

A Guide for making healthier choices

FOUNDATION STRATEGY # 3 - BE A "GRAIN GOURMET"

The main focus of this Foundation Strategy is a nutrient called Carbohydrates (or CHO's, for short). Carbohydrates are one of the six basic nutrients that your body requires each and every day to be healthy. (The other five basic nutrients are protein, fat, water, vitamins and minerals).

There are two main kinds of CHO's:

- Complex. Basically, these are starches. Grains (like wheat, oats or rye), breads, cereals, fruits and vegetables are found in this category.
- Simple. Basically, these are sugars including white (table) sugar, brown sugar and honey, to name a few examples.

Whether a CHO is complex or simple has to do with its molecular structure, but to understand the role that CHO's play in healthy eating, you don't need a chemistry lesson.

As a nutrient for your body, CHO's have three main functions:

- 1) They provide "ready energy" for many activities.
- 2) They can also act as an energy reserve – "stored energy" - called glycogen. Glycogen is stored in both your liver and your muscles. When you exercise, or do other types of physical activities, glycogen can be broken down to provide energy to your muscles.
- 3) Some CHO's are converted into other compounds (proteins and/or fats), which are then used for their functions within the body.

Generally, when you think of CHO's, think energy for your body.

CHO's = ENERGY

There are many different foods that provide CHO's –

- Breads, cereals (hot or cold), rice, and pasta. These foods are made from grains such as wheat, oats, rye, rice, barley, and so on.
- Vegetables and fruit also provide CHO's. Some vegetables like corn, potatoes, sweet potatoes and others are quite starchy; they are an excellent source of CHO's.
- Legumes (beans, peas and lentils) are also sources of CHO's. However, these foods are also good sources of protein and so they are generally part of the protein group of foods, which includes meat and fish as well.
- Many other not-so-nutritious foods such as cookies, cakes, and donuts also contain CHO's, but usually in the form of added sugar.

Although carbohydrates come mainly from the grains group and fruit and veggies group, this Foundation Strategy about being a "Grain Gourmet" is really about focusing on choosing healthier grains, breads and cereals. Not all grains, breads and cereals are created equal. Some are better than others when it comes to eating healthfully.

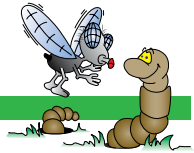
Now, let's get down to business. There are two main things you will need to focus on to become a "Grain Gourmet":

- 1) Choose whole grains, breads and cereals

What is a whole grain, you ask?

In order to understand the answer to this question, it will help you to know about processed grains (a.k.a. refined

A Guide for making healthier choices



grains). Let's use wheat as an example. Wheat is one of the most common grains in North America – much of our bread and cereals are made from wheat. Wheat grows in farmer's fields as a grassy-type plant; it has a long stalk with a large bundle of wheat kernels at the top. When breads or cereals are made from wheat, it is the wheat kernel that is used. The stalk (or stem) of the wheat is generally discarded; it is not used for food. In bread or cereal or other foods made with “whole” wheat, the entire kernel – the “whole” kernel - is used. It is usually crushed up so that it can be more easily blended into bread or cereal form. The whole kernel of wheat contains a lot of nutrients. First, it is an excellent source of CHO's. It is also rich in B vitamins and it is a good source of fibre. The kernel also contains some protein and several minerals. That's a lot of healthy stuff. Whole wheat bread is made with the whole-wheat kernel and so all of that healthy stuff is blended right into the bread.

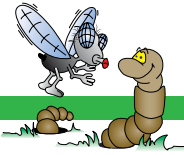
Now, when “white” bread is made from wheat, the kernel of wheat is processed or refined into white flour. When the kernel is processed, most of the nutrients in the whole kernel are removed. The bottom line is that the refined wheat is not as nutritious as the whole wheat. Many of the vitamins (such as the B vitamins) are removed, along with most of the fibre and most of the protein and minerals. Now, in order to try and make this refined white flour more nutritious, manufacturers add some vitamins back in along with some iron. In this way, the flour is labeled as being “enriched.” If you read the label on a loaf of white bread, you will see that it is made using enriched flour. So, what's the big deal, you ask, if the vitamins are added back in? The big deal is with the fibre. Whole grains contain more fibre than refined grains. That fibre is really good for you.

OK, so what's fibre?

Fibre is a natural part of all plant materials. There are two main types:

Insoluble fibre: This type of fibre promotes regularity. (in case you haven't figured it out by now, this really means that it makes you poop more regularly). In order to fully understand this, let's briefly look at how food is digested by your body. OK, you put the food in your mouth and it gets ground up by your teeth. You swallow it and it goes into your stomach where it is further broken down. From there, the food passes into your small intestine. This is where most of the nutrients (the protein, vitamins, minerals, fats, CHO's and so on) from the food are absorbed into your bloodstream. After the food passes through your small intestine, it enters your large intestine. In your large intestine, the food is further digested and broken down. At this point, what's left is basically waste, which can be toxic to your system. This waste sits there until your body eventually forms it into poop (or feces, if you want the technical term) and then the waste is eliminated from your body when you go to the bathroom. OK, let's say you ate a high-fibre meal that had lots of whole grains and vegetables on Tuesday. Once this meal was digested, it would probably be eliminated from your body by Wednesday at the latest. This is because of the fibre in the meal – it makes the food pass through your system more quickly. If you ate a meal low in fibre on Tuesday, it might not be eliminated from your body until Thursday or Friday, which means that for 2-3 days, the waste products from that meal (which are toxic, remember) just sit there in your gut, waiting to be eliminated. Simply put, think of insoluble fibre like a “cleaning brush” for your gut. It helps keep things moving through your system. This means a healthier digestive system. It's like being healthy from the inside out.

