

Eating for Healing Class - July 6, 2024

Nutritional Spotlight: What are Nitrates and Nitrites?



Excerpt from <https://health.clevelandclinic.org/what-are-nitrates>

The nitrates and nitrites that occur naturally in our bodies and in whole foods (like plants, which we'll talk about momentarily) aren't concerning. They're normal and healthy.

But if you've heard that you should avoid foods that contain nitrates and nitrites, there's some truth to that advice: When they're added to certain foods, that's when they start causing trouble — namely, by raising your risk of cancer.

Nitrates and nitrites occur naturally in leafy green vegetables like spinach, romaine and kale, as well as in root vegetables like beets, celery and carrots. "Most of the nitrates and nitrites we consume come from plant foods we eat," registered dietitian Devon Peart, RD, MHSc, says. But plants aren't the only purveyors of nitrates and nitrites, which is where the problems start to occur. "We also add nitrates and nitrites to meat products (and to some cheeses) as a preservative, to prevent the growth of harmful bacteria, and sometimes to boost the color and palatability of food," she continues.

The issue, Peart says, isn't with the nitrates themselves but with their potential to form nitrosamines, carcinogenic compounds that can increase your risk of various cancers

But what makes the nitrates and nitrites in some foods problematic and not in others? Several factors may be involved, including food prep methods. "When meat is cooked at high heat, like during frying or grilling, nitrates and nitrites can react with the amino acids in the meat protein to form nitrosamines," Peart explains. "Most nitrosamines are known carcinogens, which means they're associated with an increased risk of cancer."

Remember: Not all nitrates and nitrites are bad news — in fact, quite the opposite. "Naturally occurring nitrates and nitrites help our digestive system by protecting against certain bacteria," Peart states. They can also transform into nitric oxide, which has known health benefits. In-depth research from the last 15 years shows that nitrate from vegetables might have heart health benefits like: Lower blood pressure, Reduced risk of cardiovascular disease, Improved energy, Sports performance and recovery.

Research is ongoing, but nitric oxide may have a positive impact on or improve outcomes for conditions like: Diabetes, Inflammation, Eye disease, Age-related poor muscle function, Cognitive function, and Dementia.

To get the potential benefits of nitric oxide from food, eat leafy greens like spinach and kale, as well as root vegetables like celery, carrots and beets. "Include plenty of vitamin C-rich foods in your diet, too, like citrus fruits," Peart advises, "because vitamin C helps your body absorb and use nitric oxide."

Arugula and Wild Rice Salad with Dried Cherries (4 servings)

The dried cherries in this hearty salad add a nice pop of tart and sweetness. It's easy to dry your own in an oven on a very low temperature. This allows you to buy fruit at peak flavor and to eliminate added preservatives and sweeteners. See the recipe below. In a pinch you can also substitute other dried fruit such as cranberries.

Ingredients

SALAD

- 1 1/4 cup wild rice, rinsed
- 2/3 cup whole raw almonds
- 5 ounces baby arugula (about 5 packed cups)
- 1/2 cup coarsely chopped fresh basil
- 2/3 cup dried cherries
- 1/2 cup crumbled feta or goat cheese (about 2 ounces)

DRESSING

- 1/4 cup extra-virgin olive oil
- 2 tablespoons lemon juice (from 1 medium lemon), to taste
- 2 teaspoons Dijon mustard
- 1 teaspoon honey or maple syrup
- 1 medium clove garlic, pressed or minced
- 1/4 teaspoon fine sea salt, to taste
- Freshly ground black pepper, to taste

Directions

To cook the wild rice, bring a large pot of water to boil. Add the rinsed rice and continue boiling, reducing heat as necessary to prevent overflow, for about 30-40 minutes, until the rice is tender with a bit of bite. Remove from heat, drain the rice and return the rice to pot. Cover and let the rice rest for 10 minutes, then remove the lid and let the rice cool.

