How to Gain Lean Muscle: Everything You Need to Know (2018 Update)

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As a dedicated gym bro or broette, you probably want to know how to gain lean muscle. And you probably spend a good amount of time learning about the subject.

And I understand your challenge. Muscle growth is a controversial topic and there are lots of opinions on the matter.

And I'm here to help. Today, you'll learn everything you need to know about training for maximum muscle growth.

But before we begin, a question I often get asked:

How to gain lean muscle while staying lean?

Let's face it:

Yes, we're doing what we're doing to feel good, be healthy and functional but we also want to look good. And there's nothing wrong with that.

You can build muscle with minimal fat gain, but you need to be mindful with your macronutrients to achieve that. This approach is called lean bulking. Everyone who is willing to put in the effort can build a good amount of muscle over time without much fat.

If you want to take the aggressive approach to building muscle, keep in mind that it will also result in more fat gains.

Since muscle growth is limited, I don't see a reason to overeat for a few months. You'll end up fat, and you'll have to cut for months before reaching decent body fat levels.

Take a look at how much muscle you can gain:

Year 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 pound per month)
4+	2-3 pounds (not worth calculating)

Credits:
http://www.bodyrecomposition.com/muscle-gain/whats-my-genetic-muscular-potential.html/

Now, considering those numbers, do you think it's wise to put on 60 pounds of weight in 1 year?

How to Pick the Correct Exercise for Your Training Program

It's no secret that not all exercises are created equal. There are two types: compound and isolation movements.

Compound exercises work a range of muscles, while isolation exercises target a single muscle group.

A compound exercise such as the deadlift is going to work more muscles and need more effort to perform. Compare that to a dumbbell preacher curl which only works your biceps.

So, compound exercises > isolation exercises, correct?

Not so fast.

Both types of exercises have their place in a well-structured training program, and both are good for different things.

For example:

Compound lifts are great for developing your entire body, strength, coordination, and athleticism. They should be the staple of your workouts, and your goal should be to make progress on them.

Isolation exercises are a great way to develop each muscle group individually.

Sure, an overhead barbell press is going to work a range of muscles, mainly your shoulders. But, lateral dumbbell raises will put the finishing touches on your delts and make them pop.

While doing a regular flat barbell bench press, you are working your triceps, as well as your chest, that is a given.

But if you want to develop awesome triceps, doing isolation exercises such as EZ-bar skullcrushers, cable tricep pushdowns, and overhead dumbbell tricep extensions is a must.

They won't work a range of different muscles, but they are great for targeting a single muscle group and stimulating growth.

'But what if I don't care about size? I want to get strong as hell.'

This is a common concern, and some guys don't care for the big, muscular look. They just want to lift a ton.

If you're in that camp, read on.

Here's the deal:

It's likely possible to achieve great numbers while weighing less. But know that this progress is going to be much slower than if you were also to add size to your frame.

Not only does more size give you better leverages when it comes to lifting, but bigger muscles also have a greater strength potential.

You'll have a much easier time reaching the 1000-pound club while gaining some size as opposed to trying to reach that level at your current weight.

This is where those isolation exercises come to play. They help develop the different muscle groups that go into a complex movement and help you build more strength, faster.

Some will argue that practicing the big three lifts is enough to reach impressive numbers on them. But, it is a healthy blend of strength training and bodybuilding that produces the best results.

So what are some great exercises for different muscle groups I can include in my training?

For the sake of helping you, I've provided a list of exercises for each group, and I've added links to instructional videos.

Your workouts don't have to be limited to the examples below. These are suggestions to include.

Chest

Flat Barbell/Flat Dumbbell Bench Press (primary exercises)

Incline Barbell/Incline Dumbbell Bench Press (primary exercises)

Chest Dips (primary exercise)

Hammer Strength Chest Press (secondary exercise)

Incline/Flat Dumbbell Chest Flyes (isolation exercises)

Cable Chest Flyes (isolation exercise)

Back

Conventional, Sumo Deadlift (primary exercises)

Pull-ups ; Chin-ups (primary exercises)

Barbell/Pendlay Rows (primary exercises)

Dumbbell Rows (secondary exercise)

Seated Cable Rows (secondary exercise)

Lat Pulldowns (secondary exercise)

Quads

Barbell Back/Front Squats (primary exercises)

Leg Press Machine (secondary exercise)

Hack Squat Machine (secondary exercise)

Dumbbell/Barbell Lunges (secondary exercises)

Hamstrings

Stiff-Legged Dumbbells/Barbell Deadlift (primary exercises)

Glute Hamstring Raise (primary exercise)

Calves

Seated Calf Raises (isolation exercise)

Standing Calf Raises (isolation exercise)

Donkey Calf Raises (isolation exercise)

Biceps

Chin-ups (primary exercises)

Straight/EZ Bar Curls (isolation exercises)

Dumbbell Hammer Curls (isolation exercise)

Triceps

Close-Grip Barbell Bench Press (primary exercise)

EZ-bar/Dumbbell Skull Crushers (secondary exercises)

Dumbbell Overhead Tricep Extension (isolation exercise)

Dumbbell Kickbacks (isolation exercise)

Shoulders

Standing Dumbbell/Barbell Shoulder Press (primary exercises)

Seated Dumbbell/Barbell Shoulder Press (primary exercises)

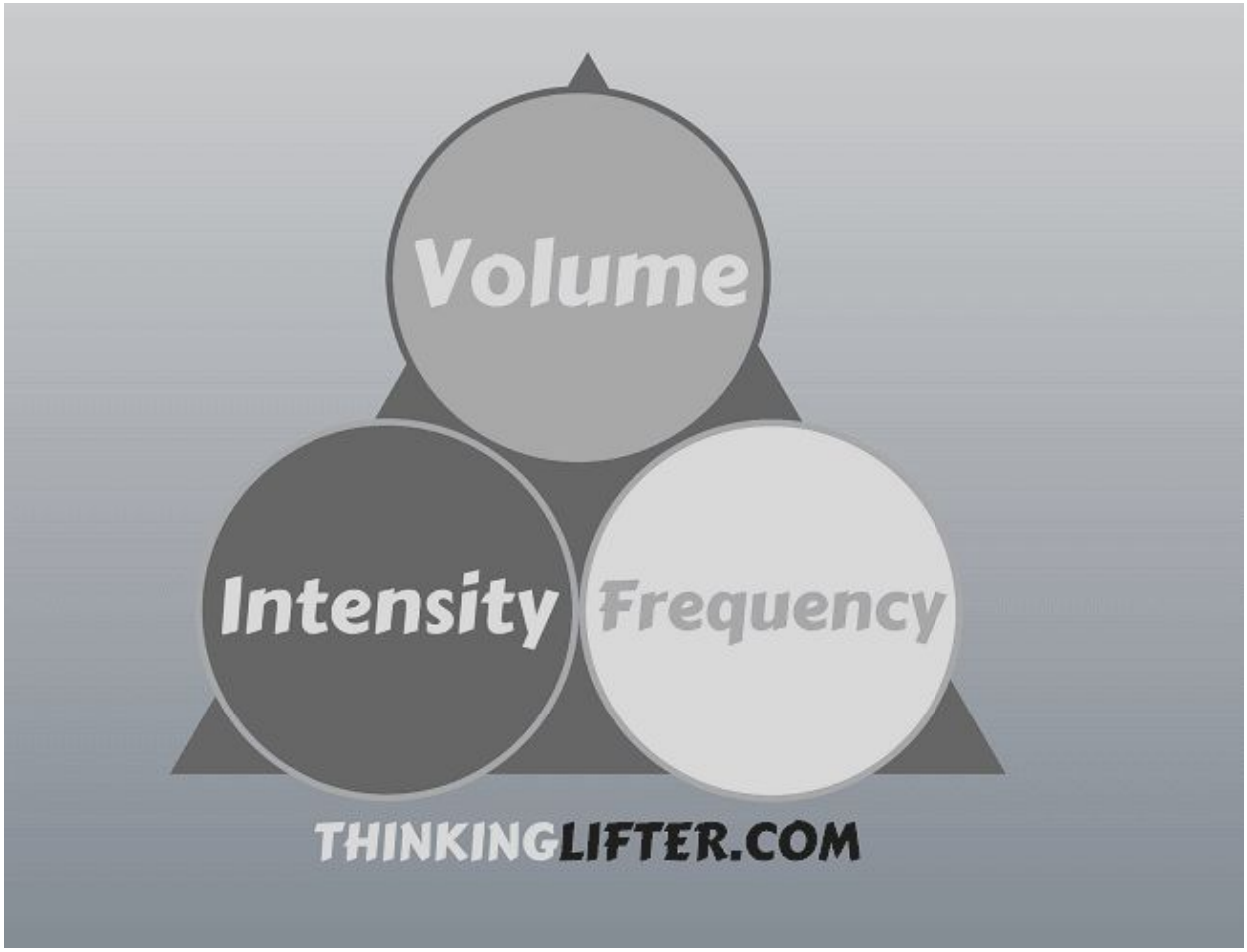
Side Lateral Dumbbell/Cable Raises (isolation exercises)

