

SOAKING & SPROUTING GUIDE

Just like humans, plants evolved a number of adaptations to survive and thrive. While they might not always have the ability to take flight, they certainly have been equipped to put up a fight against predators and environmental factors that pose a threat. One of their most powerful lines of defense is a system of chemical weapons known as *anti-nutrients*, which include phytic acid, lectins, and other enzyme inhibitors that protect seeds from premature germination and ward off predators.

When we consume ungerminated plant foods in the form of grains, legumes, nuts, and seeds, we are also consuming these anti-nutrients. Though some studies indicate these anti-nutrients have some beneficial properties in the human body, the overall impacts are negative because of the frequency and quantity in which these foods are present in the modern diet.

For example, phytic acid binds to the phosphorus, calcium, magnesium, copper, iron, and zinc in the intestinal tract, which prevents their absorption and can contribute to mineral deficiencies, bone loss, irritable bowel syndrome, and even neurological damage.

Phytic acid also acts as an enzyme inhibitor blocking the production of amylase, trypsin and pepsin, which are necessary for proper breakdown and digestion of starch and protein. This

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leads to undue stress on the pancreas, damage of the intestinal lining, and bacterial overgrowth.

Lectins, particularly prolamins and agglutinins, are carbohydrate-binding proteins that have the ability to survive human digestion and penetrate the lining of the digestive tract--resulting in leaky gut, alterations of gut flora, decreased nutrient absorption, and autoimmune responses, and general GI distress.

The detrimental effects of consuming these anti-nutrients have led many people to the conclusion that eliminating these plant-based foods from the diet is the best pathway to optimal health.

Yet the wisdom of our ancestors reveals that there are traditional methods of preparation such as soaking, sprouting, and fermenting that actually neutralize most anti-nutrients, increase the bioavailability of beneficial nutrients, and improve digestibility by pre-digesting complex starches and activating phytase so that these foods can still be enjoyed as part of a nutrient-dense diet if tolerated.

If you decide to eat grains, legumes, nuts, and seeds, make sure to always follow the guidelines below to prepare them for optimal nutrition and health.

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SOAKING GRAINS

Rice & Millet

- ▶ Place 2 cups of grain into a large mixing bowl and cover with 2 cups of warm water.
- ▶ Stir in 2 tablespoons of fresh lemon juice or apple cider vinegar.
- ▶ Leave the bowl at room temperature for 7 hours.
- ▶ Drain, rinse, and then cook as usual.

Quinoa

- ▶ Place 2 cups of quinoa into a large mixing bowl and cover with 6 cups of water.
- ▶ Stir in 1 tablespoon of fresh lemon juice or apple cider vinegar.
- ▶ Leave at room temperature for 24 hours.
- ▶ Drain, rinse, and then cook as usual.

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All Other Grains

- ▶ Place 2 cups of grain into a large mixing bowl and cover with 2 cups of warm water.
- ▶ Stir in 2 tablespoons of fresh lemon juice or apple cider vinegar.
- ▶ Leave the bowl at room temperature for 12-24 hours.
- ▶ Drain, rinse, and then cook as usual, or dry in a dehydrator.

SOAKING LEGUMES

Kidney, Pinto, Navy, White & Black Beans

- ▶ Place 2 cups of beans into a large mixing bowl and cover with warm water.
- ▶ Stir in 2 pinches of baking soda.
- ▶ Leave at room temperature and soak for at least 18-24 hours total.
- ▶ Every 7 hours, drain the beans, cover with warm water again and stir in another 2 pinches of baking soda.
- ▶ Drain, rinse, and cook in a large pot or slow cooker.

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Lentils

- ▶ Place 2 cups of lentils into a large mixing bowl and cover with warm water.
- ▶ Stir in 2 tablespoons of lemon juice or apple cider vinegar.
- ▶ Leave at room temperature and soak for at least 7 hours.
- ▶ Drain, rinse, and cook in a large pot or slow cooker.

Garbanzo Beans

- ▶ Place 2 cups of beans into a large mixing bowl and cover with warm water.
- ▶ Stir in 2 tablespoons of fresh lemon juice or apple cider vinegar.
- ▶ Leave at room temperature and soak for at least 24 hours.
- ▶ Drain, rinse, and cook in a large pot or slow cooker.
- ▶ Avoid using a pressure cooker as the extremely high temperature and pressure will denature the protein and can destroy other nutrients in the legumes.

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SOAKING NUTS & SEEDS

- ▶ Place 4 cups of raw, shelled nuts into a large mixing bowl.
- ▶ Cover with water and stir in 1 tablespoon of Celtic sea salt.
- ▶ Soak (see the table on page 8 below for specific soaking times).
- ▶ Drain and then place in a dehydrator, or spread the nuts on a large baking sheet lined with unbleached parchment paper and dehydrate them in a warm oven (under 150°F) for 12 to 24 hours.

SPROUTING GRAINS, LEGUMES, NUTS & SEEDS

There are 4 steps to sprouting grains, legumes, nuts, and seeds:

Step 1

- ▶ Soak your grains, legumes, nuts, or seeds in water.
- ▶ Make sure the water is double the amount of the item being soaked.
- ▶ Leave at room temperature for the specified amount of time (see the table on page 8 for specific soaking times).

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- ▶ You may rinse and change the water halfway through the soaking time if desired.

Step 2

- ▶ Drain the liquid, then rinse and fill back up with fresh water.
- ▶ Drain the liquid slowly at an angle to create a humid environment (use a mesh lid on a mason jar).
- ▶ Your goal is to keep the kernels moist until they sprout a bud.
- ▶ They do this by being exposed to light and moisture.

Step 3

- ▶ Repeat Step 2 every few hours, or at least twice daily.

Step 4

- ▶ In 1-4 days, your sprouted grain, nut, bean or seed should be ready (see table below for specific sprouting times).

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	SOAKING TIME	SPROUTING TIME
Adzuki	8 hours	3-5 days
Alfalfa	8 hours	2-5 days
Almond	8-12 hours	12 hours
Barley	6-8 hours	2 days
Brazilnut	Do Not Soak	Does Not Sprout
Buckwheat	15 minutes	1-2 days
Cashew	2-2.5 hours	Does Not Sprout
Chickpea	12 hours	12 hours
Corn	12 hours	2-3 days
Fenugreek	8 hours	3-5 days
Flax	8 hours	Does Not Sprout
Hemp	Do Not Soak	Does Not Sprout
Kamut	7 hours	2-3 days
Lentil	8 hours	12 hours
Macadamia	Do Not Soak	Does Not Sprout
Millet	8 hours	2-3 days
Mung	1 day	2-5 days
Oats	6 hours	2-3 days
Pecan	4-6 hours	Does Not Sprout
Pepita	8 hours	1-2 days
Pinenut	Do Not Soak	Does Not Sprout
Pistachio	Do Not Soak	Does Not Sprout
Quinoa	2 hours	1-2 days
Rice	9 hours	3-5 days
Sesame	8 hours	1-2 days
Spelt & Rye	8 hours	2-3 days
Sunflower	2 hours	2-3 days
Walnut	4 hours	Does Not Sprout
Wheat	7 hours	2-3 days

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