

Tip the Calorie Balance.

This program focuses on:

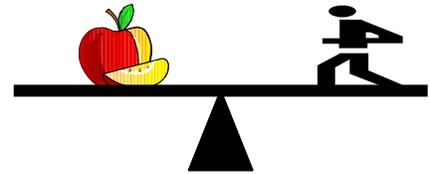
1. Healthy eating.
This includes eating less fat and **more vegetables, fruits, and grains.**
2. Being active.

Both relate to weight loss.

Both are part of the "calorie balance."

Calorie balance: The balance between the calories (energy) you:

- Take in by eating and
- Use up by being active.



When you eat food, you take in calories.

Calories in **food** come from fat, carbohydrate (starches and sugars), protein, or alcohol.

Fat is the highest in calories per gram.

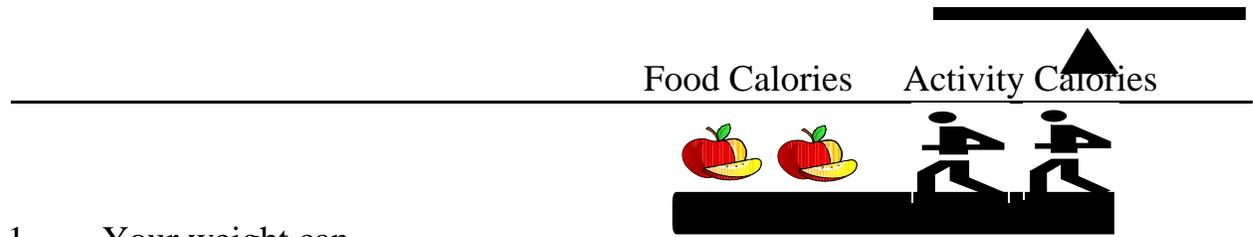
	Fat	Carbohydrate	Protein	Alcohol
Calories/gram	9	4	4	7

Calories also measure the energy you use up.

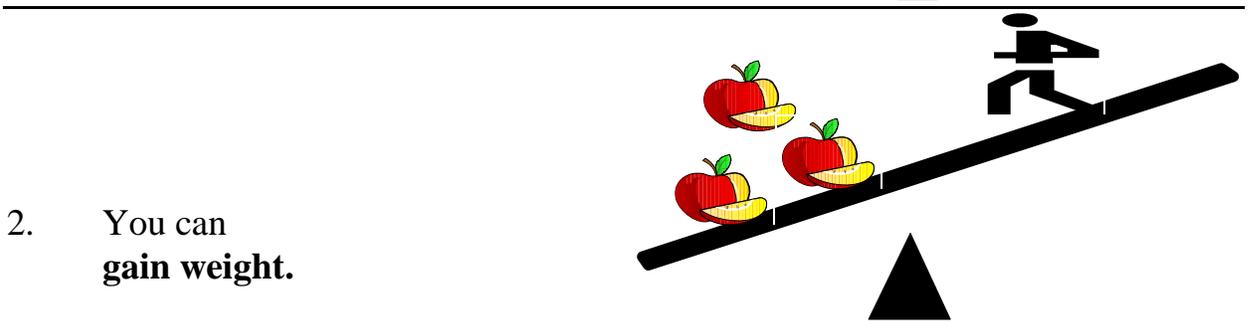
You use calories for just staying alive (like breathing) and by **being active.**

Rule of thumb:
1 mile of brisk walking (15-20 minutes) = About 100 calories

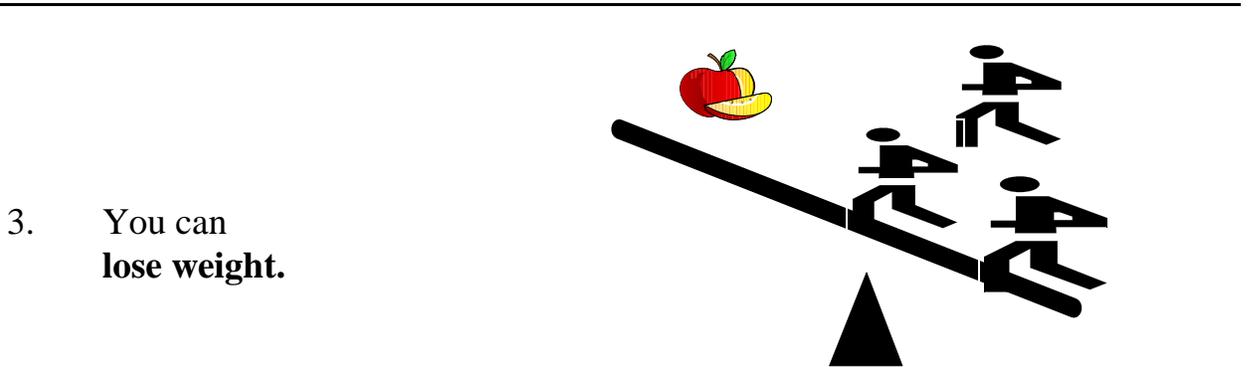
Your weight is a result of the **balance** between  food (calories in) and  activity (calories out).



1. Your weight can **stay the same.**

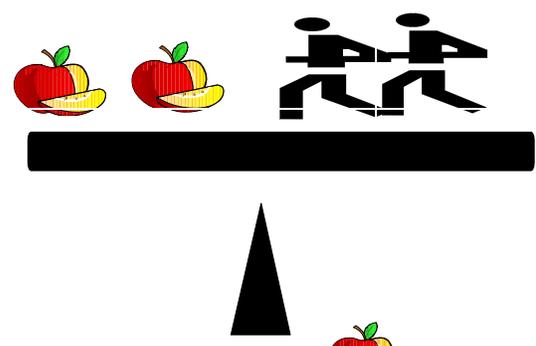


2. You can **gain weight.**



3. You can **lose weight.**

4. You can reach a **new balance at a new weight.**



Remember:

Food and being active work together.

To lose weight, it's best to eat less **and** be more active.
That way, you change both sides of the balance at once.



By TIPPING the balance...

⇒ **You can lose the weight you want.**

Then, over time, you can reach a new balance at a new, lower weight.

Make the changes part of your lifestyle...

⇒ **You will keep the weight off.**

How much to  the balance?

- ☞ 1 pound of body fat stores about 3,500 calories.
- ☞ Slow, steady weight loss (1-2 pounds/week) is the best way to lose body fat.

To lose:	Tip the balance by this number of calories:
1 pound/week	3,500 per week (or 500 each day for 7 days)
1-1/2 pounds/week	5,250 per week (or 750 each day for 7 days)
2 pounds/week	7,000 per week (or 1,000 each day for 7 days)

Again, for weight loss, it's best to eat less **and** be more active.

Ways to Eat Less Fat and Fewer Calories.

The three ways to eat less fat and fewer calories:

1. Eat high-fat, high-calorie foods *less often.*

Example: Don't eat French fries every day.

Have them only once a week.
(That's about 132 fewer grams of fat per week!)

2. Eat *smaller amounts* of high-fat, high-calorie foods.



Cutting back even a little on the amount you eat can make a big difference.

Example: At the salad bar, don't use the ladle to pour on salad dressing. Most salad dressing ladles hold 4 tablespoons (32 grams of fat for regular dressing!).

Instead, use a regular spoon from your place setting. Most hold 1 tablespoon or less.
(That's 24 fewer grams of fat!)

3. Eat *lower-fat, lower-calorie foods instead.*

See next page

Ways to Eat Lower-Fat Foods Instead	For example, instead of this food:	Fat (g)	Calories	Choose this food:	Fat (g)	Calories
Instead of high-fat foods, pick low-fat foods.	Potato chips, 1-ounce bag	11	161	Pretzels, 1-ounce bag 	1	108
Instead of high-fat foods, use low-fat substitutes.*	Regular margarine, 1 teaspoon	4	34	Low-fat margarine, 1 teaspoon	2	17
Find ways to lower the amount of fat in meats you eat.	Roast beef (chuck), untrimmed, 3 oz.	22	286	Roast beef (top round), trimmed, 3 oz. 	4	153
Instead of flavoring foods with fat, use low-fat flavorings.	Sour cream, 2 tablespoons (on baked potato)	6	56	Salsa, 2 tablespoons, on baked potato 	0	8
Avoid frying foods; use other healthier ways to cook.	Chicken breast, with skin, breaded, fried	24	439	Chicken breast, without skin, and grilled 	9	205

*** Warning:** Low-fat or fat-free products still contain calories. Be careful about how much you eat. In fact, some low-fat or fat-free products are *very* high in calories because they're loaded with sugar. Check the label.
For example: ½ cup nonfat frozen yogurt, 100 calories
½ cup regular ice cream (10-12% fat), 143 calories

Getting Started being Active.

Being more active will:



- ➔ Help you feel and look better.
- ➔ Make you more physically fit.
It will be easier for you to do your daily work, like climbing stairs.
- ➔ Help you lose weight and keep it off.
- ➔ Lower your risk for heart disease and some kinds of cancer. Being more active:
 - ➔ Raises HDL cholesterol (the “good” cholesterol or fat in the blood).
 - ➔ Lowers triglycerides.
 - ➔ Lowers blood pressure.
 - ➔ Lowers blood sugar by making the body more sensitive to insulin.

How active are you now? (Kind of activity, with whom, how often/long)

What activities did you do in the past?
Why did you stop?

What do you like or dislike about being active or being inactive?

	What I like about it	What I don't like about it
Being active		
Being inactive		

Types of Exercise:

We suggest **brisk walking**. It's easy to do and good for you.

Here are some other activities that are usually similar to brisk walking.

