A QUANTITATIVE APPROACH TO FITNESS

HYBRID^5

THE ULTIMATE METHOD
TO MAXIMIZE LEAN MUSCLE AND STRENGTH

VITRUVIAN PHYSIQUE

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1. INTRO

LET'S GET BIG.

Welcome to HYBRID 5, the most effective training system to get you BIG! To begin, I would like to explain exactly what I mean by that.

In HYBRID 5, does BIG mean:

a) Getting bigger in terms of gaining muscle?
b) Getting stronger in the gym and putting up bigger weights?
c) Focusing on qualitative results - a big improvement in overall health and physical performance?

The answer is **D) All of the above**.

Over the course of my 12+ years of experience with natural bodybuilding, powerlifting, and strength training, I discovered a trend for standard training programs to tend to skew their focus toward one side of the spectrum. Either the program was built for muscle hypertrophy (the scientific term for muscle growth) or it was built to increase strength. This singularly-focused style of training is simply not ideal.

I'll never forget a time when I was in university pursuing my undergrad (and was more serious about partying than training) when I watched a YouTube video of a popular fitness icon performing a bench press for less weight than I was able to. This was baffling because the individual in the video had an amazing physique.

He must have been two inches shorter than me, yet carrying 10-15 lbs more lean muscle than me with superior genetics in terms of muscle insertions (how and where muscles actually attach to the skeleton). Although I greatly admired his physique, I could not understand how he could have all that muscle and yet at the same time, be significantly weaker than a 21-year old kid who prioritized a 24-pack of beer over 6-pack abs.

On the other hand, I will also never forget the time I first deadlifted 400 lbs. Not because it was a big accomplishment (which it was – don't get me wrong!), but because only 15 minutes later, while I was still putting away the eight 45-lb plates it took to load up that deadlift, someone came along and did the exact same thing next to me…except for five reps and he did it with 20-25 lbs less muscle than I had.

At the time, I was at my biggest size ever standing at 6'0 and 190 lbs. I was no Arnold Schwarzenegger, but I was usually one of the biggest guys in the gym. All that muscle mass immediately meant nothing to me when this somewhat small, skinny guy came in and easily quintupled what I had worked my entire life to do for one measly rep.. which at the time nearly caused me to pop a blood vessel and faint.

I have always thought of muscle as the primary driver of strength. Therefore, I assumed that that the formula was simple:

MORE MUSCLE = MORE STRENGTH

However, over time I came to the realization that this is an oversimplification, and it is definitely possible to train with a strong focus on one and not the other. Seeing the disconnect between muscle and strength in the aforementioned individuals implanted this idea in my head, but it wasn't until I spent a few more years researching and experimenting with different training protocols that I was able to confidentially isolate the problem, formulate a solution, and implement it my training. When I did this, the results were nothing short of fantastic.

Within a year, I had put on 10 lbs of lean muscle mass bringing me up to 200 lbs whilst retaining the same body fat percentage I had at 190 lbs. In addition, my strength shot up dramatically, bringing my overall raw total (the sum of your best squat, bench press, and deadlift) up by over 200 lbs. My size continued to increase at an excellent rate while my strength caught up. What was once my 1-rep max (1RM) was now a warm-up. There is no better feeling than doing something with ease which at one point in your life would crush you.

This is the epitome of self-improvement – not only have you overcome a challenge, you have obliterated it to the point where it is not longer even worth your concern. That is my ultimate goal with this program. I personally guarantee that if you give this program 100% of your effort, you will feel that same feeling of triumph over the physically (and mentally) weaker person you used to be.

2. RIP BROSCIENCE

BROSCIENCE:

Word of mouth knowledge passed off as fact, primarily among bodybuilders + weightlifters. Generally spouted most by guys who have used loads of steroids and are huge, have no idea what is happening to their bodies and then share that same cluelessness with others who make the false assumption that their experience means that they have knowledge.

Watch who you listen to. Seriously. They are everywhere, sharing their knowledge.

"I never had any hairloss when I pinned the testosterone in my butt cheeks, but when I tried pinning in my bicep, I went bald" is some broscience you could find in a forum, or a gym.

- Urban Dictionary

Broscience is the bane of the fitness world. It is a remnant from a time before fitness was studied as a science, back when the most valuable information came from word of mouth and an individual's credibility was not measured by his/her use of peer-reviewed evidence and science-based logic, but by the size of their biceps. In my opinion, it's very easy to identify broscience. Simply put, if you recommend something due to the fact that you believe it worked for you, then it's broscience. This violates a fundamental law of the scientific method: **sufficient sample size**.

To explain this further, when I was in my undergrad I had a microbiology course which involved weekly lab work. One of the experiments I worked on involved growing small plants under various conditions after being treated with varying chemical agents. Not only were we required to plant a seed for each set of conditions, but we had to plant duplicates. In the end, it took my team and me about five hours to plant over 200 seeds which included around 30 duplicates for each set of conditions. The reason we did this is because without a high sample size, any results from our experiment would be laughable if we ever actually tried to use it as evidence.

This is the fundamental problem with people who give advice with no actual scientific evidence to support their claims. Not only are they providing information based on a sample size of **one** (which is essentially useless), their experimental model is terrible.

Let's say someone decides to start taking their fitness seriously and decide to change their program from training biceps twice per week to training biceps every single day. Over the course of 2 weeks, they start to believe their biceps are looking bigger. Then, they proclaim to the world that everyone should be doing the same because it seemed to work for them, and that training biceps just twice per week is stupid and ineffective.

Just a few of the problems with this way of thinking are:

During this new way of training, you eat the same way as before? For example, if you started eating more food or protein, perhaps it was the change in nutrition that sparked this additional growth – not the change in training.

Did you sleep more or less than before? Again, if you went from sleeping 6 hours per night to 8 hours, perhaps that is the reason behind the additional growth.

Just 2 weeks? What if you tried doing this for 2 months? Would you continue to see the same level of improvement?

Ok maybe it worked for you, but how do you know that this is the BEST way to train? What about 3 times per week, or four times per week? This may be a good way to train but how can you say it's the BEST way to train?

And if it did work for you, you're just one individual. How do you know this will work for the other 7 billion people on this planet?

If this individual really wanted to provide evidence for their reasoning, they would need to set up an experiment with many people (100+ ideally) who are split up into multiple groups each representing a different style of training. Each group would eat the same, sleep the same, and will continue to do this for a reasonable amount of time. The results will then be accurately measured quantitatively - including inches gained to arm circumference, lean body mass gained, strength gained, etc.

This is opposed to one individual simply looking in the mirror and thinking, **"Oh yeah I'm so big! Hell yeah I'm cool!"**

This is how science works. This is how the scientific method has changed the world for the better and has taken mankind from riding horses and dying at the age of 40 to building space shuttles, curing smallpox and nearly doubling the average human lifespan. Why? Because it works and it works DAMN WELL. You have a hypothesis? That's great. Go test it out and when you have sufficient data across a big enough sample size, we'll consider it as evidence supporting your theory.

Until you do that, you're just some scientifically illiterate dude telling people to "do this because I have no idea why, but I think it worked for me". This is the same as me assuming that 100% of humans like sushi because I like sushi.

Remember the golden rule of science:

N = 1 = BULLSHIT

Where "N" refers to sample size.

You will find no broscience in this program. Every specific recommendation will be supported by scientific evidence published in respected scientific journals - or at the very least will be supported by well-educated and reputable experts in the fitness and nutrition industry. In addition, I will add my own advice based on my 12+ years of training and experimentation using different training systems. This advice will be included as anecdotal evidence and will only be used in conjunction with experimental evidence.

Welcome to the program designed to simultaneously build as much muscle and strength as possible.
Welcome to a program supported by scientific evidence free from all broscience.

WELCOME TO HYBRID 5.

3. TRAINING FREQUENCY

A common misconception is that individuals should train each muscle group once per week. This is where phrases like “chest Mondays” are used, as some people have been taught that you need a full 7 days of recovery before training the same muscle group again. This is the case for enhanced (steroid-using) athletes but it is not the case for natural lifters. This difference is due to time limitations of muscle protein synthesis (MPS) following training[1].

For natural athletes, MPS is stimulated after a workout and tops out at about 24 hours post-exercise, returning to almost baseline about 36 hours post-exercise, and completely bottoming-out after 48 hours[2,3]. This is not the case for enhanced athletes where a multitude of performance-enhancing drugs (PEDs) can stimulate MPS to last longer[1]. Therefore, although we can and should admire the work ethic and motivation of enhanced athletes like Arnold Schwarzenegger, we should not train like them.

