


LEAN BULK DIET



WRITTEN BY KAI GREENE

TABLE OF CONTENTS

I. CHOOSING THE RIGHT GOALS

II. CHOOSING THE RIGHT CALORIES

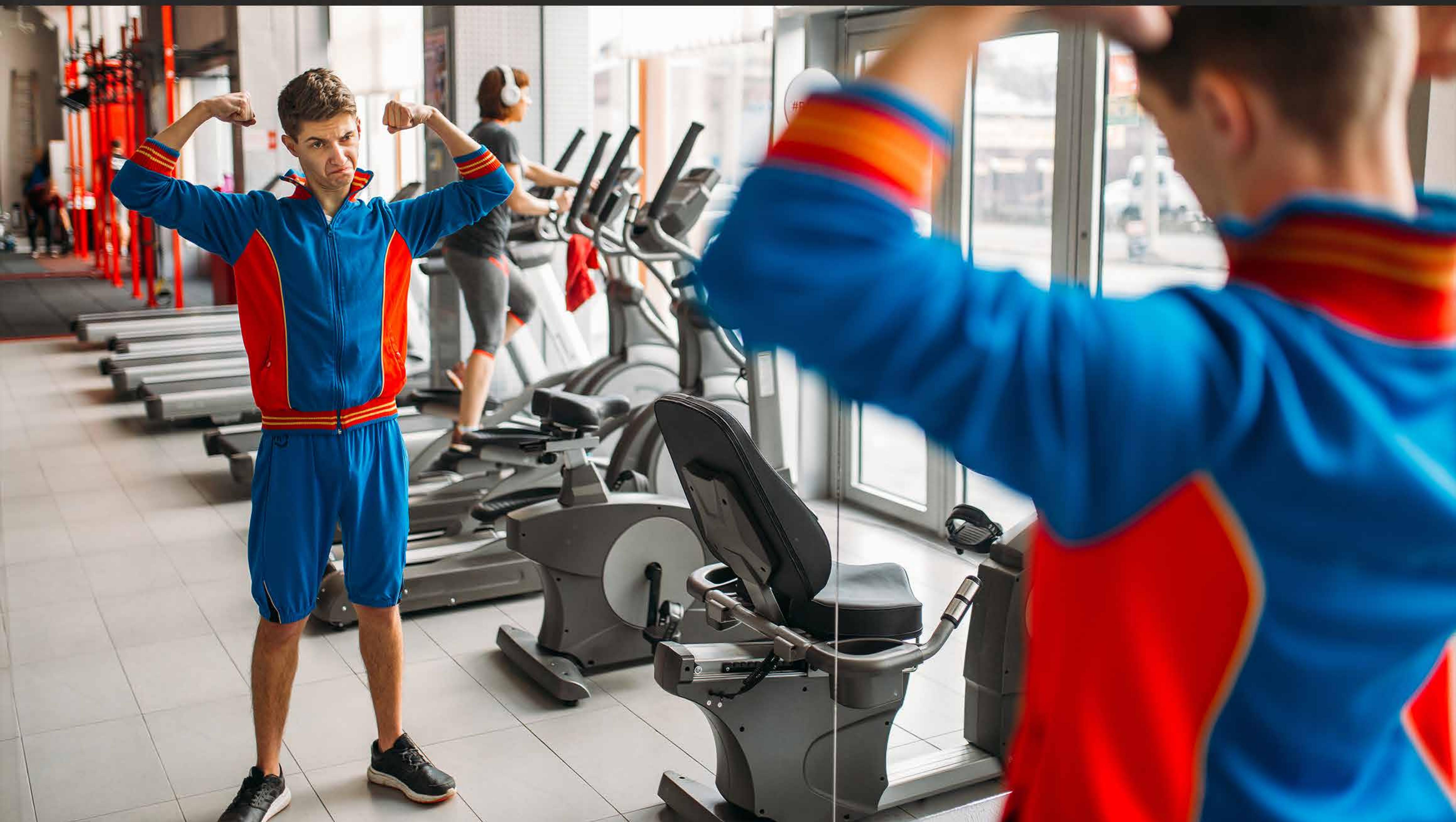
III. CHOOSING THE RIGHT MACRO BREAKDOWN

IV. CHOOSING THE RIGHT SUPPLEMENTS

CHOOSING THE RIGHT GOALS

All good things take time. This is true of everything worthwhile. If you want to be an accomplished artist, it will take time to perfect your drawing ability. If you want to be a world class singer, it will take time to hone your vocal cords and learn perfect pitch. If you want to be a basketball, football, baseball, or soccer star, you will need to practice over decades, not just days. Despite numerous advertisements and locker room claims, building quality muscle also takes time.