- Aerobic dance (high impact, low impact, step aerobics)
- Bicycle riding (outdoors or on an indoor, stationery bike)
- Dancing (square dancing, line dancing) Note: Be careful not to include breaks.
- Hiking
- Jogging (outdoor, indoor, treadmill)
- Karate
- Rope jumping
- Rowing (canoeing)
- Skating (ice skating, roller skating, rollerblading)
- Skiing (cross-country, Nordic Track)
- Soccer
- Stair Master
- Swimming (laps, snorkeling, scuba diving)
- Tennis
- Volleyball
- Walking (outdoor, indoor at mall or fitness center, treadmill)
- Water Aerobics

What F.I.T.T. stands for:	What to do:
F requency (How often you are active.)	<ul style="list-style-type: none"> • Try to be active on most days of the week (at least 4 days per week is recommended, 5 to 6 days are even better). • Increase activities slowly.
I ntensity (How hard you are working while being active: how fast your heart beats.)	<ul style="list-style-type: none"> • Breathe fast enough that you can talk but not sing. If you can break into song, speed it up! If you have trouble breathing and talking, slow down. • As you do regular activity over time, your heart won't beat as fast. You'll need to do more challenging activity to reach your target heart rate.
T ime (How long you are active.)	<ul style="list-style-type: none"> • Stay active for at least 10 minutes. • Slowly increase to 20 to 60 minutes. • Overall goal would be to reach 200 minutes per week of physical activity.
T ype of activity	<ul style="list-style-type: none"> • Heart fitness activities--those that challenge your heart. • Use large muscle groups (such as legs and arms). • Last 10 minutes or longer. <p>Example: Brisk walking.</p>

Remember:

- **Find an activity you like to do**
- **Start slowly and build up over time**
- **Check in with your doctor to be sure the activity is safe for you**
- **Consistency is key**
- **1 mile = 100 calories (whether you walk or run)**



The Low Carb Craze

Low carb products can be found everywhere today! What seems like overnight, food companies, sit-down and fast food restaurants are advertising their newest low-carb items to carb-conscious consumers who are following low carbohydrate diets. It has become more common for restaurants to have a section of their menu offering “Atkins-friendly” or “low carb” options, sometimes with an increase in price (compared to the regular item).

The definition of low-carb:

The Food and Drug Administration (FDA) has yet to define what the term *low carbohydrate* means. When reading a food label, terms such as low fat, low cholesterol, sugar free and high fiber are defined by the FDA in order for a food company to be able to use the phrase on their food products. So food shoppers must learn how to read the food label in order to identify the true carbohydrate content of products.

How Net Carbs or Impact Carbs are being calculated:

1. Look for the total carbohydrates in grams.
2. Subtract the grams of fiber from total carbohydrates.
3. Subtract grams of sugar alcohols from total carbs.*
4. This remaining number is the ***Net Carbs*** or ***Impact Carbs***.

Sugar-Free Chocolate Candy

Nutrition Facts	
Serving Size	5 Pieces
Servings Per Container	2
Amount Per Serving	
Calories: 180	Calories from Fat 130
Total Fat: 14 g	
Saturated Fat: 7 g	
Total Carb: 23 g	
Dietary Fiber: 3 g	
Sugars: 0 g	
Lactitol: 19 g	
Mannitol: 0 g	
Protein: 2 g	
NET CARBS: 1 g/serving	

*grams of glycerin are not specified but the manufacturer subtracts it from total carbs

Comment [D1]: Perhaps this should be squeezed in on the first page – also, what is NFP, and maybe because manufacturer is not used previously, it should read food producers or companies...



What are Sugar Alcohols?

Sugar alcohols (also called polyols) are a different form of carbohydrate that sweetens like sugar but results in less calories and carbohydrates being absorbed in the body. They are often used in foods such as sugar-free gum, candy, ice cream, frozen desserts and baked goods.

The controversy with Sugar Alcohols

Because sugar alcohols are not absorbed as well by the human body, these sugar substitutes contain just a portion of the carbohydrates and calories of sugar, so subtracting the total grams of sugar alcohols from the total carbohydrates is not an accurate reflection of the “net carbs” in a product. They can cause stomach upset and pain, cramping, and may have a laxative effect, particularly if consumed in a large amount.

Comment [D2]: Remove “as”

Blood Sugar Response

Sugar alcohols still raise blood sugar (because they do contain some carbohydrate), but the response is less than what would be seen from table sugar or other carbohydrates. This is good to know for people with diabetes or those trying to limit their carbohydrate intake.

How to spot sugar alcohols (polyols)

The sugar alcohols are included in the list of ingredients but are rarely listed on the Nutrition Facts Panel (the label found on the previous page). Sugar alcohols may be listed if the product is geared towards low-carb consumers or being sold as a low-carb product. Common sugar alcohols (polyols) listed on food labels include:

- erythritol
- isomalt
- lactitol
- maltitol (including maltitol syrups)
- mannitol
- sorbitol
- xylitol
- hydrogenated starch hydrolysates (polyglycitol, polyglucitol)

Problem with Net Carb Calculation:

Keep in mind that the Food and Drug Administration has not yet approved of a legal definition for *net carb*. The term “*net carb*” was made common by food companies. Labels using this term do not take into account the fact that sugar alcohols still add some carbohydrates and calories to the food in question – they contribute 0.2-3 calories/gram, compared to 4 calories/gram from sugar. Often times a low-carb product contains the same calories (which are what really matters for weight loss) as the product without the sugar alcohol, and can cost much more. This concept confuses consumers, who may think that low-carb means low-calorie, or will in some way help them to lose weight.

Comment [D3]: How about changing this to “add”

Comment [D4]: This is not consistent with what is mentioned above in “The Controversy with Sugar Alcohols” – perhaps the earlier section could read “these sugar substitutes contain some of the carbohydrates and calories of sugar...”



Reading the Labels:

Low carb products (especially the new products on the market that are trying to mimic old favorites like bread, cookies, cereals, chips, brownies, bars) often contain about the same number of calories per gram as the usual product..

For example, a slice (28 g) of Atkins Multi-Grain bread, at **\$0.31/slice** has 70 calories (2.5 cal/g), 7 grams of total carbs (3 grams of *net carbs*), and 2 grams of fat;

whereas, a slice (42 g) of Safeway Healthy Multi-Grain Bread, at **\$0.16/slice** has 120 calories (2.9 cal/g), 22 grams of total carbs (20 grams of *net carbs*), and 1.5 grams of fat.

By contrast, a slice (23 g) of Orowheat “Light” 100% whole wheat bread, which costs **\$0.17/slice** has 40 calories (1.7 cal/g), 9 grams of total carbs (4.5 grams of *net carbs*), and 0.5 grams of fat.

Food Bread	Serving size	Calories	Total Carbs (grams)	“Net Carbs” (grams)	Fat (grams)	Cost
Atkins Multi-Grain Bread	1 slice (28 g)	70 2.5 cal/g	7	3	2	\$4.99/450 g (16 oz) \$0.31/slice \$0.31/oz
Safeway Healthy Multi-Grain Bread	1 slice (42 g)	120 2.9 cal/g	22	20	1.5	\$2.49/680 g (24 oz) \$0.16/slice \$0.10/oz
Orowheat Lite 100% WW Bread	1 slice (23 g)	40 1.7 cal/g	9	5.5	0.5	\$2.79/ 450 g (16 oz) \$0.17/slice \$0.17/oz

Here is a look at cookies,

Cookies	Serving size	Calories	Total Carbs (grams)	“Net Carbs” (grams)	Fat (grams)	Cost
CarbFit Chocolate Chip Cookies	2 cookies (24 g)	110	12	7	8	\$0.40/cookie
Nabisco Chips Ahoy!	2 cookies (22 g)	106	15	14	5	\$0.09/cookie



And a look at breakfast cereals:

<i>Cereals</i>	Serving size	Calories	Total Carbs (grams)	“Net Carbs” (grams)	Protein	Fat	Cost
Atkins Crunchy Almond Crisp Cereal	2/3 cup (30 g)	100	8	3	15	1.5	\$0.55/svg
Post Honey Bunches of Oats with Almonds	2/3 cup (28 g)	115	22	22	2.6	2.2	\$0.22/svg

Another case of smart selling is in the advertising of beer! As an example, a 12-ounce bottle of *Miller lite beer* has 96 calories and 3.2 grams of carbs. A 12-ounce bottle of *Michelob Ultra Low Carbohydrate beer* has only one less calorie and about .5 gram fewer carbs. In addition, the low carb beer costs 12 % more!

Food Beer	Serving size	Calories	Total Carbs (grams)	Cost
Miller Lite Beer	12 oz bottle	96	3.2	
Michelob Ultra Low Carbohydrate Beer	12 oz bottle	95	2.7	12% more than Miller Lite

The bottom line with any weight loss/diet program is that the total number of calories in the food eaten has to be less than the total number of calories burned – this is why the “low carb” diets can result in losing weight.

FIBER FACTS AND FABULOUS FIBER FOODS

What Grandma called roughage, scientists know as fiber. But just what is this stuff and why the interest in the first place? Let's start with the basics.

What is Dietary Fiber?

- Fiber is not a single food or substance. It is the portion of plant foods that gives structure to plants.
- Fiber in itself has no calories because the body cannot absorb it.
- There are two main forms of fiber that can be divided into two categories according to their physical characteristics and effects on the body—water soluble and water insoluble.
- Water-soluble fiber attracts water and turns to gel during digestion. Soluble fiber can be found in fruits, vegetables, seeds, oat bran, dried beans, oatmeal, barley and rye.
- Water insoluble fiber adds bulk to or softens stool. Fruits, vegetables, wheat bran, brown rice, and whole grain breads, cereals and pasta are good sources of insoluble fiber.

Fiber and Weight Loss

No clear relationship has been demonstrated between the treatment for obesity and dietary fiber. However, fiber can be a weight watcher's friend for the following reasons:

- High fiber foods are generally low in calories and fat. Just be careful with preparation method. There is clearly a big difference between broccoli doused with butter or cheese sauce versus steamed broccoli with lemon juice and herb seasonings.
- Many high fiber foods take longer to chew and therefore may make you feel more satisfied. Think of the difference between taking the time to peel and eat a fresh orange versus drinking the same amount of orange juice. Chances are, you would feel full longer after having had an orange than you would after having a glass of orange juice.
- Because high fiber foods have more bulk they make you feel full and less likely to overeat during the course of the day.



Fiber and Disease Risk Reduction

The “regularity” effects of fiber are usually not a hot topic in the field of fiber research. It the relationship of fiber to diseases such as colon and breast cancer, heart disease and diabetes that make the news.

The problem is researchers are often faced with conflicting evidence and the link between diet and most diseases is extremely complex. Following is a brief summary of the relationship of fiber to cancer, heart disease and diabetes.

Cancer

The idea that fiber protects against colon cancer was first proposed many years ago when researchers found that Africans who ate diets very high in fiber had a low incidence of colon cancer. Since then dozens of studies have supported the protective role of fiber.

