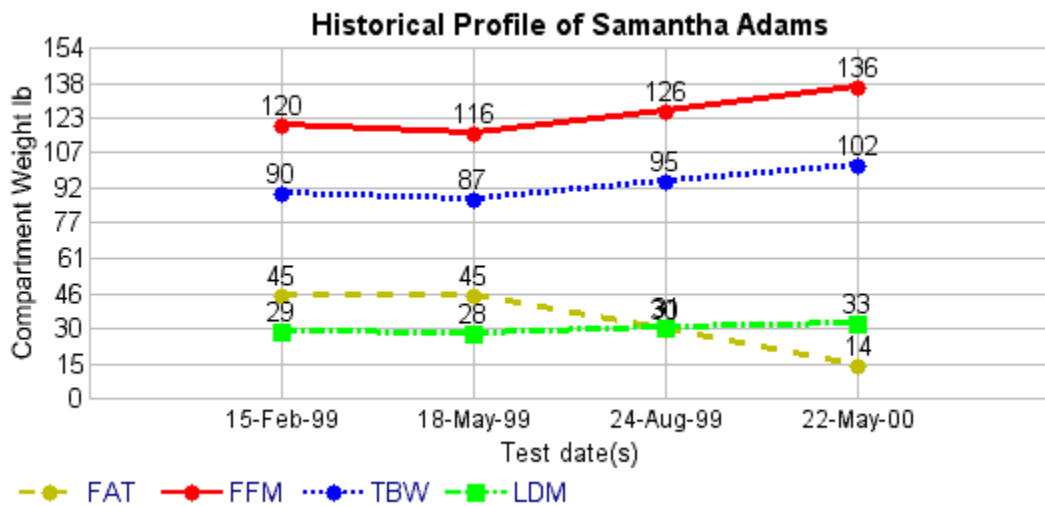
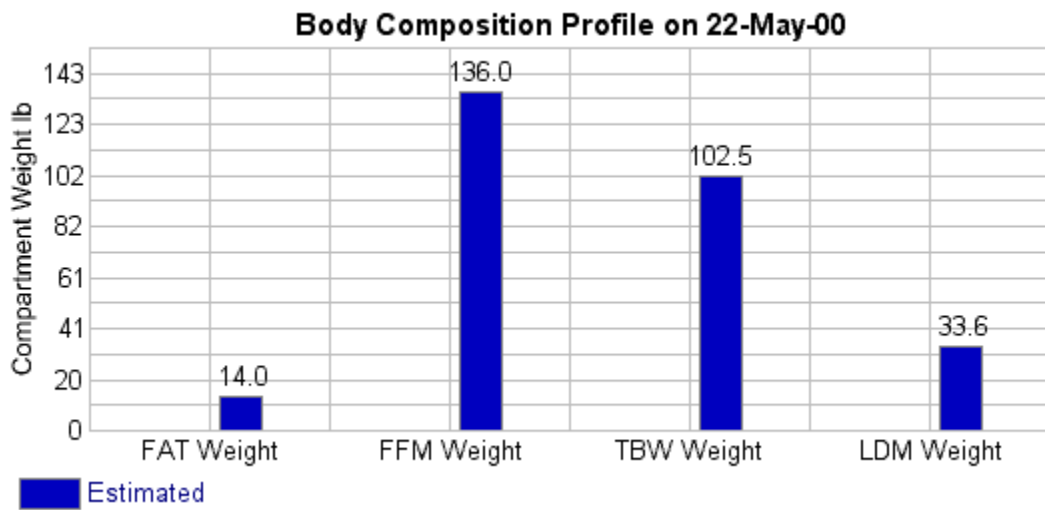
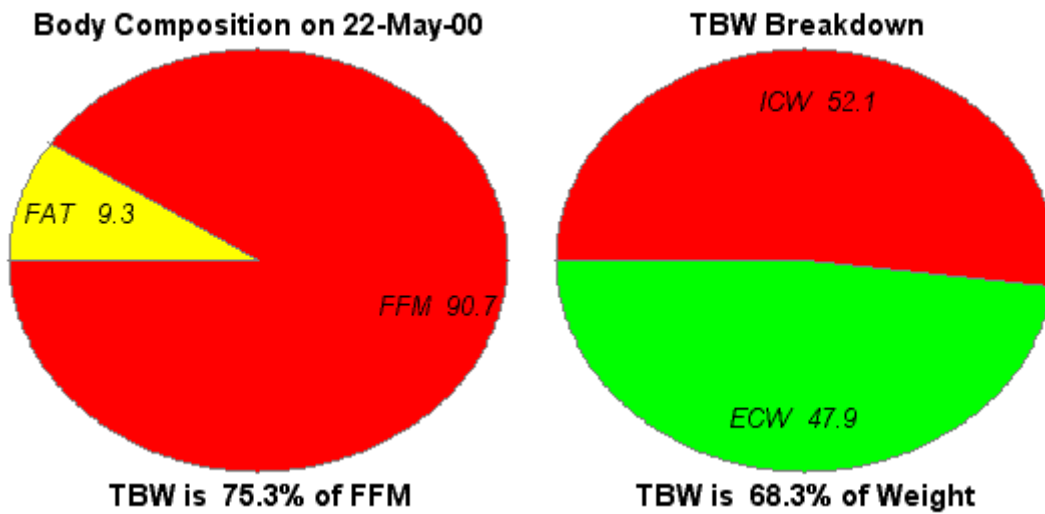


