Food Labels

Reading Between the Lines

Trying to put the right nutrients into the body is a difficult task in today’s consumer environment. It requires knowledge of the body’s daily needs in addition to what is actually in the different food sources that are routinely consumed. This is further complicated by foods that have been altered by manufacturing. To assist in making the task of identifying the nutrient composition of each food easier, the following text will attempt to clarify the language used for food descriptors and identify many of the misconceptions and pitfalls a consumer encounters while attempting to eat a healthy diet. The margin for error between perceived and actual nutrient consumption can be very high if some specific guidelines are not followed.

Most health conscious individuals assume that, for the most part, they are eating a balanced, healthy diet an effort is made to eat right. Most of the people in this group will honestly believe that for the majority of the time their diet is nutritiously sound. But when most diets are analyzed for nutrient content they are often much higher in sugar, fat, sodium, and calories than the consumer realizes. In addition most diets lack adequate fiber and appropriate amounts of vitamins and minerals.

In an attempt to help reduce this problem, Congress passed the Nutritional Labeling and Education Act in 1990. These regulations became mandatory for all processed foods in 1994. The goal of the labeling act was to increase awareness of consumers to the nutrients, or lack there of, contained in the foods they were eating. The primary objective of the legislation was to ensure that labels would be on most foods and provide consistent information about the nutritional contents. The FDA sets limitations to health claims that may appear on the label, as well as serving size, and specific terminology used on the label or in marketing.

Even in the face of these regulations many consumers fall prey to clever marketing and unsubstantiated nutritional trends. Before identifying the particular obstacles to improved nutrition, it is important to develop a clear understanding of what the “Nutritional Facts” really are. The formatted space on every label is called, conveniently enough, Nutritional Facts. It includes specific required information as well as optional information which can be included at the food-maker’s discretion. The following items, listed as amount per serving, must be included on the food label.

- Total Calories
- Calories from Fat
- Total Fat
- Saturated Fat
- Trans Fat
- Cholesterol
- Sodium
- Total Carbohydrates
- Dietary Fiber
• Sugars
• Protein
• Vitamin A
• Vitamin C
• Calcium
• Iron
• Food Allergens

Sometimes the food processor will add ingredients to make the food more appealing and marketable. For instance food labels may claim to have heightened nutrient quality because they are fortified or enriched. If a product is fortified, it means the nutrient was found in low quantities in the original food source, or was never there at all and therefore had to be added to the food product to make it a viable nutrient source. Milk, for example is often fortified with vitamin D in attempts to help children attain improved bone mineral density and mass. When a food is enriched it means the original food source contained the nutrient before the food was processed, but during the processing the nutrient was lost or reduced in the end product. Therefore it is necessary to add the nutrient back into the food source after the processing has occurred so the food is maintained as a viable source of the nutrient. Bread, for instance, is often enriched with B vitamins. A common trend for food makers is to add nutrients the general public recognizes as important to increase the product’s marketability. Cereals, dairy products, and even orange juice are fortified with iron, vitamin C, or calcium. This not only helps sell more of the food but can aid consumers in meeting their nutritional needs.

Most nutritional experts will agree that the recommendations for healthy eating behaviors are more of a measuring stick than an end-all reference value. For fifty years the intake standards for the United States were expressed as Recommended Daily Allowances (RDA). Today the RDAs still exist but they fall under the umbrella of a larger group of recommendations called the Dietary Reference Intakes (DRI). The DRI’s were established to serve four primary purposes; 1. To set intake recommendations for individuals; done through the RDA’s and Adequate Intake (AI) recommendations. 2. To prevent chronic disease; age specific intake recommendations. 3. Facilitate nutrition research and policy; Estimated Average Requirements (EAR) establish population-wide average requirements that researchers and nutrition policy makers use in their work. 4. Establish safety guidelines; Tolerable Upper Limits (UL) used to help consumers avoid over consuming nutrients through supplementation or fortified foods. The DRI values are established by a committee of American and Canadian nutrition experts who work in an ongoing process to determine the nutritional recommendations for good health. The decisions are intended to effectively meet the diverse nutritional needs of individuals and to assist future research and investigation by the scientific and medical communities. The values determined by the committee are based on the latest available scientific research and are updated in light of new, relevant findings. In addition, it is important to realize the values are recommendations for optimal and safe intakes that provide for a generous margin of safety and meet the needs of all healthy people in a specific age and gender group. The values are chosen in reference to specific indicators of nutrient adequacy.
including nutrient concentration, normal growth, and the reduction of health risks and disease. Therefore individual consumption and requirements may vary.