However, a January 1999 report in the New England Journal of Medicine called into question this idea that a high fiber diet protects against colon cancer. This report was based on a segment of the ongoing Nurse’s Health Study, which for 16 years has examined the diet and health risks of more than 88,000 nurses. The study found that women who had the highest fiber intake (more than 25 grams daily) as opposed to those with the lowest (less than 10 grams), gained no protection against colon cancer.

A similar story is true of the relationship between fiber and breast cancer. Studies have supported that women who ate more fiber were less likely to get breast cancer, but it is not clear whether the fiber, the beta-carotene, vitamin C or phytochemicals (substances in plants that may act as antioxidants) may have reduced the risk.

Cardiovascular Disease

The role of fiber in the prevention and treatment of cardiovascular disease is related to its effect on blood cholesterol levels. Foods that are rich in the “gummier” soluble fibers (oat bran, psyllium, beans, pectin and guar gum) all appear to lower cholesterol.

The question of how much you can expect your cholesterol level to fall is still not clear. It depends on how much fiber you eat and your initial cholesterol level (the higher it is, usually the bigger the fall).

Diabetes

A low fiber diet may increase the risk for diabetes because such diets are usually more calorie dense and promote obesity. Obesity is associated with an increased risk of adult-onset diabetes.

Fiber also has a role in the treatment of diabetes because it slows the absorption of blood sugar.

How Much Fiber Is Enough?

Although fiber is not considered an essential nutrient, the U.S. Surgeon General and many professional health organizations recommend a diet containing 20 to 35 grams of fiber a day. The average American diet barely consumes half this amount with an intake of 10-15 grams daily.

The Food Guide Pyramid recommends enough fruit, vegetables and grain servings to meet a person's fiber requirements if a variety of foods from each group are eaten and the grains are whole grains as opposed to processed grains.

Tips To Increase The Amount of Both Kinds of Fiber

- _ Choose fresh fruit or vegetables instead of juice.
- _ Eat the skin and membranes of cleaned fruits and vegetables.
- _ Choose bran and whole grain breads and cereals daily.
- _ The only way to know if the product is whole grain is to read the label. If the first ingredient is whole-wheat flour, oats, brown rice, or whole-rye flour, you are getting what you need.
- _ Do not be fooled by the following words: Enriched, stone ground, multi-grain, 7-grain, organic or unbleached. These products may contain little or no whole grains.
- _ Increase your fiber gradually to avoid unpleasant symptoms.

SOLUBLE AND INSOLUBLE FIBER IN VEGETABLES, FRUITS, AND NUTS

		INSOLUBLE (g)	SOLUBLE (g)
Vegetables	Amount		
Artichoke	1 globe	1.8	4.7
Asparagus	½ cup	1.1	0.7
Broccoli	½ cup	1.4	1.4
Cabbage	½ cup	1.0	1.2
Cauliflower	½ cup	1.4	0.6
Celery (raw)	½ cup	0.7	0.4
Collard greens	½ cup	0.2	1.1
Eggplant	½ cup	0.9	0.3
Spinach	½ cup	0.5	2.2
Fruits			
Apple (with peel)	1 medium	2.8	1.0
Blackberries	1 cup	5.8	1.4
Grapefruit	1 medium	0.5	2.3
Orange	1 medium	1.3	1.8
Pear (with peel)	1 medium	1.8	2.2
Prunes (dried)	½ cup	2.7	3.1
Raspberries	1 cup	7.5	0.9
Strawberries	1 cup	0.9	3.4
Nuts			
Almonds	½ cup	5.8	0.6
Peanuts	½ cup	4.9	1.3

GREAT GRAINS



Amaranth: Slight pepper taste, high in protein. Flour used in breads, cakes, pancakes. Seeds used in breakfast cereals, pilaf, porridge.

Barley: Chewy with nutty flavor. Add to stews, casseroles, or soups. Available in quick cooking form, also.

Brown rice: Nutty flavor, soft texture. Chewier than white rice. Use in side dishes, casseroles, pilafs, desserts, as a salad base. Available in quick cooking form, also.

Buckwheat groats: Nutty flavor, soft texture. If roasted called “kasha” (stronger flavor). Buckwheat flour is used in pancakes. Makes a good pilaf alone or mixed with rice or bulgur.

Bulgur: Nutty flavor, chewy texture. Is wheat that’s been hulled, steamed, dried, and cracked into small pieces. Use it like rice or as a cereal.

Couscous: Slightly nutty, bland flavor. Is finely cracked wheat that has been steamed and dried. Serve it like rice or as a breakfast cereal.

Millet: Sweet, nutty flavor, chewy texture. Use like rice or as a breakfast cereal. Good served with spicy dishes. (Also used in birdseed!)

Quinoa: Sweet, nutty flavor. Light and fluffy with a pleasant crunch. Use it like rice or as a breakfast cereal.

Oat Bran: Outer layer of grain. Lighter and finer than wheat bran. Used as a breakfast cereal.

Triticale: A cross between wheat and rye. More complete protein than soybeans! Nutty flavor. Comes as a flour (for baking), a flake (use as a breakfast cereal), or a berry (use as pilaf or add to soups).

Wheat bran: Rough outer covering of wheat kernel. During milling, bran is removed from kernel. Typically used to add flavor and fiber to baked goods.

Wheat berries (groats): Nutty flavor, chewy texture. Unprocessed whole wheat kernels (when ground, they make whole wheat flour). Use in salads or baking (adds texture).

Wild rice: Nutty flavor and firm chewy texture. Rare and difficult to grow. Expensive. Use in side dishes, pilafs, salads, stuffing, and casseroles. Mix with white or brown rice.

COOKING GRAINS



1. Bring water to a boil. (See amounts below)
2. Add the grain. Return the water to a boil.
3. Cover and reduce heat. Simmer until tender. (See times below)
4. Remove from heat. Let stand covered. (See times below)

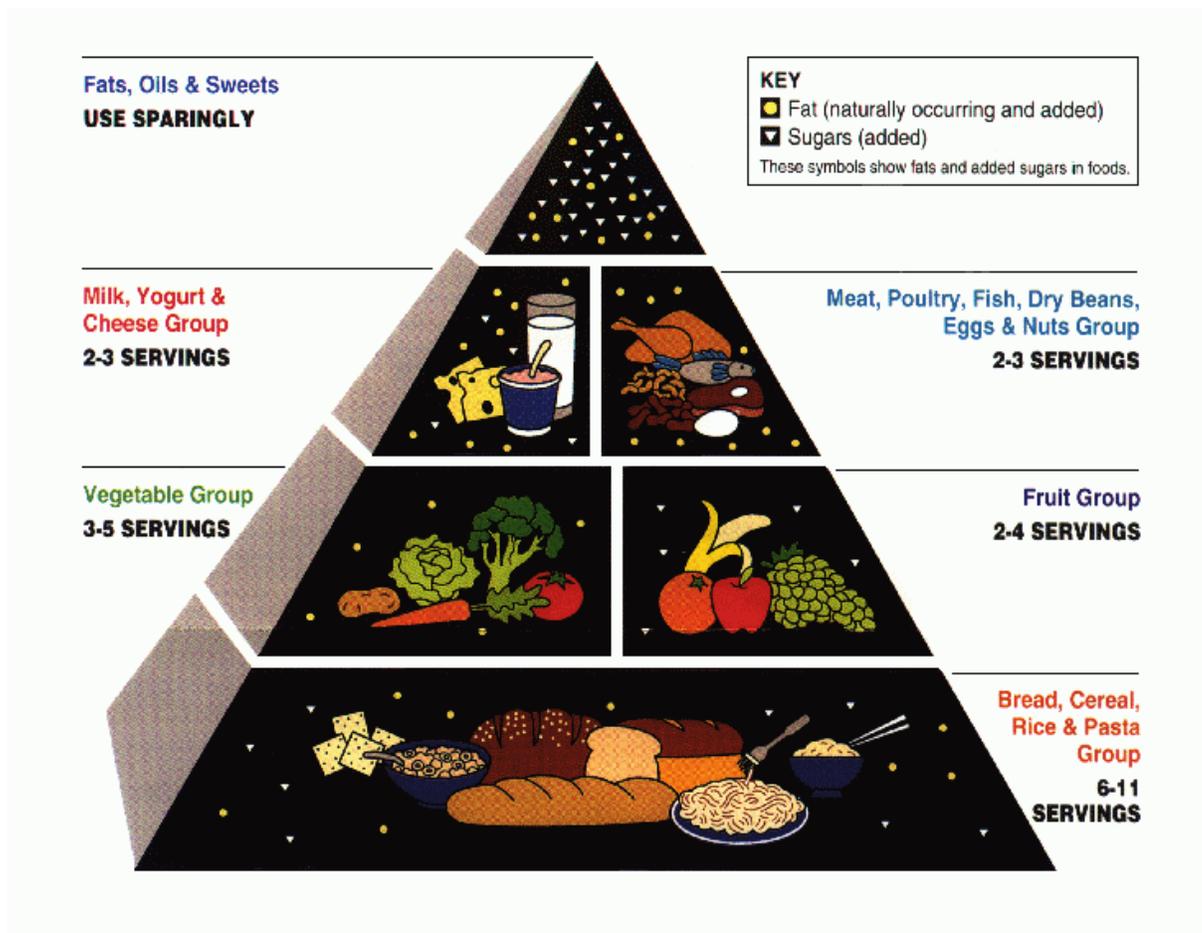
Grain (1 cup)	Water (cups)	Simmer for:	Let stand for:	Makes (cups):
Amaranth	3	25 min.	0 min.	2
Barley (pearl)	3	50 min.	10 min.	3 ½
Brown rice	2 ½	45 min.	10 min.	3 ½
Buckwheat groats	2	12 min.	5 min.	2
Bulgur	2	15 min.	5 min.	3
Couscous				
Millet	2	25 min.	5 min.	3 ½
Quinoa	2	15 min.	5 min.	3
Oat bran			5 min.	
Triticale**	2 ¼	1 ¾ hours	10 min.	2
Wheat berries**	3 ½	1 hour	15 min.	2
Wild rice	2 ¼	45 min.	10 min.	2 ½

* Put couscous in a bowl. Add boiling water. Cover. Let stand.