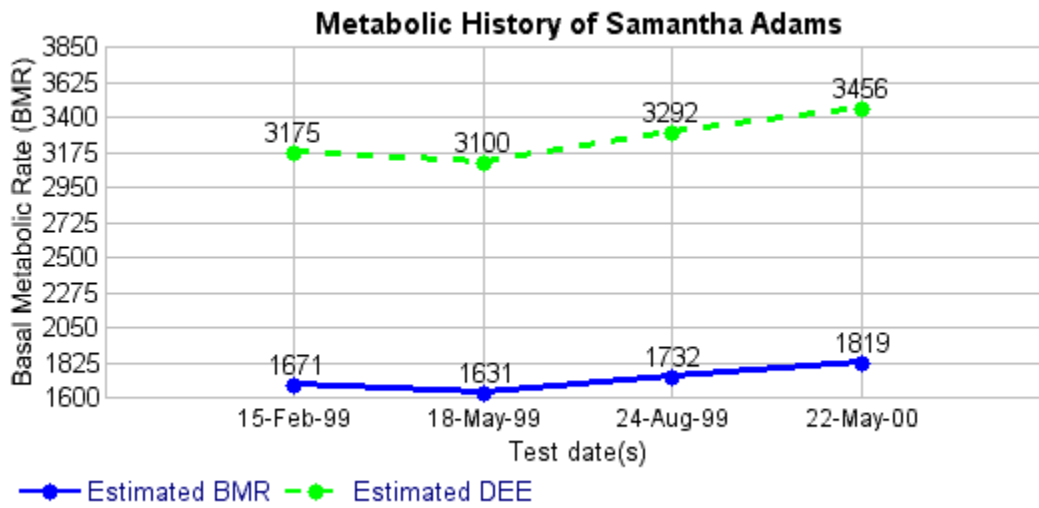
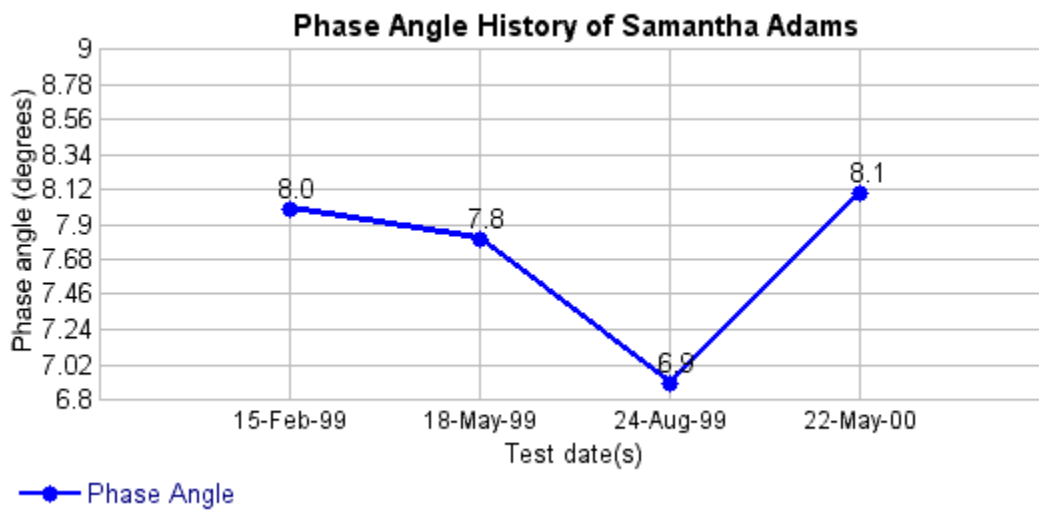
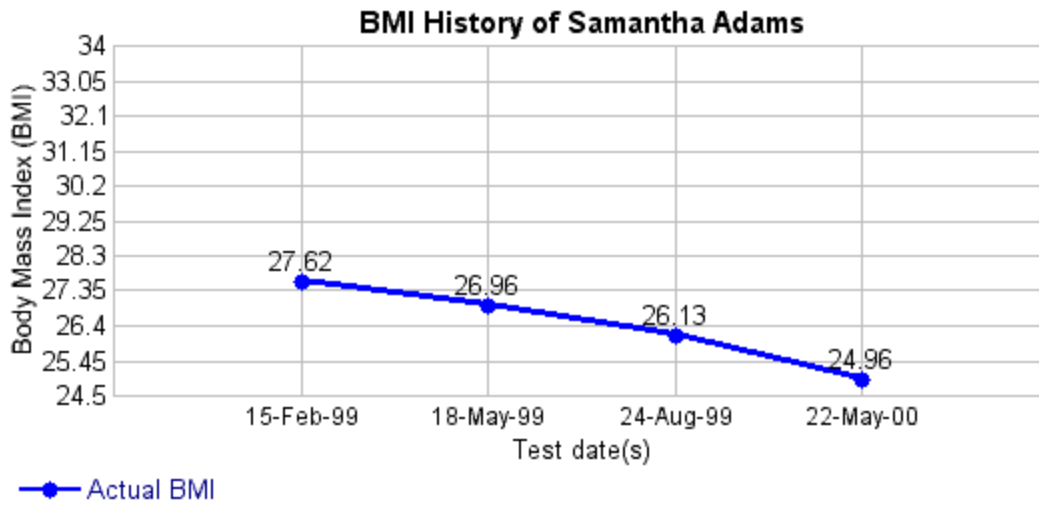
**Body Composition Report created by**

