POSITIVE PATTERNS FOR LIFE

Whole Foods Nutrition Manual

MANUAL CONTENTS

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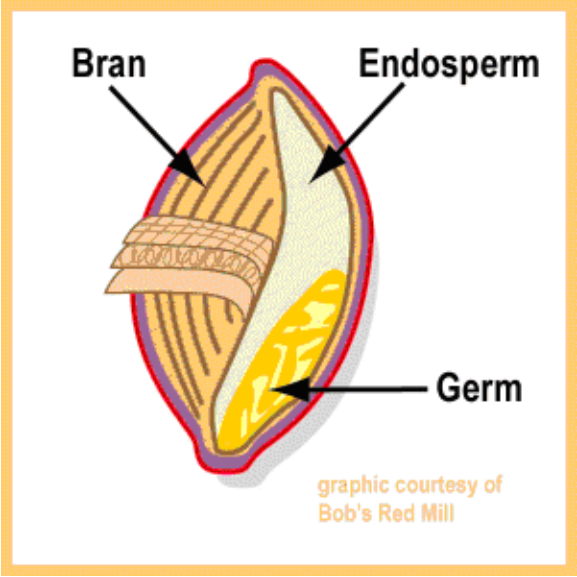
KEY NUTRITION TERMS DEFINED

[1] Whole Plant Foods … Vegetables, Fruit, Nuts, Seeds
Whole plant foods resemble their natural state. Whole plant foods provide slow-release energy. They are rich in vitamins, minerals and fiber. All these nutrients are needed to repair, rejuvenation, healing, and overall optimal functioning of the body and all its organ systems.

Whole plant foods may be eaten raw or may be minimally processed. Minimally processed whole foods are slightly altered by mechanical means (cutting, chopping, grinding) or by temperature (heating or freezing). For example, spinach leaves may be eaten raw or cut up or steamed. In all these forms it retains nutrients and mostly resembles leaves picked from a spinach plant.

If a whole food that is processed to the extent that its appearance and nutrient content are partially and/or completely changed, is no longer considered a whole food. For example, a baked potato is a nutrient dense food that looks like a potato. A potato chip is a damaged, nutrient depleted food containing unhealthy fats and excess salt. A raw apple is a nutrient dense food that looks like an apple. Apple juice has been stripped of its health-supporting fiber plus many of the vitamins and minerals are damaged during the juice extracting process. Apple juice does not look like an apple. Potato chips and fruit juice are not whole foods even though they came from whole foods.

[2] Whole Grains
Whole grains contain the entire grain kernel: [1] Bran – "outer shell" which protects the seed (contains fiber, B vitamins, trace minerals); [2] Endosperm (provides energy and a little protein); [3] Germ (supplies antioxidants, iron, magnesium, vitamin E, and B vitamins).



Some whole grains are eaten in their natural kernel state like rice, quinoa, corn, oats, barley, and millet. Most whole grains are ground up into flour and used to make baked good, whole grain chips, pasta, thickening for sauces, etc.

For most of the grains, that ground up into flour, the whole grain kernel is used. Whole grain flour typically will contain at least 2 grams of fiber per serving. Wheat and corn are the 2 exceptions. Refined wheat flours have many names. The 2 most common names are "white flour" or "enriched flour." Whole wheat flour products have only one name, "100% whole wheat." Corn flour that has been refined goes by the name "Denatured corn." You will notice on the nutrition label that the fiber content will be less than 2 grams per serving.

When refined grains are produced, only the endosperm is used. Look at all the wonderful nutrients that are missing when the bran and endosperm are not used to make flour.

[3] Vitamins
There are 13 major vitamins found in foods. They perform many important jobs in the body. Vitamins are involved with almost every process in the body and help it work more efficiently. Some vitamins help your body heal cuts and scrapes. Vitamin D helps make your bones strong. Vitamin C helps keep your immune system strong and helps your body fight off germs. Vitamin A helps your eyes stay healthy. B vitamins help your body use your food for energy. Whole grains are a good source of B vitamins.

[4] Minerals
Minerals are elements found in the earth and water that the body needs to perform hundreds of different body functions. Salt is important for water balance in the body. Magnesium is needed for over 300 different functions in the body including energy balance. Some minerals are important building materials for some tissues in our bodies, like calcium is a building block for our bones.

[5] Fiber
Fiber is the part of plants that can't be digested. Fiber aids in normal functioning of digestion (i.e. aids in proper gallbladder function, helps prevent constipation, decreases time intestines exposed to toxins, Promotes growth of friendly bacteria in colon, plus more). It helps a person feel satisfied after eating. Fiber helps you use the food you eat for energy, instead of storing it. It plays an important role in balancing energy levels in the body.

Fiber helps lower cholesterol and triglyceride levels in the body. High fiber foods have low glycemic index and decrease post-meal blood sugars. High fiber diets have been found to decrease risk for diabetes, heart disease, and colon cancer.

[6] Slow-release energy
Foods that provided slow-release energy, provide the body a steady supply of fuel for several hours after a person eats them. This is the type of fuel the body needs to keep energy levels balanced. The body rarely stores slow-release energy. Slow-release energy foods are loaded with nutrients. Slow-release energy is found in these plant-based foods - fruits, non-starchy vegetables, starchy vegetables, legumes, whole grains, nuts, and seeds. Protein rich foods (i.e. meat, fish, eggs) also provide slow-release energy for the body.

Low glycemic index is the medical term for slow-release energy. Medically speaking, foods with a low glycemic index, provide a slow steady rise in the blood glucose following the consumption of that food. In other words, they provide the body a steady supply of fuel (glucose) for several hours after a person eats a food with a low glycemic index.

[7] Refined foods
Refined foods are mechanically and/or chemically altered resulting in the removal of some or all of their health supporting nutrients. Often refined foods do not resemble their natural state

by the time the refining process is completed. Sugar is a great example. It typically is made from a sugar beet or sugar cane, yet it looks nothing like either one of these plants. Here are some examples of highly refined foods: soda pop, candy bars, donuts, sports drinks, nondairy coffee creamer, and roman noodles. Refined foods can still resemble the plant they came from, yet be stripped of many or most of their health-giving nutrients. Examples of this would be potato chips, white bread, minute rice, puffed rice cereal and dehydrated potato flakes.