To toast the almonds preheat oven to 350°F. Spread the almonds on a parchment lined baking sheet and bake until fragrant and a deeper shade of brown, about 10 minutes. Keep an eye on them so they don't burn. Remove from the oven to cool then roughly chop and put aside.

In a lidded jar or small bowl, whisk together the dressing ingredients until blended.

To assemble the salad, transfer the cooled rice to a large bowl. Add the arugula, chopped basil, almonds, dried cherries and feta. Pour in the dressing, toss well, and season to taste with additional salt and pepper. If the salad needs more fresh, bright flavor, add up to 1 tablespoon more lemon juice.

Set the salad aside for 10 minutes before serving, to give the rice time to soak up some of the dressing. This salad keeps well in the refrigerator, covered, for two to three days. You might need to wake up leftovers with an extra drizzle of olive oil and squeeze of lemon (the rice absorbs the dressing over time).

OVEN DRIED CHERRIES

*If you don't have an oven-safe wire cooling rack, you can dry the cherries directly on the silicone baking mat or parchment paper, but the cherries will need an additional two hours in the oven.

- 1 pound fresh sweet cherries, stemmed and pitted

Directions

Preheat oven to 175-180°F. Line a large baking sheet with a silicone baking mat or parchment paper, then place an oven-safe wire cooling rack on top.

Space the prepared cherries evenly on the wire rack. Place in the oven for six hours. The cherries should be very shriveled and less than half their original size. Remove and allow to cool completely on the wire rack.

Transfer for an airtight container to store.

Summer Borscht with Cucumber and Dill (4-5 servings)

(adapted from *Paleo Soups and Stews* by Simone Miller)

This vibrant pink soup will become a new summer favorite and a delicious way to get more dietary nitrates into your diet. If you can find only larger, bulk beets, cut into quarters or chunks for faster cooking.

Ingredients

- 1 pound of beets, about 6 medium, cleaned and tops removed
- 1 cup chicken broth (or could sub vegetable broth)
- 3/4 cup unsweetened non-dairy or dairy yogurt (I am using CocoJune coconut yogurt)
- 3 tablespoons fresh lemon juice (about 1 lemon)
- 1 tablespoon sherry vinegar
- 1 tablespoon honey
- 1/2 teaspoon sea salt
- 1 medium-large cucumber, cut into small dice (English and Persian varieties are good)
- 1 small bunch green onions, thinly sliced
- 1 tablespoon minced fresh dill

Directions

Bring a large pot of salted filtered water to a boil. Add the beets and cook until soft, about 30 minutes. Remove with a slotted spoon and set aside to cool. Reserve 1 cup of the cooking liquid. When the beets are cool enough to handle, rub or peel off the skins.

Roughly chop one-quarter of the beets and cut the rest into small dice. Set each aside.

In a blender, combine the reserved cooking liquid, broth, *roughly chopped* beets, yogurt, lemon juice, vinegar, honey, and salt. Blend until smooth.

Pour the blended soup into a glass bowl and stir in the diced beets. Then stir in the cucumber, green onions, and dill—after reserving a small amount of each for garnish. Refrigerate until very cold, at least 2 hours before serving.

To serve, portion into serving bowls and garnish with the reserved cucumber, green onions and dill. Leftover soup can be stored for up to 3 days.

Shopping List

Pantry

- wild rice
- raw almonds
- extra-virgin olive oil
- dijon mustard
- honey or maple syrup
- sea salt
- freshly ground black pepper
- chicken broth (or sub vegetable broth)
- sherry vinegar

Produce

- 5 ounces baby arugula
- small bunch basil
- 1 pound fresh cherries (for drying)
- 2 lemons
- garlic clove
- 1 pound beets (preferably medium size)
- medium-large cucumber (English or Persian variety is good)
- small bunch green onions
- small bunch fresh dill

Refrigeration

- feta or goat cheese
- non-dairy or daily yogurt

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