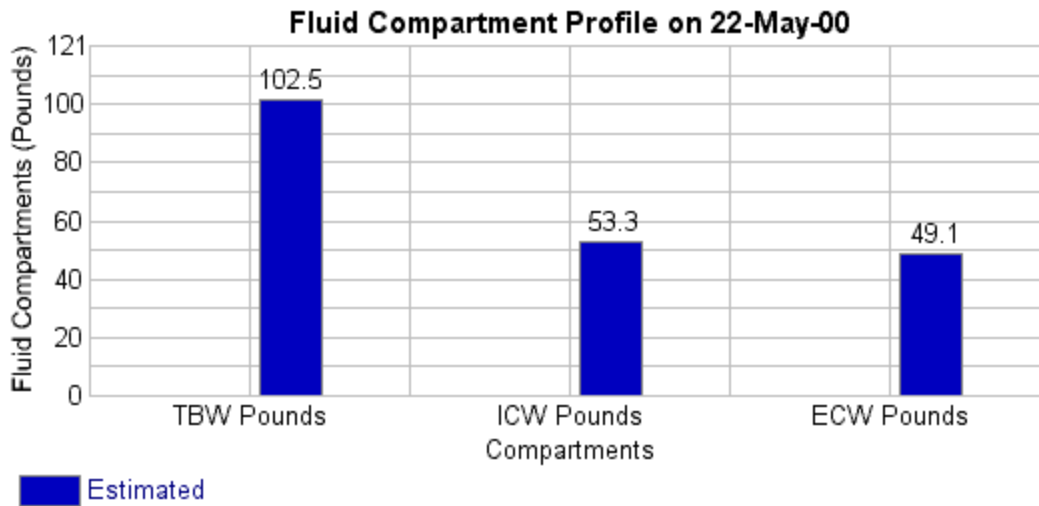
**RJL Systems  
33939 Harper Ave  
Clinton Township, MI 48035  
1-800-528-4513**