Arnold often spoke of the 3+ hour long, insane workouts he’d perform – bombarding his muscles with as much volume as possible. On the other hand, if a natural athlete did this he/she would find themselves severely overworked and not progressing anywhere near as fast as they would on a lower volume, higher frequency training program.

The main reason behind this is that overall work done in the gym is not a simple variable which can be split up into segments, because although equal in size they would be vastly different in terms of benefit to your body. A comparable example would be if I asked you to run 500m as fast as you possibly can, but I also give you the option to break it up. You could theoretically run all 500m in one attempt, but chances are you’d start to get tired and slow down after just 100m, causing your overall time to be slower.

Now on the other hand, if you were to split the distance up into 5 separate 100m intervals and I simply time you on each 100m and then add up the times, you’d probably do much better since each 100m interval has you running “fresh” and at your fastest possible speed. You cover the same distance between both situations, but the second option has you covering it MUCH faster and in a more efficient manner.

EVIDENCE:

A meta-analysis (looking at multiple studies and aggregating the data to come up with a single conclusion) was performed by Dr. Brad Schoenfeld and colleagues. They compared hypertrophic outcomes (how much muscle growth) in groups training 3X and 1X per week. The results indicated that training more often (3X) per week was superior as long as total weekly workout volume was equated[4].

The same can be said for training where if you were to train the same muscle group for two hours straight, you'd get significantly less benefit than if you were to train for one hour but split it between two sessions over the week!

• Training with too little frequency (each muscle group once per week) is inefficient and does not take full advantage of your body's muscle protein synthesis timeframe (why wait 7 days if you're ready to train again in 2-3 days).

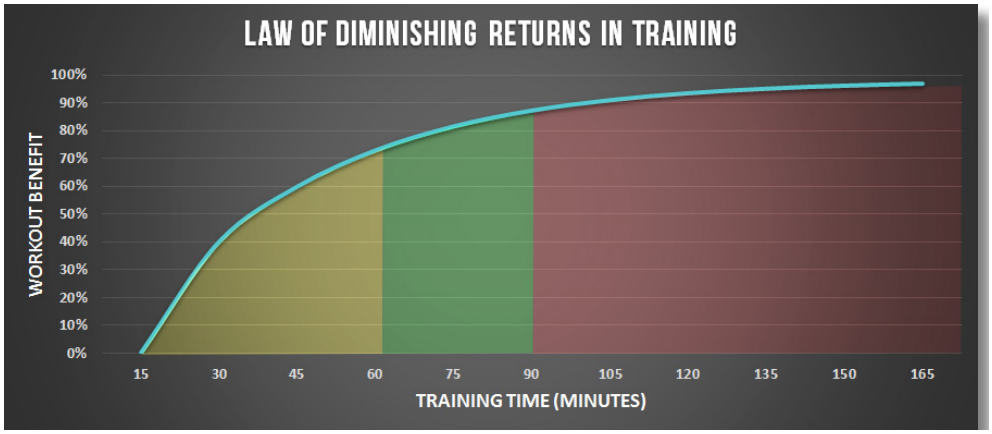
• Training too frequently (blast every muscle group 4+ times per week) is likely unsustainable due to lack of recovery time and inefficient as it is very difficult to stimulate each muscle group with sufficient total training volume.

• Ideally, it is recommended that as a natural lifter you train each muscle group about twice per week, or at least once every 5 days[5].

• The more advanced you are, the more volume you will require to sufficiently stimulate muscle hypertrophy whereas beginners require significantly less volume.

I refer to this concept as the *Law of Diminishing Returns in Training*, a principal often found in economics which I have applied to the world of fitness. The benefit you get out of a workout spikes up immediately during the first 60 minutes of a workout simply because **ANY stimulus is GOOD stimulus**. However, this starts to level off rather quickly and beyond 90 minutes there is still a benefit to training, but it is minimal and the effort-to-reward ratio is far too skewed.

If you work out for a drastic period like 2+ hours, you are essentially wasting your time and may even be inhibiting your overall progress because you will not be able to train again for an extended period of time. If your workout is too short (<45 minutes), chances are you did not train with sufficient intensity and overall workout volume required to adequately stimulate the target muscle group.



In this program, the training split is set up so that those using the intermediate version will be training each muscle group at least twice during the 8-day microcycle (round) and those using the beginner version will be training each muscle group three times per week.

Beginners cannot handle high volume workouts and they require more training frequency simply to get as much practise as possible with various exercises. Training in the gym – like with all sports – involves a certain level of coordination and skill in addition to pure physical exertion. We build these skills by developing neural adaptations which allow our brain and muscles to work in a more efficient manner enabling increased strength. This is why beginners need to train more frequently, because before they can worry about getting more volume, they must first train to develop proficiency in these neural pathways.

4. TRAINING VOLUME

Training volume refers to the total amount of work done on a muscle group during a workout, typically expressed simply as:

VOLUME = SETS X REPS

Training volume and frequency are like two sides of the same coin. They are inherently connected because you cannot increase one without decreasing the other. As a natural lifter - no matter how much you'd like to think of yourself as Superman - training high volume and high frequency will lead to a state of overtraining where workout intensity (and therefore strength and/or muscle gain) is severely compromised.

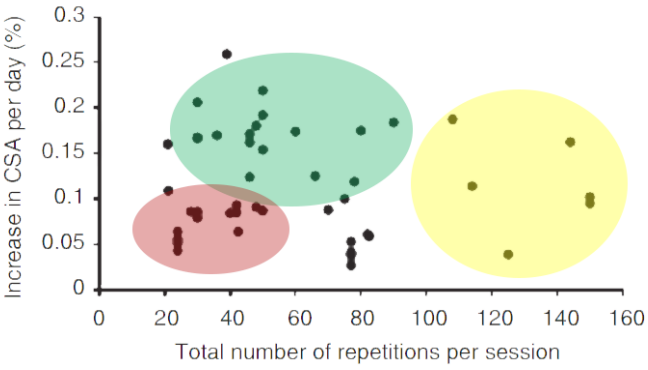
It's nearly impossible to quantify and state the perfect amount of volume one should be training with because every individual is different and different muscle groups respond differently to various amounts of volume, but a general consensus is that 40-70 reps (in total between all exercises) per muscle group per workout is ideal[7], however I would personally aim for something in the 50-80 range to be on the safe side.

IDEAL TRAINING VOLUME = 40-70 REPS PER WORKOUT (FOR EACH MUSCLE GROUP)

This ties in directly with the conclusion we came to in the previous section on training frequency. We established that ideally, your training program should have you training each muscle group about 2X per week with no more than 60-90 minutes per total workout.

EVIDENCE:

Study done by Wernbom and colleagues in 2007 experimented with beginner and intermediate lifters. This study found that the fastest growth in muscle groups such as the quadriceps and biceps was seen at a total rep count of about 40-70 reps per workout[11].



Red = insufficient volume resulting in insufficient CSA growth (cross-sectional area of the muscle)
Yellow = too much volume, these individuals did nearly 2X the volume for the same CSA as the green people
Green = adequate volume resulting in the highest CSA growth without wasting any effort/time

5. TRAINING INTENSITY & IDEAL REP RANGE

$$Volume\ \alpha\ \frac{1}{Intensity}$$

Training intensity can best be described as simply how heavy are you lifting relative to your one rep max (1RM). You can have a workout which is quite long and physically taxing, but if that workout consists of you lifting lighter weights than usual simply for more volume, it is **not** considered high intensity. Generally speaking, intensity and volume are inversely proportional meaning that as one increases, the other must decrease. (Note: in the following equation, the symbol alpha (α) indicates "in proportion to".