When you begin your bulking phase, you may envision a much larger, more well-defined version of yourself. You may picture yourself as a hulking behemoth, adding on slabs of muscle and carving out deep cuts in your quads and abs. However, there is a reason few achieve that impressive, lean muscled physique. Your transformation is the result of biological processes, not magic and filters. You will need to focus on building quality muscle in a realistic time frame, lest you set out on a fool's errand to gain 50 pounds in one month.



CHOOSING THE RIGHT GOALS

Every single person on the Olympia stage started out as a beginner. Every champion had a first day. These men and women had the same dreams and ambitions as you, but they understood that there are levels and mile markers to this journey. The human body has a set amount of muscle that it can be build. There are of course genetic outliers wherein some can gain more muscle than the average person, and some less. Still, we are all governed by the science of muscle building.



CHOOSING THE RIGHT GOALS

Several researchers, such as Lyle McDonald and Alan Aragon have devoted their professional careers to determining the optimal amount of muscle gain over a set period. These below tables should orient your goals and help you determine a realistic amount of muscle growth.

Lyle McDonald Men Muscle Building Equation

Years of Proper Training	Potential Rate of Muscle Gain per Year
1	20-25 pounds (2 pounds per month)
2	10-12 pounds (1 pound per month)
3	5-6 pounds (0.5 pounds per month)
4	2-3 pounds (not worth calculating)

Lyle McDonald Women Muscle Building Equation

Years of Proper Training	Potential Rate of Muscle Gain per Year
1	10-12.5 pounds (1 pound per month)
2	5-6 pounds (.5 pounds per month)
3	2.5-3 pounds (.25 pounds per month)
4	1-1.5 pounds

Alan Aragon's Male Muscle Building Equation

Category	Rate of Muscle Gain
Beginner	1-1.5% total body weight per month
Intermediate	0.5-1% total body weight per month
Advanced	0.25-0.5% total body weight per month

Alan Aragon's Female Muscle Building Equation

Category	Rate of Muscle Gain
Beginner	0.5-0.75% total body weight per month
Intermediate	0.25-0.5% total body weight per month
Advanced	0.125-0.25% total body weight per month

CHOOSING THE RIGHT GOALS

There are numerous advertisements claiming that you can add 20 pounds of muscle in one month with their supplement. As you can see above, that is biologically not possible. While you can certainly gain significant weight in a month, the actual lean muscle gain will be limited. Both equations give a realistic amount of lean muscle gain, depending on your years of training.

PERSON 1: Jeremy

Height: 5'10" | Weight: 180 lbs. | Age: 18 years old | Gender: Male

Goal: Gain 20 lbs. of muscle

Training category: Beginner

Goal: Gain 20 lbs. of muscle | Goal date: 3 months

Lyle McDonald Model: 5-6.25 lbs. of muscle gain

Alan Aragon Model: 5.4- 8.2 lbs. of muscle gain

With a perfect diet and training regimen, Jeremy may be able to build 8.2 lbs. of lean muscle over 12 weeks. That is below 0.7 lbs. per week. Even under the best possible conditions, Jeremy would be unable to reach his goal. However, he would have been tremendously successful in his 3-month lean bulk.

PERSON 2: Susan

Height: 5'3" | Weight: 120 lbs. | Age: 28 years old | Gender: Female

Training category: Intermediate

Goal: Gain 3 lbs. of muscle | Goal date: 10 months

Lyle McDonald Model: 4.1 lbs. - 5 lbs. of muscle

Alan Aragon Model: 3 lbs.- 6 lbs. of muscle

Susan is an intermediate lifter and thus, more knowledgeable. She understands that lean muscle growth takes time. Thus, she gave herself 10 months to gain 3 lbs. of lean muscle. With perfect training and diet, Susan should be absolutely be able to gain 3 lbs. of muscle by her goal date.

