

# **McQuinn Naturopathic**

## **Medically Supervised HCG Weight Loss Program**



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**McQuinn hCG weight loss program** is a patient-centered program that works with you and your busy life! We personalize the program for each individual - while addressing your weight loss we also monitor any other health concerns you may be experiencing. Our program is medically supervised, such that, you are overseen by medical professionals who take into account your physical, mental, and emotional needs. This program is flexible and satisfying, and the results are lasting. On this program your energy levels should be great, and your appetite controlled. You get to eat yummy foods like filet mignon with fennel-cherry sauce and asparagus, grilled salmon with pesto and lemon herb vegetables, chicken breast with spicy orange-ginger glaze with a leek spinach salad, or shrimp and calamari with minted onions and peppers. McQuinn Naturopathic believes that a weight loss program should not only be safe and effective, but sustainable and individualized as well. We use tasty, calorie-balanced foods to correct underlying imbalances to weight, we encourage satisfying snacks to prevent you from feeling hungry or deprived, and we teach you the principles of weight loss so that you may continue being successful long after you've completed our program.

**Contact us today! McQuinn Naturopathic hCG Weight Loss**  
[www.mcquinnnaturopathic.com](http://www.mcquinnnaturopathic.com)   [www.diet-doc.com](http://www.diet-doc.com)   (425) 293-0107

## Congratulations!

You have taken an incredible first step on your way to losing weight, and creating a healthier, happier life! **McQuinn Naturopathic's** hCG program is a medically supervised weight loss protocol that is highly effective, and individualized. This program was created with you in mind, allowing you flexibility, and supportive motivation to lose weight.

Many patients that have walked in 5, 20, even 100 pounds overweight not only had success losing weight, but also noticed feeling better than they have in years, due to our holistic and comprehensive approach to weight loss.

Some of our services and products include:

- **HCG:** Oral and Injectable (prescription required), or homeopathic hCG drops (non-prescription)
- **Prescription vitamin injections:** These injections are formally called "lipotropics" (fat-moving) and may be used in conjunction with hCG - helping facilitate weight loss.
- **Weight-loss products and supplements:** Meal replacement protein bars & shakes specially formulated with whey protein to sustain your energy with minimal carbohydrates. Contains a proprietary blend of herbs and minerals to aid weight-loss, and helps to "fill in the blanks" for snacks and on-the-go nutrition.
- **MCT oil:** Derived from coconut oil, this medium-chain-triglyceride (dietary fat), is easily digested and processed in the liver – giving you an extra energy boost, as well improving fat loss while on a calorie restricted diet. We have also found that it is helpful for avoiding constipation, which is common with a low calorie diet.
- **hCG compatible spices and recipes** – Spice blends made locally with hCG compatible recipes, taking the guess work out of spicing up your diet!
- **Supplemental, functional, and medicinal treatments** – We address your needs, both medical and holistic. We address detoxification, hormone balancing, correcting digestive dysfunction, as well as monitoring current health issues to facilitate long-term health.
- **Individualized weight maintenance programs** developed to keep the weight off, and promote long-lasting health and wellness!

Instead of resorting to dangerous diet pills or bariatric surgeries, we offer a safer solution. We've developed a weight loss program that is sustainable and effective. We are committed to helping you lose the weight quickly, and keep it off permanently!

**McQuinn Naturopathic** addresses diet imbalances by teaching our patients how to make healthier food choices, and portions based on individual caloric needs. If you need additional assistance, we are available to communicate by phone, email, or in person.

We are open Monday – Friday from 9:00am-5:30pm, and Saturdays from 9:00am-3:00pm.

