**Juicing and Cancer**

**Question:**
I've heard that juicing is an important part of a cancer-fighting diet. Should I be juicing?

**Answer:**
Juicing (the process of separating the juice from the pulp of fruits, vegetables and plant foods) is a great way to add more servings of vegetables and fruits to an already-healthy diet. Juicing should not be used to meet basic nutrition needs as it significantly reduces the amount of fiber you get from a vegetable or fruit. This is true for people who are feeling well, are able to chew and digest their food normally, and aren't losing weight without trying.

If you are in active treatment, are having chewing, swallowing, or digestive problems, or are struggling with excess weight loss due to cancer and it’s treatment, juicing may be a good option for getting valuable nutrients into your body. You also may want to consider blenderizing your vegetables and fruits to make healthy "smoothies." Talk to a registered dietitian about how to do this in a way that will ensure you meet all of your calorie and protein needs, and are staying safe if you have swallowing difficulties.

If you currently eat five or more servings of colorful vegetables and fruits per day, then juicing to boost intake of these foods further can be a healthy option. For reference: A serving ranges from one-half to one cup of chopped vegetables or fruit.

Your first five servings of vegetables and fruits should come from whole foods, not juice, so if you’re not meeting this five-a-day goal already, do this first. Once you establish— and stick to—a habit of having five servings of vegetables and fruits per day, you can add in juicing.

Follow a few tips, and you can make the most of juicing:

- **Focus on vegetables.** For the healthiest juices, include more vegetables than fruits. Include one fruit to sweeten up your mixture, but make the other ingredients vegetables—they have fewer calories,
so make for a healthier drink over all. For example, juice one carrot, a chunk of cucumber, a small beet, a piece of ginger, and a small apple.

- **Drink what you’d eat.** Juice packs a lot of nutrition—and calories—in a smaller volume than whole food. For example, you need four to six large carrots to yield eight ounces of carrot juice. Most people wouldn’t eat this many carrots in a sitting. Stick to juicing small quantities to avoid excess calories, which can contribute to weight gain.

- **Go Pro(tein).** Have your juice with a serving of protein, and a little bit of fat. Protein balances out the carbohydrates in the juice, and fat helps your body absorb fat-soluble nutrients from the juice. For example, if you juice first thing in the morning, enjoy it with Greek yogurt with some nuts and seeds sprinkled on top. Or have your juice with scrambled or hard-boiled eggs.

- **Embrace variety.** Get creative with your juicing to avoid overdoing it on just a few specific nutrients. By mixing it up, you get the greatest variety of nutrients possible. You can even juice items you might throw away, such as broccoli stems.

- **Count crucifers.** Cruciferous vegetables include broccoli, kale, chard, bok choy, kohlrabi, Brussels sprouts, cauliflower, watercress, collard and mustard greens, turnips, radish, daikon root, and arugula. These foods help support our body’s ability to detoxify, but even healthful foods can be bad for health if eaten in excess. Having one to two servings of cruciferous vegetables per day is associated with decreased risk of several types of cancer and no adverse effects.

- **Embrace variety, again!** In the same way that you get different nutrients from different foods, you absorb different nutrients from the same food, when it is prepared differently. What you absorb from a cooked carrot is different from what you absorb from a raw carrot, which is different from the nutrients you absorb from carrot juice. Don’t rely on juicing for all of your servings of any one particular food, or you miss out on vital nutrition.

Remember, food first. Once you are meeting the five-a-day whole vegetable and fruit goal, try juicing to add extra oomph to your already healthful diet.

Submitted by Suzanne Dixon, MPH, MS, RD, on behalf of ON DPG