

Special Report Number 5

**Carbohydrates
and
Our Body**

Carbohydrates and Our Body

How the Body Uses Carbohydrates from the Foods We Eat

PROTEINS that we eat are the building blocks of our cells (muscles, bones, skin, etcetera) while the carbohydrates are the body's primary source of fuel and energy. Although the human body uses fats as an alternative energy source, fats are not burned by the body as efficiently as carbohydrates. Any individual's energy level and performance ultimately declines when the body's supply of complex carbohydrates are lessened considerably.

When an individual performs low intensity and long duration exercises, the body uses up body fat for energy; however, during high intensity exercises, the body turns to carbohydrate (glycogen) as the main fuel source of choice.

This is the main importance of having carbohydrates in our daily food intake. Although some diet and fitness experts firmly advocate carbohydrate restriction as a sure-fire way to induce immediate fat and weight loss, it can not be sustained for a long time. Without carbohydrate or low amounts of carbohydrate in food, an individual is severely handicapped and limited in performing exercise, athletic performance and any sustained physical activity. Any intense activity burns up muscle glycogen very quickly which can only be supplied by high carbohydrate foods.

Types of Carbohydrates

Eating the correct quantity of high quality carbohydrate is very important. There are two basic types of carbohydrates: simple and complex carbohydrates which are further broken down into starchy and fibrous, refined and natural carbohydrates, high glycemic and low glycemic carbohydrates.

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Knowing which one is which is very important to achieve a healthy lifestyle and to keep fit; the secret lies in knowing the differences between the various types of carbohydrates, making the right choices and eating them in the right amounts at the right times.

Simple Carbohydrates

Also known as monosaccharides, these include fructose (fruit sugar), glucose (blood sugar) and galactose.

Complex Carbohydrates

Complex carbohydrates are also known as polysaccharides. They are formed when thousands of sugar molecules are linked together into long chains. Because they have longer chains, it logically follows that they take longer to break down and digest than simple carbohydrates. Complex carbohydrates are further broken down into the starchy and fibrous types.

Starch is the form of energy in plant products such as potatoes, cereals, grains, bread, pasta, rice, oats, wheat and beans. The human body is able to completely absorb and digest all the caloric energy from starches which are generally more calorie dense than their fibrous carbohydrates counterpart.

Fiber is the indigestible portion of plants which passes straight through our digestive tract without all the caloric energy being absorbed. Fiber gives bulk to intestinal contents, promotes healthy digestion and elimination of body toxins and wastes, speeds the passage time of food through the digestive tract and provides protection from gastrointestinal diseases and colon cancer. Eating fibrous carbohydrates reduces body fat because of their low calorie density property; people feel full almost immediately without any danger of over the established calorie limits.

This is the main reason why vegetables are at the top of the list of foods of dieters and weight loss programs.

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Carbohydrate Chart

COMPLEX CARBOHYDRATES			SIMPLE CARBOHYDRATES	
Fibrous	Starchy			
Natural Good Carbs	Natural Good Carbs	Refined OK Carbs	Natural OK Carbs	Refined Fattening Carbs
Artichoke	Yams	Whole Grain Bread	Fruit	White Sugar
Asparagus	Oatmeal	Whole Grain Bagels	Dairy	Corn Syrup
Green Beans	Barley	Pasta		Corn Syrup
Broccoli	Cream of Wheat	Whole Grain Cereals		Brown Sugar
Brussels Sprouts	Cream of Rye	White Rice		Honey
Cauliflower	Brown Rice	Whole Grain Muffins		Molasses
Spinach	Corn	Whole Grain Pretzels		Invert sugar
Zucchini	Sweet Potatoes	Low Fat/Low Sugar Breakfast Bars		Maple Syrup
Lettuce	White Potatoes	Low Fat/Sugar Free Cookies		Dextrose
Squash	Red Potatoes	Low Fat Potato Chips		Rice Syrup
Tomato	Rye	Low Fat Tortilla Chips		Levulose
Green/Red	Lentils	Low Fat		Turbinado

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Peppers		Crackers		Sugar
Mushrooms	Chick Peas	Cream of Rice		Beet Sugar
Cucumbers	Black Eyed Peas	Grits		Cane Sugar
Celery	Green Peas			Confectioner's Sugar
Carrots	Millet			
Bamboo shoots	Legumes			
Alfalfa Sprouts	Butter Beans			
Cabbage	Pinto Beans			
Eggplant	Kidney Beans			
Collard Greens	Garbanzo Beans			
Onions	White Beans			
Salad vegetables	Lima Beans			
Kale				
Okra				
Leeks				