Cable Rope Face Pulls (isolation exercise)

Traps

Barbell/Dumbbell/Cable/Smith Machine Shrugs (primary exercises)

The Muscle-Building Trio: Volume, Intensity, and Frequency



Whether you realize it or not, you are utilizing some volume-intensity-frequency combination in your training. Now, when

it comes to the muscle-building trio, there are a lot of opinions and countless dogmatic approaches.

My goal is to steer clear from that because I'm a firm believer that every training technique can be used effectively under the right circumstances.

If you train with heavy weights all the time, you'll burn yourself out and get injured. But, if you want to build strength, you need to utilize heavy training, **under the right circumstances.**

If you take each set to failure, you'll also burn yourself out and get injured. But, if you want to optimize muscle growth, you should take sets to failure, **under the right circumstances.**

You get my point. Now, the muscle-building trio:

Volume - It refers to the amount of work you do each workout or within a given week. It's usually tracked as the number of sets or reps you do. It can also be tracked by multiplying the load you lift by the repetitions you complete for the total sets you do.

For example, if you bench 225 for 4 sets of 8 reps:

225 * 8 = 1.800 ; 1.800 * 4 = 7.200 pounds of volume on that exercise.

Now that you have a good understanding of how to track your volume, you might be wondering:

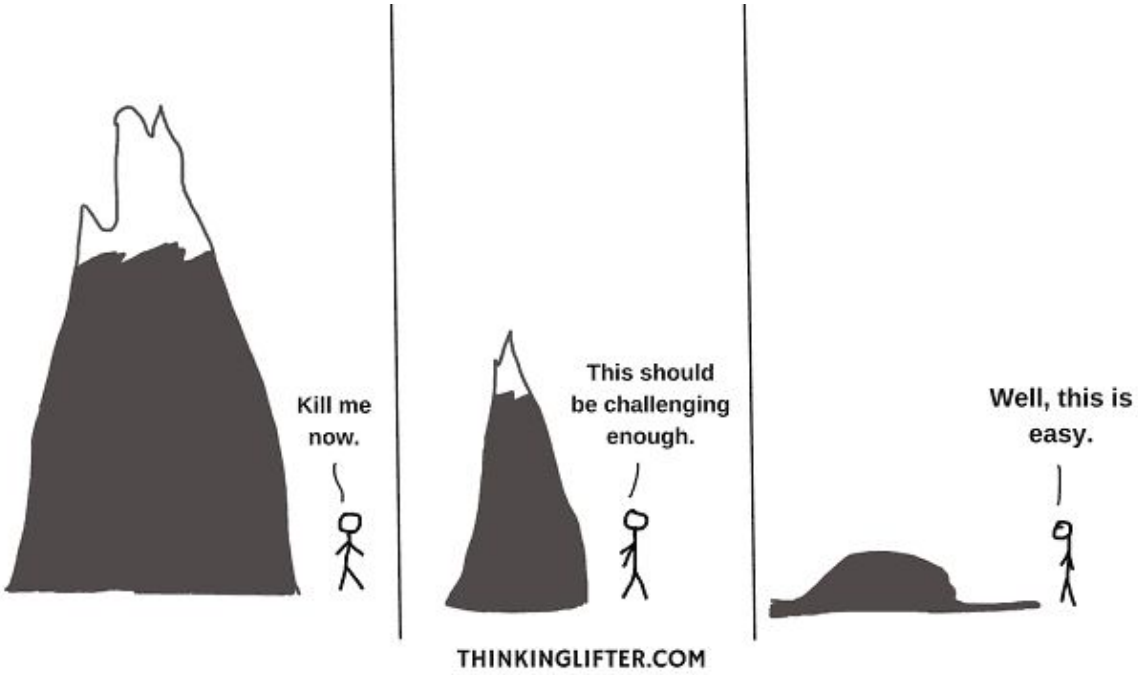
“Well, do I need to track each exercise I do in the gym?” And the answer is no.

You can choose to track only your main movements and some of the accessory exercises after that. You don’t need to obsess over every single set.

So, how much training volume is best for you? Finding the “Goldilocks zone” is important for optimal progress.

Do too little, and progress is slow, or non-existent.

Do too much, and you run the risk of overtraining or injuring yourself.



The consensus is that you need 8+ sets per muscle group/week for strength gains and 10+ sets for muscle growth.

Now, my opinion is that these estimations are very conservative for most people. Factors such as genetics, training age, current goals, ability to train,stress outside of the gym, and diet all play a role in how well you can respond to training.

But, I consider 8 sets per week to be the bare minimum for progress in the gym. If you're looking for optimal results, building more volume will bring better results.

But how much volume you need is going to be individual. Some people make great progress with 10 sets per week, where others need upward of 16 to see good progress.

This is going to involve some trial and error to find the sweet spot. But you'll still make decent progress as long as you're building up enough volume every week.

Your aim should be to do as little training as you can while making decent progress. Due to your body's natural adaptive mechanism toward stress, the least required work to make progress over time is going to increase.

What causes progress now can be insufficient in a year.

Start low, track your volume, see if you're making progress over the weeks. Add a set here and there when you start feeling like your workouts aren't producing results.

A note about training to failure - It can significantly impact your total volume.

If you think about it, training to failure makes sense. You need to push your body past its comfort zone if you ever want to get jacked and strong.

You can't lift the same weight year after year and expect to make gains; it doesn't work that way.

Many people consider training to failure to be the best way to do that.

So why, given the strong logic behind it, is lifting to failure getting so many mixed reviews? Go hard or go home, right?

Well, it's possible that some people take things too literally. They think that the only acceptable way to leave the gym is by crawling out of it.

Another possible reason might be the required effort one must put to reach failure all the time.

I mean, who would want to train that way all the time? And also, there are different ways to achieve progressive overload. Taking sets to failure all the time is not needed.

Drawbacks of training to failure

Where you could be failing is to understand how taking one set to failure could impact the rest of the exercise and workout.