Name: Samantha Adams      Test Date: 22/05/2000 21:39:07  
 Subject ID:                      Report Printed: Friday, 17 September 2010 17:22:07  
 Database: D:/Documents and Settings/All Users.WINDOWS/Application Data/RJL Systems/BC/Databases//Demo.db

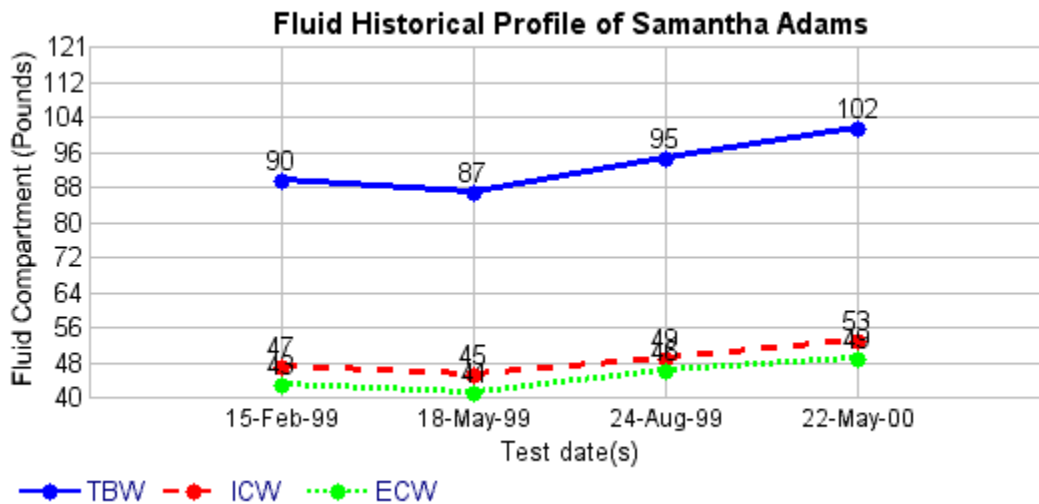
Current Test Data									
Height	Weight	Age	Gender	Resistance	Reactance	Frame	Chosen Goal Wt.	Activity Level	Equation Set
65 in	150 lb	20	Female	350 ohms	50 ohms	Medium	125.0	Heavy	NHANES-III
	<b>Current</b>	<b>Average Range</b>	<b>Comment</b>						
<b>Height</b>	65 in	60.9 - 66.4 in	Within Average by 1.4 in						
<b>Weight</b>	150 lb	110.7 - 180.8 lb	Within Average by 30.8 lb						
<b>Body Mass Index (BMI)</b>	24.96	19.5 - 31.1	Within Average by 5.5						
<b>Phase Angle (PA)</b>	8.1 Degrees	7.0 - 8.6 Degrees	Within Average by 0.5 Degrees						
<b>Basal Metabolic Rate (BMR)</b>	1819 Calories	1308.7 - 1621.9 Calories	Above Average by 197.4 Calories						
<b>Daily Energy Expenditure (DEE)</b>	3456 Calories	N/A							
<b>Fat</b>	14.0 lb	28.2 - 75.4 lb	Below Average by 14.2 lb						
<b>Fat % of Total Weight</b>	9.3 %	26.4 - 41.8 %	Below Average by 17.1 %						
<b>Fat-Free Mass (FFM)</b>	136.0 lb	80.0 - 107.8 lb	Above Average by 28.2 lb						
<b>FFM % of Total Weight</b>	90.7 %	58.2 - 73.6 %	Above Average by 17.1 %						
<b>Total Body Water (TBW)</b>	102.5 Pounds	59.3 - 80.5 Pounds	Above Average by 22 Pounds						
<b>TBW % of Total Weight</b>	68.3 %	43.2 - 54.8 %	Above Average by 13.5 %						
<b>TBW % of FFM</b>	75.3 %	73.0 - 75.8 %	Within Average by 0.5 %						
<b>Intra-Cellular Water (ICW)</b>	53.3 Pounds	33.3 - 42.1 Pounds	Above Average by 11.2 Pounds						
<b>ICW % of Total Weight</b>	35.6 %	23.0 - 30.4 %	Above Average by 5.2 %						
<b>ICW % of FFM</b>	39.2 %	38.9 - 41.9 %	Within Average by 0.3 %						
<b>ICW % of TBW</b>	52.1 %	52.4 - 56.2 %	Below Average by 0.3 %						
<b>Extra-Cellular Water (ECW)</b>	49.1 Pounds	26.0 - 38.4 Pounds	Above Average by 10.7 Pounds						
<b>ECW % of Total Weight</b>	32.8 %	20.1 - 24.7 %	Above Average by 8.1 %						
<b>ECW % of FFM</b>	36.1 %	32.4 - 35.6 %	Above Average by 0.5 %						
<b>ECW % of TBW</b>	47.9 %	43.8 - 47.6 %	Above Average by 0.3 %						
Please note that these ranges are average values taken from a treatment of the NHANES-III survey data. They are not to be interpreted as being "ideals" and may not necessarily reflect values that are generally considered "healthy".									