[8] Quick-release energy

Quick-release energy foods dump a load of fuel (energy, glucose) all at once for the body to use. The body can't use a load of fuel all at once, so it uses some of the fuel for energy and puts the excess fuel into storage. Dumping loads of fuel on the body is stressful to the body. Over time, eating quick-release energy foods will damage health. Quick-release energy foods usually contain sugar and/or white flour like candies, cakes, cookies, pasties, white bread products, pasta, pies, and deserts. White rice, fruit juice and high fructose corn syrup are also quick-release energy foods.

The medical term for quick-release energy is high glycemic index. Medically speaking, foods with a high glycemic index, produce a quick spike in the blood glucose following the consumption of that food. These foods are typically a big problem for people with Type 2 Diabetes.

[9] Empty calories

A calorie is a measure of energy. Refined plant foods that mostly or only contain calories and lack health supporting nutrients (vitamins, minerals, and fiber), are called empty calories. Certain vitamins and minerals are needed in the process of digesting food. Empty calories actually require more vitamins and minerals to digest them, than they contain. In other words, they rob your body of precious vitamins and minerals in order to digest them. It is best to eat foods that add to your vitamin and mineral stores in your body.

[10] Carbohydrates

Carbohydrates are one of three macronutrients. They are a primary energy source in the diet. There are two types of carbohydrates - simple carbohydrates and complex carbohydrates. All carbohydrates are broken down during digestion into glucose, which is the body's useable source of fuel (energy).

Sugars are simple carbohydrates. There are several different types of sugars: 1) fructose in fruit; 2) lactose in milk products; 3) processed sugars like white sugar, corn syrup, high fructose corn syrup, etc.; and 4) other natural sources like honey, maple syrup, agave, etc. You might think that all sugar containing foods would be quick-release energy foods. But this is not true. Unsweetened dairy products and most raw fruit are slow-release energy foods.

Starchy foods are complex carbohydrates. Starchy foods include grains, legumes, starchy veggies. You might think that all complex carbohydrates are slow-release energy food. But this is not true. Refined grain products are quick-release energy foods.

[11] Protein
Protein is another one of the macronutrients. It provides the body with material for building muscles, tissues, blood cells, hormones and many other important substances. Protein is found in meats, eggs, dairy, fish, nuts and dried beans.

ORGANIC AND COMMERCIALLY GROWN FOODS

Did you know that some fresh produce is actually healthier than other fresh produce? We all know that fresh fruits and vegetables are some of the healthiest foods that we can eat. Organically grown fruits and vegetables are healthier than commercially grown fruits and vegetables. Chemicals like pesticides, herbicides and fertilizers are used to grow commercially produced fruits and vegetables. Many of these chemicals are toxic substances to the human body. Residues of some of these chemicals remain on fruits and vegetables after they are harvested and shipped to grocery stores. Organic produce is grown without the use of any chemicals. Organic produce contains higher levels of certain vitamins and minerals.

How can you tell if produce is organic or commercially grown? You will find the label "USDA organic" on organic produce. All other produce, without the organic label, is grown commercially. In other words, pesticides, herbicides and chemical fertilizers are used to grow produce the lacks the USDA Organic label.

Are there any commercially grown fruits and vegetables that contain higher levels of chemical residues? Yes, commercially grown produce does vary in the amount of chemicals that are used on it. In fact, there is a list of twelve fruits and vegetables that have been identified as containing the highest levels of chemical residues. These twelve fruits and vegetables are called the dirty dozen. It is especially important to buy these fruits and vegetables from the organic produce section at the grocery store. These dirty dozen are: apples, celery, cherry tomatoes, cucumbers, grapes, hot peppers, nectarines, peaches, potatoes, spinach, strawberries, and sweet bell peppers.

WHOLE FOODS IN THE 5 FOOD GROUPS

GRAINS (Starch Group)

The starch group provides most of the energy in a person's diet. There are three types of foods that make up the starch group: 1) Grains; 2) Legumes; and 3) Starchy Veggies. Americans get most of the starch in their diet from grains. Grains are also the food group that is the most abused of all the food groups. That is … many grain products are **refined [7]** and striped of valuable **vitamins [3]**, minerals and **fiber [5]**. When grains are striped of these important nutrients, they become an unhealthy **quick-release energy [8]** food. Refined grains are **empty calories [9]**. There is more bad news about refined grains. Unhealthy substances like sugar, high fructose corn syrup, trans fat, hydrogenated oils, and chemical preservatives are commonly added to these refined grains.

Healthy grains are **whole grains [2]**. Whole grains provide **slow-release energy [6]**, fiber, vitamins and minerals. Whole grain kernels can be ground up to make whole grain flour or the whole kernel of grain (i.e. brown rice) can be cooked in eaten.

