

11 DIETARY  
**6**  
PRINCIPLES

**Prepare seeds, grains and nuts properly to minimize anti-nutrients and enhance digestibility.**



Seeds, grains and nuts are soaked, sprouted, fermented or naturally leavened to neutralize naturally occurring anti-nutrients such as enzyme inhibitors, tannins and phytic acid.

## Sixth Principle

These days, millions of people have found that they cannot eat wheat and other grains. Paleo and carnivore dieters shun all grains, and gluten-free products have become very popular. However, all traditional cultures in the temperate regions of the world consumed grains—even the “stone age” Australian Aborigines. And archeological research has found evidence of grain consumption in paleolithic campfires. Starch grains found on grinding stones dating back thirty thousand years have shown up in paleolithic sites in Italy, Russia and the Czech Republic.

Widespread intolerance of grains is a recent phenomenon, and it’s probably no coincidence that these problems with grains have followed several decades of insistence on large amounts of whole grains in the form of rough, quick-rise whole wheat bread, granola, oat bran and extruded breakfast cereals.

The high-temperature, high-pressure process of extrusion, used to make breakfast cereals shaped like o’s, flakes and strands, does to the delicate proteins in grains what pasteurization does to the delicate proteins in milk—it warps and distorts them so that they become highly allergenic and even toxic. Evidence indicates that extruded breakfast cereals are especially toxic to the nervous system—yet millions of school children in the U.S. begin their day with these grain products. Extruded grains also disrupt gut flora.

Traditional cultures took great care with seed foods—grains, legumes, nuts and other seeds—usually by soaking, souring, culturing and fermenting them, often for days. These seed foods are also cooked, at the beginning of the process or during it, but usually at the end. All these processes release the goodness in grains and make them more digestible. Even gluten is broken down by proper preparation processes. Researchers in Italy have found that those diagnosed with celiac disease can consume genuine sourdough bread without adverse effects.

Proper preparation by sour fermentation processes removes or neutralizes many irritants and anti-nutrients:

- **Enzyme Inhibitors** make digestion difficult and can lead to stress on the pancreas. Proper preparation gets rid of enzyme inhibitors.

- **Phytic Acid** binds to minerals and carries them out of the body. Consuming a diet high in phytic acid can lead to mineral deficiencies, even when the grains and legumes are rich in minerals. Proper preparation neutralizes phytic acid in most grains and legumes. The exception is soy, which is very high in phytic acid that is not neutralized by normal fermentation or soaking-and-cooking techniques, only by a very long fermentation of at least six months.
- **Tannins and Lectins** are irritating compounds that make digestion difficult. Proper preparation gets rid of tannins and lectins.
- **Complex Starches and Sugars** are hard for humans to digest. Proper preparation helps break them down.
- **Gluten** is hard to digest and even toxic for some people. Genuine sourdough fermentation breaks down gluten so that it doesn't cause digestive problems.
- **Cellulose** is impossible for humans to digest and needs to be broken down with proper preparation before consumption

Animals that live on grains, seeds and grasses have complex digestive tracts with two to four stomachs where these foods, with all their anti-nutrients, are neutralized by fermentation. But humans have only one simple stomach, designed to digest meat, not grains. All traditional societies instinctively understood that grains, legumes, nuts and other seeds required “pre-digestion” by soaking, fermenting or sour-leavening before consumption.

Many of the sour grain preparations consumed in traditional cultures are an acquired taste for Westerners, but there are several ways of consuming properly prepared whole grains that are acceptable to our tastes—even to children. Oatmeal soaked overnight in slightly acidulated warm water and then cooked, served with butter or cream and maple syrup, is delicious; once you taste real sourdough bread, all other bread will seem insipid in comparison. Brown rice can be soaked several hours before cooking. Nuts are high in enzyme inhibitors that can be neutralized by soaking in salt water. If consumed only occasionally in the context of a nutrient-dense diet, white rice and bread

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made from white flour (preferably sourdough), are easier to digest and actually better choices than rough whole grains that irritate the digestive tract.

One warning about modern grains: most grains today are sprayed with glyphosate (Roundup herbicide) just before harvest, to desiccate the stems and seed heads. Roundup can be very toxic, especially over time, so be sure to purchase organic grains and organic grain products like bread to avoid exposure to glyphosate as much as possible.

What about soy? Soy is a legume and like all legumes, contains many toxins. The problem with soy is that the normal technique for preparing legumes—soaking, rinsing and then cooking—is not sufficient to neutralize these toxins. Only a long traditional fermentation gets rid of the phytic acid, enzyme inhibitors, oxalic acid, lectins and other anti-nutrients in soy. In Asia, long fermentation techniques are used to make traditional foods like miso, natto and soy sauce. These foods are fine if eaten sparingly, but not in large amounts. Soy is also very high in plant types of estrogens, and these are not neutralized by fermentation. And foods containing industrially processed soy protein, soy protein isolate and soy protein concentrate contain both natural toxins and those created during processing. It's best to avoid all soy products except small amounts of naturally produced natto, miso and soy sauce.

### For further information:

#### Articles

- On grains:  
[westonaprice.org/vegetarianism-and-plant-foods/grains/](http://westonaprice.org/vegetarianism-and-plant-foods/grains/)  
[westonaprice.org/food-features/grains-food-features/](http://westonaprice.org/food-features/grains-food-features/)
- A Complete Guide to Soaking Nuts and Seeds: [blog.radiantlife.com/catalog.com/bid/69542/That-s-Nuts-A-Complete-Guide-to-Soaking-Nuts-and-Seeds?a=113614](http://blog.radiantlife.com/catalog.com/bid/69542/That-s-Nuts-A-Complete-Guide-to-Soaking-Nuts-and-Seeds?a=113614)
- Northern Roots of the Ancient Grains by Natalie Adarova:  
[westonaprice.org/health-topics/traditional-diets/northern-roots-of-the-ancient-grains/](http://westonaprice.org/health-topics/traditional-diets/northern-roots-of-the-ancient-grains/)

#### Wise Traditions Podcast [westonaprice.org/podcast/](http://westonaprice.org/podcast/)

- Episode 58: Principle 6: Should We Eat Grains? with Sally Fallon Morell
- Episode 250: Neutralize Anti-Nutrients with Sally Fallon Morell

#### Videos

- Grains, nuts and seeds:  
[westonaprice.org/category/video/grains-nuts-and-seeds/](http://westonaprice.org/category/video/grains-nuts-and-seeds/)
- Soaked Oatmeal with Sarah Pope: [westonaprice.org/proper-preparation-of-grains-and-legumes-video-by-sarah-pope/](http://westonaprice.org/proper-preparation-of-grains-and-legumes-video-by-sarah-pope/)

#### Recipes

- Bread and Flour:  
[westonaprice.org/category/our-blogs/recipe-of-the-week/breads/](http://westonaprice.org/category/our-blogs/recipe-of-the-week/breads/)
- Pancake Batter: [nourishingtraditions.com/pancake-batter/](http://nourishingtraditions.com/pancake-batter/)