## History

Over the past several decades there have been many weight loss programs put forth as potential solutions to combat our ever-increasing waistlines. Until now, they have all shared at least one common short-coming: they approach weight reduction too simplistically. The reasons that we gain weight and have a difficult time losing weight are complex, and not properly addressed by simple solutions. Only recently has science unveiled the important genetic variances and genetic tendencies we have as human organisms – and how our individual genetic alphabet is read and then re-written by our unique nutritional, social, and behavioral environments. We have also recently gained significant insights on how a complex array of hormones specifically involved with weight, appetite, and metabolism contribute to weight gain and weight loss. We now know that very often losing weight is not as simple as just reducing calories by restricting food intake or having a surgery performed. Without looking at the whole picture and addressing the underlying complexities of weight, most people will find weight loss, and sustained weight maintenance to be extremely challenging.



One of the initial efforts to address these inherent complexities of weight loss was made over 50 years ago by Dr A.T.W. Simeon in Rome, Italy. He used very small amounts of a hormone called Human Chorionic Gonadotropin (hCG) coupled with a very low calorie diet to help patients lose weight without feeling hungry. At the time, he did not know how or why this occurred, he simply observed the results. Unfortunately, his program did have some unwanted consequences as well; the most important one being that in addition to losing fat mass many of his patients also lost significant amounts of lean body mass. A couple of decades later another physician, Dr Daniel Belluscio in Switzerland, began researching hCG for weight loss and discovered some of the mechanisms and pathways through which hCG assists with weight loss. More recently, we have learned just how active fat cells are metabolically, and how they communicate with the brain through a variety of signaling mechanisms. This communication between the brain and fat cells becomes dysfunctional with weight gain and serves to encourage more weight gain. Until this communication is corrected, patients will struggle with weight loss even when they are eating healthy diets. Our medical staff have learned from the advances and mistakes of past weight loss programs and fused this knowledge with their superior understanding of nutrition and weight loss science to create this amazing program for you!

- Understand how environmental factors can affect your weight
- Correct underlying imbalances which contribute to weight gain
- Learn how to use food as medicine to aid weight loss

## Mind and Body

While hCG is an incredibly useful adjunct to our weight loss program, it is not a magic wand which melts fat away on its own - it takes effort on our part too. The good news is: the more effort we put into it, the more effective it will be to help us lose weight. Let's begin with the mind. For the vast majority of patients, this program will represent a change in dietary eating habits. Ultimately, this means a change in patterns of behavior. In every culture, the act of eating has come to take on much more meaning than merely providing fuel and raw material to sustain life. At the same time, *physical hunger* has been broadened to the more general concept of *appetite*. Eating and appetite are influenced by our social networks, emotional states, stress, media and marketing, habits of comfort and convenience, educational and economic status. Even our ability to shop for and prepare foods affects the diet. Changing behavior is not as simple as having strong will-power, and it rarely happens overnight. It requires a concerted, sustained effort between patient and practitioner to reshape the behavior. Manageable goals must be set, and progress monitored. Stimuli must be identified and controlled. Meals should be appropriately planned, and a social support system adequately engaged. Efforts made to address these important aspects of the mind and behaviors are greatly rewarded in the short term with fast, effective weight loss, and long term, with better health and wellness.

Before one meal each day take a deep breath and recite this mantra quietly to yourself:  
"I choose to be healthy"



Now let's turn our attention to the physical aspects of weight loss. hCG will not be effective without being on some sort of diet. The type of diet that couples best with hCG is a ketogenic diet, or a diet which produces ketone bodies as a fuel source. There are two basic methods of getting into a state of ketosis. The first is through total calorie restriction (ie 500cal/day). Due to safety concerns inherent with this severe restriction, our preferred method is a diet which focuses on the restriction of high glycemic carbohydrates. Through the combination of our ketogenic diet and the administration of hCG, the physical body changes in a number of ways to encourage weight loss. Hunger is well controlled, mood and energy are good, water weight is lost, the storage of fat is stopped, fat is released from the fat cells, insulin and leptin sensitivities are improved, and the proper communication between the brain and the fat cells is re-established. When we increase physical activity, we thereby increase the release of glucagon and malonyl-CoA in the body. This leads to internal metabolic pathways shifting toward burning fat and weight reduction.