### Total body water compartment history



Change between		
	15-Feb-99 and Current	24-Aug-99 and Current
<b>Δ Weight</b>	-16.0 lb	-7.0 lb
<b>Δ Fat</b>	-31.7 lb	-16.1 lb
<b>Δ FFM</b>	+15.7 lb	+9.1 lb
<b>Δ LDM</b>	+4.0 lb	+2.4 lb
<b>Δ TBW</b>	+11.9 Pounds	+6.8 Pounds
<b>Δ ICW</b>	+6.0 Pounds	+4.3 Pounds
<b>Δ ECW</b>	+5.8 Pounds	+2.4 Pounds
<b>Δ BMI</b>	-2.7	-1.2
<b>Δ BMR</b>	+148.0 kCal	+87.0 kCal
<b>Δ DEE</b>	+281.0 kCal	+164.0 kCal
<b>Δ PA</b>	+0.1 degrees	+1.2 degrees
<b>Δ Height</b>	+0.0 in	+0.0 in

## Diet and Exercise

Based on your daily activity level, it is estimated that you require **3456** calories of food to keep your weight stable.

It is recommended that you lose **25.00 lb** of body fat, at a rate of **1.50 lb per week**. To do this through diet alone, you would have to reduce your food intake to **2706** calories per day. If, on the other hand, you were to exercise regularly, you would not need such a restrictive diet to achieve the same rate of weight loss. At **1.50 lb per week**, it should take you **116 days** to reach your target.

If your exercise program is done consistently, (every other day) then your BMR and daily energy expenditure will improve, thereby increasing the efficiency of burning calories.

Ideally, most of the weight you lose will be fat. It is normal to lose some excess water, especially during the initial phase of your diet and/or exercise program. This may cause fluctuations in your Total Body Water and Fat Free Mass. A regular exercise program and sensible diet will produce an increase in muscle and decrease Body Fat throughout your weight loss program.

When a weight management program is created with the BC program, it involves an AVERAGE daily number of calories that will need to be burned through additional exercise and an AVERAGE daily intake. If you work twice as hard one day, you can take the next day off. If you consume more calories than recommended one day, you can compensate by cutting back even further the next. For best results, however, it is recommended that you be as consistent as possible with your diet and exercise programs.

To help manage your weight, a sample diet of **3100 Calories** has been prepared for you, as well as a recommendation that you get an average of **394 Calories** of additional exercise on a daily basis.

