



BODYCOMP MANUAL

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BodyComp Charting: Not Just For Bodybuilders

Bodybuilders all over the world aim for the same goals: gaining mass in the off-season and maintaining that mass while getting cut for a contest. So they eat a lot and train heavy, hoping to gain size, and then diet and do aerobic exercise, hoping to achieve that “ripped” look. But if they don’t monitor their body composition consistently, they’re as disadvantaged as an archer wearing a blindfold; chances are they won’t hit their target.

Though we are not trying to achieve the “ripped” look that bodybuilders are in search of, the process they go through to monitor their progress is a valuable tool for any person who is trying to improve their appearance or maintain a healthier lifestyle. Using the same procedures that bodybuilders undertake, it is possible for anyone to chart their progress, regardless if their goal is to decrease body fat, increase muscle mass or simply maintain their current body composition. Periodic evaluation and comparison of one’s body composition readings enables one to determine various possible changes which may occur in body composition. By determining those changes, it becomes possible to determine if any changes need to be made to one’s nutrition plan, exercise regimen, or both.

REMEMBER: MONITORING BODY COMPOSITION IS NOT JUST FOR BODYBUILDERS, HOWEVER, THROUGHOUT THIS DISCUSSION WE WILL RELATE THESE PROCEDURES AS IF BEING SPECIFICALLY DIRECTED TO BODYBUILDERS.

Reach Your Goals With BodyComp

Monitoring your body composition goes far beyond stepping on the bathroom scale.

Weighing yourself is a start, but it doesn’t provide enough information. Let’s say you gain twenty pounds in the off-season. How much is muscle mass and how much is body fat? The scale can’t give you that information. Now, let’s say you lose five pounds during the first week of your pre-contest dieting. Do you know how much of it is fat and how much of it is lean muscle mass? **Not if you rely on the scale.**

Body fat tests, too, fall short of providing enough information about body composition. When you have a body fat test done, you simply get a number. (Well, unless you know what you’re looking for, but that’s a discussion for another day.) The body fat tests allow you to tell all of your friends and loved ones your percentage of body fat.

Big deal. It doesn’t help you improve your physique.

Not only is it inconvenient and costly to get dipped in a water tank or subjected to electrical impedance, the data provided by most body fat testing methods is misleading and insufficient.



Test results may say that your body fat is lower than the competition's, but that's no guarantee that you look better than they do. **You may have lost a considerable amount of lean muscle mass while dieting or perhaps you're carrying all of your body fat in one place, such as your lower back, abdominals or glutes.**

That's important information that you need to know!

In addition, underwater weighing and electrical body fat tests are more accurate on individuals with more than 30 percent body fat. **For people with less than 15 percent body fat, they become progressively less accurate and can be seriously erroneous for very lean people.**

Bodybuilders need an accurate method of body composition testing that provides all of the essential body composition data and lets them see the effects that their training and nutrition protocols have on their physiques.

The BodyComp method is all of these, and more.

BodyComp charting uses skinfold calipers, the most accurate testing method for people under 15 percent body fat, to generate copious amounts of useful information. **The BodyComp method works equally accurate for all types of body compositions.**

With BodyComp charting, competitors discover their ratio of body fat to body weight, percentage of body fat, pounds of body fat and pounds of lean muscle.

The Nutrition For Profit BodyComp System explains how to use this information to gain quality size in the off-season and maintaining mass while getting "ripped" for a contest.

So you're not just given a single number; you're given valuable information about whether your nutrition and training are having the desired effects.

BodyComp charting is convenient and inexpensive. You can chart your body composition every day if you so desire. **With BodyComp charting you will hit your targeted goals every time!**

BodyComp Methodology

BodyComp charting is an accurate, convenient and inexpensive method of monitoring body fat and lean muscle mass. Skinfold calipers are used to measure body fat at nine locations on the body; pectoral, subscapular, bicep, tricep, kidney, suprailiac, abdominals, quadriceps, and medial calf. These measurements are used to determine the ratio of body fat to bodyweight, percentage of body fat, pounds of body fat and pounds of lean muscle mass.

Weekly BodyComp charting supplies bodybuilders with a wealth of valuable information. They learn precisely how many pounds of lean muscle mass and body fat they are carrying on their physiques at any given time.



Moreover, they can see the effects that various nutrition and training techniques have on their body composition.

Finally, they gain in depth understanding of their metabolic rate and body fat distribution and exactly when to make changes in their workouts and nutritional programs to continue getting positive results.