** Soak overnight before cooking.

Food Guide Pyramid

The Food Guide Pyramid shown below is a visual representation of the basics for healthy eating. Let's consider several points about the Food Guide Pyramid:



1. The Pyramid consists of six different food groups, and each one is important. So, a healthy diet contains a variety of foods.

2. The Pyramid indicates that some foods should be eaten more frequently than others. Notice that the bottom three groups take up much more space in the Pyramid than the top three groups. The base of the pyramid consists of bread, cereal, rice, and pasta; so a healthy diet will need to include plenty of these foods. Moving up the Pyramid, the next two groups, fruits and

vegetables, complete the three mainstays of a healthy diet. The top three groups in the Pyramid should be eaten less frequently but are still an important part of healthy diet.

3. To help you select a healthy diet, the Pyramid recommends a number of servings from each group, based on your total number of calories for the day. Since you're planning to eat fewer than 2000 calories a day, you'll need to eat the smaller number of servings suggested by the Pyramid.

The following chart lists various foods in each group and provides examples of what a serving size is.

<u>Food Group</u>	<u>What Counts as a Serving (includes additional items)</u>
<u>BREAD, CEREAL, RICE & PASTA</u>	
<i>GENERALLY:</i>	1 slice of bread
	1/2 hamburger or hot dog bun
	1/2 english muffin or bagel
	1 small roll, biscuit, or muffin (about 1 ounce each)
	1/2 cup cooked cereal
	1 ounce ready-to-eat cereal
	1/2 cup cooked pasta or rice
	5 to 6 small crackers (saltine size)
	2 to 3 large crackers (graham cracker square size)
	<i>SPECIFICALLY:</i>
3 medium hard bread sticks, about 4-3/4 inches long	
9 animal crackers	
1/4 cup uncooked rolled oats	
2 tablespoons uncooked grits or cream of wheat cereal	
1 oz uncooked pasta (1/4 cup macaroni or 3/4 cup noodles)	
3 tablespoons uncooked rice	
1 7-inch flour or corn tortilla	
2 taco shells, corn	
1 4-inch pancake	
9 3-ring pretzels or 2 pretzel rods	
1/16 of 2-layer cake	

	1/5 of 10-inch angel food cake
	1/10 of 8-inch, 2-crust pie
	4 small cookies
	1/2 medium doughnut
	1/2 large croissant
	3 rice or popcorn cakes
	12 tortilla chips
<u>FRUITS</u>	
<i>GENERALLY:</i>	a whole fruit (medium apple, banana, peach, or orange, or a small pear)
	grapefruit half
	melon wedge (1/4 of a medium cantaloup or 1/8 of a medium honeydew)
	3/4 cup juice (100% juice)
	1/2 cup berries, cherries, or grapes
	1/2 cup cut-up fresh fruit
	1/2 cup cooked or canned fruit
	1/2 cup frozen fruit
	1/4 cup dried fruit
<i>SPECIFICALLY:</i>	5 large strawberries
	7 medium strawberries
	50 blueberries
	30 raspberries
	11 cherries
	12 grapes
	1-1/2 medium plums
	2 medium apricots
	1 medium avocado
	7 melon balls
	1/2 cup fruit salad, such as waldorf
	1/2 medium mango
	1/4 medium papaya
	1 large kiwifruit
	4 canned apricot halves with liquid
	14 canned cherries with liquid
	1-1/2 canned peach halves with liquid
	2 canned pear halves with liquid
	2-1/2 canned pineapple slices with liquid
	3 canned plums with liquid
	9 dried apricot halves
	5 prunes
<u>VEGETABLES</u>	
<i>GENERALLY:</i>	1/2 cup cooked vegetables
	1/2 cup chopped raw vegetables

	1 cup leafy raw vegetables, such as lettuce or spinach
	1/2 cup tomato or spaghetti sauce
	1/4 cup tomato paste
	1/2 cup cooked dry beans (if not counted as a meat alternate)
<i>SPECIFICALLY:</i>	3/4 cup vegetable juice
	1 cup bean soup
	1 cup vegetable soup
Raw vegetables	1 medium tomato or 5 cherry tomatoes
	7 to 8 carrot or celery sticks
	3 broccoli florets
	1/3 medium cucumber
	10 medium whole young green onions
	8 green or red pepper rings
	13 medium radishes
	9 snow or sugar peas
	6 slices summer squash (yellow or zucchini)
	1 cup mixed green salad
	1/2 cup cole slaw or potato salad
Cooked vegetables	2 spears broccoli
	1-1/2 whole carrots
	1 medium whole green or red pepper
	1/3 summer squash (yellow and zucchini)
	1 globe artichoke
	6 asparagus spears
	2 whole beets, about 2 inches in diameter
	4 medium brussels sprouts
	2 medium stalks of celery
	1 medium ear of corn
	7 medium mushrooms
	8 okra pods
	1 medium whole onion or 6 pearl onions
	1 medium whole turnip
	10 french fries
	1 baked potato, medium
	3/4 cup sweet potato
<u>MEAT, POULTRY, FISH, EGGS, DRY BEANS, & NUTS</u>	
<i>GENERALLY:</i>	2–3 ounces cooked lean meat without bone
	2–3 ounces cooked poultry without skin or bone
	2–3 ounces cooked fish without bone
	2–3 ounces drained canned fish

Meat alternatives (count as 1 ounce, about 1/3 serving)	1 egg (yolk and white)
	1/2 cup cooked dry beans (if not counted as a vegetable)
	2 tablespoons peanut butter
	1/4 cup seeds
	1/3 cup nuts, such as walnuts, pecans, or peanuts
	1/2 cup baked beans
	1/2 cup tofu
Meat/fish products (count as 1 ounce, about 1/3 serving)	1 ounce lean ham or canadian bacon
	1-1/2 frankfurters (10 per pound)
	1 frankfurter (8 per pound)
	2 ounces bologna (2 slices)
	3 slices dry or hard salami
	2 ounces liverwurst (2 large slices)
	3 pork sausage links
	5 canned vienna sausages
	1/2 can meat spread (5.5 ounce can)
	1/4 cup drained canned salmon or tuna
	1/3 cup drained canned clams or crab meat
	13 frozen fried breaded clams
	4 pacific oysters or 11 atlantic oysters
	4 medium fried breaded shrimp
1/4 cup drained canned lobster or shrimp	
<u>MILK, CHEESE, AND YOGURT</u>	
<i>GENERALLY:</i>	1 cup milk (skim, lowfat, and whole)
	1 cup yogurt (all kinds)
	1-1/2 ounces natural cheese
	2 ounces process cheese
<i>SPECIFICALLY:</i>	2 cups cottage cheese
	1/2 cup ricotta cheese
	1 cup frozen yogurt
	1-1/2 cups ice cream

The recommended numbers of servings are meant as a guide and don't need to be followed exactly. Think about what you've eaten over the last few days. If there are big differences between how much you have eaten and the recommended servings for certain

groups, focus on small changes that can bring you closer to recommended levels. If you're like most Americans, eating 1-2 more servings of fruit or vegetables and slightly reducing high fat foods (e.g., butter, cream, whole milk) would be a helpful first step to more healthy eating.

From Wallet to Waistline

The Hidden Costs of Super Sizing



The National Alliance for Nutrition and Activity
(NANA)

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The National Alliance for Nutrition and Activity (NANA) is a coalition of over 225 national, state, and local organizations working together to increase understanding of the importance of nutrition and physical activity to health, well-being and health-care costs and to advocate for policies and environmental changes that promote healthy eating and physical activity.

I. Summary

Americans who feel tempted to order larger portion sizes for just a little more money might be surprised to learn the nutritional costs of those “bargains.” *From Wallet to Waistline* looks at the financial and caloric costs of upgrading to larger portion sizes of single-serve foods at fast-food restaurants, convenience stores, and other retail food establishments. The results show that upgrading to larger serving sizes often increases price only modestly, but substantially increases calorie and fat content. “Value” marketing (providing more food for less money) is a technique that is profitable for food companies, but that results in large portion sizes and contributes to overeating and obesity.

II. “Value” Marketing

The increasing size of American food portions is linked to the U.S. food industry’s growing reliance on “value” marketing. “Value” marketing is a technique used to increase food company profits. It encourages the customer to spend a little extra money to purchase larger portion sizes and leaves the customer with the feeling that s/he has “gotten a deal.”

For food companies, the actual monetary costs of larger portions are small, because the cost of the food itself is small (on average about 20% of retail costs) relative to labor, packaging, transportation, marketing, and other costs (Nestle, 2002). Thus, even the relatively small amounts of extra money consumers spend when “upgrading” to larger portion sizes mean larger corporate profits.

In addition to using price to encourage the purchase of larger portion sizes, fast-food restaurants, in particular, actively encourage consumers to “upgrade” to larger sizes with point-of-purchase displays and verbal sales prompts from employees. Fast-food establishments also encourage consumers to combine their entrée with high-profit-margin, high-calorie soft drinks and side dishes like French fries (“Value Meal,” “Combo Meal,” etc.) – a technique known in the food industry as bundling.

Larger portions not only provide more calories, but studies show that when people are served more food, they eat more food (Young & Nestle, 2002; Rolls et al, 2000; Wansink, 1996; Booth et al, 1981). In addition, a national survey found that when people eat out, 67% report that they eat their entire entree either all or most of the time (AICR, 2001). Restaurant owners report that people generally do not share restaurant entrees (Young & Nestle, 1995). Rather, entrees are purchased for consumption by individuals. Thus, large portion sizes likely contribute to overeating.

III. Major Findings

A. The Costs of Super Sizing

For small increases in price, people can purchase larger portions and, as a result, end up with substantially more calories and saturated fat (Tables 1 and 2).

At Cinnabon, a Minibon costs an average of \$2.01 and provides 300 calories and 5 grams of saturated fat. For 48 cents more (a 24% increase in price), you can buy a Classic Cinnabon, which has 370 more calories (123% more) and almost three times as much saturated fat.



At movie theaters, upgrading from a small (\$3.13) to a medium-sized bag of popcorn without “butter” costs just 71 more cents. However, it also costs an additional 500 calories (i.e., a 23% increase in price buys 125% more calories). If you shell out another 60 cents, you can get a large, which brings the total to 1,160 calories and almost three days’ worth of saturated fat. (Getting “butter” topping adds even more calories and fat, and many movie theaters provide free refills with a large popcorn.)