There are many weight loss programs that can be temporarily successful; the problem is they almost always lead to weight cycling, or yo-yo dieting. This is not only frustrating, but bad for your health. Reliance on counting calories or points, or eating only pre-packaged foods is not a realistically sustainable lifestyle. These methods completely dismiss the critical roles both mind and body play in ensuring long-term success. We understand the complex contributions that mind and body make toward having success with a weight loss program. Our team will work with you every step of the way to help you reshape your body and your life!

## hCG

hCG can help with weight loss when coupled with an appropriate diet. To optimize its actions it is important to administer it as safely and effectively as possible. This begins by knowing its source and preparation. The hCG utilized by our program is derived from isolated and sterile human sources, and prepared by a highly regarded, **FDA approved pharmacy**, here in the United States. Many other companies obtain their hCG from unknown sources, sometimes non-human, or in unlicensed and uninspected facilities. Some purchase hCG illegally without a prescription and sell it on the internet. Most of the hCG on the market does not require a prescription because it is a homeopathic preparation. This is a type of energetic medicine, with no measurable quantity of actual hCG hormone.

**McQuinn Naturopathic** gives our professional guarantee that we will provide you with full strength hCG manufactured from FDA licensed pharmacies in the United States.



While hCG is generally well tolerated with minimal side effects, we are all genetically unique individuals. Some patients begin the program on medications or have existing medical conditions. With our careful medical supervision, we can minimize adverse effects and recommend solutions should they arise.

We also consider the most appropriate route of administration, and the dose to be prescribed. This varies from patient to patient. Working with your **McQuinn Naturopathic** physician is important to determine what option is best for you. For most patients, there are 3 forms available:

- **Daily subcutaneous injections** (under the skin – self-administered)
- **Daily sublingual tablets** (under the tongue – self-administered)
- **Weekly intramuscular injections** (administered by our clinic staff)

Our staff will teach you how to safely and effectively administer the hCG at home. Changing routes of administration is allowed. Dose of hCG will be determined during your initial visit, and may be changed if clinically necessary. **Your prescription for hCG must be renewed every 3 months.**

**If you should experience any unwanted symptoms or side effects, please call 425-293-0107.**

The following disclaimer is required by the FDA:

There is no substantial evidence that hCG increases weight loss beyond that expected from calorie restriction. The FDA has not approved hCG for weight loss.

## **Four Phases**

Phase I of the diet will last two weeks for most patients, and is intended to alter how the brain and fat cells communicate. Once we shift the metabolism and eliminate cravings, we will incorporate Phase II. Phase II consists of expanding the foods available in the diet, and increasing physical activity so that weight loss continues at a steady pace. Most patients tend to experience a weight loss plateau during the program, for a variety of different reasons. **McQuinn Naturopathic** will determine the specific contributions to your plateau, and implement Phase III of the program. Once you achieve your desired weight loss goal, a comprehensive weight maintenance program (Phase IV) will be individually created to promote your long term health and wellness.

### **Phase 1:**

#### **Low Calorie Diet**

- Alter Metabolism
- Stop Cravings

### **Phase 2:**

- Lose Fat Weight
- Retain Muscle
- \*Add new foods!
- \***Add in Exercise!**

### **Phase 3:**

- Push Through Plateaus

### **Phase 4:**

#### **Maintenance**

- Customized Meal Plan
- Sustainable Health
- Weight Stabilization

## The McQuinn Naturopathic hCG Diet



### **Phase I – Loading phase:**

Shifting patterns to alter metabolism and eliminate cravings

“One cannot keep a patient comfortably on a restricted diet unless his normal fat reserves are reasonably well stocked. **It is for this reason also that every case, even those that are actually gaining must eat to capacity of the most fattening food they can get down until they have had the third injection.**” Dr Simeons

Day 1 and 2:

The loading phase consists of 2 days of hCG and consumption of a high fat/high carb diet. This does not have to be bacon and fried chicken at every meal. Healthy fats and carbs can help you achieve the same results. Nuts and nut butters, avocados, cheeses, etc. for fats, and whole grains, legumes and fruits can do it too. Speak to your **McQuinn Naturopathic** physician if you have dietary restrictions, food allergies, or a vegetarian diet.