No other method of body composition testing provides such an abundance of useful information.

As body composition information is obtained, it's analyzed in the light of current training goals. If those goals aren't being achieved, nutrition and training strategies are reviewed and altered accordingly. **What this means is that you are no longer guessing if you're getting the desired results from your current nutrition and training strategies.**

By constantly (regularly) monitoring body composition with BodyComp charting, ***you'll always know exactly when it's time for a change.***

Off-Season Use

During the off-season when you are attempting to gain lean muscle mass and keeping body fat levels to a minimum, BodyComp charting is invaluable.

It lets you know if the weight you are gaining is lean muscle mass or body fat. **By charting body composition regularly (typically once per week), you'll know when it's time to adjust nutrition and training protocols so you can continue adding lean muscle mass instead of body fat.**

Pre-Contest Use

BodyComp charting is equally, if not more, important at pre-contest time. Never again will you have to guess what you should weigh at a competition. **By charting BodyComp measurements twice per week, you will know how many pounds of body fat you will need to lose and how long it will take to lose it, thus, knowing exactly when to begin pre-contest preparation.**

As you diet and do aerobic activity to lose body fat, BodyComp charting allows you to monitor body composition to be sure you're losing body fat and maintaining lean muscle mass. You can minimize muscle loss and maximize body fat loss by adjusting nutrition and training schedules when necessary. When it's time to step on stage, you'll have the best of both worlds; maximum size and definition... Size and cuts that turn heads and win contests!

Using The Skinfold Calipers

A skinfold caliper is a device which measures the thickness of a fold of skin with its underlying layer of fat. Skinfold calipers have springs which exert pressure on a skinfold and an accurate scale which measures the thickness in millimeters. By measuring skinfolds at nine strategic



locations, it's possible to calculate the individual's body composition. Because of the location of these skinfolds, **you cannot measure yourself. Another person must take the measurements.**

Page 6 describes the locations of the nine skinfolds to be measured. Diagrams on pages 12 and 13 show where these measurements are located on the body. It's important to measure as close to the areas described as possible.

It's of equal importance to measure an area closest to the described locations that hold the most body fat. If you measure the thinnest skin, you'll record a lower percentage of body fat than the person actually has. Then as they lose body fat, they won't see as much of a change in their readings as they should see.

If you are right-handed, grasp the calipers with your right hand. With your left hand, pull out the fold of skin with its underlying layer of fat. **Don't worry about getting any muscle;** it's firm enough that it won't come out with the skin and fat. Grasp the skin and underlying fat between the thumb and fingers of your left hand. The instructions on page 6 indicate if the skin should be grasped horizontally or vertically. Pull out in the appropriate direction and continue to hold the skinfold as you apply the calipers.

Holding the calipers in your right hand, place the jaws of the calipers onto the skinfold. The jaws should be approximately $\frac{1}{4}$ inch from the fingers of your left hand which **continues to hold the fold of skin.** Completely release the trigger of the calipers so the entire force of the jaws is on the skinfold. **Do not release the fingers of the left hand while taking the readings.**

If you are left-handed, then you should take the skinfold with your right hand and the calipers in your left hand. Follow the same procedures as described above.

The Nine BodyComp Measurements

Accuracy is a key component of BodyComp charting. Two important techniques will assure that BodyComp readings provide a valid representation of body composition.

First, have the same person measure each time. Make sure they know the proper technique for using the calipers and taking the measurements. The first week, have the person do it every day to get familiar and accurate with the process.

Second, whoever is measuring should take notes to help them measure in the same places each time. For example, there might be a mole where the subscapular reading is taken. Or perhaps the skin on the quadriceps is so tight that the reading must be taken three inches higher than mid-quad. **All of these things should be noted on a BodyComp sheet.** They will serve as reminders and help the individual measure accurately every time.

As mention earlier, there are nine BodyComp measurements: pectoral, subscapular, bicep, tricep, kidney, suprailiac, abdominals, quadriceps, and medial calf. The diagrams on page 12 (front view) and page 13 (back view) indicate the approximate locations. However, precise



measurement locations vary from individual to individual. Remember, measure the area with the most body fat in close proximity to the described location. After taking each measurement, record the caliper reading in the appropriate column of a BodyComp Sheet.