It should be fairly obvious that a number of factors ultimately determine the specific dietary needs of an individual. Due to different body sizes, genetic factors, and activity states, there may be significant variation in nutrient requirements between different people. To add further confusion, labels use a reference value expressed as Daily Values (DV) on the food labels. The values given on the food labels reflect the needs of the “average” person and are based on a 2000-2500 kcal/day diet. They indicate percentages of the total daily intake based on current Recommended Daily Allowances (RDA). They are intended to help people compare foods based on nutritional components. For instance, if the fat content were 13 grams, it would fulfill 20% of the fat requirement for the 2000 kcal diet (RDA 30% or 600 kcal/day). This can be misleading to consumers, especially persons who require more or less calories than the 2000 used as the reference value. Many people are confused about how the Daily Values are supposed to be used. Attempting to follow this method for regimenting food consumption would, for many people, be confusing and possibly ineffective. Instead for most people it is often wiser to use the nutrient content listed on the label to identify good sources of nutrients and modify the serving size for individual specific needs.

This may sound easy enough but serving sizes open a whole new area of confusion. Generally, consumers have no idea about how large a serving size really is. Rather they know portion sizes. The difference between the measured serving size listed on the label and a normal American portion size can vary significantly. A perfect example of this is seen at breakfast. The serving size for most cereals is 0.5-1.0 cup depending on weight. Most food bowls (and plates) allow for portions much larger than the designated serving size of the food products that are to be consumed. When individuals fill the food container with food the serving sizes double, triple, or quadruple. This causes many people to significantly over consume calories.

(Practical Example) Try this at home: measure the serving size on the label of your favorite cereal and place it in your favorite bowl. Laugh at the amount! Now add the necessary amount of cereal to meet your regular breakfast size serving. Measure how much cereal you end up with. Usually, it is three times the serving size on the label. The good news is you get three times the nutrients; the bad news is you also get three times the calories, fat, sodium, cholesterol, and sugar.

Another common situation that results in dietary-related issues is when we eat out. Restaurants create menus based on financial gain, not health attainment. Restaurant portions are not in accordance with the food label of a similar product. A steak dinner by label would be 3 oz. of steak, _ cup string beans, and _ cup potatoes. In a restaurant the actual meal would be 8-12 oz. of steak, _ cup of green beans, and 1 cup of potatoes. The fat and calories are very different in these two scenarios. Also, a restaurant is not under the same watchful eye as food producers, so they can call their entrees low fat, reduced calorie, etc. without meeting the criteria that are necessary for inclusion on the food labels.
Consumers often succumb to these pitfalls. Believing portions equate to the calories found in a single serving on the label, many people over consume calories. This practice routinely leads to daily over consumption and a positive caloric balance. Every time the positive balance adds up to 3500 calories, another possible one pound of weight gain may occur (3500 calories = 1 lb of fat energy).

In some cases the portions are driven by the assumption of healthy food sources. For example, fat-free foods are a common contributing problem for many people. People believe that if a food is low in or void of fat, it can be consumed in any amount without negative recourse. Fat-free does not mean calorie free. In many cases the calories removed with the fat are replaced with refined carbohydrates, which themselves can be problematic when consumed in large quantities. Consumers should become aware of all the components of the foods they eat to better meet their dietary needs.

Food labels attempt to help control these problems with limited success. For instance, if a label indicates a special health claim, it is subject to certain scrutiny. For a food label to make specific claims, it must contain at least 10% of the daily value of at least one of the following nutrients: protein, vitamin A, vitamin C, iron, calcium, or fiber. On the opposite side, if they exceed 20% of the daily value for total fat, saturated fat, cholesterol, or sodium, they cannot make any health claims.

Food descriptors also have to meet FDA standards. For specific claims to be made, the serving of food must meet requirements defined by the FDA. The following are examples of the most common descriptors:

- Low calorie means 40 kcal or less per serving.
- Calorie free means less than 5 kcal per serving.
- Low fat means a food has no more than 3 grams of fat per serving or per 100 grams of the food.
- Fat free means a food contains less than 0.5 grams of fat per serving.
- Low saturated fat means 1 gram or less of saturated fat per serving.
- Low cholesterol means 20 mg or less of cholesterol per serving.
- Cholesterol free means less than 2 mg of cholesterol per serving.
- No added sugar means no sugar or sweeteners added.
- Low sodium means less than 140 mg of sodium per serving.
- Very low sodium means less than 35 mg of sodium per serving.

Some food descriptors are not regulated and can be misleading. For instance, “Lite” can describe color. These descriptors can cause a consumer to believe the food is actually a much better a food choice than it actually is. To identify what nutrient content the product has, simply analyze the nutrients contained per serving size and how that serving size fits into the needs of the diet.

This information can be used to aid in the construction and maintenance of a healthy diet. Paying attention to what we put into our bodies is extremely important. To attain leaner
physiques, improved function, and lifetime health, it is important to follow a diet which is calorie controlled, rich in nutrients, and low in saturated fat and refined carbohydrates. Identifying problem areas is the first step to solving most diet obstacles. If the diet is monitored for calorie and nutrient intake it can better contribute to improved health.