Exercise	Calories burned per				
	10 Minutes	20 Minutes	30 Minutes	60 Minutes	120 Minutes
bicycling, 10-11.9 mph, leisure, slow, light effort	68	136	204	409	818
stretching, hatha yoga	28	56	85	170	340
weight lifting (free weight, nautilus or universal-type), power lifting or body building, vigorous effort	68	136	204	409	818
weight lifting (free, nautilus or universal-type), light or moderate effort, light workout, general	34	68	102	204	409
aerobics, general	73	147	221	443	886
aerobics, high impact	79	159	238	477	954
aerobics, low impact	56	113	170	340	681
running, 6 mph (10 min/mile)	113	227	340	681	1363
basketball, non-game, general	68	136	204	409	818
football, touch, flag, general	90	181	272	545	1090
golf, walking and carrying clubs	51	102	153	306	613
hockey, ice	90	181	272	545	1090
soccer, casual, general	79	159	238	477	954

walking, 3.0 mph, level, moderate pace, firm surface	37	75	112	225	450
swimming, leisurely, not lap swimming, general	68	136	204	409	818
Elliptical Trainer (Light workout)	90	181	271	543	1087
Elliptical Trainer (Moderate workout)	113	226	340	680	1360
Elliptical Trainer (Vigorous workout)	136	272	408	816	1632

**DAILY DIET PLAN**

The following diet plan and sample menu is based on the American Heart Association, the American Cancer Society and the Surgeon General's National Dietary Guidelines. It is high in carbohydrates and fiber, low in fat, low in salt (less than 3000 mg sodium) and provides over 100% of the RDA of essential nutrients.

**SAMPLE MEAL PLAN FOR 3100 CALORIES**

50 % Carbohydrate (361 gm.) 30 % Fat (97 gm.)  
20 % Protein (147 gm.) 185 Additional Calories

Meal	Servings from Each Food Group						Additional
	S	P	F/V	M	F		
Breakfast	1/2 Cup Bran Flakes	1					
	1/2 Banana			1			
	1 English Muffin	2					
	2 Tsp. Margarine					2	
	1 Cup Skim/Lowfat Milk				1		
	1/2 Grapefruit			1			
	Coffee						
Lunch	4 Slice Whole Wheat Bread	4					
	4 Oz. Sliced Chicken		4				
	6 Tsp. Diet Mayonnaise					1 49/50	
	Carrot/Celery Sticks						
	1 Cup Skim/Lowfat Milk				1		
	5 Vanilla Wafers	1					14
	1 Orange			1			
Dinner	6 Oz. Broiled Whitefish		6				
	2/3 Cup Rice	2					
	1 Small Dinner Roll	1					
	2 Tsp. Margarine					2	
	1/2 Cup Peas	1					
	1 Cup Carrots			2			
	1 Cup Skim/Lowfat Milk				1		
	1 Tossed Salad and Diet Dressing						
1/2 Fruit Cocktail			1				
Snack	2 Slice Whole Wheat Bread	2					
	1 Oz. Lowfat Cheese		1				
	1 Tsp. Mayonnaise					1	
	1 Cup Orange Juice			2			
	1 Apple			1			
1 Soft Drink						150	

- S = Starches
- P = Protein
- F/V = Fruits/Vegetables
- M = Milk
- F = Fats/Oils

## FOOD GROUPS

### PROTEIN GROUP (Meat/Poultry/Seafood/Dried Beans and Peas/Eggs)

Foods from this group provide an excellent source of the B vitamins, iron and key minerals. They are high in protein and generally low in carbohydrates (except the dried beans and peas). You are allowed 11 serving(s) from this group each day. A serving has approximately 75 calories, 7 grams protein, and 5 grams fat.

#### BEST CHOICES

1 oz. chicken or turkey  
 1 oz. fish - all types  
 1/4 Cup dried beans, peas  
 1 oz. lean beef, veal, pork or lamb  
 1 oz. lowfat luncheon meat  
 1/2 Cup Lowfat Cottage Cheese

#### CHOOSE LESS OFTEN (higher in fat and salt)

Fatty cuts of meat  
 - (brisket, corned beef, steak)  
 Ham, deviled ham, organ meats,  
 luncheon meats, sausage,  
 eggs (yolk), Peanut Butter  
 High Fat Cottage Cheese  
 and Most Cheeses

### STARCHES/GRAIN GROUP (Pasta/Cereals/Starchy Vegetables)

Foods from this group provide an excellent source of fiber, B vitamins, and iron. They are high in carbohydrates, the best fuel for muscle. They are usually low in fat and cholesterol. You are allowed 14 serving (s) from this group each day. A serving has approximately 80 calories, 15 grams carbohydrate, 3 grams protein, and a trace of fat.