Let's take a look at an example of training to failure vs. training close to failure and see where we end up:

Example #1:

Training to failure on all sets on the barbell back squat:

Set 1: 255 pounds for 10 reps

Set 2: 255 pounds for 7 reps

Set 3: 255 pounds for 5 reps

Set 4: 255 pounds for 2-3 reps

Total reps done: 24-25

Example #2:

Training close to failure on all sets for the squat:

Set 1: 255 pounds for 8 reps

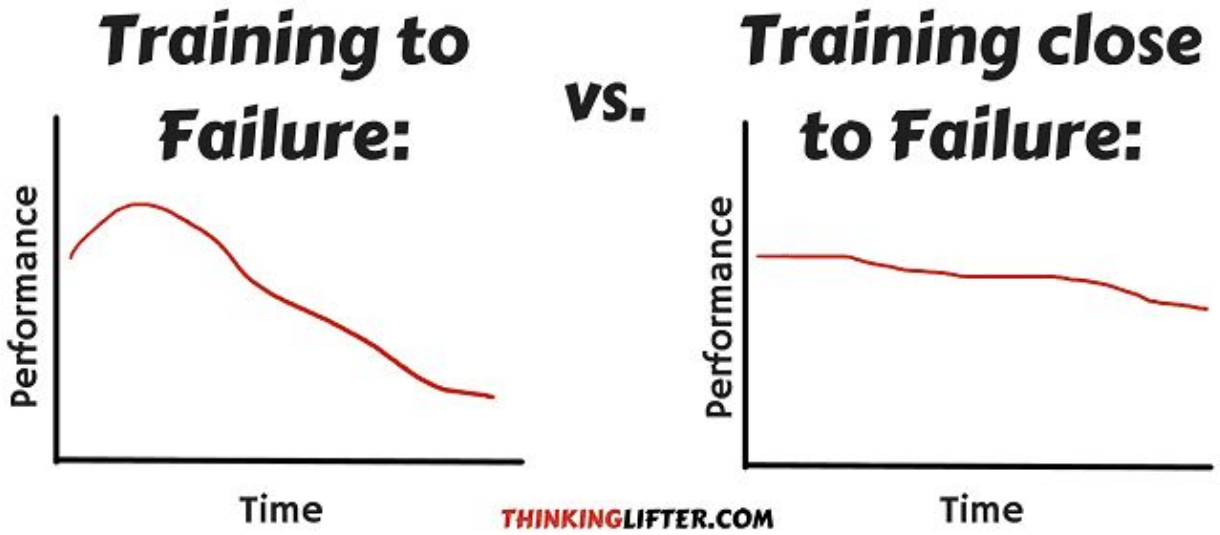
Set 2: 255 pounds for 8 reps

Set 3: 255 pounds for 8 reps

Set 4: 255 pounds for 6-8 reps (possibly hit failure before 8)

Total reps done: 30-32

See the difference there?



Even though the first dude went all out and took the old saying “Squat ‘till you drop!” seriously, he was behind the second guy who managed his fatigue much better.

The second guy could fail to get 8 on his last set due to the accumulated fatigue. But, he would still get more repetitions in without having to bust himself up in the process.

The accumulated volume the second guy has is more. If he can manage his fatigue throughout the entire workout, he will build up more training volume. And that, over the weeks and months can and will result in much greater strength and muscle gains.

When should you train to failure?

Last Set of an Accessory Exercise for a Given Muscle Group

This is the perfect time to train to failure. During the previous sets, you've managed to build up a good amount of volume to stimulate growth. Now, the last one or two sets taken to failure will likely result in even more stimulus and growth over time.

Here's an example of what that might look like:

Let's say you're doing a chest fly variation as your last exercise for your chest. You have done two sets already along with 11 sets of previous exercises. Now, you've got two more sets to go, and you can take them to failure.

If you managed to get 12 reps, stopping short of failure, you can now push the last two sets to 14+ reps and promote extra growth.

When You're Trying to Meet Progression Requirements of Your Program

Again, if you're following a program, you've got progression numbers you need to hit each week to move up the ladder.

But, sometimes we can stall a bit and progress might not come as smoothly as we want it to.

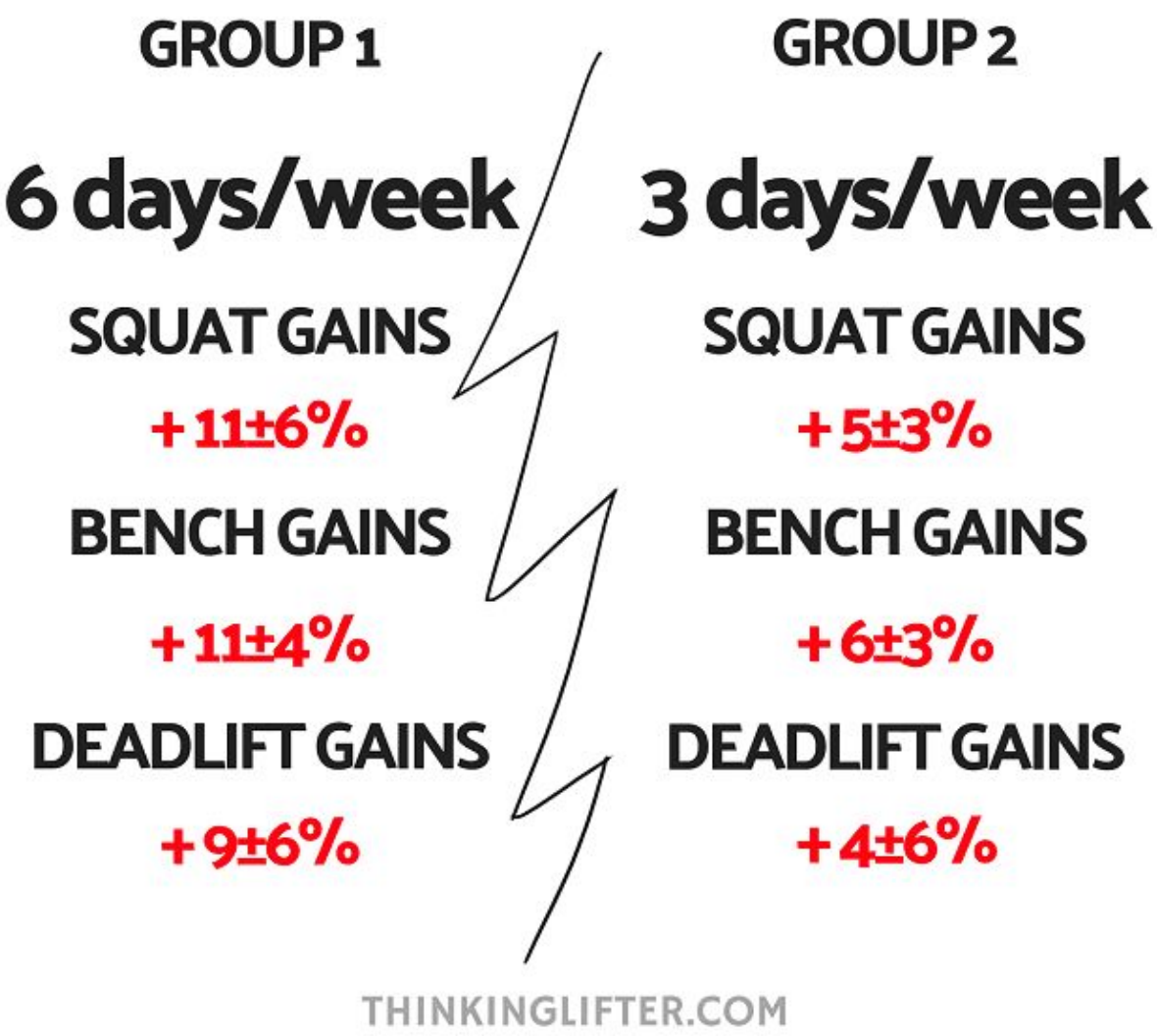
Assuming that the progression is reasonable, you can allow yourself to take a set or two to failure so that you can meet your required numbers.

I've written an entire post on the topic of training to failure. You can check it out here.

Frequency - Training frequency measures how often you train a given muscle group (e.g., chest) or a lift (e.g., bench press). For a while now, it's been commonly accepted that training more frequently led to better results.

This is primarily thanks to the Norwegian experiment study that was done on elite-level powerlifters. After 15 weeks, the high-frequency group had managed to gain up to twice as much strength compared to their low-frequency counterparts.

That result was despite the fact that total volume between the two groups was matched.



This led many people to believe that more = better. However, this study was never published in any peer-reviewed journal, which is a bit unusual.

In a recent meta-analysis, the researchers concluded that if training volume is equated, a higher training frequency does not lead to faster gains. This further suggests that training volume is the primary driver of progress in the gym.

