

## Whole Grains and Your Body

In a past newsletter we wrote about whole grain vs. white. Last month's newsletter was dedicated to the topic of whether whole wheat is the same as whole grain. Another important point we would like to draw attention to with the topic of whole grains is what they do for our bodies.

Millions of years ago humans consumed grains straight from the stalk, which means they not only ingested carbohydrates but a food rich in fiber, healthy fats, vitamins, minerals, plant enzymes, hormones and hundreds of other phytochemicals. With the age of industrialization came a milling process that allowed manufacturers to refine the wheat in order to extend the shelf life of their product. What may have been a great idea for the economy at the time may have come at the cost of affecting the human diet which we are now learning of its harmful effects. Milling strips away the bran and the germ, making the grain easier to chew, easier to digest and easier to keep without refrigeration (the healthy oils in the germ can turn rancid giving the grain an "off taste").

Health researchers are looking more closely at carbohydrates and health and are learning that the quality of the carbohydrates you eat is at least as important as the quantity. Eating whole instead of refined grains substantially lowers cholesterol, low-density lipoprotein (LDL, or bad) cholesterol, triglycerides and insulin levels.

It's important to keep in mind that consuming white, refined-grain products and just supplementing them with some extra fiber does not work the same as consuming the whole grain. Research suggests that the various nutritional components of whole grains work together to affect our health.

There is medical evidence showing that whole grains reduce the risks of heart disease, stroke, cancer, diabetes and obesity. Because of the phytochemicals and antioxidants, people who eat three daily servings of whole grains have been shown to reduce their risk of heart disease by 25 to 36%, stroke by 37%, Type 2 diabetes by 21 to 27%, digestive system cancers by 21 to 43% and hormone-related cancers by 10 to 40% (as cited by the whole grain council).

Whole grains are **digested more slowly** than refined grains, which keep blood sugar and insulin levels down. Because they are digested more slowly, it keeps the "fullness" feeling in your stomach longer, which will help **control weight**. Research also shows that they help **reduce the risk of Type 2 diabetes, heart disease and stroke**.

A study at Northwestern University Medical School in Chicago found that antioxidants in oats **cut cholesterol** by suppressing the molecules that make blood cells stick to artery walls. When these cells stick to artery walls and cause inflammation, plaque deposits build up and narrow the passageways where blood flows, leading to "hardening of the arteries". More than 40 studies, looking at 20 types of cancer have suggested that regularly eating whole grains **reduces cancer risk**. It is thought that whole grains may accomplish this by blocking DNA damage, suppressing the growth of cancer cells, providing antioxidant protection, and preventing the formation of carcinogens. The particular components of whole grains that may be protective include fiber, antioxidants including vitamins such as vitamin E and minerals such as selenium as well as various phytochemicals.

Resources:  
[Wholegraincouncil.org](http://Wholegraincouncil.org)  
[hc-sc.gc.ca](http://hc-sc.gc.ca)

## Fun Food Facts!



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"Ear" comes from the ancient word "ahs", which meant "husk of corn". The ear is the spiked part of the corn plant that contains kernels. The average ear of corn has 800 kernels.

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## Did You Know?

### Whole Grains

what they are...



nutrients that can be found in whole grains

- b vitamins
- fiber
- phosphorus
- magnesium
- & more!

where to get them...

- whole grain breads
- bagels
- cereals
- brown rice
- whole wheat pasta
- popcorn (minus butter and salt)
- barley
- quinoa

Cholesterol	0mg
Sodium	130mg
Total Carbohydrate	13g
Dietary Fiber	2g
Sugars	2g
Protein	3g

for every 10 grams of carbs there should be 1 gram of fiber

Justin Diabetes Center

A high-fiber food has 5 grams or more of fiber per serving; a good source of fiber is one that provides 3 grams of fiber per serving. Some of the best sources of fiber include:

- Grains (whole-grain breads & cereals, oat bran, brown rice and barley)
- Fruits & Veggies (apples, oranges, bananas, berries & pears; green peas, artichokes, baked potatoes with the skin)

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