#### BEST CHOICES

1 Slice Whole Grain Bread  
 1/2 Bagel or English Muffin  
 2 Breadsticks, 1 Bun, 1/2 6" Pita Bread  
 1/2 Cup Bran Cereals  
 1/2 Cup Cooked Cereals  
 8 Animal Crackers, 5 Vanilla Wafers  
 3 Cups Popcorn - Air Popped  
 1/2 Cup Pasta/Noodles  
 1/3 Cup Rice, 1/2 Cup Corn or Peas  
 1 Cup Squash  
 1/2 Cup Clear Soup with Vegetables  
 3/4 Cup Ready-to-eat Unsweetened Cereal  
 1/3 Cup Cooked Peas, Beans or Lentils  
 1 Small Baked Potato, 1/2 Cup Mashed Potato

#### CHOOSE LESS OFTEN (higher in fat and salt)

Butter Rolls  
 Croissants  
 Muffins, Doughnuts  
 Granola-Type Cereals  
 French Fried Potatoes  
 Potato Chips  
 Cheese Crackers  
 Butter Crackers  
 Corn Chips  
 Microwave Popcorn  
 Cream Soups  
 Presweetened Cereals  
 Stuffing



<b>FRUITS/VEGETABLES GROUP</b>
--------------------------------

Foods from this group provide an excellent source of fiber, vitamins, and minerals. They are a good source of vitamin A and C. They are also high in carbohydrates, and usually low in fat and salt. You are allowed 9 serving (s) from this group each day. A serving of fruit has approximately 60 calories and 15 grams carbohydrate. A serving of vegetables has approximately 25 calories, 5 grams carbohydrate and 2 grams protein.

**BEST CHOICES**

All fresh fruits and vegetables  
 1 Serving : 1 piece fresh fruit (medium)  
 or 1/2 Cup fresh fruit juice  
 1/2 Cup cooked vegetables  
 1 Cup raw vegetables

**CHOOSE LESS OFTEN  
(higher in fat and salt)**

Fruit Drinks  
 Avocados  
 Olives  
 Coconut  
 Breaded or Fried Vegetables

<b>FATS/OILS GROUP</b>
------------------------

Foods from this group provide an excellent source of vitamin A and E. Some fat is needed each day, however most diets are too high in fat. You are allowed 7 serving(s) from this group each day. A serving of fat has approximately 45 calories and 5 grams of fat.

**BEST CHOICES  
(tends to lower blood cholesterol)**

Monosaturated/Polyunsaturated Fats:  
 1 Tsp. Soft Margarine or Mayonnaise  
 1 Tsp. Oil - Safflower, Sunflower, Corn,  
 Soybean, Sesame, Olive  
 6 Almonds, 20 Small Peanuts  
 2 Whole Pecans, 10 Small Olives  
 2 Tsp. Mayonnaise based Salad Dressing  
 1 Tbl. Reduced Calorie Salad Dressing  
 2 Tbl. Reduced Calorie Margarine  
 1 Tbl. Light Cream Cheese

**CHOOSE LESS OFTEN  
(tends to raise blood cholesterol)**

Saturated Fats:  
 Butter, Bacon  
 Coconut Oil  
  
 Cream, Cream Cheese  
 Lard, Shortening  
 Salt Pork  
 Gravy

<b>MILK/DAIRY GROUP</b>
-------------------------

Foods from this group provide an excellent source of calcium, phosphorus, riboflavin, vitamin A and vitamin D. They are high in protein and carbohydrate. You are allowed 3.0 serving(s) from this group each day. Each serving has approximately 80 calories, 12 grams carbohydrate and 8 grams protein.

**BEST CHOICES**

1 Cup Skim or Lowfat Milk  
 1 Cup Lowfat/Nonfat Buttermilk or Yogurt  
 1 oz. Evaporated Skim Milk  
 4 oz. Nonfat Frozen Yogurt

**CHOOSE LESS OFTEN  
(higher in fat)**

Whole Milk, Half and Half  
 Whole Milk/Sweetened Yogurt  
 Sweetened Condensed Milk  
 Ice Cream

<b>ADDITIONAL CALORIES GROUP</b>
----------------------------------

Foods from this group usually contain larger amounts of sugar and fat and therefore are higher in calories. Most of these foods should be avoided by weight conscious individuals and diabetics. You are allowed 185 additional calories each day. You may choose to have more servings from the above groups.

