm-to-table timeline, has 10-50% fewer nutrients than produce frozen at peak harvest. For example, freshly picked peas have a specific sweet taste to them, but most fresh peas in the grocery store have lost that fresh-off-the-vine sweetness because some nutrients over time, converted to starch after being picked off the vine. Even if peas are bought freshly picked, if they sit on a refrigerator shelf for days, their taste and nutrient content will change. Unless grocery store peas were freshly harvested, bought and prepared soon after picking by the consumer, chances are frozen peas are a better option for premium taste and nutrient content.

A common misconception is that many nutrients in produce are lost in the freezing process. Modern-day quick-freezing techniques for produce, picked at the peak of harvesting, lose only a very small amount of nutrients such as vitamin C, and the rest are well-preserved. One *Food Chemistry* study that compared nutrient analyses of fresh produce with frozen produce demonstrated that when carrots or green beans were frozen at peak harvest, they matched or surpassed fresh grocery produce in nutrient content. In another study, in which antioxidant activity of frozen versus fresh vegetables were compared, frozen either matched or surpassed fresh vegetables in antioxidant power. Therefore, when buying produce out of season, frozen wins, provided the proper freezing temperature was maintained during distribution and the supermarket freezer was held at 0 degrees Fahrenheit.



Frozen produce has a shelf life, too. It's much longer than fresh produce, but there are different shelf lives for frozen produce based on the specific fruit or vegetable. See **Rutgers Cooperative Extension Fact Sheet E340 *Home Storage of Foods: Refrigerator and Freezer Storage*** available at <http://njaes.rutgers.edu/pubs/publication.asp?pid=E340>.

It's important to note the quality of the frozen produce you are buying. Avoid buying frozen produce with freezer burn or laced with chunks of ice since that could signal improper handling or old food. If fresh produce is at its peak harvest and is in good condition on the supermarket shelves, then fresh is the superior option. On your next supermarket trip, consider the condition of your local store's fresh produce, and choose to buy the best form either fresh or frozen.



References:

Levine, E. *Fresh Versus Frozen Produce: Which is Healthier?* 2011 [cited 2014 1/29]; Available from: <http://www.livestrong.com/article/71064-fresh-versus-frozen-produce-which-healthier/>.

Hunter, K., Fletcher, J., *The antioxidant activity and composition of fresh, frozen, jarred, and canned vegetables*. *Innovative Food Science and Emerging Technologies*, 2002. 3(4): p. 399-406.

Whole Grains 101

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In today's search for health and wellness, it's hard to beat whole grains. Whole grains are packed with vitamins, minerals, fiber, and phytochemicals that you just don't find in plain old white bread, processed cereals, rice, or non-whole wheat products. Besides nutrition, whole grains are loaded with flavor. They're versatile, too – guaranteed to fit into the adventurous and perhaps not-so-adventurous diner's diet. Here...FCHS' guide to some less traditional whole grains, how to use them, what to look for, and why we should be giving them a try.