Sample loading day menu:

Breakfast: 3 egg omelet with cheese and vegetables, home fries

Lunch: Rubeen sandwich

Snack: hummus or cheese and crackers

Dinner: Italian Meat Lasagna, Red wine

Dessert: 2 scoops of chocolate ice cream

As you can probably tell, there is a significant amount of dietary fat contained in each meal and snack. The total number of calories contained in this meal plan is approximately 2500 calories, and fat content is 110g (48g saturated fat). Eating this way, while not uncommon, is not what we at McQuinn Naturopathic consider a normal healthy diet. This is a high fat diet that will fill up all fat reservoirs in the body and will also cause many triglycerides to be present in your blood. This makes it easier, once you start the low calorie, low carbohydrate, and low fat diet for your body to convert first the circulating then the stored triglycerides into energy.

**Low Calorie Diet (Most patients will average between 800-1100 calories)**  
**REMEMBER: Your goal is to eat every 2-3 hours to balance blood sugars!**

**Breakfast:**

- 3 egg white omelet with ½ cup vegetables -OR-
  - ½ Meal Replacement Protein Bar -OR-
  - 1 Meal Replacement Protein Shake (see recipe)
- \*Tea or coffee may be taken **without milk or sugar**. The shake powder may be added to coffee or tea as a creamer. Only Stevia or Xylitol may be used as sweeteners. Artificial sweeteners are strictly prohibited.

**Snack:**

- 1 Meal Replacement Protein Shake (see recipe) -OR-
- ½ Meal replacement Protein bar -OR-
- 2oz. Protein Snack

**Lunch:**

Measure out: **3.5 4 4.5 ounces**

◇Proteins include:

- **Lean Beef, Chicken or Turkey Breast, Eggs, Venison, Buffalo, White Fish, Salmon, Tuna, Lobster, Crab, or Shrimp.**

\*All visible fat must be removed before cooking, and meat must be weighed raw.



**Combine your lunch / dinner protein with 1 cup of vegetables**, cooked or raw, which may be mixed and matched.

◇Phase I Vegetables include:

- **Spinach, Chard, Asparagus, Beet-greens, Green Salad, Cauliflower, Zucchini, Tomatoes, Celery, Fennel, Onions, Radishes, Cucumbers, Broccoli, Cabbage.**

\*At the end of your lunch or dinner, you may have a small portion of fruit. It is important for your continued weight loss that you **do not eat fruit by itself** or its effect on your glucose may cause you to come out of ketosis.

◇Phase I fruits include:

- **Medium apple, medium pear, a handful of strawberries or cherries, or citrus.**

**Snack:**

1 Meal replacement protein shake (see recipe)

**Dinner:**

The same meal options as lunch.

**Bedtime:**

1 Meal replacement protein shake (see recipe)

**Additions:** Salt, pepper, herbs, and spices are allowed, provided they contain no sugar or artificial sweeteners or fillers. The juice of one lemon or one lime is allowed per day, as well as apple cider vinegar for making marinades and vinaigrettes. Bragg's Liquid Aminos may be used as a low sodium soy sauce/ salt replacement. MCT oil should replace regular cooking oil (and butter) while on the hCG weight loss program. Low sodium broth may be used to make soups. If you chew gum, choose Xylitol sweetened gum only. Avoid alcohol for the first two weeks on the program. Please, no dietary substitutions without prior doctor approval.