Grains	Whole (at least 2 grams of fiber)	Refined (1 or O grams of fiber)	Serving Sizes
Wheat	Cracked Wheat Hot Cereal, Whole Wheat Pasta, Whole Wheat Flour Products (100% Whole Wheat Bread, Pancakes, Waffles, Crackers, Whole Grain Breakfast Cereal, Etc.)	Cream Of Wheat, Flour Or Wheat Flour Products (Bread, Crackers, Muffins, Pancakes, Breakfast Cereals, Waffles, Pastries, Cookies, Cakes, Etc.)	1 Slice of Bread ½ Hamburger or hotdog bun ½ Tortilla shell 1 Regular muffin ½ Large muffin ¼ Bagel ½ Cup Pasta 1/3 Cup Rice or other cooked whole grain kernels ½ Cup Oatmeal and other cooked whole grain cereals 1 Cup soup 3 Cups Popcorn
Corn	Tortilla Chips, Corn Pasta, Pop Corn, Corn On The Cob, Frozen Or Canned Corn, Corn Tortillas	Corn Meal, Degermed Corn Flour Products (I.E. Bugles, Corn Bread, Muffins, Etc.)	
Rice	Brown Rice, Brown Rice Cakes, Brown Rice Pasta, Brown Rice Flour Products (Bread, Crackers, Muffins)	White Rice, White Rice Flour Products (I Bread, Cereal, Crackers, Etc.)	
Oats	Oatmeal, Granola, Oat Flour Products (Bread, Muffins, Crackers, Breakfast Cereal, Etc.)		
Barley	Barley Kernels in Soup, Barley Flour Products (Bread, Crackers, Etc.)		
Millet	Cooked Millet Kernels, Millet Flour Products (Bread, Crackers, Etc.)		
Quinoa	Cooked Quinoa Kernels, Quinoa Pasta, Quinoa Flour Products (Bread, Crackers, Etc.)		
Rye	Rye Flour Products (Bread, Pancakes, Muffins, Waffles, Crackers, Etc.)		
Buck Wheat	Buck Wheat Flour Products (Bread, Pancakes, Muffins, Waffles, Etc.)		

Key Points to Label Reading

MULTI-SEED CRACKERS

Nutrition Facts

Serving Size about 15 Crackers (30g)
Servings Per Container about 4

Amount Per Serving	
Calories 140	Calories from Fat 45
	% Daily Value*
Total Fat 5g	8%
Saturated Fat 0.5g	3%
Trans Fat 0 g	
Cholesterol 0 mg	0%
Sodium 110 mg	5%
Total Carbohydrate 20g	7%
Dietary Fiber 2g	8%
Sugars 0g	
Protein 3g	

Vitamin A	0%	Vitamin C	0%
Calcium	6%	Iron	6%

*Percent Daily Values are based on a 2000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

INGREDIENTS: Brown rice flour, Sesame seeds, Potato starch, Quinoa seeds, Safflower oil, Flax seeds, Amaranth seeds, Tamari soy sauce powder, Maltodextrin, Salt.

Look here to see how big the serving size is.

Look here to see how many servings in this bag. If you eat the whole bag, you will get 560 calories.

Look here to find total amount fat per serving in the crackers. Try not to eat foods that have more than 1/3 of the calories from fat (33% of the calories from fat). These crackers have 31% calories from fat (140 divided by 45 = 3.1 X 10 = 31%).

Unnatural unhealthy highly processed form of fat that damages the body. Try to always avoid foods that have trans fat of any amount.

15 grams of Carbohydrate = serving size of starch. Twelve crackers would contain 15 grams of carbohydrates which would be the appropriate serving size.

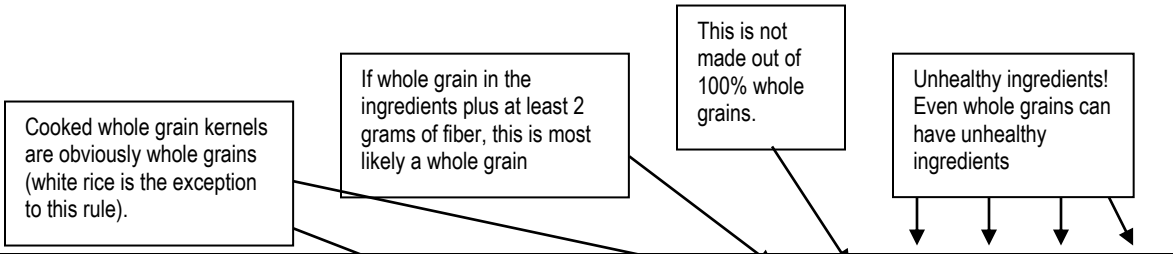
Look at grams of fiber to help you identify whole grains. Whole grains will have at least 2 grams of fiber per serving.

- Choose foods in their natural state or close to their natural state.
- When buying grain products, choose whole grains.
- Avoid buying food that has sugar or corn syrup listed as its 1st or 2nd ingredient.
- Avoid foods that have the following ingredients: Flour, White Flour, Wheat flour and Sugar.
- Steer clear of foods that contain High Fructose Corn Syrup, Trans Fats, or Hydrogenated oils.
- Avoid foods with chemicals listed as ingredients.

THIS IS THE FIRST OF 7 KITCHEN EXERCISES – FIND HEALTHY FOODS

All 7 of the kitchen exercises are basically completed the same way except you will be looking for foods from a different food group each time. Try to find as many different grain products in your kitchen as you can. Look for fiber, fats, sugars on the nutrition label and in the ingredients list. Use the chart below to list the grain products you find and key nutrients/ingredients found in these products.

The information in the boxes with arrows will help you decide if the grain products you find in your kitchen are healthy whole grains or unhealthy grain products. It is important to identify both healthy and unhealthy. You will want to keep your kitchen stocked with healthy foods and phase out the unhealthy foods. You will use the 7 kitchen exercises to complete your *Blue Print for a Healthier Kitchen* on page 20. The *Blue Print for a Healthier Kitchen* will help you come up with a plan to phase unhealthy foods out of your kitchen.



FIND HEALTHY WHOLE GRAINS FOR A HEALTHY KITCHEN **List Grain Products Here** Then put an "X" mark in each column that describes this product.	Whole grain kernel (i.e. rice)	Whole grains in ingredients	At Least 2 grams of fiber	0 – 1 gram of fiber	Trans fat	Hydrogenated oil in ingredients	Sugar in top 2 ingredients	High Fructose Corn Syrup
For Example: Brown rice	X	X	X					
Go back through the list of grain products you have found in your kitchen and highlight HEALTHY WHOLE GRAINS.								

LEGUMES (Starch Group)

Legumes are a **whole food [1]** in the starch group. They are a slow-release energy food that are a good source of protein and fiber. They contain iron, zinc, calcium and are rich in antioxidants. Plus, legumes are inexpensive and easy to prepare.