There are some caveats to this, however:

Sure, your total training volume is the key driver for muscle growth, but you should keep frequency in mind, because of volume allocation. Think of it this way:

Say you're following a bro-split, such as this one:

Monday	Back & Biceps
Tuesday	Chest & Triceps
Wednesday	Off
Thursday	Shoulders & Abs
Friday	Legs
Saturday & Sunday	Off

Yes, it's going to give you results, but if you need to do 16 total sets for your back and an additional 6 to 9 for your biceps in a single workout, you'd be exhausted by the end.

Not only would your pulling strength reduce as the workout progresses, but you would always train your biceps in a fatigued state.

Now, if you were to split your total back and bicep work within two sessions with a split such as this one:

Monday	Upper Body
Tuesday	Lower Body
Wednesday	Off
Thursday	Upper Body
Friday	Lower Body
Saturday & Sunday	Off

You'd still meet your weekly volume, but you wouldn't tire yourself out that much. You'd train both your back and biceps in a more rested state, which would allow for heavier weights to be used, which in turn would lead to more total weekly volume.

My recommendation for frequency is:

Train 3 to 6 times per week. If your schedule allows it and you're not a beginner, aim for more sessions. This will allow better volume allocation and less strenuous individual sessions.

And a word of warning:

Although a higher frequency gives you more freedom for volume allocation, this doesn't mean that you should start piling on more sets or exercises to each workout. If you're doing roughly 20 sets per workout and train four days per week, you still need to do around 80 sets per week, but now spread to more training days.

Intensity - It refers to the amount of weight you are lifting relative to your one repetition max. For example, if your current bench press is 225x1, a high-intensity set would be anything over 75% (or 170 lbs, 225 * 0.75). A moderate intensity set would be anything between 60 and 75%.

And anything below 60% would be low-intensity work.

For muscle growth, the general recommendations are to do most of your sets between 60 and 75% of your 1 RM.

For strength gains, the recommendations are to do 60%+ if you are more inexperienced and still relatively weak. If you are stronger, 80%+ sets are going to lead to faster strength adaptations.

Now, intensity and volume are closely connected because if one goes up, the other one must go down.

For example, going back to our bench press example from above:

If you bench 225 for 4 sets of 8 reps, you will accumulate a total of 7.200 pounds of volume on that exercise.

But, if you were to bench 260 for 4 sets of 2 reps, you'd accumulate a total of 2.080 pounds of volume. Almost 3.5 times less.

See the difference?

You can't have both high intensity and high volume at the same time. You can try, but your workouts would need to be 4 hours long, and you'd be injured by week two.

Calculate how many sets of 2s you would need to do with 260 pounds to reach 7.200 pounds of volume. That's okay, I'll wait.

(It's ~14 sets, by the way.)

Putting the Muscle-Building Trio in Practice

Before we continue, I'd like to give you some training split options. They will be 4x, 5x, and 6x training days per week.

Upper-Lower Body Split Example (4 Workouts):

Monday	Upper Body A
Tuesday	Lower Body A
Wednesday	Off
Thursday	Upper Body B
Friday	Lower Body B
Saturday & Sunday	Off

With this split, you're hitting every muscle group twice per week. For example, on upper body A day, you can start with push exercises and train your back

last. On upper body B day, you can start with your back and train your chest and shoulders last.

On lower body A day, you can begin with barbell squats and primarily work your quads. On lower body B day, you can begin with deadlifts and put more emphasis on your hamstrings, calves and lower back.

Alternating between 4 and 5 training days:

Week 1	
Monday	Chest, Shoulders & Triceps
Tuesday	Back & Biceps
Wednesday	Off
Thursday	Legs
Friday	Off
Saturday	Chest, Shoulders & Triceps
Sunday	Back & Biceps

Week 2	
Monday	Off

Tuesday	Legs
Wednesday	Off
Thursday	Chest, Shoulders & Triceps
Friday	Back & Biceps
Saturday	Off
Sunday	Legs

With this split, you can alternate between heavy and light training on a workout-to-workout basis. For example:

If on W1 Monday, you do heavy bench press and light overhead press, on W1 Saturday, you can start with heavy overhead press and finish with lighter chest exercises. Then on W2 Thursday, you can repeat the workout from W1 Monday.

If on W1 Tuesday you do heavy deadlifts and weighted chin-ups, on W1 Sunday you can do more accessory exercises for your back and biceps with lighter weights. You then can repeat the W1 Sunday workout on W2 Friday.

Modified Bro-Split (5 workouts):

Monday	Back (+ 1 Leg exercise)
Tuesday	Chest (+ 1 Shoulder exercise)

Wednesday	Off
Thursday	Legs (+ 1 Back exercise)
Friday	Shoulders (+ 1 Chest exercise)
Saturday	Arms (Optional volume day)
Sunday	Off

You do most of your volume for a given muscle on one day and then 'finish off' the weekly volume for that muscle on another day:

For example, on Monday you can do heavy deadlifts and chin-ups and throw a secondary leg exercise such as leg press or lunges.

On Tuesday, you can do a full chest workout, and include lighter overhead presses for your shoulders.

On Thursday, you can do heavy squats and other accessory leg movements, and include a secondary back exercise such as dumbbell rows or lat pulldowns.

On Friday, you can do heavy overhead presses and some isolation exercises such as lateral dumbbell raises and face pulls. In addition to those, you can include a chest press variation for extra volume.

And on Saturday, the optional volume day, you can do a few exercises for biceps and triceps.

3 x bench, 2 x deadlift, 3 x squats a Week Split (6 workouts)

Monday	Back squats, deadlift + some back and arm accessory work
Tuesday	Close-grip bench, incline press + chest flys and lateral raises
Wednesday	Goblet squats, Romanian deadlift, barbell rows
Thursday	Flat bench, dips, shoulder press + tricep isolation work
Friday	Pause/box squats, deadlift + back accessory work
Saturday	Pause bench, shoulder press + accessory work
Sunday	Off

I followed this split a while back. Regarding volume allocation and workout length, this was heaven. Over the 7 weeks that I followed it, I made some pretty decent progress in both strength and muscle growth.

But, committing to the gym for six days can be mentally exhausting and even impossible for some people.

How to Structure Each Workout (Exercise Selection and Priority)

It doesn't matter whether you train 3, 4, 5, or 6 days per week. Structuring each workout will always (or at least in the majority of cases) follow the same rules.

Walk into any gym, and I guarantee, you'll see at least one person who is not prioritizing their exercises properly.

For example:

Doing isolation exercises such as dumbbell kickbacks before flat bench press.