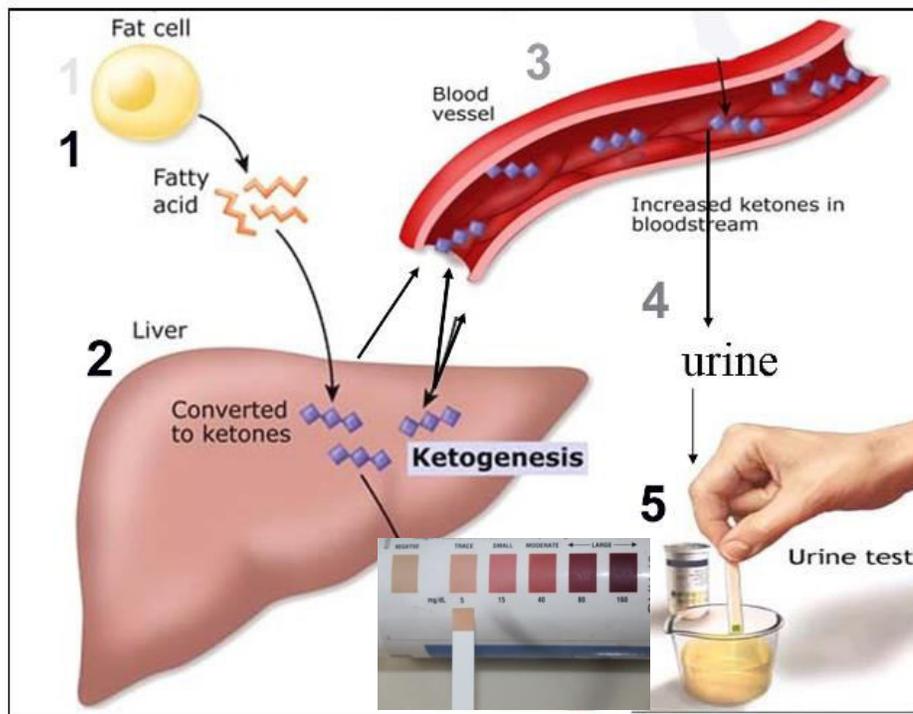


## Ketone Testing

Typically, the type of fat being mobilized during weight-loss is not utilized directly as a fuel source, so the body changes the fat into a more useable form of energy. In the absence of high glycemic carbohydrates, after 48-72 hours the liver begins to produce ketone bodies from fat stores. These ketone bodies then become the body's significant source of fuel. By the 4<sup>th</sup> or 5<sup>th</sup> day of being on the **hCG** weight loss program, your body should be in a trace to moderate state of ketosis. You confirm this by checking your urine first thing each morning. Being in a consistent state of ketosis is important for your success on the program. The level of ketosis should fall within the target range; trace to moderate is all that is needed - more is not better. While there are many benefits of ketosis for weight loss, there are potential risks as well, so every patient entering into a state of ketosis must be monitored by a physician.

Leave the ketone strips on your night-stand, or somewhere that you will easily remember to test yourself for ketosis 1<sup>st</sup> thing in the morning, beginning on day 4. Follow the instructions on the package, and compare the result with the printed scale on the bottle. Your goal will be to remain in the trace to moderate range of ketosis. Higher levels are not recommended for long periods, as they are an indication that your body is not efficiently using the fatty acids for energy. **If the test is negative:** It may indicate that you are not in ketosis. In this case you MUST eliminate all fruits from your diet including tomatoes. Fruit is a significant source of fructose, which some people cannot process efficiently. If you are one of these people, the fructose may be preventing you from getting into ketosis. If you have eliminated the fruit and are not yet in ketosis the following day, it may also mean that you are over hydrated. If you are monitoring your water intake, have removed the fruits, and are still having trouble with ketosis, call the clinic.

## Ketone Testing in HCG Diet



**Dosage Schedule:**

hCG should be taken 1<sup>st</sup> thing in the morning before any food is ingested.

**Injections:** Self-administer into the subcutaneous fat of the abdomen. You may “pinch an inch” to avoid injecting too deeply. A brand new syringe must be used each time. Use the alcohol swab to clean the area you intend to inject, as well as the rubber seal of the hCG bottle. Draw back to the correct number on the syringe (based on your prescription), and inject the air into the bottle. Slowly draw back to that number while keeping the tip of the needle submerged in the hCG solution. Insert the needle quickly into the injection site, and inject.