Here are the nine BodyComp measurements from head to toe:

1. **Pectoral.** Measure about one inch below the collar bone and three to four inches out from the inside edge of the pectoral muscle. If you are measuring female, be sure to stay on the pectoral muscle and avoid the breast tissue rather than the pectoral. Pull the skinfold in a horizontal direction.
2. **Subscapular.** Locate the middle of the scapula (shoulder blade) and measure about one inch towards the spine. Pull the skinfold in a vertical direction.
3. **Bicep.** Measure in the middle of the bicep muscle. Pull the skinfold in a vertical direction.
4. **Tricep.** Measure in the middle of the tricep head. Pull the skinfold in a vertical direction.
5. **Kidney.** Locate the dimple or indentation above the glutes. Go up about two inches and out about three inches. Pull the skinfold in a horizontal direction.
6. **Suprailiac.** Measure about halfway between the navel and the top of the hip bone. This should be at or near the area where the obliques and abdominals meet. Pull the skinfold in a horizontal direction.
7. **Abdominals.** Measure about one inch to the left of the navel or one inch to the right and one inch down. Go for the area of the most body fat. Pull the skinfold in a vertical direction.
8. **Quadriceps.** Measure the middle of the quadriceps. If that area is too tight, you may need to move up one or two inches to get a reading. Pull the skinfold in a vertical direction.
9. **Medial Calf.** Measure the middle of the inside head (gastrocnemius). If that area is too tight, you may need to move up one or two inches to get a reading. Pull the skinfold in a vertical direction.



Four Simple Calculations

After recording the nine BodyComp measurements, perform the following calculations to determine body composition:

1. Add the nine measurements and divide the total by the person's bodyweight. This gives the ratio of body fat to body weight.
2. Multiply that number by .27 to get the percentage of body fat.
3. Multiply the bodyweight by the percentage of body fat to get the pounds of body fat.
4. Subtract the pounds of body fat from the total bodyweight to calculate the pounds of lean muscle mass.

Record these numbers in the appropriate columns of a BodyComp Sheet.

On page 14 you will find a sample BodyComp Sheet. Using the nine measurements listed on the sample sheet, let's go through the four calculations used to determine body composition:

1. Add the nine BodyComp measurements to get a total of 70.5. Divide the total (70.5) by the person's bodyweight (237.5) to get body fat to bodyweight ratio of .29.
2. Multiply the bodyweight to body fat ratio (.29) by .27 to get a body fat level of 7.0%.
3. Multiply the bodyweight (237.5) by the percentage of body fat (.07) to get 16.6 pounds of body fat.
4. Subtract the pounds of body fat (16.6) from the total bodyweight (237.5) to get a total of lean muscle mass of 220.9.

Now you are ready to analyze the results and see if you need to change the nutrition and/or training techniques.

Taking Action

You have taken the nine measurements and performed the four calculations to determine the ratio of body fat to bodyweight, percentage of body fat, pounds of body fat and pounds of lean muscle mass. Now you are ready to analyze the data, compare it to previous readings and plan the appropriate course of action. Of course, your plan of action depends on whether you are in off-season or pre-contest phase.



Off-Season

As you already know, in the off-season you should concentrate on gaining muscle mass and keeping body fat levels at a minimum. Generally speaking, men should go no higher than 12% body fat and women no higher than 18%. However, if you have a fast metabolism you probably maintain a lower body fat level. Conversely, if you have a slow metabolism you may 1-2 percent higher than the suggested level. If you have thick skin and have reached your desired amount of muscle mass, hold your body fat level to within 5% competition goals during the off-season.

If the original BodyComp readings indicate that the body fat level is too high, lose approximately ½ pound of body fat per week until it is lowered to the suggested level. Do this by increasing the aerobics activity to boost the metabolism. Also, review the nutrition plan from the past few months to see where you can make appropriate adjustments. Make sure dietary fats are not exceeding 15% of the total caloric intake. Try curtailing the intake of complex carbohydrates and consuming more fibrous carbohydrates instead.

After the first BodyComp reading, you will be comparing readings from week to week to see how the body composition changes. During the off-season, several different types of changes can occur. Here's what you should do in each scenario:

If you lose lean muscle mass...

This is a clear indication that you need to eat more. Add 300-500 calories to the daily caloric intake until you begin to gain muscle mass.

If you gain lean muscle mass and maintain body fat:

Great! Keep doing the same thing – this is ideal. Of course, you will need to increase the caloric intake to support the additional pounds of lean muscle mass.

If you gain lean muscle mass and lose body fat:

This is O.K. provided that your body fat and energy levels don't drop too much. Keep in mind that weight loss of any kind indicates a caloric deficit. You could probably gain even more lean muscle mass if you increased the caloric intake.