| Grain | Facts & Figures | Flavor Basics & Shopping Tips | Serving Suggestions (Easy ideas for adding them to your diet.) |
|---|---|--|---|
| Amaranth  | <p>A high-protein grain that's also a good source of fiber and vitamin E.</p> | <p>Amaranth seeds have a pleasant, peppery flavor.</p> | <ul style="list-style-type: none"> • Amaranth flour is higher in fat than wheat flour, resulting in a moist bread. Replace no more than 1/4 of the flour in a bread recipe with this. • Some varieties of amaranth seeds can be popped much like popcorn! • More commonly, amaranth is boiled and eaten as a cereal, or used in soups and granolas. • When cooking, use 1 cup amaranth to 3 cups water and cook for 25-30 minutes. Yields 2 ½ cups. |
| Kamut  | <p>Most people with wheat allergies tolerate kamut but this is a type of wheat and it contains gluten.</p> | | <ul style="list-style-type: none"> • Kamut flour works well in pasta and bread recipes. It works best if combined with other flours. • To cook the whole grain, combine 1 cup raw kamut with 3-4 cups water and cook 1 hour. Yields 2 ½ cups. |
| Kasha  <p>Healthy Kasha & Bow Tie Pasta</p> | <p>Although, technically, kasha is a fruit (the roasted seed of the buckwheat plant), the food world classifies it as a grain.</p> <p>Excellent source of magnesium and a good source of copper and fiber. Like amaranth, it is rich in lysine, an amino acid that is often missing from grain foods.</p> | <p>Kasha (or, buckwheat groats) comes in whole, coarse, medium, and fine consistency.</p> <p>It has a hearty, nutty flavor and chewy texture.</p> <p>Purchase roasted in a medium or coarse grain for easiest preparation.</p> <p>You can purchase kasha flour. Or, make your own by pulverizing whole white buckwheat groats in a food processor or blender until they have the consistency of flour.</p> | <ul style="list-style-type: none"> • Whole kasha can be prepared in 15 minutes; the more refined grades are even quicker. • To prepare, simmer 1 part kasha per 2 parts salted water for 15 minutes. • Kasha makes an exceptionally flavorful pilaf when prepared with caramelized or browned onions and mushrooms. • Also a great cold-weather warmer when served hot. • Or, create a hearty salad with kasha and vegetables, and pair it with a light soup. • Kasha flour is especially good in pancakes and pasta, giving them a stronger, heavier taste. It makes tasty biscuits and muffins, too. • When using kasha flour in baking, replace up to half of the wheat flour in any recipe with this. For breads, replace up to 1/5 of the wheat flour in a bread recipe with Kasha flour. |

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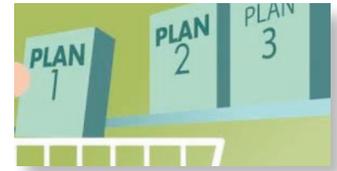
| Grain | Facts & Figures | Flavor Basics & Shopping Tips | Serving Suggestions (Easy ideas for adding them to your diet.) |
|--|---|---|---|
| <p>Quinoa</p>  <p>MEXICAN QUINOA SALAD</p> | <p>The ancient quinoa seed was a staple of the Incas.</p> <p>Quinoa is an excellent source of iron, magnesium, copper, B-vitamins, and the amino acid lysine, so it provides a more complete protein than many other cereal grains.</p> | <p>Quinoa has a mild flavor and a slightly crunchy texture. It comes in different colors, ranging from a pale yellow to red and black.</p> <p>Quinoa is becoming an increasing popular alternative for those who are wheat sensitive. Hence, you can find a variety of pasta and other products made from it on the shelves of your local health food stores.</p> | <ul style="list-style-type: none"> • Quinoa cooks quickly, but be sure to rinse before using to remove its bitter natural coating. • Quinoa flakes are steamed, rolled, and flaked quinoa. They're used much like oatmeal to make a hot cereal. • Quinoa flour is higher in fat than traditional bread flours, so it tends to make bread moister. Replace up to 1/4 of the flour in a bread recipe with quinoa flour. |
| <p>Spelt</p>  <p>Spelt Oatmeal Cereals</p> | <p>Spelt, a distant cousin to wheat, is hearty and grows well without chemical fertilizers, pesticides and herbicides and, therefore, is a viable organic crop and commonly available organic grain product.</p> <p>It is a good source of fiber and B-vitamins.</p> <p>Those with wheat sensitivity (gluten intolerance) are often able to tolerate spelt.</p> | <p>Available as whole berries, as whole wheat or white flour, and in breads and pastas at many natural food outlets.</p> | <ul style="list-style-type: none"> • Cook whole berries like rice and barley and use in hearty grain salads, pilafs and fillings. • Use flours to make breads and pastas. Spelt tends to make bread heavier. Experiment by adding a little extra yeast to help bread rise, or look for commercially available bread mixes. |
| <p>Teff</p>  | <p>This Ethiopian staple is the world's smallest grain.</p> <p>Reportedly too tiny to process, teff is less refined than many of today's more common grains. As a result, it's a nutritional powerhouse, especially rich in protein and calcium. It's also gluten-free.</p> | <p>Teff has a sweet, nutty flavor and comes in different colors that range from creamy white to reddish-brown.</p> | <ul style="list-style-type: none"> • Serve as a hot breakfast cereal, sprinkled with cinnamon and brown sugar, maple syrup, raisins or sliced fruit. |
| <p>Triticale</p>  | <p>This relatively "young" grain is a cross between wheat and rye.</p> <p>It is an excellent source of fiber, B-vitamins, magnesium, and a good source of iron</p> | <p>Triticale berries are gray-brown, oval shaped, similar to wheat berries but with a subtle rye flavor.</p> <p>Available as flour, flakes (for cereals), berries and as part of muesli/granola or whole grain cereal combinations.</p> | <ul style="list-style-type: none"> • Triticale makes a wonderful sandwich bread, similar in taste to a honey wheat bread. • When making bread, replace no more than half of the wheat flour in a bread recipe with this, knead gently, and let rise only once. Avoid excessive kneading. • Cook 1 cup berries with 4 cups water for 1 hour. Yields 2 1/2 cups. • Use triticale flakes like rolled oats to make a hot breakfast cereal. They cook in about 15 minutes. |