Needles MUST be collected in a safe place. Properly dispose of your needles at your local needle drop, fire station, or police station. You may purchase a sharps container from any local pharmacy. **The hCG solution must be refrigerated at all times.**

**Tablets:** Dissolve completely under the tongue without chewing or swallowing. Do not chew or swallow whole, as you will not absorb any hCG. Avoid eating or drinking anything for 20 minutes afterward. Tablets do not require refrigeration.

**Loading Phase:**

**DAY:** \_\_\_\_\_

Day One: Take hCG and eat high-fat / high-carb foods until full. ENJOY! \_\_\_\_\_

Day Two: Take hCG and eat high-fat / high-carb foods until full. ENJOY! \_\_\_\_\_

**Weight Loss Phase:**

Day Three: Take hCG and begin low calorie diet and increase water intake. \_\_\_\_\_

Day Four: Take hCG and continue with low calorie diet.  
**Test for ketones** 1<sup>st</sup> thing in the morning. \_\_\_\_\_

Day Five: Take hCG and continue with low calorie diet.  
Test for ketones. \_\_\_\_\_

Day Six: Take hCG and continue with low calorie diet.  
Test for ketones. \_\_\_\_\_

**Day Seven:** **Skip hCG.** Continue with low calorie diet and water consumption. \_\_\_\_\_

**After the initial week:**

**No loading is needed.** Take hCG days 1-6, while continuing the low calorie diet and increased water consumption. Skip hCG dose on day seven. Continue checking for the production of ketones daily. Remember to come in for your follow-up appointments. We will take measurements and make any adjustments necessary.

**Second month consideration:**

Though not mandatory, we find that taking some time between the 4th and 6th week to target and strengthen your body’s detoxifications pathways can not only continue to encourage rapid weight loss, but also lead to better health and vitality overall. We will assess individual needs during the follow-up appointments, and make recommendations based on progress. Please continue to follow up with your progress every two weeks by making an appointment. We know through experience, the more you stay engaged with us, the more weight will come off, and stay off!

## Adjunct Weight Loss Services

We offer additional injections at our clinic, which can complement the **hCG** program and can encourage a higher level of success.

**B-12 Injection:** B-12 is involved with synthesizing and regulating DNA, cellular metabolism, energy production, and fatty acid degradation. Many medications, certain medical conditions, and the normal aging process can lead to B-12 deficiency. Injections of B-12 can improve energy levels and assist in the weight loss process.

**Buck-Shot Injection:** The liver is the most important organ involved with weight loss. If the liver is damaged by toxins, or stressed with excessive metabolic tasks, it will be less able to process ketones and eliminate small fat globules. Amino acids are naturally occurring lipotropic compounds such as choline, inositol, and methionine. These can optimize liver function through detoxification, and assist with removal of fat from the body. A substance called L-Carnitine is necessary for the body to properly metabolize fat. We combine L-Carnitine with amino acids and B complex and B12 vitamins in this injection to enhance your weight loss process.

**Calm-Me Injection:** Most Americans are deficient in magnesium. Restoring magnesium levels can help calm the nerves and muscles, improve irritability, food cravings, mild anxiety, muscle spasms, even menstrual cramping. The combination of magnesium with B complex vitamins in this injection may help you adjust to some of the stresses associated with dietary changes.

**Meyer's Cocktail:** This is a comprehensive intravenous nutrient push that provides B-complex, B-6, B-2, Magnesium, Calcium, and Vitamin C. It can be helpful preventing a cold, or even increasing weight loss during a plateau.

## **Weight Plateaus**

There are many reasons that may cause your weight-loss to plateau, or fluctuate during a weight loss program. Because of this, it is also effective to monitor body measurements, rather than focusing on what the scale may read from one day to the next.