If you gain lean muscle mass and gain body fat:

As long as your body fat remains within the suggested levels, you are doing just fine. Once it exceeds those levels, make the necessary adjustments. First, review the nutrition plan to make sure that it is strict enough. You may be consuming too many calories of the wrong types of foods (dietary fats, processed foods, etc.) You may also need to boost the aerobic activity and increase the intensity of resistance training workouts.



If you maintain lean muscle mass and gain body fat:

WATCH OUT! Your body may be entering a fat-producing phase. Stop it before it gets out of hand by boosting the metabolism. Do more aerobic exercise, increase the intensity of resistance training and restrict the intake of dietary fats and complex carbohydrates. Try to lose ½ pound of body fat per week for a few weeks until the trend reverses.

If you maintain lean muscle mass and maintain body fat:

You have hit a plateau. It is time to do something different. Boost the caloric intake for a few weeks and see if you can start gaining muscle mass again. Try changing your workouts. Lift heavier weights, combine different body parts or train faster. Just do something to shock your body into responding.

If you maintain lean muscle mass and lose body fat:

While this is good before a contest, during the off-season it is not desirable. Weight loss is a sign of caloric deficit. The body cannot create lean muscle mass in this state. Therefore you should increase the caloric intake 300-500 calories or more per day.

Pre-Contest

Since you know how many pounds of lean body mass you are carrying, you can calculate your target contest weight by adding the appropriate percentage of body fat. Men should compete with approximately 5% body fat and women with approximately 8%-12% body fat (depending on what category women are competing in). To determine your target contest weight, use the following equations:

Men	$\frac{\text{Lean Body Mass}}{.95}$	=	Lean Bodyweight at 5% Body Fat
Women	$\frac{\text{Lean Body Mass}}{.92}$	=	Lean Bodyweight at 8% Body Fat

For example, a man with 170 pounds of lean body mass should compete at approximately 178.5 pounds (170 x 1.05). A woman with 120 pounds of lean body mass should compete at approximately 129.6 (120 x 1.08, assuming a goal of 8% body fat).

In all likelihood, an individual wouldn't add much lean muscle mass during a pre-contest nutrition regimen. However, as one strives to maintain muscle mass and minimize body fat, several different scenarios can occur. Here is what you should do in each case:

If you maintain lean muscle mass and lose body fat:

Keep it up! Your nutrition, supplementation and training are having the desired results.

If you maintain lean muscle mass and body fat:

You have hit a plateau. Reduce the intake of starchy carbohydrates and increase the time and intensity of aerobic activity to get the metabolism going.

If you maintain lean muscle mass and gain body fat:

Restrict the intake of starchy carbohydrates and increase aerobic activity to boost the metabolism.

If you lose lean muscle mass and body fat:

Take a close look at the ratio of body fat to bodyweight (the first calculation on your BodyComp Sheet). You want to keep loss of lean muscle mass to a minimum, but as long as this number keeps getting smaller you are okay. If not, your metabolism is beginning to slow down and you need to increase the caloric intake to get it going again. **Don't be afraid to eat more.**

If you lose lean muscle mass and gain or maintain body fat:

This is a critical indicator that the metabolism has bottomed out. The body has begun to hoard body fat and break down muscle tissue for energy. To boost the metabolic rate, increase daily caloric intake by 200-400 calories for a few days. Then chart the body composition again. If the body is still losing lean muscle mass, increase daily caloric intake by another 200-400 calories. Although it may seem unwise to increase the caloric intake so close to a contest, doing so will actually make you bigger and leaner. In addition, continue to train with heavy weights to maintain muscularity. Higher rep workouts with lighter weights will only contribute to the loss of lean muscle tissue.

Finally

By putting a little time and effort into charting body composition once or twice per week, you will be empowered with an abundance of useful knowledge. BodyComp charting is accurate, convenient and inexpensive, yet it provides all of the necessary information about an individual's body composition so that you can maintain consistent progress towards achieving physique goals.

The most important benefit of BodyComp charting, however, is the self-confidence that comes from knowing when and how to change nutrition and training protocols in order to achieve your goals. There will be no wondering if that last five pounds gained were lean muscle mass or body fat. No more guessing if you should cut calories. No more agonizing over why you lost so much muscle mass during that last pre-contest diet. BodyComp charting is the answer to those and other seemingly unanswerable questions about off-season and pre-contest preparation.