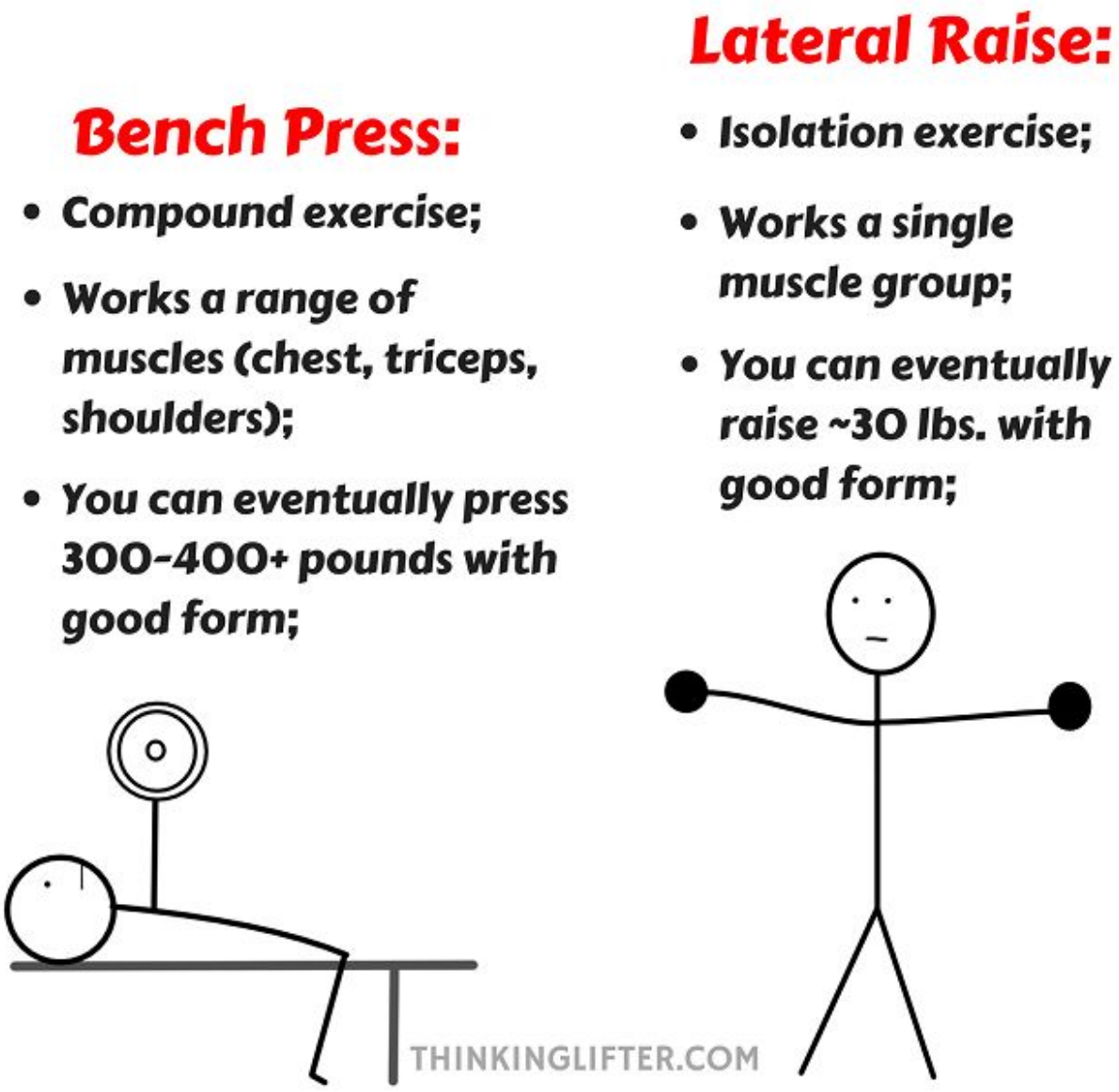
Doing rows, pulldowns, and pullovers before deadlifts or pull-ups.

Doing lateral dumbbell raises before overhead shoulder press.

The list goes on, but you get the picture.

And before you jump at me with "Maybe they don't care to get strong, so what's wrong with that?" let me tell you why this is a poor approach to training:

You see, compound exercises generally allow you to train each muscle that is involved with a higher load.



This doesn't mean that doing close-grip bench press is going to be better for your triceps than doing dumbbell kickbacks. There are other things worth considering. (Such, for example, is bad technique.)

But, there is a big advantage to doing the bigger movements early in your workouts.

Taking advantage of your strength early before your muscles become fatigued is important. You can overload your body with more weight, more repetitions and even less rest between sets (intensity, volume, and density respectively).

It's important to remember that if you're doing the same thing in your training as you did a year ago, chances are, you haven't made much progress.

This is why doing compound exercises early on is important.

Your focus should be to make progress on them. Keep track of the loads you're using, your rest periods and repetitions. Over time, as you get stronger, you'll be able to overload your muscles with more training volume.

Don't start your workouts with isolation exercises and then move onto the compound movements. Understand that it is not an optimal priority set and you're hindering your progress.

Here is a good way to structure your workout in 4 steps:

Step #1: Start with a heavy, compound exercise (flat bench press, close-grip bench press, barbell squats, deadlifts and overhead barbell press).

Step # 2: Once you're done with that, move to secondary exercises that will assist your main movements:

- dumbbell press/hammer strength press for chest;
- cable tricep pushdowns/tricep dips for triceps;
- leg press/hack squat/split squat for legs;
- barbell or dumbbell rows/pull ups/pull downs for the back;
- overhead press variation/side lateral dumbbell raises for your shoulders.

Step #3: After that, you can move to a second accessory exercise. The goal is to build training volume that will produce muscle growth over time. These exercises are also great for targeting weak points that are prohibiting you from making good progress on your main lifts.

Step #4: By this point, you can either start training a different muscle group or continue adding more volume for the current group. For example:

- If you're training legs, do some calve or hamstring accessory work.
- If you're training chest, consider a fly exercise to finish off.
- If you're training back, do an exercise for your traps or lats.
- If you're training shoulders, include a movement for your rear delts.

Think of the compound lifts as the foundation of a building. Once you lay it down, the accessory work is going to be the tall, beautiful skyscraper built on top.

The Progressive Overload Principle

“Insanity is doing the same thing over and over and expecting different results.”

– Albert Einstein

This is a great quote, and it fits training quite well. A lot of people fall into the comfort zone of training and don’t bother improving. Yet, they can’t seem to understand, why they aren’t making any progress.

“I’ve been lifting 3-4 times per week for 8 months now, and I’m still weak, and haven’t put on any real muscle. What’s wrong with me?”

You can find this question asked everywhere. On forums, in comment sections, on live Q&A’s and so on.

And it is frustrating because people are putting in work but not getting any results to show for it. In essence, they are wasting their time.

The often overlooked but key rule for long-term progress in the gym is progressive overload.

There are many ways to achieve that, some of which I will list down below. But, let’s examine why progressive overload is so important.

The progressive overload principle states:

For a muscle to grow, strength to improve, performance to increase, or for any similar improvement to occur, the human body must be forced to adapt to a tension that is above and beyond what it has experienced before.

This is important to remember moving forward. Take a snapshot with your phone or write it down if you want to.

I often see people at the gym who have fallen into a comfort zone of training and are doing the same thing over and over. No surprise that they don't change much from year to year.

There is a simple explanation for it, and it's called adaptation. When you introduce a new stimulus to your body (such as lifting), you are forcing it to take action and adapt to that stress.

You get stronger, bigger, and faster. But, once your body gets used to that stress, it won't have a reason to develop further because it's capable of handling it right now.

This is why progressive overload is so important. You need to be introducing more stress to your body on a regular basis to force it to adapt and strengthen over and over again.

This is the foundation of ongoing progress.

There are many ways to achieve progressive overload, here are 8:

1. Lifting the same weight with a better range of motion.
2. Lifting the same weight with smoother form, more speed, and less effort.
3. Lifting heavier weight.
4. Lifting the same weight but with less rest between sets.
5. Lifting the same weight for more repetitions.
6. Maintaining performance while losing body weight(increasing relative performance).

7. Doing the same workout in a shorter amount of time.
8. Lifting the same weight for the same repetitions for more sets.