CHOOSING THE RIGHT CALORIES

Your body is your temple. You are responsible for building and maintaining it, crafting your personal domicile. Your temple does not apparatus; there are steps and levels of required building. You cannot expect a foundation, walls, roofing, flooring, and electrical work to be built in a week. Furthermore, you cannot expect that simply providing more material will increase the rate of work indefinitely.

During a muscle building phase, people will often consume everything that they can in order to gain more muscle. The scale can and will change, but this does not mean that more weight means more muscle. It is like building a house. If there are 5 contractors that can each build one wall a week at most, then providing more materials will not increase their work capacity. They are not limited by access to dry wall, hammers, or nails. They, like your muscle building processes, have an upper limit to their ability. Therefore, consuming a gross excess of calories will not greatly increase your muscle gaining ability, only your total weight gain.

Your goal during a lean bulk is to optimize your muscle gain and minimize your fat gain. Thus, you only want to increase calories enough to build lean muscle tissue. Your Total Daily Energy Expenditure, or TDEE, is how many calories you burn each day, including calories burned from physical activity. As a rule of thumb, you should aim to increase your calories above your Total Daily Energy Expenditure by no more than 10% above maintenance calories. Use the below equation to determine your goal caloric intake.



CHOOSING THE RIGHT CALORIES

STEP 1: Use one of the below equations to determine your BMR (Basal Metabolic Rate)

CHOICE 1: MIFFLIN ST JEOR

MEN: $10 \times \text{weight (kg)} + 6.25 \times \text{height (cm)} - 5 \times \text{age (y)} + 5$

WOMEN: $10 \times \text{weight (kg)} + 6.25 \times \text{height (cm)} - 5 \times \text{age (y)} - 161$

SPECIAL NOTE: To convert pounds to kilograms, divide your weight in pounds by 2.2.

To convert height in inches to height in centimeters, multiply your height in centimeters by 2.54.

STEP 2: Use the below equation to find your current TDEE

BMR X 1.6 = 5-6 Times Per Week

STEP 3: Add an appropriate caloric surplus

Lean bulk calories = TDEE x 1.1

PERSON 1: JEREMY

STEP 1: Determine your Basal Metabolic Rate

$$\text{BMR} = 10 \times (180/2.2) + 6.25 \times (70 \times 2.54) - 5 \times 18 + 5$$