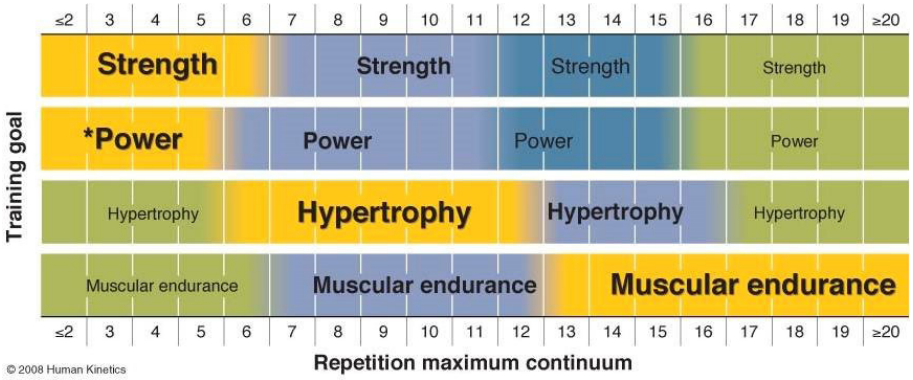
Remember that the general recommendation for volume per muscle group per workout is 50-80 reps. This is quite a large range as it allows for greater variability in regards to intensity. If you train with a higher intensity, you will most likely have to decrease both your rep range/set and your overall workout volume.
For example:

Exercise	Intensity	% of 1RM	Sets	Reps	Volume
A	Low	65%	3	12	36
B	Medium	75%	4	8	32
C	High	85%	5	4	20

So now you may be wondering:

- What is the best intensity level for hypertrophy?
- What is the best rep range for putting on muscle?
- Is the best rep range/intensity level the same for building strength and muscle?

The following is a representation of what is generally accepted as the Hypertrophy Range, which is the best rep range when it comes to building muscle and the Strength Range, assuming you are training at/near your maximum.



According to this graphic from HumanKinetics.com[8], the ideal rep range when aiming for hypertrophy is approximately 6-12 reps with anything lower being more suited for strength training (powerlifting) and anything higher being more suited for endurance training (sports/athletics).

End of story, right? Not necessarily. As you'll see in the chart below, it's not that simple.

Study	Rep Ranges Compared	Hypertrophy Results	Strength Results
Schoenfeld *et al*, 2014[9]	3RM vs 10RM	Equal	Highest in 3RM group
Schoenfeld *et al*, 2015[10]	8-12 vs 25-35	Equal	Highest in 8-12 group
Weiss *et al*, 2000[11]	3-5 vs 13-15 vs 23-25	Equal	N/A
Campos *et al*, 2002[12]	3-5 vs 9-11 vs 20-28	Equal for 3-5 and 9-11 group, no hypertrophy in 20-28 group	Highest in 3-5 group

The consensus seems to be that low-rep strength-based training is ideal due to it's ability to elicit maximum strength improvements in addition to hypertrophy improvements equal to moderate rep training. One may see this and immediately be inclined to train exclusively with low-rep, high intensity training, but it's not necessarily that black and white due to some of the issues with low-rep training:

- The Schoenfeld study mentioned above had an increased rate of participants reporting high levels of discomfort, and an overall higher dropout rate.

- Some of the studies mentioned above assumed **equated volume** when training. This means that if the participants were aiming for 30 reps in total (example), then the individuals completing something moderate like 10 reps could finish their required volume in 3 sets and about ~10 minutes, whereas individuals training with 3 reps would be forced to execute 10 sets which would most likely take up 30+ minutes.

- So, although high intensity (low rep) training provides the same amount of muscle growth and **MORE** strength improvement, it comes at a price in terms of time, difficulty, and increased injury potential.

THE BOTTOM LINE:

This program will require the user to train at a high intensity with low reps for the main compound movements. This will stimulate **maximal strength improvements** while still facilitating hypertrophy in the process.

Afterward, the user will be required to complete 3-5 additional accessory exercises at moderate intensity (hypertrophy rep range) in order to increase total workout volume and thus drive **muscle hypertrophy**.

If I had to provide a numerical breakdown of the emphasis placed on each goal in this program, I would estimate the split is **60/40** (strength/ hypertrophy).

6. PERIODIZATION

Periodization is a slightly more advanced training concept which comes into play when you look at a training program in the long-term. It simply is not optimal to follow a program that covers one full training week and continue to repeat the program with no adjustments indefinitely. Although this may be entirely fine in the beginning when an individual first starts training, but once they are a more advanced, certain problems may start to gradually arise.

Those new to training do not need to worry about this until they have 1-2 years of training experience under their belt and are past the initial "newbie gains" phase[14].

One such problem is that the individual may encounter plateaus where the increase in muscle/strength is no longer progressing anywhere near the rate it was when they first started the program. Although it's entirely normal for muscle/strength improvements to slow down over time, one should still focus on optimizing their training strategy to minimize this as much as possible. The natural human response to decreasing improvements is to simply say "train harder", but unfortunately the human body does not work like a car. You can't simply hit the gas and say "GO FASTER" because you will find yourself over-trained, burnt out, and won't be getting adequate return on the amount of time and effort you are putting in.

Simply put, periodization can be defined as follows:

> *Periodization is the system by which you organize your training in the long-term in order to avoid plateaus and minimize the risk of injury. This is done through the manipulation of training variables such as intensity, volume, exercise selection, and more.*

This reminds me of the popular term: "**Muscle Confusion**". Essentially, this was a way to "trick" your muscles into additional growth by constantly introducing new exercises/stimulus. I have always found that although this makes sense from a basic logic-standpoint, it is a bit too close to broscience for me. Periodization is similar in the sense that you are not doing the same thing over and over again and thus you could consider this "confusing" to the body, but it is significantly more structured and researched as a training concept. Terms like "confuse the body" and "shock the muscle" may sound cool, but what the hell does it actually mean and how do you do it?!

It is not ideal to do the same stuff over and over again thinking that you will continue to grow at the same rate indefinitely. The human body does not progress on such a basic linear function and therefore, a long-term training strategy should take this into account. We can do so by manipulating certain variables over segments of time:

- Intensity
- Rep Range
- Volume
- Rep Tempo
- Exercise Selection
- Exercise Technique

Although periodization is more important for strength-based athletes as opposed those focused specifically on general hypertrophy (muscle growth), it is still an extremely helpful addition to this program because without it, training can quickly become boring/monotonous and generally speaking, a stronger muscle is a bigger muscle. In addition, this will significantly decrease the likelihood of an individual getting injured or burnt out (both in terms of their body and central nervous system) when he/she alternates these training variables as opposed to trying to lift at 100% every single workout.

Because periodization involves manipulating various training variables over time, we must first define the timescale used in periodization:

Microcycle: Typically representing about 1 week of training.
Mesocycle: Longer periods of time such as 1 month and are composed of multiple microcycles.
Macrocycle: Significantly longer periods of time composed of multiple mesocycles. These usually last multiple months/seasons or even a full year of training. This is essentially your entire training program.

"Periodized programs can result in greater changes in strength, motor performance, total body weight, lean body mass, and percent body fat than nonperiodized programs."[15]

Periodized Strength Training: A Critical Review.
-Fleck et al. 1999

LINEAR PERIODIZATION

Variables Manipulated: Volume & Intensity
Time: Microcycles or Mesocycles
Strategy: Gradually increase intensity over time as volume decreases. Great to shift your focus over to heavy lifting, but not the best choice for those who want to prioritize hypertrophy in the long-term since you may end up with long periods of time training with low volume.
Best Suited For: Intermediates who are training with a specific date in mind such as a certain athletic event/ competition and they can gradually increase intensity leading up to this date as a form of "peaking".

*Note: Do not mistake linear periodization for **Linear Progression** which is the recommended training system for beginners. Although the two are similar, linear progression involves increasing variables without decreasing other variables. This is commonly done by beginners who get stronger very quickly (week-to-week) due to their bodies being so sensitive to this new training stimulus. Because of this, they can quickly increase weight lifted (intensity) while maintaining or perhaps even increasing volume! Linear progression is not a form of periodization as you are not manipulating any variables specifically to maximize training adaptations. It is simply the most common way of facilitating progressive overload.

BLOCK PERIODIZATION

Variables Manipulated: Volume & Intensity (can also modify exercise selections)
Time: Mesocycles
Strategy: Your overall training program is separated into 3 mesocycles. This is not an absolute rule, but it's the most common breakdown used in block periodization. This style of training is similar to linear periodization, but a bit faster and more compartmentalized. The most common way to incorporate block periodization is to have low, moderate, and high intensity mesocycles with high, moderate, and low amounts of volume respectively. This is very similar to linear periodization mentioned above, except instead of a gradual shift there are specific training blocks.

Best Suited For: Intermediates: those who have trained with linear periodization for a while (1-2 years) and are looking to try something different.