Legumes	Serving Sizes
Pinto Beans, Lima Beans, Red Beans, Navy Beans, Kidney Beans, Black Beans, Great Northern Beans, Mung Beans, Garbanzo Beans, Chickpeas, Adzuki Beans, Fava Beans, Black-Eyed Peas, Lentils, Green Peas, Split Peas And Soy Beans	1/3 Cup canned 1/3 Cup cooked dried beans 1 Cup Soup

FIND LEGUMES FOR A HEALTHY KITCHEN

List Legumes Here Then put an "X" mark in each column that describes this product.	Dried/Cooked	Canned	Trans Fat

Legumes are a healthy food. The only way to make legumes unhealthy is to add something unhealthy to them – like trans fat or hydrogenated oils.

When you finish finding legumes in your kitchen, go back through your list of legumes and highlight the healthy ones.

You will probably highlight every legume you found, unless you have refried beans made with hydrogenated oils.

STARCHY VEGGIES (Starch Group)

Starchy veggies are a whole food in the starch group. These are slow-release energy foods that are a good source of fiber, vitamins and minerals. Veggies in red font have a high glycemic index.

Starchy Veggies	Serving Sizes
Potatoes, Sweet Potatoes, Yams, Winter Squash, Taro Root, Turnip, Parsnip	½ Cup cooked

NON-STARCHY VEGGIES

Non-starchy veggies are a good source of fiber, vitamins, minerals and they contain a small amount of slow-release energy. These are good foods to take seconds on if you are still hungry at a meal.

Non-Starchy Vegetables	Serving Sizes
Asparagus, Artichoke, Beets, Broccoli, Cabbage, Carrots, Cauliflower, Celery, Collard Greens, Eggplant, Green Beans, Bell Peppers, Lettuce, Mushrooms, Okra, Onions, Snow Peas, Spinach, Summer Squash, Tomatoes, Zucchini	½ Cup cooked 1 Cup raw

FIND VEGGIES FOR A HEALTHY KITCHEN

List Veggies Here Then put an "X" mark in each column that describes this product.	Non-Starchy	Starchy	Raw	Frozen	Veggie Juice	Canned	Fried	40% of calories or more from fat

When you finish finding veggies in your kitchen, go back through the list and highlight the healthy ones. Veggies that are fried or are high in fat (40% of calories or more from fat) are unhealthy.

FRUIT

Most fruits are slow-release energy foods which is a good source of fiber, vitamins, and minerals. Fruits in red font have a high glycemic index. Fruits in fuchsia font have produce a high glycemic like effect when the recommended serving size is exceeded.

Fruit	Serving Sizes
Apples, Oranges, Bananas, Grapefruit, Lemons, Limes, Kiwi, Nectarines, Peaches, Pears, Plums	1 Piece
Berries – Cherries, Grapes, Blueberries, Raspberries, Strawberries	1 Cup of berries
Cut-up fruit – Cantaloupe, Watermelon, Honeydew melon	1 Cup of cut-up
Canned fruit – Pears, Pineapple, Peaches, Applesauce, Mandarin Oranges, etc.	½ Cup
Dried Fruit – Raisins, Currents, Dates, Cranberries, Cherries, Bananas, etc.	¼ Cup

FIND FRUIT FOR A HEALTHY KITCHEN

List Fruit Here Then put an "X" mark in each column that describes this product.	Raw	Frozen	Canned	Dried	Juice	No added sugar or corn syrup	Added sugar and corn syrup	Canned in heavy syrup

When you finish finding fruit in your kitchen, go back through the list and highlight the healthy ones. Fruits that are canned in heavy syrup can be made healthy if you drain all of the heavy syrup off the fruit. If you buy fruit juice, it should only have water, fruit juice and vitamins as ingredients (not sugar or corn syrup). However, only squeezed fruit juices would qualify as a health food.

DAIRY PRODUCTS

Dairy products are an important source of calcium which is a **mineral [4]** that is necessary for growing and maintaining strong bones and teeth. Calcium is needed for chemical reactions that take place within every cell in your body. Adequate calcium intake helps muscles throughout your body contract and relax properly, including your heart muscle. It increases energy levels and decreases blood pressure and cholesterol levels. These are just a fraction of the functions that calcium performs in your body.

Dairy products also provide some **protein [11]**. Natural cheese and unsweetened milk and yogurt are whole foods. Dairy products can contain large amounts of saturated fat, especially brick cheeses. When large amounts of saturated fat are eaten, it is harmful to the body. It is important to choose low fat (skim, fat-free, 1% fat) dairy products and limit the amount of brick cheese you consume on a daily basis.

NOTE – Cheese and sour cream are natural high fat foods. If you find a low-fat and/or fat-free cheese or sour cream, it is this way because of multiple unnatural ingredients that have been used to make it.

Dairy Products	Serving Sizes
Skim Milk, 1% Milk, No-fat or 1% fat Plain Yogurt	1 Cup (8 ounces)
Flavored Yogurt	¾ Cup (6 ounces)
Cheeses (American, Cheddar, Mozzarella, Ricotta, Swiss, Colby, etc.)	1 Ounce
Cottage Cheese 1% fat	½ Cup (4 ounces)

FIND DAIRY PRODUCTS FOR A HEALTHIER KITCHEN

List Dairy Products Here Then put an "X" mark in each column that describes this product.	Fat Free	1% Fat	2% Fat or more	50% or more of calories from fat	Sugar Added	Corn Syrup Added

When you finish finding dairy products in your kitchen, go back through the list and highlight the low fat, sugar-free and corn syrup free dairy products. If you have a low-fat and/or fat-free cheese or sour cream in your fridge, these go on the unhealthy list.

PROTEIN AND MEAT

Protein provides the body with material for building muscles, tissues, blood cells, hormones and many other important substances in the body. Red meat is an important source of iron and nuts are an important source of magnesium. Iron and magnesium are both important minerals for energy balance.