As you use the BodyComp charting method, keep the following key components in mind:

- *Chart body composition once per week in the off-season and at least twice per week prior to a contest.*
- *Have the same person perform the measurements every time.*
- *Analyze the results and adjust nutrition and training protocols when necessary.*

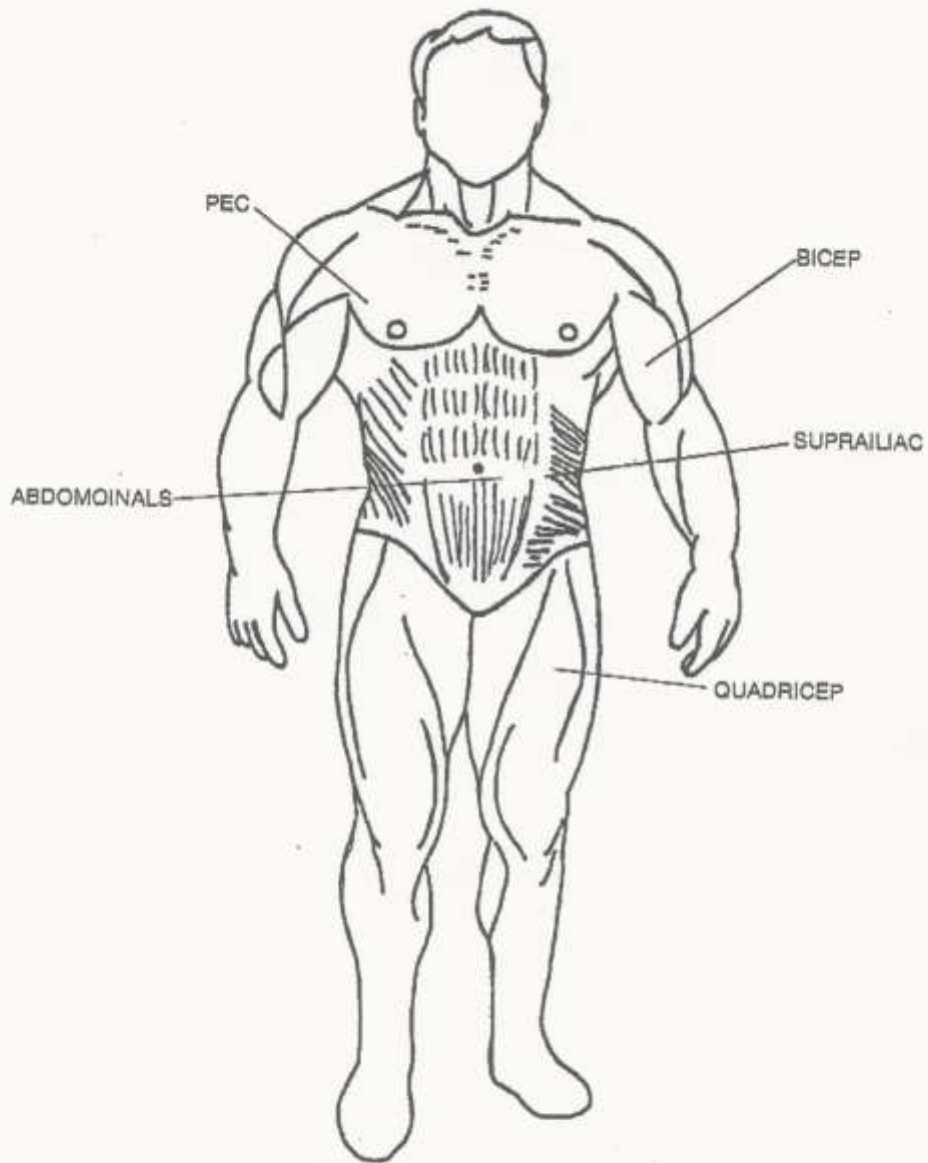
Remember, the little extra time and effort involved in BodyComp charting will help you reap big rewards.