DAILY UNDULATING PERIODIZATION

Variables Manipulated: Volume & Intensity
Time: Within individual microcycles
Strategy: Your microcycles consist of two types of workouts per muscle group which you alternate back and forth. Each week you have a *Heavy* and *Hypertrophy* version of each workout. On the *Heavy* days, you work in a lower rep range with higher intensity (weight) such as doing 4 sets of 4 reps. On the *Hypertrophy* days, you do the opposite; lighter weight with higher rep ranges such as doing 3 sets of 12 reps. The *Heavy* days may be a bit less in total workout volume such as 40-50 reps/muscle/workout where as the *Hypertrophy* days may higher towards 60-80 reps/muscle/workout.

Best Suited For: Intermediates: those who have trained with linear progression for a while (1-2 years) and are looking to try something new and a bit more advanced. Great for individuals who are impatient and want the best of both worlds (high and low intensity training) in the same week as opposed to waiting for months until the next training block.

CONJUGATE PERIODIZATION

Variables Manipulated: Exercise Selection/Exercise Technique
Time: Up to the user's discretion
Strategy: Instead of manipulating quantitative variables (intensity/volume), the user changes training stressors by changing exercises used throughout his/her program or by changing the manner in which exercises are performed. One of the most common methods of conjugate periodization is the Westside Method which involved training in three different ways[16]:

a) Max Effort: Extremely high intensity training with low reps. Only sustainable for short periods of time (few weeks).
b) Repetition Method: As the name implies, this method involves training at a higher level of volume which is similar to classic bodybuilding (hypertrophy).
c) Dynamic Effort: Lift a sub-maximal load, but as fast as possible. Essentially, you are training for explosiveness as opposed to raw strength.

Best Suited For: Advanced athletes training for a specific reason such as a competitive sport. Common amongst competitive powerlifters and strongmen.

Although people will argue as to which form of periodization is best, HYBRID 5 is designed to incorporate aspects from three forms of periodization across three different time scales.

DAILY PERIODIZATION: UNDULATING

Although you will be training each muscle group twice in every 8-day cycle, you will have one day which has a much higher level of intensity (heavier weights lifted for lower reps). Take the chest for example and the main compound movement associated with it: the bench press. The first workout of each round will be a heavy bench day where you will be required to train chest with a high level of intensity while training deltoids (overhead press) with a lower level of intensity as if it is an accessory movement. A few days later when you are on the heavy shoulder (OHP) day, you will now switch the two, training chest with a much lighter intensity of only 65% of your estimated 1RM (55% if you select the incline bench press) and shoulders with a higher intensity. Essentially, each muscle group and corresponding main compound lift will be trained twice with both a powerlifting and hypertrophy-style workouts.

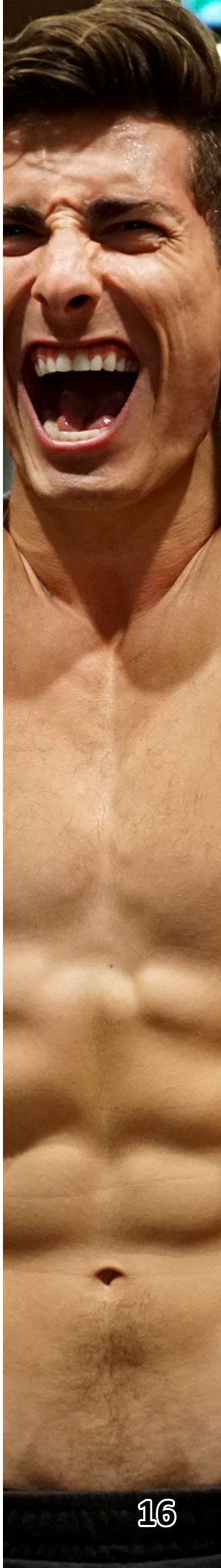
WEEKLY PERIODIZATION: LINEAR

Although your accessory exercises remain unchanged week-to-week, your main compound lift will progressively increase in training intensity (higher % of 1RM) but simultaneously decrease in volume. For example, round 1 may have you lifting at a rep/set scheme of 8/8/8+ totaling 24+ reps, round 4 will drop that down to 2/2/2/2/2/2+ totaling 12+ reps. Technically, volume decreasing is not optimal for muscle hypertrophy, but because the reduction in volume is both minor and temporary (you're back to higher volume raining when you start the next cycle) you're never at risk of missing out on potential muscle hypertrophy. The same can be said about lifting heavy. Individuals who lift at high intensity for short periods of time and then take long breaks of lifting at lower intensities, are at risk of losing those strength adaptations they made during the period of high-intensity training[17]. This is why we can alternate between high and moderate-intensity training to get he best of both worlds, but we must never spend too much time training exclusively with either method.

MONTHLY PERIODIZATION: CONJUGATE

On the **START** tab, you'll notice a long list of muscle groups and their corresponding exercise choices. Each of these yellow boxes is a dropdown which you can click on and select from a multitude of exercises. It is highly recommended that the user alternates these exercises every 2-3 cycles to give your muscles a new stimulus facilitating conjugate periodization. Do this for the accessory exercises, but refrain from changing the main compound exercises as these are the main exercises HYBRID 5 is trying to develop. When individuals start continuously training with new exercises both in terms of their main and accessory exercises, this is now a more advanced form of conjugate periodization which is only required for advanced athletes.

This system of combining multiple forms of periodization on different time scales into one all-encompassing strategy is one of the main factors behind the efficacy of HYBRID 5. This style of training even has a name: Modern Periodization[18]. Different forms of periodization are not mutually exclusive! Why limit yourself to one style of training when they have all been shown to be effective and, most importantly, fun!



7. PERCENTAGE-BASED LIFTING

THE ACE UP YOUR SLEEVE.

The biggest problem I continue to see in common training programs is the absence of any real structure with regards to how much weight the user should be lifting. The user is usually given a list of exercises and (hopefully) provided recommendations as to how many reps and sets to lift, but the weight selection is entirely up to them. This is not necessarily a bad thing when it comes to training for purely hypertrophy, but this can hinder progress when it comes to training for strength (or a combination of strength & size in the case of this program).

Most powerlifitng programs utilize percentage-based lifting as a way to gradually progress in strength at a rate that is enough to challenge the user, but not bombard them with so much stimulus that their progress stalls. Examples of programs like these would-be Jim Wendler's 5/3/1 and the popular Russian squat program *Smolov* or *Smolov Jr.* If you enter the gym and I tell you to squat 3 sets of 6-8 reps with whatever weight you want, you may do 250 lbs for 8/7/6 reps. The week afterwards you may do 260 lbs because you felt stronger that day but you do something like 7/6/5 reps, or perhaps you had to drop the weight after 2 sets and you ended up finishing off with 225 lbs.

Overall there is **no structure or strategy**, you're just going in the gym and screwing around thinking you're still OK because you're training within the confines of the recommended 3 sets of 6-8 reps. This is a suboptimal way to train from both a physical and mental perspective.

The more structured a program is, the easier it is to set and achieve goals. Arnold Schwarzenegger used to explain this idea using an analogy of a boat with no clear destination. Without a specific goal, it will be lucky if it leaves the harbor. But a boat with a clear-cut destination knows exactly where it needs to go and will have a much higher chance of getting there.

The same can be said with percentage-based lifting. If I tell you that for this week's workout you are required to squat 260, 280, and 300 lbs for sets of 4/4/4 reps, then chances are when you're standing there with 300 lbs on your back and 3 reps completed, you're going to do everything in your power to hit that 4th rep because your goal is clearly laid out. I don't care if you think it's heavy, I don't care if you and your girlfriend got in a fight the day before and you're feeling sad, I don't care if you're not feeling super strong today and yesterday you felt a lot better. THIS IS YOUR GOAL TODAY.

The program has laid everything out from the exercise, down to the individual pound, and you will lift it. Why? Because if you can do this then the next time we're back here trying this same weight you will be a slightly stronger version of who you once were and suddenly it won't feel as heavy anymore.

All of your main **compound lifts** in this program (bench, squat, deadlift, and overhead press) will be structured like this. You will know exactly how many reps, sets, and how much weight you will be required to lift. All of these weights will be based off of varying percentages of your estimated 1RM which you will be required to input on the **START** tab in the Excel model.

These percentages are meant to have you lifting a weight which is challenging enough to stimulate adaptation (both in terms of hypertrophy and strength) but not enough to push you beyond what your body is capable of (unsafe and can lead to overtraining).

The remaining lifts are accessory movements. Although these will carry over into improved strength in your compound lifts, the main function of these exercises will be to increase total workout volume in order to drive muscle hypertrophy.