At 7-Eleven, 33 more cents buys you “The Big One” Snickers candy bar or the “King Size” Kit Kat rather than the regular-sized bar. Getting the bigger candy bar also costs an additional 220-230 calories.

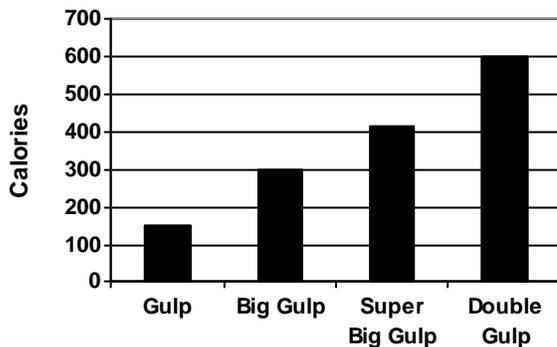
For almost all of the items purchased for this study, increases in caloric and saturated fat content far outpaced increases in price. However, there were exceptions to this trend. For a few items, such as “TCBY” 96% Fat Free Frozen Yogurt and upgrading from a tall (small) to a grande (medium) caffe latte at Starbucks, you get what you pay for. Going from a tall Starbucks caffe latte to a grande latte costs an average of 55 cents. That 23% increase in cost is closely in line with the 24% increase in calories and 29% increase in saturated fat. (Note, however, that other upgrades at Starbucks [from a grande (medium) to venti (large) or from a tall (small) to venti (large)] provide two to three times the increase in calories relative to the increase in price.)

B. Hard Facts on Soft Drinks

Soft drinks that are dispensed and sold by the cup (fountain drinks) provide high profit margins and are mainstays of fast-food chains, convenience stores, and movie theaters.

Soft drinks provide some of the least expensive upgrades. At McDonald’s, just 16 cents takes you from a small to a medium Coca-Cola Classic, and tacks on an extra 60 calories to the bargain. Upgrading from a medium to a large Coke will set

7-Eleven Soft Drinks



Gulp (the largest size available) instead of the Gulp (the smallest size)? It costs just 37 cents more. However, it contains four times as many calories. It clocks in at 600 calories – that is 30% of a day’s calories in a drink.

you back only 24 more cents, while adding another 100 calories. Should you give in to the invitation to super size your drink, add another 20 cents – and another 100 calories. All told, ordering a super size Coke rather than the small costs 60 cents and 260 calories.

At 7-Eleven, it costs even less to upgrade soft drinks, and the available portion sizes are even bigger. Why not get the Double

C. “Value” Meals

The practice known as bundling – adding a soft drink and a side dish like French fries to the purchase of an entrée – is responsible for some of the largest increases in calorie content that we found. People usually want to eat meals, rather than just an entrée. But fast-food bundling generally steers customers toward calorically-dense, low-nutrition foods like French fries and soda, rather than toward healthier options such as salads and yogurt parfaits.

Point-of-purchase displays and prompts offered by employees actively encourage customers to purchase “meals.” While purchasing foods for this study, we were prompted with questions like: “You only want a sandwich?” “Would you like a meal with that?” “Do you want to Combo?”

At McDonald’s, the difference between a Quarter Pounder with Cheese and a Quarter Pounder w/Cheese medium Extra Value Meal (with medium fries and medium Coke) is \$1.41, 660 calories, and 4 grams of saturated fat. A Wendy’s Classic Double with Cheese packs a considerable 760 calories and 19 grams of saturated fat. Turning it into an Old Fashioned Combo Meal adds 600 more calories and 7 more grams of saturated fat. It costs just \$1.57 more. Turning a Burger King Whopper into a Value Meal costs just \$1.69, but adds 590 extra calories.

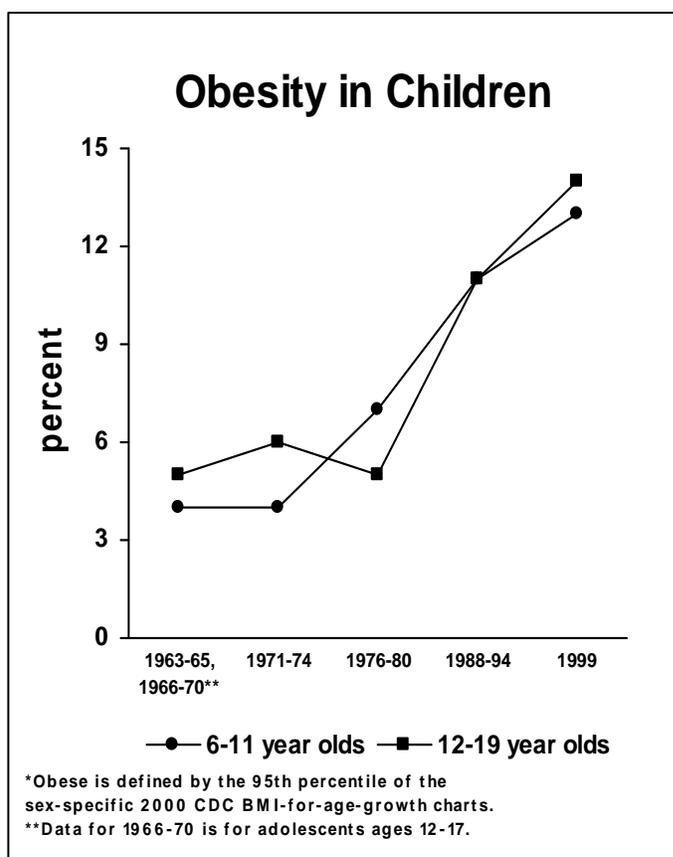


“Value Meals” cost less than it would cost to buy each component separately. At McDonald’s, the cost to purchase a Quarter Pounder with Cheese, a medium French fries, and a medium Coke separately would be an average of \$5.03. A medium Quarter Pounder w/Cheese Extra Value Meal costs just \$3.74.

Once you decide on a “Value Meal,” there are additional incentives to upgrade to a larger meal. At Burger King, it costs just 87 cents to “king size” the medium Whopper Value Meal. King sizing also adds 440 calories. While conducting this study, prompts to purchase a meal often were directly followed by prompts to upgrade that meal to a larger size. After being asked, “Do you want to Combo?,” we were asked, “Do you want to Biggie?” We were told, “You can super size the large for only 15 cents more.”

Interestingly, none of the fast-food outlets that we visited featured on their menus “value”-priced meals that contained soft drinks and French fries in small sizes, with the exception of kid-oriented meals like McDonald’s Happy Meal. At McDonald’s, a Quarter Pounder with Cheese with small fries and a small Coke provides 890 calories – 35% fewer calories than in the large Extra Value Meal (1,380 calories). To buy each component separately (small fries, small drink, and Quarter Pounder with Cheese) would cost \$4.40 -- 8 cents more than the cost of the large Extra Value Meal.

IV. Obesity and the Nation’s Health



As portion sizes have grown over the past two decades, the prevalence of overweight and obesity among U.S. adults and children also has risen. Obesity is one of the leading public health challenges of our time. Overweight and obesity affect the majority of American adults (61%) (NCCDPHP, 2002). Obesity rates in adults increased by 60% between 1991 and 2000 (Mokdad et al, 2001), and rates doubled in children over the last 20 years (NCHS, 2001).

The negative health consequences of the rising obesity rates already are evident. Rates of diabetes (most of which is type 2, which is largely due to obesity, poor diet, and physical inactivity) rose 50% between 1990 and 2000 (Mokdad et al,

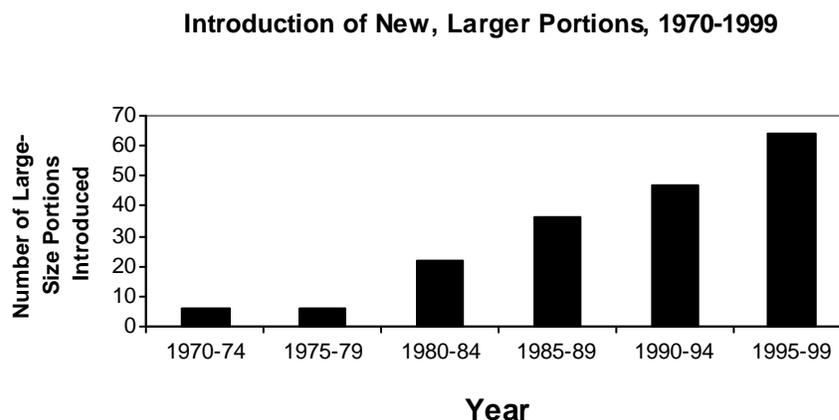
2001). In addition, type 2 diabetes rates are increasing in children. Obesity costs American families, businesses, and governments approximately \$117 billion in health-care and related costs each year (US DHHS, 2001).

Obesity is second only to smoking as the leading cause of preventable death in the United States, and is estimated to cause 300,000 premature deaths each year (US DHHS, 2001). Obesity increases the risk of heart disease, stroke, type 2 diabetes, and many cancers, and adversely affects a wide range of medical conditions including high blood pressure, high blood cholesterol, gallbladder disease, sleep apnea, and respiratory problems.

V. Growing Portion Sizes

Food portion sizes have grown over time. In the 1950s, a “family size” bottle of Coke was 26 ounces, while now a single-serve bottle is 20 ounces. McDonald’s original burger, fries, and 12-ounce Coke provided 590 calories. Today, a super size Extra Value Meal with a Quarter Pounder with Cheese, super size fries, and a super size Coke delivers 1,550 calories. A typical bagel used to weigh 2 to 3 ounces, compared to 4 to 7 ounces today (Young & Nestle, 1995).

Although the trend began in the 1970s, larger portions sizes became more common in the 1980s and 1990s (Young & Nestle, 2002). This trend has occurred in parallel with increases in available calories in the food supply, overall calorie intake, and the prevalence of overweight and obesity (Young & Nestle, 2002).



Young LR, Nestle M. *American Journal of Public Health* 2002, vol. 92, pp. 246-249.