Positive Attitude and Desire: Keys to Financial Success

Barbara O'Neill Ph.D., CFP®, Extension Specialist in Financial Resource Management



Why do some individuals and families achieve their financial goals while others, who earn the same income or more, fail to make progress? There are probably dozens of answers to this question including a person's age, income, employment, marital status, family size, and access to employer savings plans (e.g., 401(k)s and credit unions). Another explanation for financial goal achievement is personal qualities, such as attitude, organization, self-control, determination, and knowledge, and specific actions taken by people (e.g., investing \$2,000 annually in an IRA) to reach a financial goal (e.g., accumulate \$100,000 for retirement).



Fifteen years ago, Rutgers Cooperative Extension sent a research survey to participants in its MONEY 2000™ program that encouraged participants to save and/or reduce debt. A total of 520 persons responded. Respondents were asked "What helps you make progress toward your financial goals?" The most frequently mentioned resource, noted by over a third (36.5%) of the sample, was some type of personal quality (e.g., discipline and focus) or action (e.g., "keeping a budget and net worth statement").



Some sample responses included: *"Will power and determination," "Thinking about the future and knowing that small change can really add up," "Keeping focused,"* and *"My desire to eliminate debt."* Other responses mentioned by respondents, were: having a goal/plan (8.5%), financial publications/media/software/Web sites (8.5%), seeing results/progress (8.1%), an adequate or increased income/good job (6.5%), payroll deduction/automated savings (5.9%), and decreased credit use/reduced debt (5%).

It appears that achieving financial goals is not just a matter of money. It's about an internal desire to improve your finances and "walk the talk" with specific practices (e.g., enrolling in a 401(k) plan) that move you forward. According to scientific research theory, behavioral change occurs in defined stages, based on a person's readiness to change. In the first stage, called "pre-contemplation," people are in denial or don't even realize they need to make a change. Then they slowly begin to realize that a change would improve their life, prepare to make the change, and take action. The last stage of behavior change is "maintenance," where a new behavior is so fully ingrained into a person's lifestyle that they don't even have to think about it.

Much can be learned from the practices of people who handle money successfully. Consider the following five steps to improve your finances:

- **Put your savings/investments on "automatic pilot"** through payroll deduction and automatic investment programs for the purchase of stock or mutual fund shares.
- **Set specific financial goals** (e.g., "save \$3,000 a year for five years for a car"). Post a picture or description of your goal in plain view as a daily reminder of what you're saving for. For a financial goal-setting worksheet, see <http://njaes.rutgers.edu/money/pdfs/goalsettingworksheet.pdf>.
- **Develop a spending plan** (a.k.a. budget) and stick to it. Forms to itemize household income and expenses are available through Rutgers Cooperative Extension: <http://njaes.rutgers.edu/money/>.
- **Increase your financial knowledge.** Take a course, read a book, or subscribe to a personal finance magazine. Take the Rutgers Cooperative Extension Financial Fitness Quiz to see how well you are managing your finances: <http://njaes.rutgers.edu/money/ffquiz/>.
- **Believe in yourself and your ability** to make changes that will improve your finances. Even small amounts of savings add up of time. When there's a will, there's a way. Like the Nike ad says, just do it!

