

## How To Build Muscle

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You've heard the old saying "TRAIN HARD" and while this is true, if you are looking to make adding a muscle a true priority then you have to train SMART as well! This article will take your through and lay out a great way to train if adding muscle mass is your goal.



Lets first examine the key factors that influence muscle growth in humans and then get into the largest one that we can directly impact.

### Anabolic Hormones

Several hormones are considered anabolic however the most influential would be testosterone and (T) and growth hormone (GH). These hormones (especially androgens) give males their characteristics of higher muscle mass, deeper voice, and facial and other body hair. Although androgens are commonly thought of only as male sex hormones, females also have them, but at lower levels: they function in libido and sexual arousal. Also, androgens are the precursors to estrogens in both men and women. Growth hormone, which stimulates growth, cell reproduction, and the release of insulin-like growth factor and testosterone are the primary drivers in protein synthesis (building muscle). Pretty much these hormones call the shots above all. Unfortunately, because of how influential these hormones are they have been illegally and widely abused in the competitive sports arenas by athletes who want to perform or look beyond their genetic potential. This often times gives the rest of the population an unrealistic expectation of what can truly be achieved.

**Adequate Protein** The second factor in adding muscle tissue in adequate amounts of protein. Muscles are in essence

proteins or chains of amino acids bound together. There are 22 amino acids, some of which the body can produce on its own (non essential) and some that the body must get through your diet (essential). Check out our article on protein intake to insure that you are consuming enough protein to meet your individual needs. For now look at hormones as the architects and amino acids/protein as the building blocks and material of muscle.

### Recovery

Recovery almost goes along with hormones as sleep/rest is a precursor to sound hormonal levels. Look at recovery as allowing the building blocks and cement to settle and harden. If you lay down a foundation and then try and build on it before the cement dries then the entire project in likely ruined.

### Training

How do we TRAIN specifically to add on muscle tissue. Although the degree of muscle mass that we can put on IS genetically determined most people do not get close to their genetic potential due to lack of coaching/knowledge on HOW to train for muscle mass.



From a training perspective there are 3 very influential factors that lead to muscle hypertrophy (muscle growth). They are tension, volume (total load lifted or reps times sets) muscle fiber type and intensity or metabolic stress.

### Tension & Intensity

Tension is closely linked to intensity so they will be covered tandemly. Intensity in resistance training is % of maximal amount lifting. Thus is the maximum amount of weight that

you can squat is 100 pounds then 85% or 1rm would be 85 lbs. The HIGHER the intensity the higher the tension is. Think of how slow a weight moves when it is heavy with maximal force being applied as opposed to when the weight is light. Heavier load means more tension. Now here is where things get really interesting, when multiple large muscle groups are involved such as compound movements like squats, deadlifts, and presses under high intensity or tension the body will temporarily go into “fight or flight” mode and increase its own anabolic hormones naturally! This is HUGE for building muscle. On top of this high intensity tension training tends to get us STRONGER which will increase volume. More on that in a bit. Due to the strenuous nature and difficulty of tension training, it tends to really tax the body and cannot be done for a lot of reps and sets (volume) Here’s an example of a tension workout for legs:

Exercise	Sets	Reps	Intensity	Rest
Squats	3	3-5	80-85%	3-5 minutes
Leg Press	2	5-7	80%	3-5 minutes
Leg Curls	3	7-9	75-80%	2-3 minutes

So as you can see A LOT of iron is going to be lifted during these session which will not only break down muscle tissue for later growth, repair, and adaptation but will also provide an anabolic hormone response. Now from this point of view you might be thinking, “wow! I love lifting heavy anyway so what’s the deal, why not simply just do intensity and tension training and call it a day?” You could, as many people do, and the argument is there. Powerlifters tend to not have any shortage of muscle HOWEVER the research is very clear that the best hypertrophy gains are seen when a VOLUME component is present. As previously stated volume is the total amount of WORK put in expressed in pounds, so if you squat 200 pounds 10 times then your total volume would be 2000 lbs. Now here is a mistake that a lot of athletes make who solely do volume training. They move the weight very slowly to produce artificial intensity, many going for the “burn” the issue with this is that you do not get the type IIB muscle fiber engagement that is optimal for muscle growth. Muscle fiber types can be a totally separate article however for today’s purpose anyone interested in maximizing muscle size wants to capitalize on their type IIB muscle fibers as they are the largest and have the highest ability to grow in size. Research has shown that heavy training (like previously described) and EXPLOSIVE training targets our type IIB muscle fibers.

Type	Type I	Type IIa	Type IIb
Description	slow oxidative (SO) fibers	fast oxidative-glycolytic (FOG)	fast-twitch glycolytic fibers
myoglobin	High	Medium	Low
mitochondria	Many	Moderate	Few
Fatigues...	Slowly	Moderate speed	Fast
Color	Red “dark meat”	Red	White “white meat”
Diameter	Narrow	Medium	Wide

As opposed to tension training volume training includes more reps, sets, and thus lighter loads (generally 55-70% or 1 rm) So if maximal force is being applied to the bar only the first 5-7 reps will look explosive or quick as muscle fatigue tends to set in around the mid rep range. Since volume training is not as taxing on the joints and body as a whole it tends to be more tolerable for longer periods of time. Volume training also tends to break down large amounts of stored muscle glycogen which has been shown to make the body release growth hormone in response. Again, an acute, but great hormonal response. Let’s look at a good volume workout for legs

Exercise	Sets	Reps	Intensity	Rest
Squats	4	10	65%	1 minute
Knee Ext	3	12	65%	1 minute
Walking Lunges	3	18	55%	2 minutes
Bridges	5	12	60%	1 minute
Good Mornings	4	18	50%	1 minute

So putting it all together the optimal way to train for muscle growth is to include BOTH styles of training in a given week! Here is an example of a basic split illustrating the concept: Day 1 Lower body Tension, Day II Upper body tension, Day III rest Day IV Lower body volume Day V upper body volume, Day 6 stretch/accessory work Day 7 off.

Making sure that your tension days are 100% focused and in the zone is critical in your success in adding muscle as is maintaining the discipline to get all of the required volume on the volume workouts. You cannot be afraid of HEAVY weights to optimize your gains! Until next month happy training. Questions or topics that you would like to learn more about please email us at [coaching@macromissionary.com](mailto:coaching@macromissionary.com) and be sure to like our IG @macro\_missionary\_ and FB page macromissionary