Fresh frozen and fresh raw meat, fish, seafood, and eggs that are cooked are whole foods. Processed meats and fish are not whole foods like hot dogs, lunch meat, fish sticks and chicken nuggets. These products have unnatural chemicals in the ingredient list and often have added fat. Breaded meat and fish are covered in white flour breading (quick-release energy) and are high in fat and salt.

Protein and Meat	**Serving Sizes**
Meat: Chicken, Turkey, Beef, Pork, Lamb, Buffalo, Elk, Deer, Cornish Game Hens, Pheasant, Grouse	1 Ounce
Fish: Salmon, Sardines, Scallops, Shrimp, Trout, Cod, Tuna, Tilapia, Crab, Lobster, Clams, Crawfish, Haddock	1 Ounce
Nuts & Seeds: Almonds, Cashews, Hazelnuts, Sunflower Seeds, Pumpkin Seeds, Sesame Seeds, Peanuts, Walnuts, Pecans, Pistachio, Brazilian	¼ Cup of Nuts or Seeds 2 Tablespoon of Nut or Seed Butter
Eggs (high quality protein)	1 Egg

FIND PROTEIN AND MEAT FOR A HEALTHIER KITCHEN

List Protein & Meat Here Then put an "X" mark in each column that describes this product.	Nuts or Seeds Nut or Seed Butters	Fresh Raw Meat/Fish	Raw Frozen Meat/Fish	Canned	Precooked	Chemicals in ingredients	Breaded	Added sugar or corn syrup	Added Fat

When you finish finding protein and meat in your kitchen, go back through the list and highlight the healthy protein. The first 3 columns are the healthiest sources of protein. Canned and precooked meat and fish can be healthy if you haven't checked any of the last 4 columns.

FAT

Fats are a dense concentrated energy source. It is also a very-slow-release energy. We need a little fat in our diet most every day. But we only need a little because it is a concentrated, dense energy. It is very VERY important to be respectful of the serving size on this very dense energy source.

We all need fat in our diet to survive. Fats have many important functions. Here is a list of some of those important functions:

1. We need fat for a healthy brain and nervous system. The solid weight of our brain is 60% fat. The insulation that surrounds all of our nerves is made of fat.
2. Fat is an important energy source.
3. Fat is needed for the absorption and transport our fat soluble vitamins – A, E, D, and K.
4. Fat provides protection and structure for internal organs.
5. Fat is needed for production of certain important hormones.
6. Fat helps regulate body temperature.
7. Fats help satisfy you after a meal.

Fat	Serving Sizes
Butter, Margarine without hydrogenated oil, Olive Oil, Sunflower Oil, Grape Seed Oil, Safflower Oil, Peanut Oil, Nut Oils, Coconut Oil	1 teaspoon
Salad Dressing, Cream, Mayonnaise, Cream Cheese, Sour Cream	1 tablespoon
Seeds, Nuts (Also count as an ounce of protein)	¼ cup
Peanut Butter, Sunflower Seed Butter, Almond Butter, Cashew Butter, etc. (Also count as an ounce of protein)	2 TBSP
Avocados and Yellow Cheese	1 ounce
Black and Green Olives	8 olives

DIFFERENT KINDS OF FATS

There are several different kinds of fats in our diets. Some fats are healthy and some are not. You need to learn about the various fats before you can understand how to make healthy choices concerning fats in your diet.

I. Unsaturated fats - there are two kinds of unsaturated fats - monounsaturated and polyunsaturated. It is important to eat oils in their unrefined state. These oils should be **cold pressed** or **expeller expressed** and it will be stated on the label.

A. Monounsaturated fatty acids – found primarily in nuts, avocados and olives. Good sources of monounsaturated fats are olive oil, canola oil, macadamia nut oil, oils from almonds, pecans, cashews, brazil nuts, and avocados. These fats are liquid at room temperature and stable when heated.

Functions of Monounsaturated fatty acids

1. They provide antioxidants like vitamin E and selenium;
2. They provide small amounts of healthy fats that help the body absorb fat soluble vitamins – A, E, D, and K;

3. They can help prevent and treat obesity, diabetes, heart disease, cancer, muscular skeletal pain and other inflammatory conditions;
4. Research shows they have a beneficial effect on cholesterol, blood clotting, inflammation and blood pressure.

B. Polyunsaturated fats - are called essential fatty acid because our body does not make these fats. These fatty acids are essential for maintaining health, so we need to eat these fats in our diet. These fats are liquid at room temperature. They are not stable when heated and they become rancid easily. It is best to store them in the refrigerator. There are two polyunsaturated fats that play key roles in our diets: omega 3 fats and omega 6 fats. The tendency of the American diet is to eat too much omega 6 fat and too little omega 3 fat. This has unhealthy consequences like increased inflammatory diseases. It has been determined that the healthiest ratio of omega 6 to omega 3 is a 4:1 ratio.

1. Omega 3 Fatty Acids

Omega 3 fatty acid is the healthy fat in fish oil and fax seed oil. **It is a proven fact that individuals who are deficient in Omega 3 fatty acid don't use their food for energy efficiently and store energy easy.** These fats are necessary for brain development, brain function, and emotional health. Best sources of omega 3 fats are flaxseed, hemp seed, chia seed and fish oil. Pumpkin seeds, walnut oil, and soy oil all contain omega 3 fatty acids but only in small amounts, ranging from about 3 to 15 percent.

Functions of Omega 3 Fatty Acids

a. They increase metabolic rate;
b. They increase transfer of oxygen throughout the body;
c. They help burn fat more efficiently;
d. They help keep cell membranes from becoming rigid – flexible cell membranes allow for more effective nutrient transfer;
e. They lower cholesterol and triglyceride levels;
f. They are necessary for brain development, brain function and emotional health;
g. They help reduce inflammation, swelling and pain;
h. They help reduce severity of allergic reactions;
i. They enhance kidney function and fluid balance;
j. They support healthy blood pressure and heart function;
k. They improve gastrointestinal function,
l. They produce smooth velvety skin;
m. They keep blood healthier by decreasing clot formation, keeping blood thinner and running smoother through veins. This increases the clearing of waste products from blood and increases nutrient delivery.