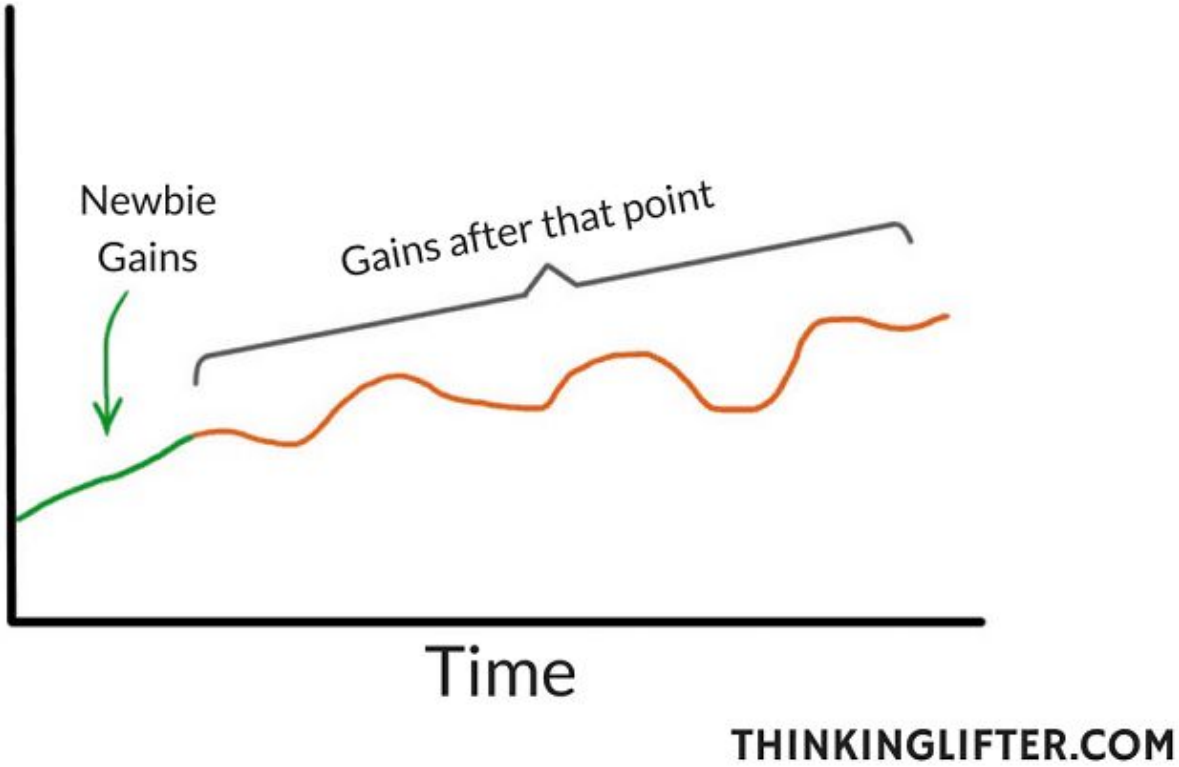
What's the bottom line?

As you can see, there are many different ways to progress, and numbers on the bar aren't the only indicator of that. But, keep in mind that progressive overload comes only after good form.

No one is going to be impressed with a 405-pound half-squat.

A lot of people have this false perception that they should be getting stronger on a weekly basis. This is not the case. In fact, progressive overload will never be linear and as fun, as it is during the newbie phase of training.

What progressive overload looks like:



No improvement, be it gaining strength or increasing work capacity is ever going to be linear. Adaptations of your body to these outside stressors are unpredictable. Sometimes you'll make big jumps easily, while other times you may stall for weeks.

Think about it from this logical standpoint:

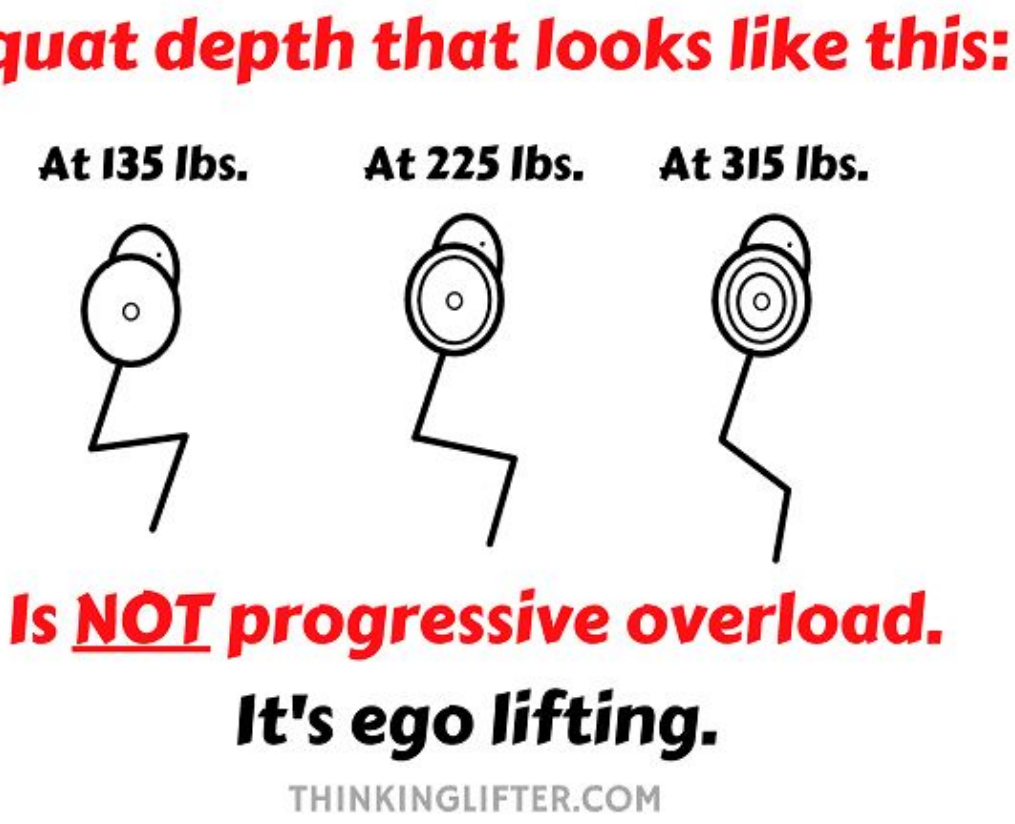
If you could add 5 pounds to your bench press from week to week, every year your bench would increase by 260 pounds. And even though that would be awesome, it won't happen.

Adding such an enormous load on your bench max is going to take a lot more than a year to achieve.

But, there is something important you need to know about getting stronger.

Progressive overload begins and ends with great form.

If you're adding weight to the bar, but your form is suffering for it, that is not progressive overload. That is ego lifting, and it's going to catch up to you fast.



Training through a full range of motion with good form and adding weight on the bar is what matters.

Otherwise, you're wasting your time, increasing the risk of injury and lying to yourself.

The Inevitable Plateau

In essence, a lifting plateau is a state in which you cannot make any progress with your training.

How long the progress stall lasts before we can consider it a weightlifting plateau depends on the individual - their goals, training experience, current strength level, and lifestyle all play a role.

For example:

An elite powerlifter will need to train for an entire year to add 5-10 pounds to their squat. But, if you can only squat 200 pounds now, you should be able to add 5-10 pounds on that every few weeks.

Another example:

If you're only used to sleeping 4-5 hours a night, don't expect to make optimal progress in the gym. Sleep is crucial for optimal recovery and performance.

For the average lifter, I'd say anything longer than four weeks can be considered a plateau.

Now, here are the four tactics:

Tactic #1: Eat enough calories and track your body weight over time.

Before you do anything else, make sure that you're eating enough food. Just as a house requires building materials to be developed, so does your body.

Your body's ability to build muscle mass is diminished if you're not supplying it with enough calories. In other words, being in a caloric surplus and gradually gaining body weight is ideal.

To calculate your calories, use the following BMR formula:

English BMR Formula

Women: BMR = 655 + (4.35 x weight in pounds) + (4.7 x height in inches) - (4.7 x age in years)

Men: BMR = 66 + (6.23 x weight in pounds) + (12.7 x height in inches) - (6.8 x age in year)

Metric BMR Formula

Women: BMR = 655 + (9.6 x weight in kilos) + (1.8 x height in cm) - (4.7 x age in years)

Men: BMR = 66 + (13.7 x weight in kilos) + (5 x height in cm) - (6.8 x age in years)

Credits: http://www.bmi-calculator.net/bmr-calculator/bmr-formula.php

Harris Benedict Formula

To determine your total daily calorie needs, multiply your BMR by the appropriate activity factor, as follows:

- If you are sedentary (little or no exercise) : Calorie-Calculation = BMR x 1.2
- If you are lightly active (light exercise/sports 1-3 days/week) : Calorie-Calculation = BMR x 1.375
- If you are moderatetely active (moderate exercise/sports 3-5 days/week) : Calorie-Calculation = BMR x 1.55
- If you are very active (hard exercise/sports 6-7 days a week) : Calorie-Calculation = BMR x 1.725
- If you are extra active (very hard exercise/sports & physical job or 2x training) : Calorie-Calculation = BMR x 1.9

Credits: http://www.bmi-calculator.net/bmr-calculator/harris-benedict-equation/

Once you know your estimated TDEE, add 100-200 above that number. No more.