<b>LOW IN CALORIES</b> <b>(less than 100 calories)</b>	<b>HIGH IN CALORIES</b> <b>(more than 100 calories)</b>
1 Tsp. Sugar.....14	12 oz. Light Beer.....100
5 Lifesavers.....39	1 Cake Doughnut.....105
1 Tbl. Jelly.....49	1/12 of Cake - Angel Food Cake....126
3 Small GingerSnaps.....50	1 Small Chocolate Brownie.....130
2 Sugar Wafers.....53	1 oz. Tortilla Chips.....139
1/2 Cup Gelatin Dessert.....71	12 oz. Soft Drink.....150
3.5 oz. Wine.....80	1.02 oz. Chocolate Candy Bar.....160
1 Medium Oatmeal Cookie.....80	1 Small Slice Sponge Cake.....196
1/2 Cup Vanilla Ice Cream....92	1 Small Slice Cheesecake.....257
	1 Cup 16% Fat Vanilla Ice Cream...379

<b>FREE FOODS GROUP</b>
-------------------------

Foods in this group, in general, have less than 20 calories per serving. Use moderation when including them in your daily diet.

---

Bouillon/Broth  
 Diet Soft Drinks  
 Carbonated Water/Club Soda  
 1 Tbl. Cocoa Powder  
 Nonstick Vegetable Pan Spray  
 Butter Buds  
 1/2 Cup Unsweetened Cranberries  
 1/2 Cup Unsweetened Rhubarb  
 1 Cup Alfalfa Sprouts, Bean Sprouts, Cabbage, Celery, Cucumber, Green Onion  
 Hot Pepper, Mushrooms, Parsley, Radishes, Tomato  
 Salad Greens  
 1 Tbl. Barbeque Sauce  
 1 Tbl. Catsup  
 Oil-Free Salad Dressing  
 1 Tbl. Steak Sauce  
 Seasonings, Spices, Herbs, and Flavoring Extracts

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## What do the Results Mean?

- **FAT**

Fat is the energy storage of the body. Everybody needs fat in their bodies, but it is important not to have too much.

- **Fat Free Mass (FFM)**

This value is, literally, what would be left after all fat was removed from the body. Many people also refer to FFM as Lean Body Mass (LBM).

- **Lean Dry Mass (LDM)**

LDM is what would remain if 100% of the water was extracted from FFM.  
In other words:  $LDM = FFM - TBW$ .

- **Total Body Water (TBW)**

Literally, the total amount of water in the body. Since fat is essentially 0% water, TBW is entirely contained within FFM.

- **Intra-Cellular Water (ICW)**

This is the portion of Total Body Water that is located within the body's cells.

- **Extra-Cellular Water (ECW)**

This is the portion of Total Body Water that is located outside of the body's cells. Examples of where ECW is found include, but are not limited to: blood plasma, spinal fluid, joint fluids, and edema.

- **Target Weight**

If you and your patient know how much he/she should weigh, this value can be manually entered. Otherwise, it is calculated using a set of standardized formulas.

- **Body Mass Index (BMI)**

A person's BMI is equal to their weight in kilograms divided by their height in meters, squared. BMI is commonly used as an indicator of whether someone is overweight. It is important to note, however, that somebody who is "overweight" may not necessarily be "over-fat". A 5'10", 300 pound couch potato and a 5'10", 300 pound bodybuilder will have exactly the same BMI.

- **Basal Metabolic Rate (BMR)**

Basal Metabolic Rate is the number of calories that a person will use per day, by virtue of simply being alive (i.e., lying still and breathing).

- **Daily Energy Expenditure (DEE)**

People generally do not lay in bed all day, doing nothing but breathing. To estimate how many calories a person actually burns in a day, the program will adjust the BMR based on what you entered as the

person's daily activity level.

- **Phase Angle**

Phase angle is the arc-tangent of (reactance over resistance), and is measured in degrees.