2. Omega 6 Fatty Acids

Best sources of omega 6 sunflower seeds, safflower, cotton seed, soy oil, corn oil, grapeseed oil, and poppy seed. Sesame seeds, peanut, and rice bran oil high in omega 6 and monounsaturated fat (between 40 – 48 percent). Walnut, pumpkin seed, and soy bean have small amounts of omega 3, ranging from 3 to 15 percent. Omega 6 fats have many of the same functions as Omega 3 fats. However Omega 3 fats produce more health benefits than the Omega 6 fats.

II. Saturated fats – found in animal products (meat and dairy) and tropical oils (coconut and palm oils). Saturated fats are solid at room temperature, stable when heated and safe to use for cooking. They are hard to break once they have been eaten and are sticky as they travel through the blood stream.

Animal fats eaten in excess are unhealthy. Choose lean cuts of meat. Cut fat off meat before cooking it. Choose low fat dairy products like skim milk, 1% milk, low fat cheese (mozzarella, swiss), low fat yogurt and low fat cottage cheese.

Functions of Saturated Fats

1. They make up about 50 percent of our cell membranes and give them stability;
2. They help our bones incorporate calcium into our skeletal structure;
3. They protect the liver from toxins like alcohol and certain medications;
4. They are necessary for the body to be able to utilize essential fatty acids;
5. They support healthy immune function.

III. Cholesterol – found in animal products plus the liver makes cholesterol. It is sticky and does not break down in the body. It is either used, eliminated or circulates in the blood stream, sometimes in excess.

Functions of Cholesterol

1. Healing salve within the body;
2. Precursor to certain hormones (sex and steroids);
3. Vitamin D is made as a result of cholesterol;
4. It protects our skin and makes it water resistant;
5. It is a component of our lining on our nerves;
6. It is a component of bile acids (special acids that help the body break down fats we eat);
7. It is needed for the production of serotonin (mood elevated hormone);
8. It plays an important role in maintaining the health of the intestinal wall.

IIII. Some types a fat damage our bodies and should be avoided.

1. Trans Fats (Hydrogenated Oils) – an unnatural fat produced by subjecting polyunsaturated fats to high temperatures and forcing hydrogen atoms onto the fatty acids to create a solid fat, like margarine. Trans fat are considered to be a bad fat and should be avoided.

Damaging Effects of Trans Fats (Hydrogenated Oils)
The body does not have an enzyme to break down trans fats. Omega 3 or omega 6 fatty acids are needed to clear trans fats from the body. Trans fats are harmful to our cell membranes when they are used for the building blocks of the cell membranes. They increase cholesterol levels and increase risk for cardiac disease. Trans fats increase insulin resistant and increase risk of developing diabetes. Trans fat blocks the utilization of essential fatty acids, causing many negative effects on the body including increased blood cholesterol, suppressed immune system, cancer, atherosclerosis, diabetes, obesity and many more.

2. Deep fat fried foods are unhealthy foods. Oils are damaged when they are heated to high temperatures and become unhealthy fats. They have a similar effect on the body as do hydrogenated oils. Deep fat fried foods are high fat foods. The body only needs a small amount of fat each day. High fat intake is unhealthy for the body and is one thing that can cause an energy overload and get the body's energy balance out of whack. Some examples of foods that are deep fat fried include potato chips, corn chips, French fries, breaded meats, breaded seafood, breaded fish, and donuts.

Pan fried foods can be high in fat. When pan frying foods, use only a small amount of oil. Avoid eating pan fried foods. Sautéed fresh vegetables typically do not absorb much fat because they don't need much time to cook and it only takes a small amount of oil to sauté foods.

FAT FINDING MISSION FOR A HEALTHIER KITCHEN

List Fats Here

Then put an "X" mark in each column that describes this product. You will need to read ingredients lists on the food labels of margarine, salad dressing, tartar sauce and mayonnaise to see what kind of fat (oils) are used to make these products.

	Fat from Dairy [Saturated Fat – Damaging in large amt]	Fat from Nuts, Avocado & Olives [Monounsaturated]	Fat from Fish Oil & Flaxseed Oil [Omega 3]	Fat from Seeds & Vegetables [Omega 6]	Fat from Coconut & Palm Oil [Healthy form of Saturated fat]	Trans Fat & Hydrogenated oil

When you finish finding fat in your kitchen, go back through the list and highlight the healthy fats. Basically the only unhealthy fat will be hydrogenated oils and saturated fat from dairy. Put a check mark in front of saturated fat from dairy to signify it is ok in small amounts.

A WORD ABOUT SUGARS

REFINED SUGAR IS HARMFUL TO THE BODY

1. Increases depression
2. Causes irritability, volatile moods, and hyperactivity
3. Decreases ability to concentrate
4. Temporary decreases IQ after sugar consumption – up to 40 point drop in IQ has been documented
5. Causes Brain Fog –
6. Brain fog young children can cause sensory deprivation
7. Promotes seizure activity

8. Increases insulin levels – high insulin levels damage blood vessels and puts the body into fat-storing mode
9. Increases insulin resistance
10. Increases appetite and stimulates overeating
11. Causes cravings for high fat, high sugar, low nutrient foods
12. Sugar is an addictive substance – it lights up the brain's dopamine pathways the same way drugs and alcohol do
13. Causes inflammation in the body – especially the gastrointestinal tract
14. Can cause an overgrowth of yeast in the intestines
15. Promotes the growth of harmful bacteria in the intestines
16. Suppresses immune function
17. Causes oxidative stress which damages mitochondria
18. Causes fatty liver [fat accumulation in the liver]
19. Sugar is the favorite food for most types of cancer

Sugar Glossary

There are many different kinds of simple carbohydrates (sugars). The following list of sweeteners are quick-release energy and should be avoided or only eaten in small amounts with foods containing protein, fat or fiber.