Fluctuations in the retention and elimination of water, as the body loses fat and changes its composition, are very common. Since the majority of the fat is ultimately eliminated from the body through regular (daily) bowel movements, constipation can commonly cause a weight plateau. A past fixed weight, or degree of obesity can temporarily diminish weight loss until the body can establish a new basal metabolic rate. For females, the time around the onset of ovulation and menstruation can cause a fluctuation in weight. Even small dietary errors can cause significant disruptions in the biochemical changes necessary for weight loss to occur. Other existing health factors, such as hormone imbalances, digestive dysfunctions, and cellular toxicity can also lead to prolonged weight plateaus which persist until these factors are corrected.

•If you should experience any weight plateau lasting for more than three days, please call **McQuinn Naturopathic** at **425-293-0107** so that we can make the appropriate assessments and recommendations to get you back on track.



## **Continued Care:**

Our goal at **McQuinn Naturopathic** is to supervise you through a safe and effective weight loss program, and ensure that the weight stays off long term. No matter how the weight is lost - (diet, exercise, surgery, etc.), implementing long-term strategies to keep the weight off, promote health, and optimize wellness will be your key to success. Once we have assisted you in achieving your goals, we implement our weight maintenance program, which focuses on diet, exercise, stress modification, as well as individual health factors, to ensure the weight is kept off.

**McQuinn Naturopathic** recognizes the importance of other contributing factors to weight gain and loss. Hormone imbalances, digestive dysfunctions, and cellular toxicity should be corrected for consistent weight loss and optimal health. The **McQuinn Naturopathic** professionals can diagnose and treat disorders, as well as keep you healthy throughout the coming years. We can do annual exams and lab-work (including Well-Child checks), prescribe antibiotics if needed (or suggest an alternative), provide nutritional and dietary support, and many other primary care services. At **McQuinn Naturopathic**, we take care of you from the inside – out!



## Inch Loss Chart

| Date             | Neck | Chest | L Arm | Midriff | Hips | L Thigh | Total |
|------------------|------|-------|-------|---------|------|---------|-------|
| Visit 1          |      |       |       |         |      |         | X     |
| Visit 2          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 3          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 4          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 5          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 6          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 7          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |
| Visit 8          |      |       |       |         |      |         | X     |
| Difference<br>⇒⇒ |      |       |       |         |      |         |       |

## **Biomarkers of Health BIA Machine Analysis**

**Phase Angle:** You can compare this to the attached chart showing the ranges that your number should fall into. The Phase angle is a measurement of your body's overall health. Phase angle is based on total body resistance and reactance and is independent of height, weight and body fat. Lower phase angles appear to be consistent with either cell death or a breakdown of the cell membrane. Higher phase angles appear to be consistent large quantities of intact cell membranes and body cell mass. As you would expect the phase angle is increased with an increase in body mass, even though obesity itself is not associated with good health. All living substances have a phase angle. In fresh uncooked vegetables the phase angle can exceed 45 degrees. In cooked vegetables phase angle is zero because they are dead.

Phase Angle is a predictor of outcome and indicates the course of disease or increases as the result of optimal health based on good nutrition and consistent exercise. Usually, a phase angle of 6 or greater is desired for men and 5 or greater is desired for women.

As we get older our phase angle will decrease and will be approximately 4 or less when we die. Fit adolescents may have a phase angle greater than 10. This effect is a result of cell integrity due to age. Low phase angles are consistent with:

- Malnutrition
- Infection (HIV/AIDS, bacteremia)
- Chronic disease (cirrhosis, renal disease, pulmonary tuberculosis)
- Cancer (most types)
- Abusive life style
- Chronic Alcoholism
- Old Age (80 - 100 years)

**Body Cell Mass:** BCM is the functional mass of the body where work is done. All oxygen consumption, carbon dioxide production, glucose oxidation, protein synthesis and other metabolic work takes place within the body cell mass. The body cell mass is, in effect, the total mass of all the cellular elements in the body, and therefore, represents the metabolically active component of the body. In the normally nourished individual, muscle tissue accounts for approximately 60% of the body cell mass, organ tissue for 20% of body cell mass, with the remaining 20% made up of red cells and tissue cells. It also contains the majority of the body's potassium, (98 - 99%).

