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Formulas For Effecting Body Composition Change!

[Randy Herring](#)

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A safe and effective lean body mass gain should be no more than 2 pounds per month. Fat loss should be no more than 4 pounds per month. Any more would constitute lean mass (muscle) loss. Learn why!

Formulas to start with for [calculating](#) calories and percentages from grams eaten is follows: Carbohydrates at 4 calories per gram, protein at 4 calories per gram, and fat at a whopping 9 calories per gram.

You must eat 4 to 6 small frequent meals throughout the day. There is no compromising on this. A [protein](#) drink (preferably taken as a pre-workout meal) would constitute a meal. However, even though the body may not need the extra calories on non-training days it may in fact need them for the [recovery](#) and recuperation process that lasts 48 to 72 hours under normal circumstances.

Based on an individual's recuperative ability, it may take less or longer. A muscle can only fully recover if it has been fed the proper nutrition on a daily basis because you may never know when the body may need the nutrition for assisting

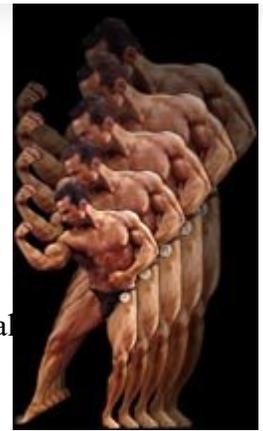
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fat.) Carbohydrates should be 2.5 grams per pound of body weight per day at 450 grams (1,800 calories). 60-80 grams of carbs must be consumed per meal 4 to 6 times a day.

Fat should be 0.4 grams of fat per pound of body weight per day at 72 grams (648 calories). 7-10 grams of fat must be consumed per meal 4 to 6 times a day. Total calories: 3,124. Ratios: 22% protein / 57% carbohydrates / 21% fat.

Fat intake around 20-25% of total calories consumed is good for making muscular gains. It is not recommended you decrease your fat intake below 10% or increase your protein above 30% of total calories, that is, unless you are training for a bodybuilding competition (see above).



For LBM maintenance purposes an endurance athlete who weighs 180 pounds with 10% body fat should eat 1 gram of protein per pound of lean body mass weight per day at 162 grams of protein (648 calories), 3.5 grams of carbohydrates per pound of body weight per day at 630 grams of carbohydrates (2,520 calories), and 0.3 grams of fat per pound of body weight per day at 54 grams of fat (486 calories). Total calories: 3,654. Ratios: 18% protein / 69% carbohydrates / 13% fat.

Say an individual consumes about 175 grams of protein. Total calories from that is: 700 (175 x 4). Consuming 350 grams of carbs is: 1400 (350 x 4). We will guess fat intake to be as high as 70 to 80 grams (this can fluctuate day by day): 720 (80 x 9). Total calories: 2820. Now percentages. Protein: 700 / 2820 = 25%. Carbs: 1400 / 2820 = 50%. Fat: 720 / 2820 = 25%. 25% + 50% + 25% = 100%. Fat is somewhat high for being 25% so that is something to cut back on. Cutting back on fat would increase carbs to a better overall percentage. Find a ratio that best suits you to meet your goals.

How To Increase Your LBM

A good formula to follow for increasing LBM while decreasing fat weight for someone weighing 200 pounds with 14% body fat eat 1 gram of protein per pound of lean body mass weight, 2 grams of carbohydrates per pound of body weight and 0.2 grams of fat per pound of body weight. This would consist of 172 grams of protein (688 calories), 400 grams of carbohydrates (1600 calories) and 40 grams of fat (360 calories) totaling 2,648 calories. The ratio would look like this: 26% protein / 60% carbohydrate / 14% fat - a good bodybuilder dietary cuisine. Drinking plenty of water (up to a gallon or 4 liters or more per day) between meals helps in the transportation of important nutrients needed to your muscles quickly, and thus, assists faster muscular growth.

A high-protein consumption can tax the kidneys, which go into overdrive trying to process and excrete the [nitrogen](#) in protein. There is one way, however, this can be compensated: drink plenty of water!

A fine formula for most physically active adults (using our 200 pounds, 14% body fat individual) for the purpose of losing fat while maintaining LBM eat 0.9 grams of protein per pound of lean body mass weight, 1.8 grams of carbohydrates per pound of body weight (if the individual is over weight adjust the carbohydrate figure to 0.9 grams per pound of body weight) and 0.3 grams of fat per pound of body weight

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When I lived in Japan and training consistently, I decreased my fat intake as low as 5% of my total calories. But I didn't compensate my body for this by increasing my protein and carb intake to replace my lowered fat intake. The result was that I lost a great deal of lean muscle tissue!

If your purpose is increasing LBM while maintaining fat weight (using our 200 pounds, 14% body fat individual) eat 1 gram of protein per pound of lean body mass weight, 2.5 grams of carbohydrates per pound of body weight and 0.4 grams of fat per pound of body weight.

Your macronutrient consumption would look like this: 172 grams of protein, 500 grams of carbohydrates, and 80 grams of fat. This would consist of 688 calories from protein, 2,000 calories from carbohydrates, and 720 from fat. Total calories consumed: 3,408 (assuming this caloric intake is 300-500 above maintenance calories).

Nutrient ratios would be: 20% protein, 59% carbohydrates, and 21% fat. Do not eat less than 0.8 grams of protein per pound of lean body mass weight in either three of the fitness goals in bold type above. If you do you will lose lean body mass (muscle) - your "fat burning machinery."

Type	Desired Goal	Macronutrient / Ratio Recommendations
Sedentary	LBM / Fat Maintenance	0.6 gms protein / Lb LBM; 1.5 gms carbohydrates & 0.2 gms fat / Lb Body Weight
Physically Active	Decrease Fat / Maintain LBM	0.9 gms protein / Lb LBM; 1.8 gms carbohydrates & 0.3 gms fat / Lb Body Weight (adjust the carb intake to 0.9 for a female over 35% body fat or 1.5 for a male over 22% body fat)
Recreational Bodybuilder	Increase LBM / Decrease Fat	1 gm protein / Lb LBM; 2 gms carbohydrates & 0.2 gms fat / Lb Body Weight 1 gm protein / Lb LBM; 2.5 gms carbohydrates & 0.4 gms fat / Lb Body Weight 1 gm protein / Lb LBM; 1.7 gms carbohydrates & 0.2 gms fat / Lb Body Weight
*Professional Bodybuilder	Increase LBM / Maintain Fat Decrease Fat / Maintain LBM	1.2 gms protein; 2.5 gms carbohydrates & 0.25 gms fat / Lb Body Weight 1.2 gms protein; 2.5 gms carbohydrates & 0.25 gms fat / Lb Body Weight
Endurance Athlete	LBM Maintenance	1 gm protein / Lb LBM; 3.5 gms carbohydrates & 0.3 gms fat / Lb Body Weight

These suggested formulas do not take into consideration of individual gender, age, activity level, basal metabolic rate or BMR (the energy expended by the body at rest to maintain normal function), and body composition.

* A professional bodybuilder may require more protein and fewer carbohydrates as indicated above due to individual differences and particular goals.

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So ideally, nutrition, training, and recuperation must be in balance for you to take control of managing your own weight and your destiny! So it is necessary that you optimize your nutrient ratios of protein, carbohydrates and fat for accelerated results!

Be sure to also check out:

[The 2004 New Year's Guide.](#)

Thanks,

About The Author



[Randy Herring](#)

Randy Herring is a certified personal trainer with over 20 years experience.

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