WHAT ARE ANTI-NUTRIENTS?

With a new year upon us, there are inevitably new year’s resolutions to eat healthier in 2020. Widely accepted nutrition advice encourages you to focus on plant strong options, such as vegetables, whole grains, legumes, nuts, seeds, and fruits. However, you may have read or heard that some of these foods should be avoided because of their anti-nutrient properties, blocking the absorption of key nutrients in our bodies:

- **Lectins** in legumes (beans, lentils, peanuts) and whole grains can interfere with the absorption of calcium, iron, phosphorus, and zinc.
- **Oxalates** in green leafy vegetables can bind to calcium and decrease absorption.
- **Glucosinolates** in cruciferous vegetables, such as broccoli, Brussels sprouts, and cabbage can inhibit the absorption of iodine.
- **Phytates** in whole grains, seeds, legumes, and some nuts can decrease the absorption of iron, zinc, magnesium, and calcium.
- **Saponins** in legumes and whole grains can interfere with normal nutrient absorption.
- **Tannins** in tea, coffee, and legumes can decrease iron absorption.

Yes, the plants from which some of these foods are derived from contain anti-nutrients for survival; to protect them from bacterial infections and being eaten by insects. Fortunately, the absorption blocking properties are reduced or deactivated during standard cooking processes of soaking, boiling, sprouting, and/or fermenting foods. It is also important to remember that strong scientific data support the overall health benefits of plant-based dietary patterns.

SHOULD I BE CONCERNED?

“The pros and cons of anti-nutrients on long-term human health is an area of active research. Though certain foods may contain residual amounts of anti-nutrients after processing and cooking, the health benefits of eating these foods outweigh any potential negative nutritional effects.” Eating a variety of nutritious foods daily and avoiding eating large amounts of a single food at one meal can help to offset minor losses in nutrient absorption caused by anti-nutrients.” For more information, please check out the references listed below.

**References:**

https://www.hsph.harvard.edu/nutritionsource/anti-nutrients/
https://www.hsph.harvard.edu/nutritionsource/anti-nutrients/lectins/
https://www.mdlinx.com/internal-medicine/article/4138
https://health.usnews.com/health-news/blogs/eat-run/articles/what-are-anti-nutrients-and-should-i-avoid-them
Ellie Krieger’s Chickpea and Farro Stew with Spinach

Ingredients:
- 1/4 cup + 3 tablespoons low sodium vegetable stock
- 1 pint + 1/2 cup low sodium vegetable stock
- 5 ounces low sodium garbanzo beans (chickpeas) canned, rinsed and drained
- 2 5/8 teaspoons olive oil
- 3 1/2 ounces yellow onion, diced 1/4 inch
- 2 1/4 ounces carrots, peeled, diced 1/4 inch
- 1 1/4 ounces celery, diced 1/4 inch
- 2 whole cloves garlic, peeled, minced
- 9 3/4 ounces low sodium garbanzo beans (chickpeas) canned, rinsed and drained
- 12 1/2 ounces no added salt diced tomatoes, canned
- 2 springs rosemary leaves
- 3/8 teaspoon kosher salt
- 1/4 teaspoon ground black pepper
- 1/4 cup + 3 tablespoons farro
- 2 1/2 ounces baby spinach
- 1/4 cup + 1 teaspoon grated parmesan cheese

Instructions:  Prep Time-15 min  Cook Time-45 min

Place first listed garbanzo beans and first listed stock in a food processor or blender. Process until smooth puree. Heat oil in a stock pot over medium heat, add onion, carrot and celery. Sauté for 6 to 8 minutes or until softened, but not brown. Add garlic, cook for 30 seconds. Add second listed garbanzo beans, second listed stock, tomatoes, rosemary sprigs, salt & pepper. Bring to a boil. Reduce heat to medium-low. Simmer, covered, for 15 minutes. Add farro. Return to a boil. Reduce heat to medium-low. Cover, cook, stirring occasionally, for 20 minutes or until farro is tender. Remove rosemary sprigs. Stir in garbanzo puree and spinach. Cook for 1 to 2 minutes or until spinach is just wilted. Stir in parmesan cheese and serve.

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