I don't recommend using any of the online calculators because they are often inaccurate.

Also, keep track of your body weight and see how it changes over time. Your aim is to gain 1 to 2 pounds of weight every month. If you're more advanced, stay on the safe side and aim for 1 pound. If you're a newbie, gaining a bit more weight is okay.

As long as your weight is going up, you can move to the other tactics.

Tactic #2: Take a deload week.

Yes, overtraining is quite real, and anyone can fall into that trap. Sometimes the severity of the symptoms is so bad that it doesn't just affect your workouts.

- You can't sleep well.
- You're tired and edgy all the time.
- You have low or no sex drive.
- Your joints and tendons feel achy.
- You lack the motivation to train.
- Your warm-ups are challenging enough to warrant for a full workout.

These are some of the most commonly seen symptoms of overtraining you should be looking out for. You see, training is quite taxing on your body both physically and mentally.

After training for weeks and weeks without taking a break, that fatigue accumulates, and you start feeling overtrained. This is where a deload week should come to place.

A deload week is one where you scale down your workouts by reducing training volume, training intensity or both by about 50%. This means doing half of what you do regarding total sets and weight lifted. During that week, there will be no training to failure and no PR attempts.

Practice good form, have a quick workout and leave.

I've written an entire guide on deload and recovery weeks. You can read it here.

Tactic #3: Improve your technique and work on your weak points.

I recommend getting someone who has the experience to review your form and point out any mistakes you could be making.

You can also watch instructional YouTube videos and try to recreate proper form in the gym. Go a step further and record some of your sets to see how you look from the side.

Often, these seemingly unbreakable plateaus can be caused by something minor, and a few simple tweaks could help you get past them.

Weak points are another common reason why you could be plateauing on a certain exercise. I recommend you read this.

Tactic #4: Put more effort into your training.

You see, we often start something new (in our case a new program, split, etc.) with energy and enthusiasm.

But after some time passes, we lose interest or drive to perform and fall into this comfort zone.

We exert a certain amount of effort but not too much that we challenge ourselves to leave that comfort zone we've created.

In other words, we get lazy.

I've been guilty of this myself, and I know a lot of people who have fallen into this trap. Sure, you're pushing yourself in the gym but not as hard as you think you are.

"Oh better stop this set now, I don't want to get overtrained."

"I don't think I'm up for squatting 225 pounds today."

"Last week I benched 275 pounds for 6. I can take it easy today."

There are just some of the limiting thoughts that pop up, and we can fall for them if we're not careful.

So, here is my challenge to you:

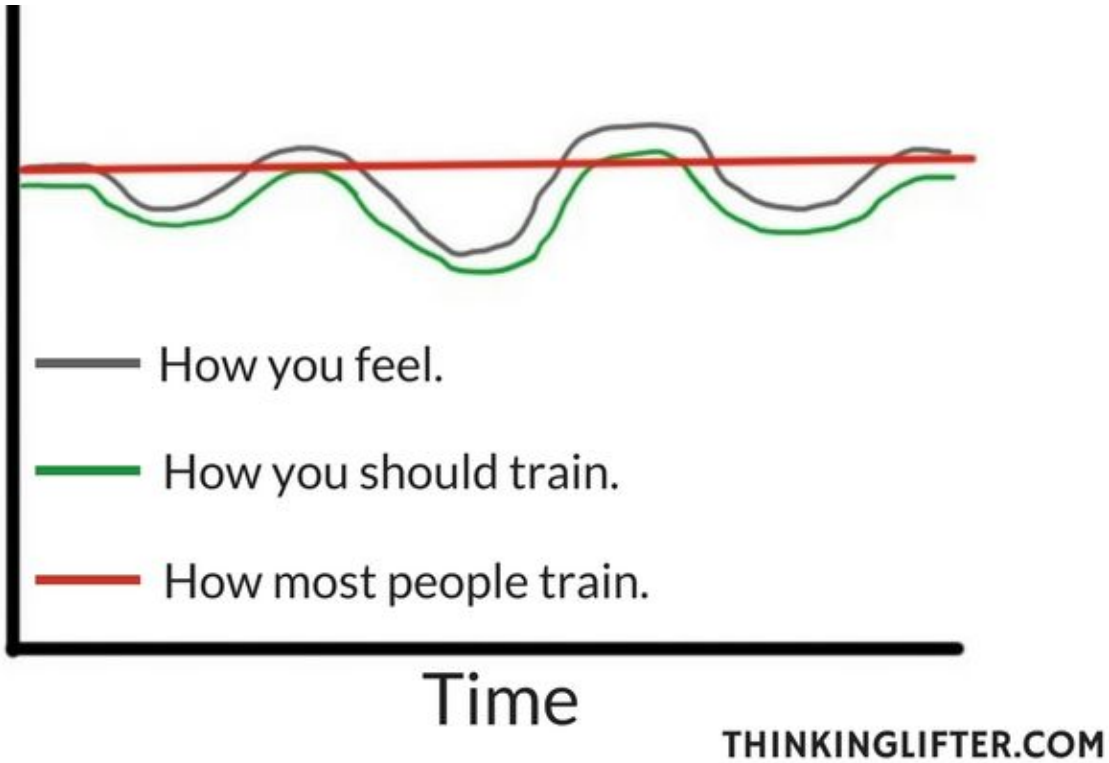
The next time you're doing an exercise with the same weight as the week before, dare to push it for one or two more repetitions. Chances

are, you're NOT going to reach muscle failure and completely wreck your central nervous system.

If you can, try to match the repetitions for the remaining sets on that exercise. It might not feel like much, but those extra reps are going to make a big difference over time.

Aim for small improvements each workout and don't fall into the comfort zone and wonder why you aren't making progress. The power to change is in your own hands.

Learn How to Master This Often Ignored Aspect of Training



Autoregulation. I'm sure you've heard this term once or twice before and for a good reason – it matters.

You see, most people assume that your performance is going to be linear with a slight trajectory upwards over time.

But, if you've been lifting for more than a few months, I can bet that you've experienced all sorts of days – good, bad and ugly. And having low energy sucks.

But it's important to understand for the sake of your longevity in the gym that those days happen.

This is why you'll hear the term 'autoregulation' from a seasoned lifter, rather than from a gym newbie. The experienced lifters have learned that listening to your body is important. Trying to push through bad days is a boneheaded move.

Listening to your body applies to good days, as well. Sometimes we are fortunate. We get to the gym, and we feel great. The weight we lift seems somewhat light, and we can add more.

But, there are also the bad days. Warm-up feels tiring. We're not in the mood. We're scattered all over the place, and unmotivated. Weights that we could usually lift for 5-6 repetitions are our new one rep max.

On a day like that, don't beat yourself up. Lower down the weight on each set by 5-10% and do that for each exercise in your workout. There

is no point trying to match your performance from the week before if that comes at the expense of good form.

There are other times where you might feel like you're not up to the challenge, but after one or two working sets, you start feeling the rush of energy flowing through you. What is important is to listen to your body and adjust your workouts.

Backing off is tough to do, especially if you're an overachiever, but is a necessary step to take once in awhile.

Another useful tool you can use for autoregulation is the modernized RPE (Rate of Perceived Exertion) scale by Mike Tuchscherer. He first introduced it in his book The Reactive Training Manual.

He took the original RPE scale designed by Gunnar Borg around 50 years ago and modified it so that the scores are determined based on how many more repetitions you believe you can complete before reaching muscular failure.

For those of you who don't know him, Mike is an IPF champion and a very respected powerlifting coach today. He has worked with a lot of powerlifters including some at the highest level.