Soluble fibre: This is the second main type of fibre. Like insoluble fibre, it too is found mainly in whole-grains and vegetables. Unlike insoluble fibre however, soluble fibre can be digested and absorbed by your body. The benefit of soluble fibre is that it can play a role in keeping the levels of fat and cholesterol in your blood at a healthier level.



A Guide for making healthier choices

Table 1: Whole Grains vs. Refined Grains - Examples

WHOLE GRAIN	REFINED GRAIN
Whole wheat (e.g., whole wheat bread) – it should say whole grain right on the label	White bread, bagels, buns, rolls
Brown rice	White rice
Whole wheat pasta	Regular pasta
Plain Oatmeal (look for large flakes)	Soda crackers
Whole-grain breakfast cereals – examples below General Mills Cheerios®, Post Shredded Wheat®, Post Shreddies®, Kellogg’s Bran Flakes®	Refined-grain breakfast cereals – examples below Post Sugar Crisp®, Kellogg’s Froot Loops®
Whole-grain rye bread	White Hamburger buns
Whole-grain Multigrain bread	White Hot dog buns

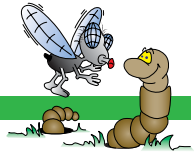
2) Choose 5 – 12 servings of grains, breads and cereals each day.

How many grain servings do you need then? After all, 5-12 is a pretty big range – how do you know if you should eat 5 servings or 9 servings or 12 servings? The answer really is that it depends on you. As you know, grains are excellent sources of CHO’s, which means that they are good sources of energy for your body. The number of servings you need each day really depends on how much energy you need to get through your day. If you aren’t very active – you know, you sit around a lot and your idea of exercise is getting out of bed – then you might only need 5 servings. Compare that to an athlete who plays sports or works out every day – that person will be using a lot more energy, and so 12 servings might be right for them. At your age, your body is growing, developing and changing. All this growth and development takes a lot of energy. You need to get this energy from the food you eat and whole grains are a great source for this energy. Just remember to eat them in balance and moderation with foods from the other basic food groups.

Table 2: Serving Sizes (this table shows examples of various serving sizes for some common whole-grain foods)

WHOLE-GRAIN FOOD	SERVING SIZE
Bread (whole wheat, whole rye)	1 slice
Bagel (whole wheat, whole-grain multigrain)	1/2 bagel
Brown rice (cooked)	approx. 1/2 cup (125ml)
Breakfast Cereals	approx. 1/2 - 3/4 cup (125-175ml) - check the label to be sure
Oatmeal – large-flake (cooked)	approx. 1/2 cup (125ml)
Whole-wheat Pita bread	1/2 pita
Whole wheat pasta	approx. 1/2 cup (125ml)

A Guide for making healthier choices



Lunchbox # 1: Processed (or refined) carbohydrates come in a variety of forms. There are many grains, breads and cereals that have been processed. Some examples include white bread, white rice, dinner rolls, white hot dog or hamburger buns, pre-made waffles and pancakes, English muffins, croissants, crumpets, grits, soda crackers, pasta (including things like macaroni, noodles and spaghetti), taco shells, tortillas, regular pita bread, biscuits and many breakfast cereals. With a few of these foods, especially breakfast cereals, a lot of sugar can be added. Many refined grain cereals are pre-sweetened with a sugary or honey coating.

Besides the many types of processed CHO's listed above, there are also a whole list of other processed CHO's that are nothing more than empty calorie foods. These include things like donuts, cakes, cookies, cupcakes, snack cakes, snack crackers, pretzels, chips, and other "snack"-type foods made from refined grains. Besides being processed CHO's, these foods may also contain excess added sugar or fat. Now, this section isn't meant to sound like a lecture about not eating these kinds of foods. The problem is that there are too many of these processed types of carbohydrates foods, many of which are high on empty calories and low on nutrition, in the daily eating of most young people. This can lead to excess amounts of sugar (and fat from many snack foods) being eaten, all at the expense of eating fewer whole grains. You should try to eat more whole grain foods like those from Table 1 listed above and fewer processed, empty calorie foods that are low on nutrients. This doesn't mean you can't eat them at all (after all, nobody could expect you to give up things like chocolate chip cookies!). However, it does mean choosing whole grains more often so that they become a regular part of your daily eating.

Lunchbox # 2: Besides the usual kinds of whole grains listed above, most of which come from wheat, rice and so on, there are other whole grains that can be alternatives to wheat. Many of these alternative grains are not commonly known. They are common in many other countries of the world and in some cases they have been used there since ancient times.

Here are a few of these alternative grains:

- Kamut (pronounced "ka-moot" - which has a sweet, nut-like flavor)
- Quinoa (pronounced "keen-wa")
- Spelt.
- Bulgur

They may not be available in your supermarket either, but check. You will most likely find them in a health food store or specialty grocery store along with ideas and recipes for preparing these grains.

In short, Be a Grain "Gourmet" - Choose health. Choose whole grains, breads and cereals more often.