$$\text{BMR} = 10 \times 81.81 + 6.25 \times 177.8 - 5 \times 18 + 5$$

$$\text{BMR} = 818.1 + 1111.25 - 90 + 5$$

$$\text{BMR} = 1844.35$$

STEP 2: Determine your TDEE

$$\text{TDEE} = \text{BMR} \times 1.6$$

$$\text{TDEE} = 2950 \text{ calories}$$

STEP 3: Determine your lean bulk calories

$$\text{LEAN BULK} = \text{TDEE} \times 1.1$$

$$\text{LEAN BULK} = 3246 \text{ calories}$$

CHOOSING THE RIGHT CALORIES

PERSON 2: SUSAN

STEP 1: Determine your Basal Metabolic Rate

$$\text{BMR} = 10 \times (120/2.2) + 6.25 (63 \times 2.54) - 5 \times 28 - 161$$

$$\text{BMR} = 10 \times 54.54 + 6.25 \times 160 - 5 \times 28 - 161$$

$$\text{BMR} = 545.4 + 1000 - 140 - 161$$

$$\text{BMR} = 1244.4$$

STEP 2: Determine your TDEE

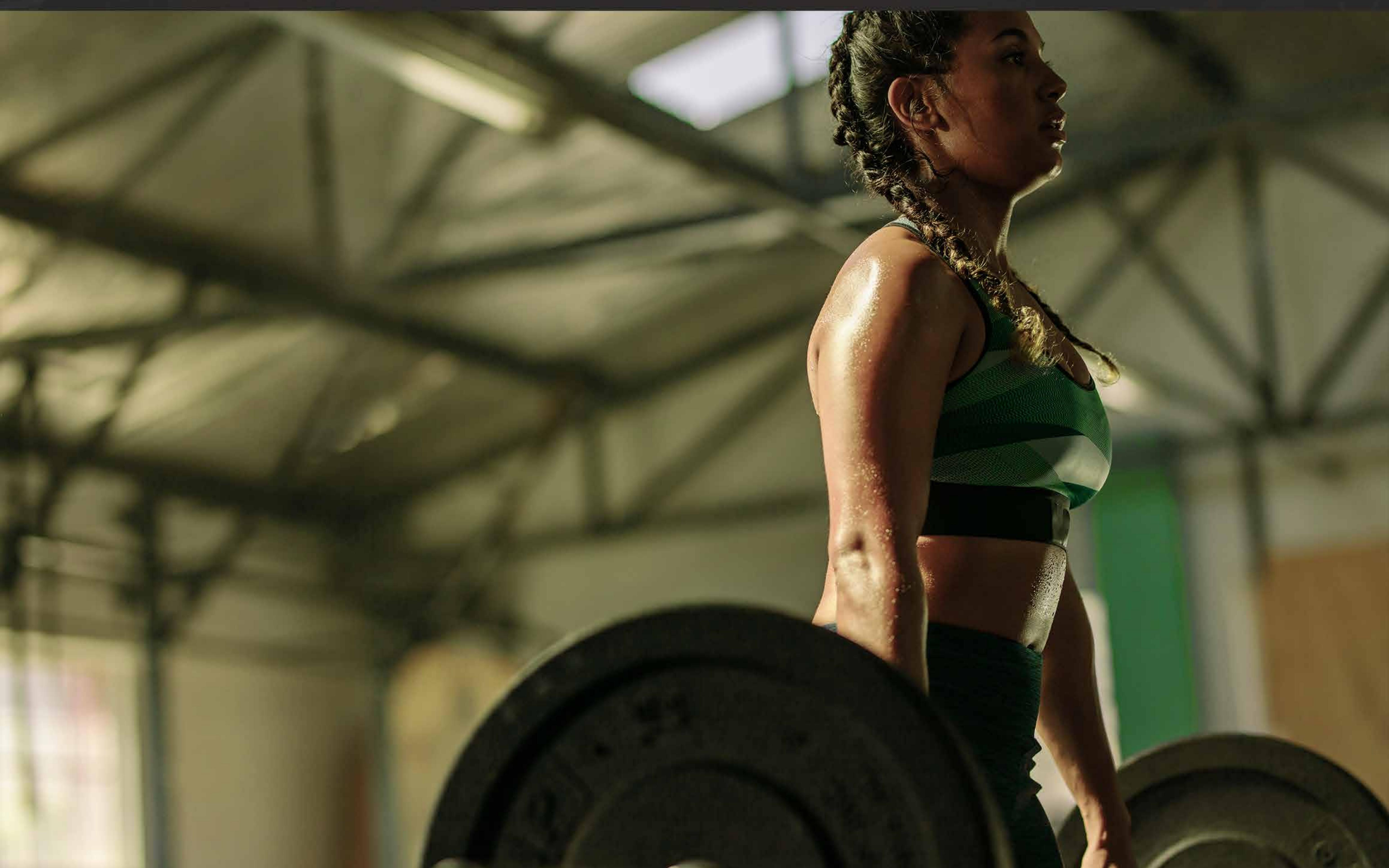
$$\text{TDEE} = \text{BMR} \times 1.6$$

$$\text{TDEE} = 1991 \text{ calories}$$

STEP 3: Determine your lean bulk calories

$$\text{BULK CALORIES} = \text{TDEE} \times 1.1$$

$$\text{BULK CALORIES} = 2190 \text{ calories}$$



CHOOSING THE RIGHT MACRO BREAKDOWN

Now that you've chosen an appropriate caloric intake, you need to break those into calories into macronutrients. The calories you consume are derived from your three main macronutrients: proteins, carbs, and fats. You must take in the ideal amount of each to optimize your lean bulk, maximize muscle gain, and minimize fat gain.

PROTEIN

This is the first macronutrient that people consider when attempting to increase muscle gain. Protein helps rebuild and repair muscles as well as regulate your metabolic processes. Since muscles are made up of proteins, it stands to reason that more protein in the diet would translate to more muscle added. However, as seen with the builder's analogy, excess protein will not allow you to build muscles beyond your biologic limitations.

During your lean bulk, you should take in at most 3.4 g/kg or 1.5 g/lbs. of body weight in protein. The higher protein intake may limit fat gain but is more expensive and difficult to consume. At the lowest, you should consume 1 g/lbs. of body weight in protein.