Remember: high intensity lifting (using a heavy weight) is the primary driver of strength, whereas volume (at a moderate intensity/weight) is the primary driver of hypertrophy. It is the combination of these two different styles of training which will allow you to put on pounds of lean muscle mass as well as add pounds onto your lifts.

8. PROGRESSIVE OVERLOAD

Progressive overload is highly important to take into consideration during your training if you want to stimulate growth - both in terms of muscle mass and strength. Simply put, your body does not like to change. It adapts to the workload you put on it and then becomes very good at doing just that with the resources it has available (i.e. your muscle mass). This is why if you place certain requirements on your body during a workout in terms of reps, sets, and weight, your body will adapt to those requirements, but it will never improve beyond the muscle needed for those minimum requirements.

If you build 24-inch quadriceps and that amount of muscle mass is able to perform 4 sets of 8 reps using 315 lbs on the squat (assuming you are perfect in terms of rest and nutrition), as long as you keep asking that muscle to lift the same reps/sets/weight, your quadriceps will not decrease in size/strength, but it is unlikely that they will increase either.

This is why we must **progressively overload** our muscles by increasing **total work capacity** (TWC) to stimulate additional growth.

TOTAL WORK CAPACITY = REPS X SETS X WEIGHT

This will be facilitated in two ways throughout the program:

1) The Excel model will automatically increase the resistance on your main compound lifts cycle-to-cycle. These increases are based on internal formulas utilizing the percentage-based weight selection system outlined earlier in this guide. You may not even realize it in the short-term due to the variation in reps/sets on a weekly basis, but in the long-term (month-to-month) you will be gradually increasing resistance and thus, TWC will increase, satisfying the requirements of progressive overload.

2) When it comes to your accessory movements, because they are not percentage-based, it will be up to you to continuously strive for progression through more reps and/or more weight. I want you to approach these lifts aiming to always work close to - but not at - your maximum (unless explicitly stated in the form of an AMRAP set). For example, if you are performing the bicep curl exercise and your target sets/reps for the workout are 3 sets of 12, I want you to select a weight where you are confident you can complete or at least come close to the full 3 sets of 12 reps. Three example situations can be found below.

GOAL: 3 sets of 12 reps (12/12/12)

SITUATION A: The weight you selected feels too heavy and you are able to do 10/8/5 training to failure.

- This is too much weight. You were unable to even come close to the target rep/set structure meaning that you are unable to complete the required workout volume.

- In addition, this is unsafe. When an individual push themselves to failure and beyond it is common for form to break down, thus increasing the likelihood of injury.

SITUATION B: The weight you selected feels light as you are able to complete the required 12/12/12, but you know that had you wanted to, you could have gone as high as 20/20/20.

- This is too little weight. It's time to apply the principle of **progressive overload** and increase the resistance (weight).

SITUATION C: The weight feels difficult but fair and you are able to complete 12/12/12, knowing that you may have had an extra 1-2 reps at most in the tank on that last set.

- This is the ideal weight for you as you are working hard to hit that rep/set target, but it is not coming too easily.

- I recommend you stay at this weight until you are confident that the difficulty level has decreased and you can now increase the weight for your next workout by something modest (5-10 lbs) without compromising on form or exercise volume.

The following quote is often used in the context of general life, but I feel it is directly applicable when it comes to progressive overload as well:

"IF YOU WANT SOMETHING YOU'VE NEVER HAD BEFORE, YOU'RE GOING TO HAVE TO DO SOMETHING YOU'VE NEVER DONE BEFORE."

9. NUTRITION

Although this is a training program, it's important to touch on the topic of nutrition. This is because without eating properly, no training program in the world is going to give you the results you desire - **no matter how hard you train**. Your body may be a machine, but if it isn't getting the right fuel (food) and in the right quantities, the machine will not work properly.

If you ever find yourself unable to progress in your training, before you look into making any changes to your workouts or training schedule, confirm that your nutrition has consistently been on point for the last few weeks. This will rule it out as the reason for the plateau. A quick summary of the basic nutritional guidelines when it comes to building muscle/strength are as follows:

PROTEIN

Dieting: 1.0 – 1.2 g per lb of bodyweight[7]

Bulking Up: 0.8 – 1.0 g per lb of bodyweight[7]

Protein is essential for muscle protein synthesis (muscle growth). A 160lb man trying to bulk should aim to eat 128-160g protein **daily.**

CALORIES

Calorie Maintenance or Surplus

To put on muscle/strength, you should be getting in sufficient energy (calories) on a daily basis.

This is why gaining muscle/ strength when dieting is possible but difficult.

CARBOHYDRATES

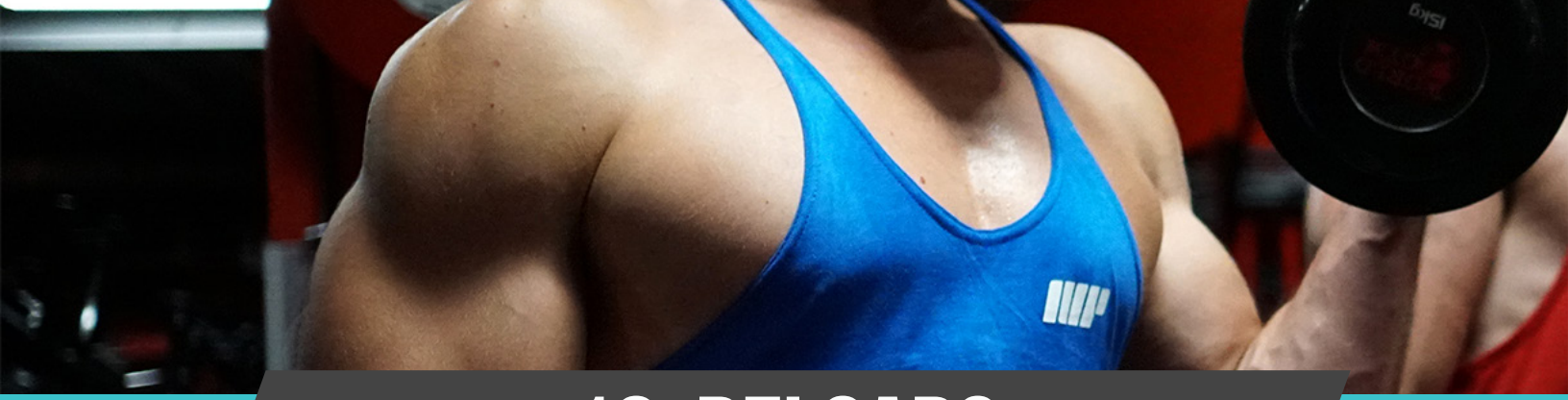
The majority of your calories should be coming from quality carbohydrate sources.

Some fat is required and healthy, but to put yourself in a calorie surplus, I recommend a high intake of healthy carbohydrates (fruit, rice, potatoes, legumes, grains).

Due to the high level of intensity and volume in this program, it is not recommended that you run this program while dieting down via a significant calorie deficit. Your body would not have the energy to progress and can lead you into a state of overtraining. You should *at least* be eating sufficient calories to at least maintain your weight, but for best resuts, you should be in a **caloric surplus**.

The only exception to this rule would be for those who are very new to fitness, who can use the program and progress while being in a caloric deficit. This is because, as a beginner, your body is highly sensitive to training as it is an entirely new stimulus. Then, your body can use the majority of incoming energy along with energy release from burning body fat and use it as fuel for training and muscle protein synthesis[13]. This effectively turns your "cutting phase" into something called a **Recomposition** which is when you burn body fat while simultaneously building muscle.

Unfortunately, this becomes more and more difficult to achieve the longer you train and the more superior your body composition is. This is why if you're running the intermediate version of HYBRID 5 and would like to attempt a recomposition, I strongly advocate you being in a state of caloric maintenance (not eating too much or too little and your scale weight remains mostly unchanged week-to-week).



10. DELOADS

Deloads are short training periods, typically lasting one week, where you train at a much lower level of intensity in order to give your body a period of active rest. The goal is to give your body time to recuperate, avoid overtraining, and allow you to return to training at 100% after deloading. Although some may think that the best way to approach training is to train "hard core" and at 110% intensity all the time, this is a sure-fire way to throw yourself into a state of overtraining and progress will actually start to decrease. Overtraining will lead to high levels of fatigue, intensity in the gym will drop off, and progress will plateau.