**Extracellular mass:** The ECM is the support mass of the body and is metabolically inactive, consumes no oxygen, produces no carbon dioxide and performs no work. The extracellular mass consists of extracellular fluids and tissue, such as bone and cartilage, with its primary function that of support and transport. ECM is located outside of the cellular compartment or outside of the body cell mass.

**Lean Body Mass:** Lean body mass is the sum of body cell mass and extracellular mass.

**Fat Mass:** Fat is the energy storage mass of the body and is the total lipid mass (triglycerides) with a density of .9 g/ml. Fat mass is equal to actual weight minus fat free mass

**ECM/BCM:** the ratio of your extra Cellular Mass and your Body Cell mass

**Body Mass index:** is a ratio between weight and height. It is a mathematical formula that correlates somewhat with body fat. If your BMI is high, you may have an increased risk of developing certain diseases, including:

1. Hypertension
2. Cardiovascular Disease
3. Dyslipidemia (elevated cholesterol, triglycerides etc.)
4. Adult-Onset Diabetes (Type II – insulin resistance)
5. Sleep Apnea
6. Osteoarthritis
7. Female Infertility

BMI is a better predictor of disease risk than body weight alone. However, there are certain people who should not use BMI as the basis for estimating body fat content: competitive athletes and body builders, whose BMI is high due to a relatively larger amount of muscle, and women who are pregnant or lactating. Nor is it intended for use in growing children or in frail and sedentary elderly individuals. People with BMI between 19-22 have been shown to live the longest.

**Basal Metabolic Rate:** is how many calories are burned at rest during the average day. The metabolic rate is determined by how many cells are producing oxidative energy. The more cells, the more energy, and the higher the basal metabolic rate. Thyroid, other hormones, medications, etc. all can affect the basal metabolic rate. A low basal metabolic rate means that any calories you consume above your unique basal metabolic rate are unnecessary to supporting you and will be converted into storage (fat). A low body temperature would occur if your rate of calorie burn is too low. If you consume a lot more calories than you need, then you may have an excessive appetite problem, which can be due to a neurotransmitter imbalance.

Metabolism occurs in two distinct and interdependent phases: 1.) *catabolism*, in which the body breaks down food into its component parts and harvests the energy stored in its atomic bonds, and 2.) *anabolism*, in which those component parts and energy are used to build new tissues and conduct basic life functions. Basal Metabolic Rate (BMR) is the amount of energy your body requires every day to perform its most basic function including:

1. Breathing
2. Digesting
3. Heart beating
4. Muscle activity
5. Transportation of fluids and tissue
6. Circulation of blood

**Intracellular water:** the fluid inside all of your body's cells. The cells of your muscles and organs (liver, kidney, brain, etc) contain more water than fat cells. The closer to ideal your ICW, the greater the number of cells that contribute to your metabolism.

**Extracellular water:** is the fluid that circulates outside your cells and throughout your body. This includes your blood, lymphatic tissue, and the ECM discussed previously. It should be noted that oxygen delivery to the cells is markedly reduced when there is excess extracellular water (edema).

You can track your Measurements below:

| <b>Measurement Area</b> | Starting pt | After 2 weeks | After 4 weeks | After 6 weeks | After 8 weeks |
|-------------------------|-------------|---------------|---------------|---------------|---------------|
| Neck                    |             |               |               |               |               |
| Bust                    |             |               |               |               |               |
| Arm                     |             |               |               |               |               |
| Midrift-Belly button    |             |               |               |               |               |
| Hips                    |             |               |               |               |               |
| Thigh                   |             |               |               |               |               |
|                         |             |               |               |               |               |
| Total Weight            |             |               |               |               |               |
| Total Inches Lost       |             |               |               |               |               |

[http://www.drkaslow.com/html/body\\_impedance\\_assessment.html](http://www.drkaslow.com/html/body_impedance_assessment.html)