Although portion sizes and obesity rates have grown in parallel, larger portions are not, of course, solely responsible for the current obesity epidemic in the U.S. Many factors influence body weight, including levels of physical activity and other dietary factors. However, excess energy intake is a major cause. According to U.S. Department of Agriculture (USDA) national survey data, Americans’ average daily caloric intake has risen from 1,876 kcal to 2,043 kcal from 1978 to 1995 (Lin

et al, 1999). That 167-calorie-per-day increase theoretically works out to an extra 17 pounds of body fat every year (given no change in metabolism or physical activity levels).

VI. Study Methodology

Popular single-serve food items that are widely available in different portion sizes at national fast-food chains, convenience stores, ice cream parlors, coffee shops, and movie theaters were identified. Nutrition information for restaurant foods was determined from company websites and independent laboratory testing by the Center for Science in the Public Interest (Jacobson and Hurley, 2002). Nutrition information for packaged foods sold at convenience stores was obtained from Nutrition Facts labels.

During the first week of May 2002, members of the National Alliance for Nutrition and Activity gathered pricing data in Washington, DC; Des Moines, IA; Little Rock, AR; Sacramento, CA; and Oakland, CA. Pricing data were collected on a standardized form using a consistent, predetermined protocol. When possible, price information was obtained from two store locations in each city. At the first location, volunteers purchased each food item and recorded the pre-tax price along with information about sales prompts and other point-of-purchase displays. At the second location, pricing data were determined from the menu or menu board or, for 7-Eleven, by shelf price or by having the product scanned at the cash register. The average price for each portion size of each food item was determined by calculating the average price per city and then averaging the price between cities.

VII. Conclusions

“Value” marketing is ubiquitous, and “getting more for your money” is ingrained in the American psyche. However, bigger is rarely better when it comes to food. The true price of larger portions is larger calorie and saturated fat numbers -- and larger waistlines. Health professionals and nutrition educators should help consumers understand the health costs of “super sizing” and the benefits of “normal sizing.” Nutrition education efforts also should address the healthier options available at food-service establishments and the importance of physical activity.

Our advice to consumers: When in doubt, order the small or share with a friend. Consumers also can be proactive by 1) asking for nutrition information, 2) ordering healthier menu items and side dishes such as salads or yogurt parfaits or 3) requesting healthy changes to existing menu items such as ordering coffee with low-fat milk or a sandwich without mayonnaise. The food industry could help by 1) offering competitively priced “value meals” that include healthier side dishes like salads, 2) offering competitively priced “value meals” with small fries and beverages, and 3) providing clear nutrition information at the point of purchase.

VIII. Table 1: Bad Bargains

- **7-Eleven** Gulp to Double Gulp Coca-Cola Classic
37 extra cents buys 450 extra calories
(42% more money = 300% more calories)
- **Cinnabon** Minibon to Classic Cinnabon
48 extra cents buys 370 extra calories
(24% more money = 123% more calories)
- **Movie Theater** Small to Medium Unbuttered Popcorn
71 extra cents buys 500 extra calories
(23% more money = 125% more calories)
- **7-Eleven** Regular to “The Big One” Snickers Candy Bar
33 extra cents buys 230 extra calories
(48% more money = 82% more calories)
- **7-Eleven** Doritos, Nacho Cheesier! Flavor, “Big Grab” to “99 Cents Size”
24 extra cents buys 230 extra calories
(32% more money = 88% more calories)
- **McDonald’s** Small to Super Size Coca-Cola Classic
60 extra cents buys 260 extra calories
(58% more money = 173% more calories)
- **McDonald’s** Small to Large Fries
64 extra cents buys 330 extra calories
(62% more money = 157% more calories)
- **McDonald’s** Quarter Pounder with Cheese to Medium Quarter Pounder with Cheese Extra Value Meal
\$1.41 extra buys 660 extra calories
(61% more money = 125% more calories)
- **Subway** 6-inch to 12-inch Tuna Sub
\$1.53 extra buys 420 extra calories
(47% more money = 100% more calories)
- **Wendy’s** Classic Double w/Cheese to Classic Double w/Cheese Old Fashioned Combo Meal 2
\$1.57 extra buys 600 extra calories
(47% more money = 79% more calories)
- **Baskin Robbins** Chocolate Chip Ice Cream, Kids Scoop to Double Scoop
\$1.62 extra buys 390 extra calories
(129% more money = 260% more calories)

IX. Table 2: Price and Nutrition Information for Common Restaurant and Convenience Store Foods

Location	Item	Size	Ounces/ Cups	Calories	Total Fat (g)	Saturated Fat (g)	Average Price (\$)
Cinnabon^a	Minibon		3 oz	300	11	5	2.01
	Cinnabon		8 oz	670	34	14	2.49
“TCBY”	Frozen Yogurt, 96% Fat Free	Small Cup	7 oz	265	6	4	1.80
		Regular Cup	9 oz	340	8	5	2.37
		Large Cup	11 oz	420	10	6.5	2.77
Baskin Robbins	Chocolate Chip Ice Cream, Hard Scooped	Kids Scoop	2.5 oz	150	10	6	1.26
		Single Scoop	4 oz	270	17	11	1.65
		Double Scoop	8 oz	540	34	22	2.88
Starbucks	Caffe Latte with Whole Milk	Tall	12 oz	210	11	7	2.44
		Grande	16 oz	260	14	9	2.99
		Venti	20 oz	350	18	12	3.29
Movie Theater	Popcorn without “Butter”	Small	7 cups	400	27	19	3.13
		Medium	16 cups	900	60	43	3.84
		Large	20 cups	1,160	77	55	4.44
Subway	Tuna Sub	6-inch	8.8 oz	420	21	5	3.29
		12-inch	17.6 oz	840	42	10	4.82
	Fresh Value Meal 4, 6-inch Tuna Sub ^b			860	36	9	4.66
Taco Bell	Nachos	Supreme	7 oz	440	24	7	1.60
		BellGrande	11 oz	760	39	11	2.74
		Mucho Grande	18 oz	1,320	82	25	3.71
	Burrito	Bean	7 oz	370	12	4	0.90
		Beef Supreme	8.75 oz	430	18	7	2.01
		Beef Double Supreme	10.25 oz	510	23	9	2.47
Burger King^a	Whopper		10 oz	680	39	13	2.24
	Whopper Value Meal	Medium ^c		1,270	57	23	3.93
		Large ^d		1,510	64	26	4.39
		King ^e		1,710	69	29	4.80

--continued--

Location	Item	Size	Ounces/ Cups	Calories	Total Fat (g)	Saturated Fat (g)	Average Price (\$)	
McDonald's	French Fries	Small	2.4 oz	210	10	2	1.03	
		Medium	5.2 oz	450	22	4	1.50	
		Large	6.2 oz	540	26	5	1.67	
		Super Size	7 oz	610	29	5	1.90	
	Coca-Cola Classic	Small	16 oz	150	0	0	1.04	
		Medium	21 oz	210	0	0	1.20	
		Large	32 oz	310	0	0	1.44	
		Super Size	42 oz	410	0	0	1.64	
	Chocolate Shake	Small	12 oz	350	11	7	1.53	
		Medium	16 oz	510	15	10	1.90	
		Large	21 oz	770	23	15	2.31	
	Quarter Pounder w/Cheese		7 oz	530	30	13	2.33	
	Quarter Pounder w/Cheese Extra Value Meal	Medium ^f			1,190	52	17	3.74
		Large ^g			1,380	56	18	4.32
Super Size ^h				1,550	59	18	4.47	
Chicken McNuggets	6 piece	3.8 oz	290	17	4	2.10		
	9 piece	5.7 oz	430	25	5	2.82		
Wendy's ^a	Classic Double w/Cheese		11 oz	760	45	19	3.32	
	Classic Double w/Cheese Old Fashioned Combo Meal 2	Regular ⁱ		1,360	68	26	4.89	
		Biggie Size ^j		1,540	72	27	5.28	

--continued--

Location	Item	Size	Ounces/ Cups	Calories	Total Fat (g)	Saturated Fat (g)	Average Price (\$)
7-Eleven	Kit Kat	Regular	1.5 oz	220	11	7	0.69
		King Size	3 oz	440	22	14	1.02
	Snickers	Regular	2.1 oz	280	14	5	0.69
		"The Big One"	3.7 oz	510	24	9	1.02
	Doritos, Nacho Cheesier!	"Big Grab"	1.75 oz	260	13	2	0.75
		"99 Cents" Size	3.25 oz	490	25	5	0.99
	Coca-Cola Classic ^k	Gulp	16 oz	150	0	0	0.89
		Big Gulp	32 oz	300	0	0	0.99
		Super Big Gulp	44 oz	415	0	0	1.09
		Double Gulp	64 oz	600	0	0	1.26

- a. Saturated fat numbers include trans fat.
- b. Includes Big Grab Lay's Classic Potato Chips and Medium Coca-Cola Classic.
- c. Includes Medium French Fries and Medium Coca-Cola Classic.
- d. Includes Large French Fries and Large Coca-Cola Classic.
- e. Includes King French Fries and King Coca-Cola Classic.
- f. Includes Medium French Fries and Medium Coca-Cola Classic.
- g. Includes Large French Fries and Large Coca-Cola Classic.
- h. Includes Super Size French Fries and Super Size Coca-Cola Classic.
- i. Includes Biggie French Fries and Medium Cola.
- j. Includes Great Biggie French Fries and Biggie Cola.
- k. Includes ice.

X. References

American Institute for Cancer Research (AICR). "As Restaurant Portions Grow, Vast Majority of Americans Still Belong to "Clean Plate Club, New Survey Finds." Washington, DC: AICR News Release, January 15, 2001.

Booth DA, Fuller J, Lewis V. "Human Control of Body Weight: Cognitive or Physiological? Some Energy Related Perceptions and Misperceptions." In: Cioffi LA, James WPT, Van Itallie TB, eds. *The Body Weight Regulatory System: Normal and Disturbed Mechanisms*. New York, NY: Raven Press, 1981, pp. 305-314.

Jacobson M, Hurley J. *Restaurant Confidential*. New York: Workman Publishing, 2002.

Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

Mokdad AH, Bowman B, Ford E, Vinicor F, Marks J, Koplan J. "The Continuing Epidemics of Obesity and Diabetes in the United States." *Journal of the American Medical Association* 2001, vol. 286, no. 10, pp. 1195-1200.

National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC). "Obesity and Overweight—A Public Health Epidemic." Accessed at <http://www.cdc.gov/nccdphp/dnpa/obesity/epidemic.htm> on January 9, 2002.