Protein meals may experience a refractory period, wherein after muscle protein synthesis is spiked, no amount of protein can spike it again for some time. For this reason, it is important you spread your protein intake evenly across several meals. Generally, each protein meal should have at least .4 g of protein per kg of your body weight. For example, a 180-pound man should have at least 32.7 grams of protein per meal.

The total amount and spacing of protein are important, but perhaps eclipsed by the quality of protein choices. You need proteins that are filled with the appropriate leucine content, the king of muscle building amino acids, and easily digestible.

CHOOSING THE RIGHT MACRO BREAKDOWN

Below is a list of quality, high protein foods.



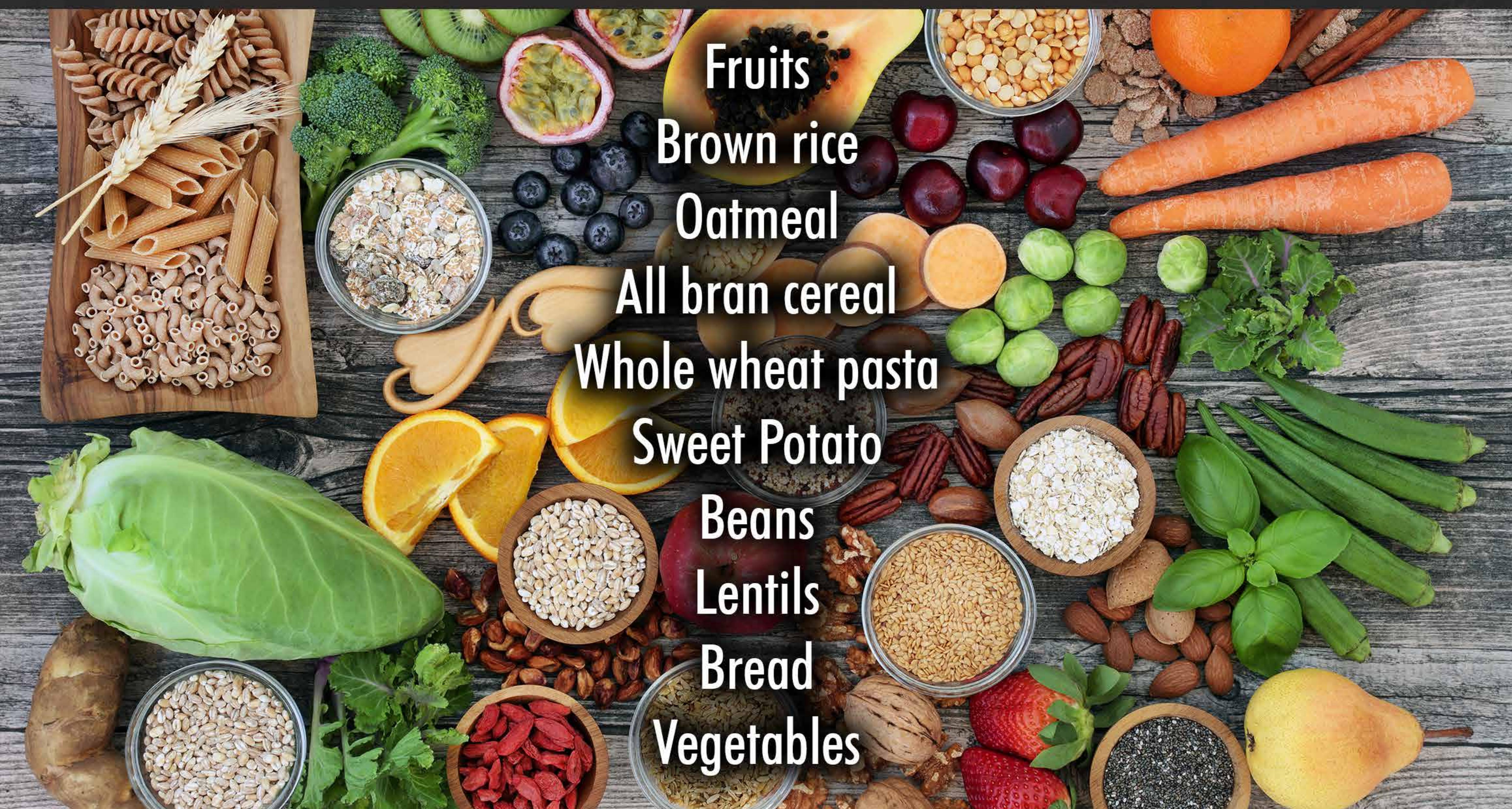
CHOOSING THE RIGHT MACRO BREAKDOWN

CARBS

Carbs are a vital macronutrient that provides 4 calories per gram of energy. Carbs are the main source of energy for your cells and are stored in your muscles to power muscular contraction. Further, fibrous carbs can help regulate your cholesterol and help you feel full. The stored carbs in your muscle cells, known as glycogen, attract water and help your muscles look full and taught. For optimal results, as much as 50% of your caloric intake should come from carbs during your lean bulk.

It has often been posited that you should consume most of your carbs post workout in order to replenish glycogen stores. However, this is only necessary if you are performing two intense training sessions in one day. If you are weight training once a day, you can spread your carbohydrates out evenly across your meals. Your body will resynthesize glycogen over the next 24 hours.

Below is a list of high-quality carb sources.



CHOOSING THE RIGHT MACRO BREAKDOWN

FATS

Fats are the most calorie rich macronutrient, providing 9 calories per gram. Fats help provide energy, help form the structural walls of our cells, and help the body absorb vitamins A, D, E, and K. While the dense caloric content of fats can be hindering on a fat loss diet, fats can allow you to reach your caloric goals with ease.

For health purposes, you should try to limit your fats from saturated sources. Saturated fats are typically solid in room temperature and found in fatty pieces of meat such as steak. Try to choose mostly unsaturated fats to reach your dietary goals.

Below is a list of high-quality fat sources:



A collage of various healthy fats including avocados, nuts, seeds, and oils. The items are arranged on a light-colored wooden surface. In the center, there is a white bowl containing olive oil with olives floating in it. To the right is a white bowl filled with chia seeds, with a yellow spoon resting in it. Surrounding these are various nuts like almonds, walnuts, pecans, and pistachios, along with some chickpeas and a large green leaf. Several halves of avocados are scattered throughout the arrangement.