1. Brown sugar is cane sugar with a little molasses added to provide the brown color
2. Confectioners' sugar is white sugar that has been powdered.

3. Agave is a “natural” sweetener. However it is similar to high fructose corn syrup, and can range anywhere from 55-92% concentrated fructose, and the rest as glucose, depending on processing and the source of the plant.
4. Date sugar is derived from dates and is often touted as being a ‘healthy non-sugar’ to use as a sweetener, but it is a sugar and can have some of the same effects on the body as table sugar.
5. Fructose is fruit sugar. It also comes refined in a white powder form. It is sweeter than table sugar.
6. Granulated White Sugar (a.k.a. ‘table sugar’)
7. High fructose corn syrup contains about 42-55% fructose, with the remainder being glucose. Commonly used in refined foods and most soda pops. It spikes blood glucose levels quicker than white table sugar.
8. Honey
9. Malt Sugars – Some grains have been malted to produce a sweet syrup. These syrups have a distinct flavor, depending on which grains have been used in the malting process.
10. Maple syrup is the boiled down sap from maple trees.
11. Molasses – Sugar is refined by squeezing juice from beets or sugar cane. This juice is then boiled into syrup from which the sugar crystals are extracted. The remaining syrup is called molasses.
12. Rapadura is pressed cane sugar, but it has not been refined. It is darker in color and still has most of the minerals that are naturally found in cane sugar, otherwise lost in the processing of white, brown and raw sugars.
13. Raw Sugar – The residue left over after sugar crystals have been extracted and molasses.
14. Rice syrup is a sweetener made from processing rice. Though touted as being a more healthy option to other sweeteners such as table sugar, rice syrup is not very sweet, so more of it is needed in a recipe to achieve the same level of sweetness as sugar.
15. Sucanat is dehydrated juice from sugar cane.

This is a list of Calorie Free Sweeteners which do not affect blood glucose levels. But just because they are calorie free, does not mean that they are healthy to eat.

1. Aspartame (NutraSweet or Equal) – when broken down in the body it turns into a neurotoxin that can alter brain chemistry, affect mood and behavior, cause headaches and nerve dysfunction, and it is an appetite stimulant (makes you want to eat). Aspartame is the most common artificial sweetener in soda pop.
2. Maltitol, Sorbitol, Mannitol, Erythritol are sugar alcohols that are poorly absorbed. Safe to use but have side effects (gas and diarrhea) if you eat more than one or two servings.
3. Saccharin (Sweet N Low) – shown to cause cancer when consumed in large amounts
4. Splenda (sucrolose) – sugar with an attached chlorine molecule – tastes sweet but body can’t digest it. So far appears to be safe to use.
5. Stevia Powder – is an extremely sweet powder derived from a South American herb. Body is unable to digest it. It is very safe to use.
6. Tagatose (Naturlose) – a special milk sugar that is poorly absorbed. Safe to use.
7. Xylitol – made from the bark of a birch tree – safe to use.

BLUE PRINT FOR A HEALTHIER KITCHEN

Identify and write down unhealthy foods in your kitchen. Then write one or two healthy foods that could replace each of the unhealthy foods on the list. Each time you run out of an unhealthy food in your kitchen, replace it with a healthy food from your Blue Print for a Healthier Kitchen. After about a month most of the unhealthy foods in your kitchen will be replaced with healthy foods.

UNHEALTHY FOODS Leave these off your next grocery shopping list	**HEALTHY FOODS** Add these to your grocery shopping list	
Grains and Grain Products		
Starchy Veggies		
Meat		
Dairy		
Fats		
Do you have a few kinds of **fruits** in your kitchen? YES, Great! NO, Add to next shopping list.		
Do you have a few kinds of **non-starchy veggies** in your kitchen? YES, Great! NO, Add to next shopping list.		
Do you have any **legumes** in your kitchen? YES, Great! NO, Add to next shopping list.		

HEALTHY FOODS SHOPPING LIST

FRUIT

Frs/Fzn/Cnd

- ❍ ❍ ❍ Apples
- ❍ ❍ ❍ Bananas
- ❍ ❍ ❍ Blueberries
- ❍ ❍ ❍ Cantaloupe
- ❍ ❍ ❍ Cherries
- ❍ ❍ ❍ Grapes
- ❍ ❍ ❍ Grapefruit
- ❍ ❍ ❍ Honeydew melon
- ❍ ❍ ❍ Juice - Fruit
- ❍ ❍ ❍ Lemons
- ❍ ❍ ❍ Limes
- ❍ ❍ ❍ Kiwi
- ❍ ❍ ❍ Mandarin Oranges
- ❍ ❍ ❍ Nectarines
- ❍ ❍ ❍ Peaches
- ❍ ❍ ❍ Pears
- ❍ ❍ ❍ Pineapple
- ❍ ❍ ❍ Plums Oranges
- ❍ ❍ ❍ Raspberries
- ❍ ❍ ❍ Strawberries
- ❍ ❍ ❍ Watermelon
- ❍ ❍ ❍ _____
- ❍ ❍ ❍ _____
- ❍ ❍ ❍ _____
- ❍ ❍ ❍ _____

DRIED FRUIT

- ❍ Raisins
- ❍ Currents
- ❍ Cranberries
- ❍ Cherries
- ❍ Bananas
- ❍ _____
- ❍ _____

CONDIMENTS

- ❍ Catsup
- ❍ Mustard
- ❍ Salsa
- ❍ _____
- ❍ _____
- ❍ _____
- ❍ _____

STARCHY VEGGIES

Frs/Fzn/Cnd

- ❍ ❍ ❍ Corn*
- ❍ ❍ ❍ Peas**
- ❍ Potatoes
- ❍ Sweet Potatoes
- ❍ Yams
- ❍ Taro Root
- ❍ Turnip
- ❍ Parsnip
- ❍ _____
- ❍ _____

Winter Squash:

- ❍ Acorn
- ❍ Buttercup
- ❍ Butternut
- ❍ Carnival
- ❍ Hubbard
- ❍ Pumpkin
- ❍ Spaghetti
- ❍ _____
- ❍ _____

*Grain eaten like starchy veggies.
** Legume eaten like starchy veggies.