National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention. "Prevalence of Overweight Among Children and Adolescents: United States, 1999." Accessed at <http://www.cdc.gov/nchs/products/pubs/hestats/overwght99.htm> on March 16, 2001.

Nestle M. *Food Politics: How the Food Industry Influences Nutrition and Health*. Berkeley, CA: University of California Press, 2002.

Rolls BJ, Engell D, Birch LL. "Serving Portion Size Influences 5-Year-Old But Not 3-Year-Old Children's Food Intake." *Journal of the American Dietetic Association* 2000, vol. 100, pp. 232-234.

U.S. Department of Health and Human Services (US DHHS). "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity 2001." Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

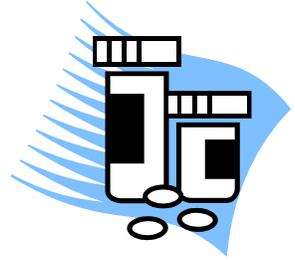
Wansink B. "Can Package Size Accelerate Usage Volume?" *Journal of Marketing* 1996, vol. 60, pp. 1-14.

Young LR, Nestle M. "The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic." *American Journal of Public Health* 2002, vol. 92, pp. 246-249.

Young LR, Nestle M. "Portion Sizes in Dietary Assessment: Issues and Policy Implications." *Nutrition Reviews* 1995, vol. 53, pp. 149-158.

Understanding Vitamin/Mineral Supplements

Approximately 50% of American adults use some type of supplement, whether it is recommended by their physician or self-prescribed. In this part of our educational series, our goal is to help you become an educated consumer of supplement information.



Facts to Consider

- Vitamin/mineral supplements are considered dietary supplements, not drugs, so they do not have to be tested to prove their safety or effectiveness before they are put on the market.
- Vitamin/mineral supplements are considered safe until they are demonstrated by the Food and Drug Administration (FDA) to be hazardous. Consumers would have to experience an adverse reaction and report it to the FDA before they will investigate, issue a public warning, or remove the product from the market.
- Supplement manufacturers do not have to have research to support any claims they make about the product. If a supplement makes a health claim beyond what the FDA has approved for nutrients and health, the product label must state that the claims have not been evaluated by the FDA or that the FDA does not support these claims.

Who Could Benefit From a Vitamin/Mineral Supplement?



It's best to get your vitamins and minerals from foods by following a healthy, well-balanced diet. That way you'll get the benefits of the vitamins and minerals in addition to the protective effects of other substances in the foods, such as fiber and phytochemicals.

However, in some situations, it may be difficult to get enough of a vitamin or mineral without a supplement. Talk with a registered dietitian or your doctor about your individual needs.



Here are some general guidelines for healthy adults:

- **Most women of childbearing years** should take a supplement containing 400 micrograms of **folate** (also called folic acid). This vitamin has been shown to prevent two devastating birth defects. Many women don't get enough folate in their diet. The best food sources are leafy green vegetables, dried beans and peas, and citrus fruits and juices. In addition, folate has been added to enriched flours, cereals, breads, and pastas.
- **Pregnant and nursing women** should take a **prenatal vitamin** prescribed by their doctor.
- **Vegetarians who eat only plant foods** need a **vitamin B12** supplement (at 100% of the Recommended Dietary Allowance or Daily Value) or should eat foods fortified with vitamin B12.
- **People who don't drink milk or eat dairy products** such as cheese or yogurt may need a **calcium and vitamin D** supplement. The body cannot absorb more than 500 mg of calcium at a time. Therefore, if you want to supplement 1000 mg per day, take it in 2 doses of 500 mg each.

Age	Recommended Daily Amount
9-18 years	1300 mg calcium, 200 IU vitamin D
19-50 years	1000 mg calcium, 200 IU vitamin D
51-70 years	1200 mg calcium, 400 IU vitamin D
71+ years	1200 mg calcium, 600 IU vitamin D

- The American Medical Association has stated that it is acceptable for a healthy adult to use a multi-vitamin/mineral supplement.

Concerns About Vitamin/Mineral Supplements

- **False sense of security:** Sometimes people incorrectly believe that if they take a multivitamin/mineral supplement they will get all the nutrients their body needs so they do not need to eat a healthy diet. Notice they are called supplements, not replacements. They are intended to be used to supplement a healthy diet, not to replace a healthy diet!

- **Delay medical treatment:** Sometimes people self diagnose a health problem they have and then self prescribe a supplement to treat the problem rather than seeking professional medical advice. For example, someone may be feeling tired, so they take supplements to boost their energy level. In reality this person could be suffering from anemia, mono, or many other health problems that need medical treatment! A vitamin or mineral will not cure a problem or disease unless it's a specific deficiency disease caused from a lack of that specific vitamin or mineral.
- **The ideal supplement?** No one really knows the formula for the "ideal supplement" because every person's body, diet, and lifestyle are so different.
- **Bioavailability:** The body absorbs vitamins and minerals best from food. When taken in a pure, concentrated form they can interfere with the absorption of other nutrients. For example, over-supplementing with calcium decreases the body's ability to absorb iron.
- **Toxicity:** All vitamins and minerals are toxic at some level. A person's individual tolerance will vary based on the amount that is taken and the length of time it is used.
- **Pharmaceutical Effect:** At mega doses (10 times the recommended dietary allowance or above), vitamins and minerals act like drugs, not nutrients, in the body. For example, mega doses of Vitamin A in the drug Accutane can be used to treat acne. But pregnant women can not use Accutane because the high level of Vitamin A causes birth defects. Also, vitamin and mineral supplements can react with prescription drugs and make them either more or less effective. For example, Vitamin E will enhance the effect of blood thinners, while Vitamin K will decrease the drug's effectiveness. This is why it is very important to tell your doctor about any supplements you use.
- **Expense:** Supplements can be expensive. Be an educated consumer and make your own informed decisions about supplements rather than falling for high pressure sales pitches.

Choosing and Using Vitamin/Mineral Supplements

Aim to get the nutrients you need by eating a healthy, well-balanced diet following the recommendations of the Food Pyramid. If you decided to take a **multivitamin** for extra nutritional insurance, here are some things to

consider when selecting a product:

- Check the **expiration date**. Supplements have an **expiration date** on the label just like perishable foods and medicines.
- Look for **USP (United States Pharmacopoeia)** on the label. This means the supplement has been tested to ensure quality and dissolvability. The terms “lab tested,” “scientifically blended,” “quality tested,” do not mean anything! You can also check the dissolvability by placing 1 supplement in a small amount of vinegar. If the supplement does not dissolve within 20 minutes, this means it will not dissolve in your stomach and none of the vitamins or minerals will be absorbed for use by the body. If the supplement does not dissolve in the body, it will be excreted whole in the stool.
- Read the **Supplement Facts** on the label. This is similar to the Nutrition Facts on a food label. Here are some guidelines for using **Supplement Facts**:
 - Always check the recommended **servings size** to ensure getting the correct dose.
 - **Men over the age of 20** should not supplement with **iron** unless prescribed by a doctor. Excessive iron intake has been associated with an increased risk of heart disease.
 - **If you are over the age of 50:** The supplement should contain **Vitamin B12** and should NOT contain **iron**.
 - There should be **no more than 100-150% of the Daily Value** for each nutrient to avoid the risk of consuming toxic doses of the vitamins or minerals.
 - Each of the nutrients should be close to the same **%Daily Value**. Products that contain 4,000% of the Daily Value for 1 vitamin and 2% of the Daily Value for another vitamin should be avoided because it is not a well balanced supplement.
- **Avoid fads** such as bee pollen and herbs added to vitamin/mineral supplements.
- **For better absorption**, vitamin/mineral supplements should be taken with a meal or snack rather than on an empty stomach.
- **Tell your doctor** what supplements you are taking because they can interact with many prescription and over-the-counter medications. You will be advised to stop taking all supplements approximately 2 weeks **prior to any surgery**.

- **Get supplement information from reliable sources.**

On the internet:

www.consumerlab.com

www.ods.od.nih.gov

<http://dietary-supplements.info.nih.gov>

www.cspinet.org (Center for Science in the Public Interest)

www.quackwatch.com



Session 6: Supermarket Smarts



- ✓ Sixty –nine percent (69%) of food shoppers are female heads of household.
- ✓ If “saving time” is a priority, Tuesdays have the fewest shoppers, thus a speedier checkout.
- ✓ Supermarkets average 30,000 items and not every store carries the same 30,000 items. The more stores you shop, the more items you encounter.
- ✓ Supermarket layouts are designed to slow you down, not speed you up.

The fact is: The choices you make at the grocery store are important to eating right and living well. You eat what is in the cupboard. If only healthy foods are at your fingertips, then healthy foods you’ll eat.

Many of the things we buy are bought out of habit. Think about how you buy your food. What do you usually do?

When shopping, do you:

	YES	NO
Plan some or all of your meals ahead?	_____	_____
Check to see what foods you have on hand?	_____	_____
Make a list of food you need to buy?	_____	_____
Shop from your list?	_____	_____

Were you able to check “yes” for most of the above items? The more times you checked “yes” the better your chances that you will end up with healthy food in your home! The information that follows will help in planning and shopping for food.



Plan Weekly Menus

Meals can be as difficult or as simple as you want them to be...and still be nutritious. Planning ahead is the key. This will help you avoid the "What's for dinner?" dilemma, and steer clear of the last minute fast food frenzy.

TIPS:

- Plan to use the food you already have at home.
- Plan your menus around the basic food groups.
- Check the newspaper for foods on sale. Use advertised specials when practical.
- Know your food budget.
- Plan to make extra portions of foods to refrigerate or freeze. These will be helpful to have on hand when you don't have time or don't want to cook.
- Convenience foods are prepared foods like frozen dinners or ready-to-heat canned lunches. These items often cost more. Think about how much time you have to prepare meals. Consider whether the time and effort that convenience foods save are worth the extra cost.
- Plan for changes you are making in your eating habits.
- Plan to buy foods that are low in fat and calories.



Prepare a Shopping List

Making a grocery list can save time and money at the store. It can prevent you from buying foods you don't need. If you keep low calorie and low fat foods on your list and in your kitchen, you'll be more likely to meet your PRIDE goals.