Here's what the scale looks like:

RPE Scale by Mike Tuchscherer	
10	Could not do more reps or use higher load
9.5	Could not do more reps, could do slightly more load
9	Could do 1 more repetition
8.5	Could definitely do 1 more repetition, chances at 2
8	Could do 2 more repetitions
7.5	Could definitely do 2 more repetitions, chances at 3
7	Could do 3 more repetitions
5-6	Could do 4-6 more repetitions
1-4	Very light to no effort

You should also read this awesome post on autoregulation.

What about cardio, Phil?

Doing regular cardio provides numerous benefits, and you should do at least 20-30 minutes a week, whether you're trying to build muscle or lose fat.

But there are two major ways in which cardio can slow down or even stop your progress:

- Doing cardio burns calories (up to several hundred per session) and can reduce your caloric surplus without you even realizing it.
- Like any other form of physical activity, cardio can too, lead to symptoms of overtraining if you go overboard with it. This is specifically tied to the interference effect.

The first issue is pretty easy to deal with. Especially when you consider that low-intensity steady state cardio can increase appetite for some people. But, you still need to be mindful and eat an extra 50-150 calories a day depending on how much cardio you do every week.

The second issue is directly linked to the intensity and frequency of your cardio sessions. As I mentioned earlier, doing 20-30 minutes of cardio a week is recommended, and it can be quite beneficial.

This meta-analysis from 2012 reviewed 21 studies and came to this conclusion:

Our results indicate that interference effects of endurance training are a factor of the modality, frequency, and duration of the endurance training selected.

Trying to improve more than one thing at a time is often a foolhardy goal, and most people end up achieving none.

If you want to get strong - lift more weights.

If you want to improve your endurance - do more endurance work.

Still, context is important. Yes, cardio can interfere with your strength gains if you overdo it and can't recover from it. Running 16 miles/week while trying to bring up your squat strength isn't exactly the *smartest* thing you can do.

But, cardio can also improve your work capacity (the amount of work you can do and recover from), lung capacity, and many health markers.

I don't want you to conclude that I'm bashing cardio - far from it.

My recommendation is to do cardio on rest days as a form of active recovery, and so it doesn't interfere with muscle growth. Or, at the very least, try to separate your cardio sessions from lifting weights by at least 6 hours.

If your schedule doesn't allow you that flexibility, then do your cardio after weight training.

How to tell if I'm progressing?

Everything we covered today will be a waste if you're not progressing over time. Simply put, within a training week, month, or cycle, you need to be seeing some improvement.

There are questions you should ask yourself:

Is volume going up?

Remember our early example of calculating the volume on the bench press? We concluded that benching 225 for 4 sets of 8 reps = 7.200 pounds of volume.

Now, this is just an example, your numbers will likely look quite different from this. But, it's important to keep track of your gym performance and make sure that you're progressing over time.

In other words, if this week you hit 7.200 pounds of volume on the bench, you should, ideally, do more next week, and the week after that.

If, on an accessory exercise you lift a certain weight for 8 repetitions, ideally, you should see some improvement in the following week (remember, there are more than 8 ways to achieve progressive overload). Be it less rest between sets, better form, more speed, or one extra set.

Is your body weight going up?

Changes (or lack thereof) in body weight are one of the best ways to track your bulking progress. But to do things efficiently and to track accurately, you need to be doing daily weigh-ins.

Why?

Daily weigh-ins allow you to see through daily fluctuations in body weight and to to track your average weight change from week to week accurately.

Track your weight daily, in the morning on an empty stomach and take the weekly average. Compare week to week and see how your weight changes over time.

If you're gaining weight too quickly or too slowly, you can make adjustments to your diet.

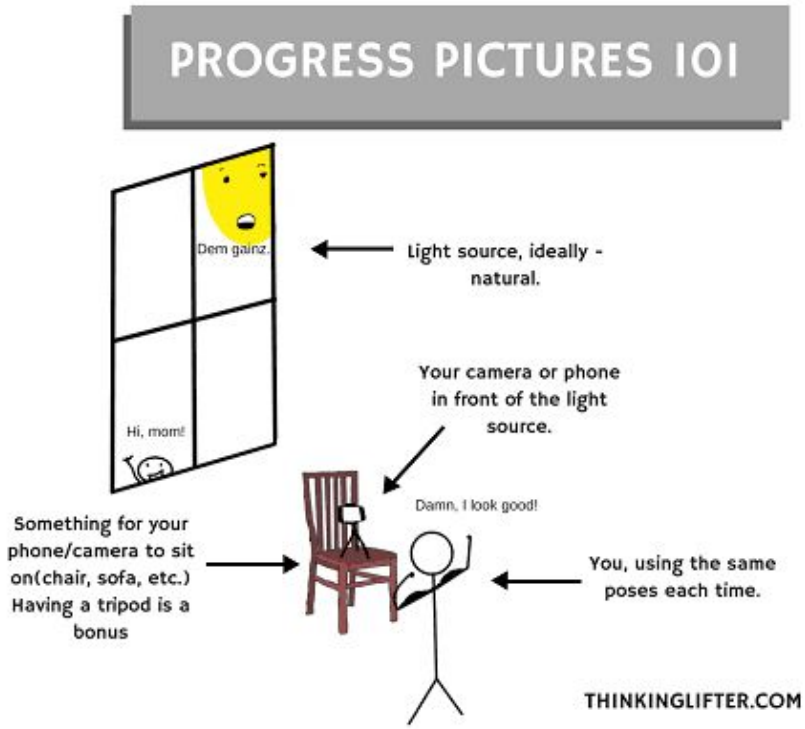
Are you tracking your visual progress?

Next to tracking your average weight on a week to week basis, taking the occasional progress pictures is a great way to see changes.

We see ourselves in the mirror every day, and changes can be difficult to notice sometimes.

But to make progress pictures effective, you need to take them under the same conditions every time and use the same poses.

Take progress pictures once every 3 or 4 weeks and compare.



Are your body measurements going up?

Taking body measurements of your chest, arms, legs, and waist is a great way to see if you're growing. During a gaining phase, I recommend taking these measurements once a month. If you do it too often, you can become neurotic and unmotivated.

Final Thoughts

#1: You Must Set Realistic Goals For Yourself

At the beginning of this guide, I showed you this image:

Year 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 pound per month)
4+	2-3 pounds (not worth calculating)

Credits:
http://www.bodyrecomposition.com/muscle-gain/whats-my-genetic-muscular-potential.html/

I'm posting it again because it is very important to know and understand.

Growing muscle takes time. And I mean YEARS. That is why you need to set realistic goals for yourself.

Stop comparing yourself to someone who's been lifting for ten years. Stop thinking your genetics are bad. Stop overeating and getting way too fat. Just stop.

Part of trying to build muscle is looking at yourself in the mirror and barely seeing progress. But even a little bit of progress is progress.

Depending on how advanced as a lifter you are, keep the above numbers close to mind every time you feel discouraged.

In the end, a slow and steady approach is going to bring you much better results than if you try and rush it.

With that said, there's one more important thing to discuss.

#2: Don’t Do It For Just A Few Weeks

I see this all the time. Hell, I’ve been guilty of it myself.

You start eating in a surplus, ready to pack on muscle mass. But then..

Spring rolls along.

You’ve gained too much fat too quickly.

You get inspired to get lean for the summer.

Long story short:

You’re cutting before you know it. Again.

Let me be blunt: If this describes you, you’re wasting TOO much time jumping back and forth.

Muscle growth happens slow enough as it is. And transitioning between bulking and cutting every few weeks will slow it down even further.

And the worst part: you could develop body-image issues and never be able to commit to a gaining phase.

Contrary to what you see on social media, it’s totally OKAY to be over 15% body fat.

I'm a big believer in lean bulking and everyone who's done it for at least a year can confirm that it does work.

Not only that but once it's done, you're left off with much less fat to cut to get lean.

But for a lean bulk to work, you need to be disciplined. You need to eat just enough to grow slowly from month to month.

This will suck for the people who use bulking as an excuse to pig out every day, but it's the better approach.