LEGUMES

Dry/Cnd

- ❍ ❍ Black-Eyed Peas
- ❍ ❍ Black Beans
- ❍ ❍ Garbanzo Beans
- ❍ ❍ Great Northern Beans
- ❍ ❍ Kidney Beans
- ❍ ❍ Lentils
- ❍ ❍ Lima Beans
- ❍ ❍ Mung Beans
- ❍ ❍ Navy Beans
- ❍ ❍ Pinto Beans
- ❍ ❍ Red Beans
- ❍ ❍ Split Peas
- ❍ ❍ _____
- ❍ ❍ _____

NON-STARCHY VEGGIES

Frs/Fzn/Cnd

- ❍ ❍ ❍ Asparagus
- ❍ ❍ ❍ Artichoke
- ❍ ❍ ❍ Avocado*
- ❍ ❍ ❍ Beets
- ❍ ❍ ❍ Bell Peppers
- ❍ ❍ ❍ Broccoli
- ❍ ❍ ❍ Cabbage
- ❍ ❍ ❍ Carrots
- ❍ ❍ ❍ Cauliflower
- ❍ ❍ ❍ Celery
- ❍ ❍ ❍ Collard Greens
- ❍ ❍ ❍ Eggplant
- ❍ ❍ ❍ Green Beans
- ❍ ❍ ❍ Juice - Vegetable
- ❍ ❍ ❍ Leaf Lettuce
- ❍ ❍ ❍ Mushrooms
- ❍ ❍ ❍ Okra
- ❍ ❍ ❍ Onions
- ❍ ❍ ❍ Snow Peas
- ❍ ❍ ❍ Spinach
- ❍ ❍ ❍ Summer Squash
- ❍ ❍ ❍ Tomatoes
- ❍ ❍ ❍ Zucchini
- ❍ ❍ ❍ _____
- ❍ ❍ ❍ _____

* 1 oz avocado = 1 serving of fat

HEALTHY SNACKS

Whole Grain Crackers

- ❍ _____
- ❍ _____

Whole grain snack bars

- ❍ _____
- ❍ Multigrain chips
- ❍ Corn chip
- ❍ Granola bars
- ❍ Brown rice cakes
- ❍ 100% dehydrated fruit

Other Healthy Snacks

- ❍ Trail Mix
- ❍ Protein bars
- ❍ _____
- ❍ _____

WHOLE GRAIN FLOUR PRODUCTS

Bread
- ❍ 100% whole wheat
- ❍ Oat
- ❍ Rye
- ❍ Multigrain
- ❍ _____
- ❍ _____
- ❍ Hamburger buns
- ❍ Hotdog buns

Bagels
- ❍ _____
- ❍ _____

Pasta
- ❍ Whole wheat
- ❍ Brown rice
- ❍ Quinoa
- ❍ Corn
- ❍ _____
- ❍ _____

Pancake / Waffles
- ❍ _____

Tortilla shells
- ❍ _____
- ❍ _____

Muffins
- ❍ _____
- ❍ _____

Breakfast cereal
- ❍ _____
- ❍ _____
- ❍ _____

WHOLE GRAIN KERNELS
- ❍ Brown rice
- ❍ Barley
- ❍ Cracked wheat cereal
- ❍ Millet
- ❍ Oatmeal
- ❍ Quinoa
- ❍ Popcorn
- ❍ _____
- ❍ _____
- ❍ _____

MEAT

Frs/Fzn
- ❍ ❍ Chicken
- ❍ ❍ Turkey
- ❍ ❍ Cornish game hens

Beef
- ❍ ❍ _____
- ❍ ❍ _____

Pork
- ❍ ❍ _____
- ❍ ❍ _____

Buffalo
- ❍ ❍ _____
- ❍ ❍ _____

FISH

Frs/Fzn/Cnd
- ❍ ❍ ❍ Cod
- ❍ ❍ ❍ Salmon
- ❍ ❍ ❍ Sardines
- ❍ ❍ ❍ Tilapia
- ❍ ❍ ❍ Trout
- ❍ ❍ ❍ Tuna
- ❍ ❍ ❍ Walleye
- ❍ ❍ ❍ _____

SEAFOOD

Frs/Fzn/Cnd
- ❍ ❍ ❍ Crab
- ❍ ❍ ❍ Crawfish
- ❍ ❍ ❍ Lobster
- ❍ ❍ ❍ Scallops
- ❍ ❍ ❍ Shrimp
- ❍ ❍ ❍ _____

DAIRY
- ❍ Skim or 1% Milk,
- ❍ Plain low-fat yogurt
- ❍ Low-fat flavored yogurt
- ❍ _____

Cheese
- ❍ Mozzarella
- ❍ Provolone
- ❍ Swiss
- ❍ String
- ❍ _____
- ❍ _____

OTHER PROTEIN
- ❍ Eggs

Nuts or seeds*
- ❍ _____
- ❍ _____

Nut or Seed butter*
- ❍ _____
- ❍ _____

* 1 oz protein & 1 fat serving

FAT
- ❍ Butter
- ❍ Margarine without trans fat or hydrogenated oil
- ❍ Olive oil
- ❍ Olives
- ❍ Coconut oil
- ❍ Creamy / oil salad dressing
- ❍ Mayonnaise
- ❍ Cream
- ❍ Cream cheese
- ❍ Sour cream
- ❍ _____
- ❍ _____

COOKING INGREDIENTS
- ❍ Whole grain flour
- ❍ Baking soda
- ❍ Baking powder
- ❍ Food starch
- ❍ Yeast
- ❍ _____
- ❍ _____
- ❍ _____

Spices / Seasonings
- ❍ _____
- ❍ _____
- ❍ _____

SUGAR-FREE DRINKS
- ❍ Mineral water
- ❍ Herb tea
- ❍ _____
- ❍ _____
- ❍ _____