Avocado and avocado oil
Olive and olive oil
Eggs
Nuts
Chia seeds
Coconut oil

CHOOSING THE RIGHT SUPPLEMENTS

The diet is the most important aspect of your lean bulk plan, but it is not the only tool in your arsenal. Appropriate supplementation can help you build the leanest muscle and improve your performance in the gym. There is an abundance of supplementation out there that all have merits, but these are your must haves for a lean bulk.



CAFFEINE

This is an obvious, but noteworthy choice. There is a reason that most pre workouts contain ample caffeine. Caffeine can keep you focused and provide energy for your workouts. Furthermore, it can markedly increase power and endurance during your workouts. However, it is easy to build a tolerance, so try to cycle off your caffeine intake every few weeks in order to keep the best possible response.

CHOOSING THE RIGHT SUPPLEMENTS

BETA-ALANINE

Beta-alanine is a version of the amino acid alanine. It is converted to carnosine in your body and can help buffer against pH changes in your muscles, particularly from the build up of lactic acid. This means that appropriate dosing of beta-alanine can help add one to two reps to your lifts, increasing your workout volume and muscle growth over time.

L-CARNITINE L-TARTRATE

L-carnitine L-tartrate is a bonded form of the amino acid L-carnitine. L-carnitine is involved in the metabolism of fatty acids, but this is not the purpose of supplementing L-carnitine L-tartrate. When supplemented, L-carnitine L-tartrate can reduce muscle soreness and muscle damage after an intense workout. This means that you can handle a higher workout volume and workout more frequently over the course of a week. Furthermore, the decreased muscle damage theoretically leaves more hormonal receptors intact, allowing for greater interaction with your natural muscle building hormones.

CREATINE

Creatine is one of the safest and most widely studied supplements. Creatine can help pull water into your muscle cells and increase overall strength. This increase in strength will allow you to increase workout volume and lead to a more successful lean bulk.

WHEY PROTEIN

Whey protein is a very high-quality protein source. While this is not any more effective at muscle building than the equivalent protein from a chicken breast, it is much more convenient. Whey protein can be poured into a shake that can be taken quickly in the morning or right after the gym. It is easy to consume and will help you hit your total protein goals for the day.