## Grains and Seeds – Nutritional Considerations

Raw nuts, seeds, and whole grains are widely recognized as healthy foods, but unless they are prepared properly, they will not maintain their nutritional quality.

## Processing and Heating destroys nutrients.

- Grains that have been ground into flour and baked will have a higher glycemic index than a whole grain cereal or pilaf
- Grain cereal that have been made instant will have a higher glycemic index than the non-instant whole grain
- Refined white flour has been robbed of much of its nutritional value. The germ has been removed (along with essential fatty acids, minerals, and Vitamin E) and the husk has been removed (minerals, fiber). Now you have a low-nutrient, low-fiber, high-glycemic carbohydrate
- Hybridized grains are sugar enhanced grains with a higher glycemic index
- The roasting and processing of nuts destroys nutrients, usually involves the addition of unhealthy additives, and sometimes changes the structure of beneficial nutrients so they are not utilized
- Grains and seeds contain a substance called phytic acid in the bran or coating. This inhibits the
  absorption of important minerals, including minerals supplied by other foods. They also contain
  enzyme inhibitors that interfere with digestion. Soaking nuts, seeds, and grains in water for a
  minimum of 8-12 hours will neutralize the phytic acid and enzyme inhibitors.
- The highest quality grains are the primitive, whole grains such as spelt, kamut, buckwheat, amaranth, teff, quinoa, oats, barley, and rye. The next lower level of grains would include rice, wheat, millet and corn.

## **Meal Planning with Nuts and Grains**

- While grains are predominantly carbohydrate, some contain enough protein to be used as a source of protein in meal planning. Highest amounts of protein can be found in bulgar wheat, wild rice, teff, quinoa, amaranth, sprouts (sunflower, mung, alfalfa, chia, soy)
- Avoid combining heavy starches and heavy proteins in the same meal. A daily meal plan that supports healthy weight and energy would be a Protein based meal for breakfast, a carbohydrate or protein based meal for lunch, and a carbohydrate based meal for supper.
- A protein based meals should consist of 4-5 different vegetables and 4-5 different proteins.
- A Carbohydrate based meal could include a combination of fruits, or grains and vegetables. Try to avoid combining fruits and vegetables in the same meal.

## **Instructions for Soaking Grains, Nuts and Seeds** (use a glass bowl and clean pure water)

Grains: The biggest concern with grains is the phytic acid. It helps to use a bit of lemon juice or vinegar to make the water you soak them in slightly more acidic. This will help activate the enzymes that break down the phytic acid.

Nuts and Seeds: The biggest concern here is with enzyme inhibitors. Instead of adding lemon juice or vinegar to the water, add a bit of sea salt to help neutralize the inhibitors. A combination of nuts and seeds make a great addition to a protein based meal.