Deloads help to:

- Reduce central nervous system fatigue
- Reduce psychological stress
- Reduce accumulated strain on joints and connective tissues (tendons/ligaments)
- Reduce guilt when you are unable to train at 100%. This is why I personally love to schedule deloads during times in my life when training is not a priority such as vacations, business trips, exam season if you're a student, etc.

> "Currently, it appears that OTS (Over Training Syndrome) represents a systemic inflammatory process with diffuse effects on the neurohormonal axis affecting host immunology and mood. OTS is a maladapted response to exercise when excessive and not matched with appropriate rest".[19]
>
> -Kreher, Schwartz 2012

How you set up your deload days/week is up to you, but a common practise is to train 3-4X per week at around 50-70% intensity and 50-70% total volume. Think of it this way:

SOMETIMES THE BEST WAY TO MOVE FORWARD, IS TO FIRST TAKE A STEP BACK.

This program has a scheduled deload occuring during round 5, during which the user will still be training with the main compound movements. Deload workouts are meant to keep you physically active and not let your body "forget" what it's like to train, but still enable your body to recover from the previous 4 rounds of high volume, high intensity training. As always, the main compound lift is laid out for the user in terms of reps/sets/weight, but it is up to the user to select a weight on the accessory movements. Consider dropping the weight lifted on these exercises to ~80% of what you normally do.

Additionally, during your deload, ensure you:

- Maintain a healthy sleep schedule (7 hours minimum)
- Stay properly hydrated (~3 ½ L/day for men, ~2 ½ L/day for women[20])
- Do not change your nutrition strategy. Although you are not training as intensely, you are still recovering from the previous 4 rounds of heavy/high volume training.

11. REST PERIODS

Although we tend to focus on the three most popular variables centered around actually performing the exercise (volume, intensity, and frequency) – the time spent **between** sets or exercises is crucial as well because this can affect training intensity/volume. If an individual trains with longer rest periods, chances are he/she will be able to train with heavier loads and/or more reps. This can lead to increased TWC over the alternative (shorter rest periods) and therefore, facilitates progressive overload.

However, by that logic, one may believe that the best course of action would be to maximize rest periods to a duration as long as 5+ minutes in order to squeeze out as many reps as possible. Although this may be tempting, the resulting workouts would be inefficient due to their extreme length. **Our main goal is to push your body to a point where it is maximizing the benefit-to-time ratio.**

EVIDENCE:

Study done by Schoenfeld et al. in 2015 tested both strength and muscle hypertrophy in subjects lifting with 1-minute and 3-minute rest periods.

The results showed increased responses across all variables for the 3-minute rest period group. This demonstrated that slightly longer rest periods are more beneficial versus slightly shorter rest periods when looking at strength **and** size gains[21].

A 60-minute workout with 90% benefit is superior to a 30-minute workout with 40% benefit. However, a 2-hour workout with 95% benefit is inferior to a 60-minute workout with 90% benefit because you are putting in so much more time and effort for a miniscule increase in overall improvement. You essentially give up one additional hour every workout (4-6 hours every week) just to get an extra few reps here or there which will have a small positive effect on your physique in the long-run, but for 99% of those reading this, it's simply not worth the trouble.

THE BOTTOM LINE:

The best course of action is one that maximizes TWC within a reasonable time frame. **For your heavy compound exercises** (bench, squat, deadlift, OHP), you want to allow for somewhat higher rest periods in order to allow for sufficient recovery between sets leading to increased strength. Somewhere in the **3-4 minute** range is ideal. **For your accessory movements**, because these place more emphasis on volume as opposed to intensity, rest periods between sets can be a bit lower, around **1-2 minutes**. Going higher toward 3 minutes is not a bad thing, but it may prolong your workout and ideally, I want you in and out of the gym in about an hour or an hour and 15 minutes at most.

12. EXERCISE SELECTION

By now you should have a basic understanding of the quantitative aspects involved in the creation of a training plan. So far, we have discussed everything surrounding when, how long, and how much you should train (frequency, volume, intensity, etc.). Now it's time to start filling in the rest of the equation - which exercises are you actually doing?

It is impossible for me or anyone to tell you exactly which exercises are "the best" for absolutely everyone, because not everyone is built the same way anatomically. Exercises that feel great for one individual may cause discomfort and pain for another. Also, not all exercises suit individual experience and strength levels. A training program which requires the user to perform 4 sets of 12 reps on the pull-up bar is somewhat useless if the user is completely new to fitness and incapable of doing a single pull-up.

This program gives you some basic choices when it comes to selecting your main compound lift, but chances are 95% of you will select the standard options: bench press, squat, deadlift, and overhead press. The remaining exercises (accessory lifts) are up to you – hence the reason why these exercises are selected via dropdown.

Fortunately, choosing your accessory exercises will be simple, as exercise selection is not at the top of the priority list when it comes to training. This is because even though there are multiple exercise options for each muscle group, our muscles can typically only do one or two basic functions.

For example, our triceps extend the arm, our pectorals bring the arms across your body, our biceps flex the arm, etc. Many of the exercises we do add resistance to one of these movements and although they may differ in handles, seated/standing, or machine/free weights, at the end of the day they are just minor variations of the same fundamental movement per muscle group. This is why in the case of biceps for example, it makes little difference whether you decide to do dumbbell bicep curls, barbell bicep curls, preacher curls, concentration curls, etc.

That being said, not all exercises are made equal. At their most fundamental level, all exercises can be broken down into two categories:

Compound Exercises: Movements that involve multiple muscle groups working together to move what is usually a relatively heavy weight.

These are also called multi-joint exercises. Examples include the “big 4” (bench, squat, deadlift, overhead press) as well as others like pull-ups, rows, dips, and any variation of these exercises such as dumbbell bench press or incline barbell bench press.

Isolation Exercises: Exercises that typically only involve one muscle group and the is performed at one joint. Due to only one muscle group being targeted, the weight moved is typically less than that of compound exercises.

These are excellent for isolating a certain muscle group and going for “the pump”. An example would be the bicep curl.

Both the beginner and intermediate versions of HYBRID 5 prioritize heavy compound training early on in the workouts to maximize strength, then finish the remainder of the workout with less intense isolation exercises to increase volume and stimulate muscle hypertrophy.

For a complete online database of exercises as well as instructional photos/videos explaining how to perform them correctly, I highly recommend visiting **www.bodybuilding.com/exercises**

13. COMMON ERRORS

During my time using other training programs throughout my 12+ years in the fitness industry, I have made numerous mistakes which would either slow my progress, result in muscular imbalances, or put me into a full-blown plateau when it comes to strength/muscle gain. This may be the single most important section in this entire program because these are the small adjustments that can ultimately end up sabotaging your progress before you realize it!

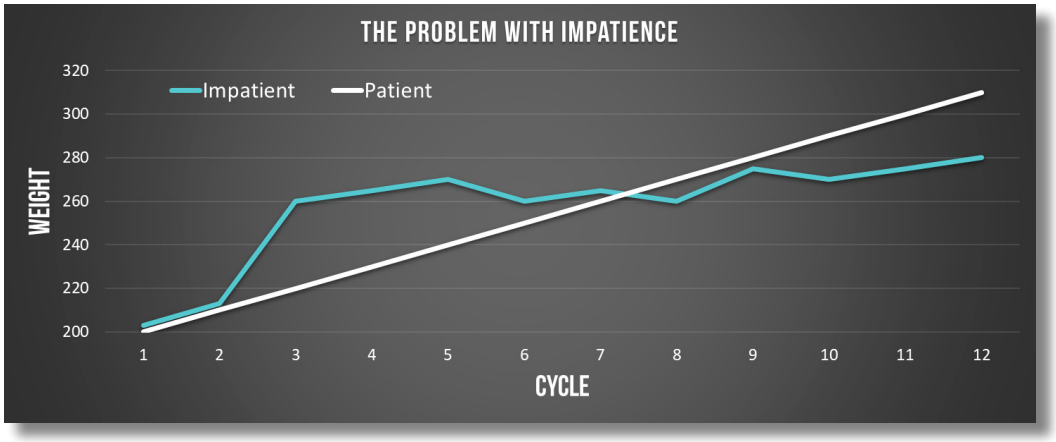
HAVE PATIENCE

The ultimate goal of a percentage-based lifting program is to start modestly and gradually increase difficulty in a way that the user doesn't even realise what's happening. This way the user progressively adapts to the increased loads over time and his/her body is able to keep up effectively while avoiding hitting that "wall".