So, be consistent, be accurate, be dedicated... **and be a winner!**

To your future successes,

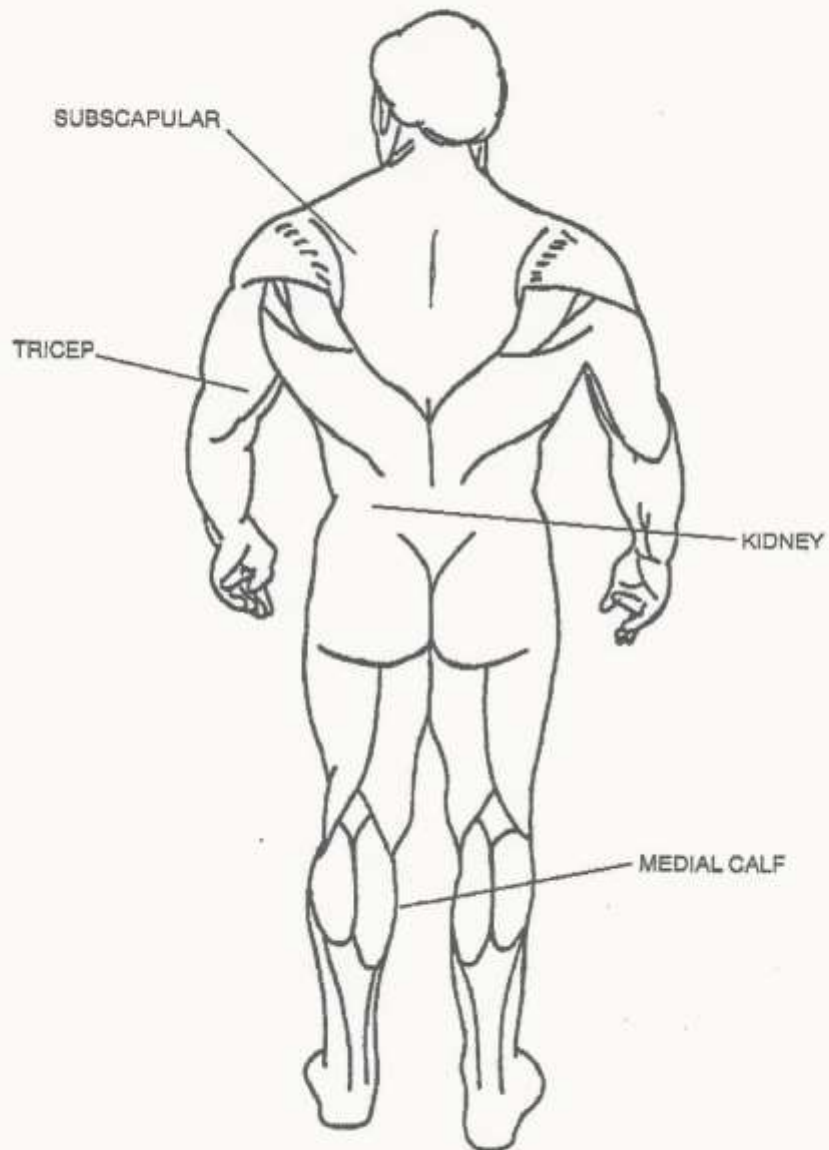
Rick Streb
Nutrition Profit System

BODYCOMP MEASUREMENTS: FRONT



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BODYCOMP MEASUREMENTS: BACK



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BodyComp Tracking Sheet

Name _____

Measurement Direction	
Vertical	
Horizontal	—

Date	_____	_____	_____	_____	_____	_____	_____
Pectoral	_____	_____	_____	_____	_____	_____	_____
Subscapular	_____	_____	_____	_____	_____	_____	_____
Bicep	_____	_____	_____	_____	_____	_____	_____
Tricep	_____	_____	_____	_____	_____	_____	_____
Kidney	_____	_____	_____	_____	_____	_____	_____
Suprailiac	_____	_____	_____	_____	_____	_____	_____
Abdominals	_____	_____	_____	_____	_____	_____	_____
Quadriceps	_____	_____	_____	_____	_____	_____	_____
Medial Calf	_____	_____	_____	_____	_____	_____	_____
Total	_____	_____	_____	_____	_____	_____	_____
Bodyweight	_____	_____	_____	_____	_____	_____	_____
Total/Bodyweight	_____	_____	_____	_____	_____	_____	_____
Total/Bodyweight x .27 = % Body Fat	_____	_____	_____	_____	_____	_____	_____
% Body Fat x Bodyweight = lbs. Body Fat	_____	_____	_____	_____	_____	_____	_____
Change in Bodyweight from previous week	_____	_____	_____	_____	_____	_____	_____
Bodyweight – lbs. Body Fat = lbs. Lean Muscle Mass	_____	_____	_____	_____	_____	_____	_____
Change in Lean Muscle Mass from previous week	_____	_____	_____	_____	_____	_____	_____