Saving Money with Coupons

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Coupons are a major money saver for families and are more popular than ever due to the reality TV show about “extreme couponing.” The Internet has also made it easy to obtain coupons to supplement those found in newspapers. Below are some tips to use coupons to save money at the supermarket:

Buy Sunday Newspapers (At Least Sometimes) - Several companies with names like SmartSource and RedPlum distribute newspaper inserts with manufacturer’s coupons. Product manufacturers such as Proctor and Gamble also produce coupon inserts. There can be weekends where Sunday newspapers have three or four inserts and weekends with none (usually on or around major national holidays such as Memorial Day). Ask your neighbors and/or coworkers to pass on their coupon inserts after they’ve clipped what they can use.



Get Coupons Online - Many people print their own coupons online. Thanks to Web sites and smart phone QR codes, it has never been easier to obtain manufacturer’s coupons. Some coupons can just be printed off while others require shoppers to register with an e-mail address. There are often limits on the number of times and dates that online coupons can be printed out. They can be obtained from manufacturer’s Web sites or sites that aggregate the offers of many companies with coupons (e.g., RedPlum). A helpful source of information about couponing is www.becentsable.net, a Web site run by the authors of *Be CentsAble*, a book that describes dozens of household money-saving ideas. Online coupons must be printed out and should include a bar code and an expiration date. Photocopies of online coupons are generally not accepted.

Double-Check Product Packaging - Some manufacturers include coupons on or within the packaging for their products. They may be affixed to a product and require peeling off or they may simply be printed on or enclosed within the product packaging itself. Coupons that can be peeled off a product are a nice unplanned bonus and can generally be used immediately at the time of purchase. Shoppers should only peel a coupon off a product if they buy it so as not to deprive other shoppers of the instant savings that they are due.



Review Home Mailers - Sometimes coupons arrive in the mail unannounced in mailings from product manufacturers, supermarkets, or coupon “aggregators” that send a collection of coupons together in an envelope (e.g., ValPacks). Most aren’t for food items but these coupons may be valuable for other purposes such as home improvements, septic service, car maintenance, florists, and restaurant meals. Taking a few minutes to review ValPack coupons and picking out those you can use could save hundreds of dollars over the course of a year. You can also search <http://www.valpak.com/> with the name of your home town for free downloadable online coupons from local merchants.

Stack and Make “Double and Triple Pays” - Use more than one coupon on a food item to get it at a greatly reduced price. The book *Be CentsAble* calls this “stacking.” It is generally acceptable to combine a store coupon and a manufacturer’s coupon to buy one product. The manufacturer’s coupon can be clipped from a newspaper insert or obtained online. You cannot, however use more than one manufacturer’s coupon for the same item. Another way to save money is to make a double play. This is where you combine a manufacturer’s coupon with an advertised store sale. Even more lucrative is a “triple play” that combines a sale price plus a coupon plus a product rebate or prize of some sort.



Be Patient - Food prices have their cycles and savings may just be a matter of time. Sometimes it pays to wait for items to go on sale and use coupons to stock up when prices are at their lowest. That convenience food entrée that costs \$3.29 per package this week could be 5 for \$10 next week. That \$4.79 box of cereal could later be 4 for \$10. Use your coupons when food items are on sale to maximize your total savings.

Recommendations

- **Use the pulp** from the juiced vegetables and fruits somewhere else in your diet.
- **As long as your diet is adequate in fiber, incorporating extracted juices** is great way to get added nutrients; just remember that replacing whole foods with juicing is not recommended.
- **Adding protein such as Greek yogurt, peanut butter, or milk** will add other nutrients to the drink and help stabilize blood sugar. However, it will also add calories.
- **When choosing a packaged juice, make sure to read the label** for the word “pasteurized” to avoid foodborne illness from improper processing.
- **Check with your doctor** before considering juicing. Cleanses are not without health risks and there have been reported cases of serious health problems from longer term juice cleanses.



References

Lien, Y. H. H. Juicing Is Not All Juicy. *American Journal of Medicine*, 2013;126 (9),755-756.

Web MD. Juicing: How Healthy Is It? <http://www.webmd.com/diet/features/juicing-health-risks-and-benefits>. Updated January 11, 2012. Accessed January 28, 2014.

Nelson, J.K. Juicing: What are the Health Benefits? <http://www.mayoclinic.org/juicing/expert-answers/faq-20058020>. Updated October 21, 2010. Accessed January 28, 2014.