We've all experienced the wall I am referring to. You're training for a few months, everything is going great and you feel like you're progressing well - increasing the weight or the number of reps lifted from week to week. Eventually you start to slow down in your progress and maybe you start to start to have a few bad workouts here and there but you chalk it up to not eating enough that day or going to bed too late the night before. Then BAM! You hit the wall and stay there. You've entered into a prolonged state of training with little or no improvement and progressive overload has stalled.

In order to avoid this, I have set the program percentages to be fairly conservative in the beginning. You may consider Cycle 1 (and maybe even Cycle 2) to be easier than you had anticipated. You may start to think the original estimations of your 1-rep max (1RM) were too low and you should manually increase them or simply increase the cycle-to-cycle weight increase values (which the program has capped off at 10 lbs).

This defeats the gradual approach to strength accumulation utilized by this program which is to make you stronger slowly over time. Otherwise you run into the problem illustrated below where the impatient individual decided to jump up by about 40 lbs on top of what the program scheduled him to do. Can they handle the weight? Technically yes (assuming he doesn't fail on any lift requirements like getting 2 reps when the requirement is 4), but ongoing progress is going to be a challenge.



DON'T SKIP ANYTHING

One of the most common tendencies for individuals training with programs like these is to give 100% on the heavy compound lift, throw in a few sets on the second exercise scheduled in your workout and then call it a day thinking that the exercises at the end are just "bonus". This may not be entirely wrong when it comes to training purely for strength, but this is a major problem when it comes to putting on muscle because **volume is the primary driver of hypertrophy**.

Going all out and lifting heavy on the bench press is great, but alone it is not enough volume to stimulate growth in the chest and triceps. You need to finish the workout strong with additional chest press/fly movements in addition to tricep isolation exercises. Can you do these exercises somewhat faster? Of course! These are smaller exercises and the intensity level is nowhere near as high as it was for the big compound movement, but that doesn't mean you can skip them altogether. Doing so is a great way to end up with unsatisfactory improvements in muscle size or potentially a disproportionate physique (picture someone with massive quads and no calves because this individual loved to squat heavy, but skipped out on calf raises).

DON'T TRAIN TO FAILURE UNLESS REQUIRED

Out of all the pieces of advice I have heard, training to failure is one of the most common which is unfortunate as it is an extremely overrated technique. Intuitively, it makes sense because one would assume that if you always train at 100%, your body will adapt and grow, causing what was once 100% to be the new 95%. This makes sense logically but your body doesn't work that way and, more often than not, constantly training to failure will only impede progress by decreasing total workout volume and increasing the risk of injury.

This is especially dangerous when lifting heavy on compound exercises which are complicated movements utilizing multiple muscle groups across multiple joints. If you push yourself to failure on a dumbbell bicep curl, chances are you'll be alright if you have to drop the weight since your bicep gave out. Now imagine you try to push yourself to failure on your 4th set of heavy squats with 350 lbs on your back. The likelihood that your form breaks down and you injure yourself is significantly higher than had you chosen to train with a challenging but still workable weight and rep scheme.

This is why HYBRID 5 does include **AMRAP** (As Many Reps as Possible) sets, but they are only responsible for 10-15% of your total workout volume. AMRAP sets are noted with a "**+**" sign next to the number of reps required in the Excel model. For example, if an exercise requires you to lift 8+ reps, this indicates that you are to lift as many reps as possible but you should aim for 8 as the minimum. AMRAP sets are often included for accessory lifts at the end of your working sets as a way to finish strong on the exercise.

If an exercise has a rep/set breakdown of 12/12/12/12+, this indicates that although you are going to failure on your final set, the preceding sets should be challenging but not taken to failure. Keep this in mind when selecting how much weight to lift for the exercise. In this case if you barely got 12 reps on your first set, then this is most likely too much weight and you should decrease it by 5-10%. Otherwise when you get to your fourth set you'll be lucky to complete 8 reps, let alone 12+!

DON'T SKIP DELOADS

If you're training with the intermediate version of HYBRID 5, don't skip deloads. I often see people who love training decide to skip their deload week. Instead, they may take one or two more rest days and consider that sufficient time off. Typically, when they start their next cycle prematurely, they will likely end up hitting a plateau. Don't skip deload rounds. You're not superman.

DON'T CHEAT YOURSELF WITH IMPROPER FORM

One of the most common mistakes I see is in people wanting so badly to prove to themselves and others that they're getting stronger, that they lift too much weight with improper form. I am guilty of doing this when I was younger! As a result of this, the lifts will often be executed with half the range of motion required by the exercise (doing "half reps") or they start to use any means necessary to get the weight up, often resulting in other muscle groups being used. Not only is this dangerous as it increases your chance of injury, but you are only fooling yourself into believing you can perform the lift at whatever weight you are attempting. Train your body, not your ego!

Examples of this include:

- Severely bending your lower back during deadlifts.
- Not squatting with proper depth: doing "half squats"
- Not lowering the bar all the way down to your chest on the bench press
- Bouncing the bar off your chest on the bench press
- Swinging the barbell/dumbbell up during bicep curls (using momentum instead of your biceps)
- Instead of standing up straight while performing the overhead press, you bend backwards. This is your body naturally trying to involve your upper pectorals in the movement because it is a stronger muscle group than your deltoids.

14. BEGINNER PROGRAM

TRAINING EXPERIENCE

Less than 1 year of serious training or less than 2 years if training has been inconsistent.

VOLUME

Low - As a beginner you do not need much volume to progress initially. Therefore, this split is designed to maximize frequency due to your low strength (for now), high recovery ability, and requirement to get as much practise as possible with the fundamental compound lifts.

INTENSITY

Moderate - Enough to stimulate hypertrophy, but not enough to warrant more than 2-3 days of rest between workouts.

FREQUENCY

High - Each muscle group will be trained 3X per week due to the relatively low volume requirements.

SPLIT

FULL BODY	REST	FULL BODY	REST	FULL BODY	REST	REST

PERIODIZATION STYLE

Linear Progression - This program focuses on slowly accumulating TWC in a linear fashion. You should always aim to consistently increase the number of reps performed and/or weight lifted for each exercise.

PROGRESSION SPEED

At first, it's not unheard of for individuals to progress almost **every workout** by either lifting more weight for the same number of reps or vice versa, lifting the same weight as last workout but for more reps. As you become more experienced, this will slow down to every other workout, every week, and eventually progress may only be visible **every 2-3 weeks** (intermediate experience level reached).

STRENGTH GOALS

I recommend that during the first 6-12 months of training with this program, the user should aim for 1RM's of a 1XBW (1 x bodyweight) Bench Press, 1.5XBW Squat, 6-8 Pull-Ups for a single set, 30-50 Push-Ups for a single set, and a 0.4-0.5XBW Barbell Bicep Curl.

WHEN TO UPGRADE

Upgrade to the **Intermediate Program** when you're noticing that it's becoming harder and harder to progress, increases in TWC have slowed down to less than once every 2-3 weeks, and you have more or less achieved the strength goals mentioned above. This typically occurs after about 6-12 months of proper training with the beginner program.

For the beginner program, we will not be using a percentage-based lifting system. This is because a beginner can improve his/her 1RM week-to-week or even workout-to-workout. Trying to use a program based on percentages of this value is difficult. It's like trying to hit a moving target. An individual who has been training for 2+ years has most likely desensitized his/her body to training and is at a higher level than a beginner. Because of this, an intermediate will have a much more stable 1RM which will grow at a slower pace than a beginner, and we can base our programming off of this value (lift X% of your current 1RM).

REP SCALE

The alternative method we will be using is called the RPE scale which stands for Rate of Perceived Exertion. This method involves the user lifting weights for reps/sets which allows him to hit a certain threshold of difficulty.

RPE =10 - # of Reps Remaining

If you do a set of 8 reps on an exercise but you know you probably had another three reps in you, that means the exercise had an RPE of 7. An exercise where you took your body almost to failure and you maybe had one more rep in the tank would be classified as an RPE 9. Finally, an exercise which took you to failure and you couldn't do another rep even if I held a gun to your head - that would be an RPE 10.

Throughout the beginner program, instead of recommending specific weights to lift we will be using the RPE scale so that the user knows how heavy of a weight to use. If the program calls for 3 sets of 8 reps on the squat with and RPE of 8, but the user gets 8 reps on set #3 with 100% difficulty and it almost crushed them – then that was too much weight and you should try something 5-10% lighter next time.