- Check menus and recipes for items needed.
- Include staple items and supplies which may need to be restocked.
- Keep a note pad handy in your kitchen to write down items you are low on or need. If you are preparing a meal and see that you are almost out of something, write it down. That's easier than remembering it in the store.
- Prepare the grocery list according to your usual route through the store.

Shopping Skills & Strategies to Save



- **Eat before you go** Studies have found hungry shoppers spend 17% more money on groceries. “Take home meals” are readily available and in plain view, tempting the fatigued and hungry shopper.
- **The “EYE-LEVEL Trick** – Higher priced items are at eye level. For better prices, look on the higher or lower shelves. Some companies actually pay the store to have their product placed at eye level.
- **End of the aisle display** may mean a “good buy” or “expiration dates” are near.
- **KIDS’ Cereals** are at their eye level on the shelf and candy is usually on the other side of the same aisle. This can make shopping a challenge if you have children with you.
- **Shelves change constantly** making shoppers search for their regular items, thus spending more time in the store and covering more floor space searching.
- **Cut your own produce.** Pre-cut produce are displayed and cost more..\$\$\$
- **Specialty items are grouped together** increasing the impulse purchase of a higher priced item (ie, chips and dip, salad greens and pricey dressings)
- **Pretty packaging** costs extra money. Remember you are buying the product, not the package.
- Shop for items before you run out of them if possible, otherwise you will be paying what the store is charging that week.
- **Save BIG \$\$\$** by trying the **generic or store brands**. Often these products look and taste just as good as the expensive brands.
- **Package prices can be deceptive** - coffee, for example, remains in the original can that held 1 lb (16 oz) for years, but now holds only 12 oz. Check UNIT price located on the large sticker on the shelf for comparison.
- **Stick to your shopping list.** Places like the check out line are designed to sway buyers into making impulse purchases.
- **Read labels** to find out more about the product you are buying. The ingredients are listed in order by weight.

SHOP THE PERIMETER OF THE GROCERY STORE. This is where you'll find fresher, healthier food items like fruits, vegetables, meats and dairy.

Green, Yellow and Red Light Shopping System:

Green = go there

These products are the lowest in fat and most nutrient dense:

- ✓ Produce section (choose colorful fruits and vegetables)
- ✓ Fresh fish counter (all types except pre-breaded items)
- ✓ Uncooked beans, grains, and pastas (no seasoning packets)

Yellow = to take caution

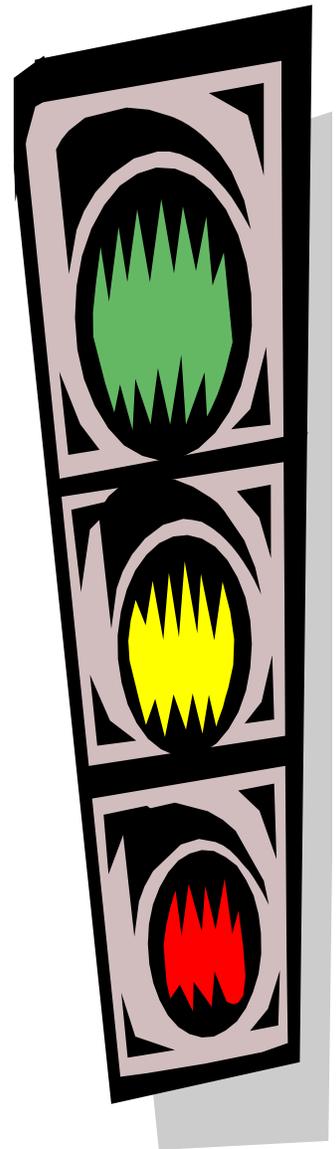
These foods may be tricky and require label reading to ensure you are choosing the healthiest product:

- ✓ Dairy sections (look for low-fat and non-fat items)
- ✓ Frozen foods (vegetables, healthy microwave meals)
- ✓ Deli/Bakery (lean meats, wholegrain breads)
- ✓ Meat (lean cuts: round and loin)

Red = to avoid

These foods are likely to be the highest in fat and calories. Some of these foods may have a healthier alternative so make sure to read the label!

- ✓ Deli (prepared foods unless marked as reduced fat)
- ✓ Check out aisle (candy)
- ✓ Ice cream case
- ✓ Packaged/Convenience foods (look for low or reduced fat /calories)



Practice Planning

On the following page is a **7-Day Menu Planner**. Planning a week's worth of meals may take less time than getting in your car, driving to pick up fast food, and returning home. Why not give it a try?

Suggestions for completing the meal plan:

Think through the upcoming week. What activities do you have on the calendar? Mark off the meal(s) that you will not have to prepare (Friday night with friends, business luncheon, etc.). Try to limit eating outside your home (take-out included) to no more than twice per week.

Plan, and make the effort, to eat something nutritious each morning. Skipping breakfast, over time, may put you on the fast track to weight gain and heart disease, according to a new study. Monitor the calories of the weekend breakfast foods. Meal replacements are an option if time is a crunch.

Plan the lunches, and include one midday meal as leftovers from a night meal. It is important to include Saturdays and Sundays in the meal plan. Weekends often create random eating and increased calories if meals are left unplanned.

Plan snacks if you usually get hungry between meals. Keep the snacks to 200 calories or less.

HINT: Most institutional based food services (i.e., hospital and school cafeterias) use a 3 week menu cycle. Keep your plans for a month and you'll have 4 weeks of meal plans. Recycle the plan but tweak any meals necessary based on advertised specials and seasonal foods.



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Breakfast							
Lunch							
Dinner							
Snacks							

Menu Plan for week of _____

<p>GROCERY LIST by aisle</p> 	<p>PRODUCE</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>DAIRY</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>CANNED GOODS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>CEREALS/GRAINS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>HEALTH/ETHNIC</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>SNACKS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>SPICES/CONDIMENTS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>BEVERAGES</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>PERSONAL HYGIENE</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>HOUSEHOLD ITEMS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>FROZEN FOODS</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>PHARMACY</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>MEAT/SEAFOOD</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>PET FOOD</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Exercise Videos

Exercise videos are a good alternative to gym membership when there are monetary or logistical concerns. Maybe you are looking for a little variety or a respite for bad weather. While some videos are boring or hard to follow, there are many that are well produced.



How do you find the perfect video without wasting a lot of time and money trying them out? Here are a few pointers taken from the FitnessLink and the American Council on Exercise.

1. **Know your own fitness level.** Too easy is ineffective; too hard is frustrating. Rule of thumb:
 - **BEGINNER:** Just starting to exercise, or haven't exercised in 6+months.
 - **INTERMEDIATE:** Fairly active in some type of regular exercise program (3 times per week).
 - **ADVANCED:** Very active in a regular exercise program four or more times per week for at least 6 months.

2. **Make sure the video suits your needs.** Choose a video that matches your fitness goals. Are you looking for a cardio workout or strength training? Are you interested in yoga or Pilates? Most exercise videos can be divided into three groups. Below is a brief description of each:

- **AEROBICS:** Most effective for weight loss; reduces stress; increases endurance; strengthens the cardiovascular system (step aerobics, cycling, fitness walking, dance aerobics).
- **STRENGTH TRAINING:** Tones muscles; shapes, defines body; improves overall body strength; increases lean muscle to burn more calories. (Pilates, weight training, resistance bands, body sculpting).
- **FLEXIBILITY/STRETCHING:** Increases flexibility; reduces risk of muscle discomfort or injury; improves posture and balance; promotes relaxation, relieves stress (yoga, tai chi, total body stretching).



“TO GET THE MOST BANG FOR YOUR BUCK”, and to provide variety in your workout, you may want to consider a video that combines more than one type of conditioning. Circuit training, tae bo, kickboxing and power walking are examples of workouts that combine aerobics and muscle toning. Other videos combine flexibility training with muscle toning and so on. Cross-training is considered to be an excellent way to improve overall fitness by challenging your body with an all-around exercise regimen.

Shop for videos that feature a certified, experienced instructor who includes a warm-up and a cool-down in the workout, and “alternatives or modifications” to the main program if it is too difficult for you. Avoid videos that feature a celebrity as the main selling point, especially if they try to teach the routine themselves without support from a trained fitness professional.

GUIDELINES for Selecting an Aerobics Video

The videotape should include:

- ✓ Heart rate checks or the use of a perceived exertion scale.
- ✓ How exercises can be modified to accommodate individual limitations. For example, low impact alternatives should be shown if the session becomes high impact.
- ✓ Stretching that is completed after rhythmic activity.
- ✓ Movements, particularly stretching and strengthening, that are done in a controlled, smooth manner and not with jerky flings or twists.
- ✓ Encouragement to work at own pace, not the pace of the instructor.
- ✓ Explanations regarding the purpose of the movements that are being performed and the muscle groups that are being used.



The videotape should NOT include:

- ✓ Full circle neck rolls. The head should turn side to side or chin to chest, but should never be bent back.
- ✓ Fast, jerky trunk twists. These should be done slowly and with control.
- ✓ Full body trunk rolls that may stress the back. Avoid any exercises that cause hyperextension of the back.
- ✓ Bouncing during stretching movements.
- ✓ Toe touches of any kind. Frequent bending over to the floor may contribute to lower back problems.

Questions to ask

1. Am I familiar with the instructor? Is the instructor certified?
Shop for a video that features a certified, experienced instructor.

2. Before I buy it, does a friend own the same tape or can I rent the video?

View the tape before putting money towards the purchase. Make sure you like the presentation – instructor’s style, music, background scenes.

3. Do they make any claims or promises? Beware of videos that promise quick results....“Lose 20 pounds in two weeks” or “Firm up in only five minutes a day.”

4. Does it suit my specific needs?
If yes, that increases the chances you will use it.

5. Do I have enough room to do the workout safely?
A step routine in a small area may feel claustrophobic.

6. Do I need special equipment or props (steps, barbells, stretch rope, or a chair)?
Extra money on props may not be in your budget. Without the props the tape may not be as useful.

7. Watch the video all the way through at least once before beginning so that you are well prepared.

8. Get a catalog with reviews. Collage Video’s Complete Guide to Exercise Videos is a good resource. Their reviewers actually do the workouts. You can get a FREE CATALOG by calling (800)433-6769.

9. The internet and on line services are full of fitness information web sites and bulletin boards.