However, if the user completed the 3rd and final set with ease and they know they could have easily done 5+ more reps, that would be an RPE 5 and the user should upgrade the weight next time they train with this exercise.

This methodology is extremely effective for three main reasons:

1. It is safe because the user never goes to failure, minimuzing the risk of injury. This is assuming the recommended RPE rating never reaches 10.

2. It is flexible and as the user gets stronger, they can select higher weights without waiting for the program to recommend it via percentage-based programming. As a beginner you will get stronger and bigger relatively quickly (assuming you eat and train right) and the RPE scale accounts for this. What was an RPE 8 last week may now be an RPE 6 this week and you can adjust the weights accordingly to stay around the RPE rating recommended by the program for each individual exercise!

3. It's quantitative and not up for interpretation. The more specific we can get with regards to your training, the better! Simply telling an individual to hit 3 sets of 10 on an exercise with zero guidance as to what weight or level of difficulty to aim for is useless. The user should always know what exercise he/she is doing, what rep/set scheme to aim for, and what weight/intensity to aim for as well. With the intermediate program this is done through percentage-based lifting and with the beginner program it is facilitated with the RPE scale.

DAY 1

EXERCISE	SETS	REPS	RPE	REST TIME	WEIGHT	SET 1	SET 2	SET 3	SET 4
Flat Barbell Bench Press	3	8	8	2 - 4 min					
Pull-Ups	2	10	9	2 - 3 min					
Overhead Press	4	8	8	2 - 4 min					
Squats	3	12	8	2 - 4 min					
Barbell Rows	3	10	9	60 - 90 sec					
Cable Flys	3	12+	10	60 - 90 sec					
Cable Tricep Extensions	3	12+	10	60 - 90 sec					
Barbell Bicep Curls	2	12+	10	60 - 90 sec					

Total Reps for Pectorals: 60 | Total Reps for Deltoids: 32 | Total Reps for Back: 50
Total Reps for Triceps: 36 | Total Reps for Biceps: 24 | Total Reps for Quads: 36

DAY 2

EXERCISE	SETS	REPS	RPE	REST TIME	WEIGHT	SET 1	SET 2	SET 3	SET 4
Pull-Ups	3	10	9	2 - 3 min					
Incline Barbell Bench Press	4	10	9	2 - 3 min					
Dumbell Rows	3	10	9	60 - 90 sec					
Leg Press	3	12	9	60 - 90 sec					
Lateral Dumbbell raise	4	10	9	60 - 90 sec					
Barbell Shrugs	3	10	9	60 - 90 sec					
Preacher Curls	3	12+	10	60 - 90 sec					
Dumbbell Tricep Extensions	2	12+	10	60 - 90 sec					

Total Reps for Pectorals: 40 | Total Reps for Deltoids: 40 | Total Reps for Back: 90
Total Reps for Triceps: 24 | Total Reps for Biceps: 36 | Total Reps for Quads: 36

DAY 3

EXERCISE	SETS	REPS	RPE	REST TIME	WEIGHT	SET 1	SET 2	SET 3	SET 4
Squats	4	8	8	2 - 4 min					
Flat Dumbbell Bench Press	3	12	8	1 - 2 min					
Dumbbell Romanian Deadlift	2	10	9	60 - 90 sec					
Bulgarian Split Squats	3	12	10	60 - 90 sec					
Leg Curls	2	12+	10	60 - 90 sec					
Standing Calve raise	4	12+	10	60 - 90 sec					
Reverse Pec Deck	4	12+	10	60 - 90 sec					
Dumbbell Bicep Curls	2	12+	10	60 - 90 sec					
Close Grip Bench Press	2	12	9	60 - 90 sec					

Total Reps for Pectorals: 36 | Total Reps for Deltoids: 48 | Total Reps for Back: 48
Total Reps for Triceps: 24 | Total Reps for Biceps: 24 | Total Reps for Quads: 68
Total Reps for Hamstrings: 44 | Total Reps for Calves: 48

15. INTERMEDIATE PROGRAM

The intermediate program comes with two versions; one including deadlifts and one excluding deadlifts. I wanted to provide both options as it is not uncommon for individuals to avoid the deadlift due to prior injuries. For example, someone who hurt their lower back years ago and may feel apprehensive about incorporating heavy deadlifts into their program, for fear of reigniting or further damaging a past injury.

If you'd like to use the program **with deadlifts**, ensure you satisfy these two requirements before doing so:

1. You do not have any current or prior lower back/hamstring/glute injuries which you are concerned about. You feel confident that you are able to perform the deadlift exercise with proper form without exacerbating any injuries you may have had or are still recovering from.

2. You are interested in becoming stronger in addition to bigger.

Next, I will walk you through how to set up your program. I will be using the version including deadlifts, which you can see below. The non-deadlift version is nearly identical, except that deadlift days are replaced with Heavy Pull days.

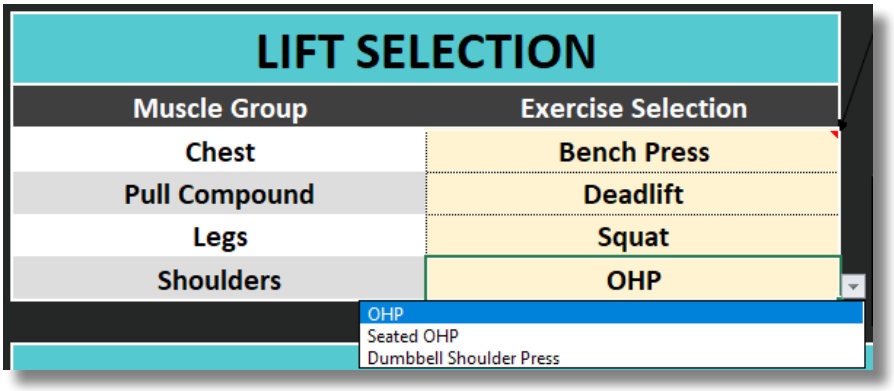
FOR A FULL VIDEO ON HOW TO SET UP AND USE YOUR EXCEL MODEL, CHECK OUT PAGE 40

HYBRID 5 - ONE CYCLE - 40 DAYS

Round	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
1	Heavy Bench 8+ Reps	Light Pull	Heavy Squat 8+ Reps	REST	Heavy OHP 8+ Reps	Heavy Deadlifts 8+ Reps	Light Squats	REST
2	Heavy Bench 6 Reps	Light Pull	Heavy Squat 6 Reps	REST	Heavy OHP 6 Reps	Heavy Deadlifts 6 Reps	Light Squats	REST
3	Heavy Bench 4 Reps	Light Pull	Heavy Squat 4 Reps	REST	Heavy OHP 4 Reps	Heavy Deadlifts 4 Reps	Light Squats	REST
4	Heavy Bench 2+ Reps	Light Pull	Heavy Squat 2+ Reps	REST	Heavy OHP 2+ Reps	Heavy Deadlifts 2+ Reps	Light Squats	REST
5	REST	Deload Bench	Deload Pull	REST	REST	Deload Squats	Deload OHP	REST

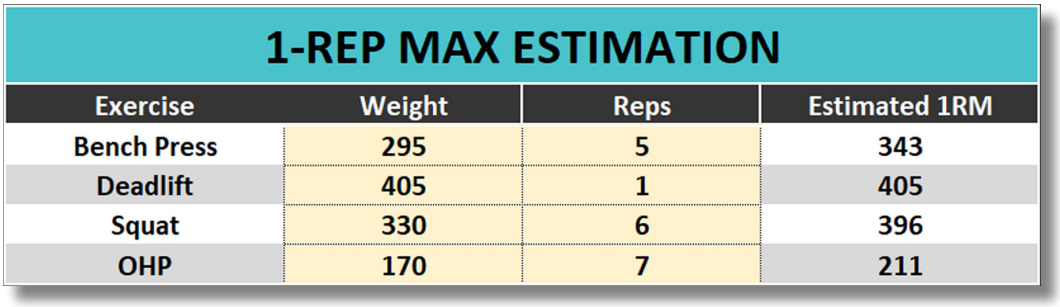
STEP 1: SELECT YOUR LIFTS

Select the lifts you want to base this program around. These will be your main compound lifts which will be programmed via percentage-based lifting to increase strength and size every cycle. Simply hover over each yellow cell until you see the grey dropdown arrow and select which exercise you'd like to use. The standard selections are displayed below:



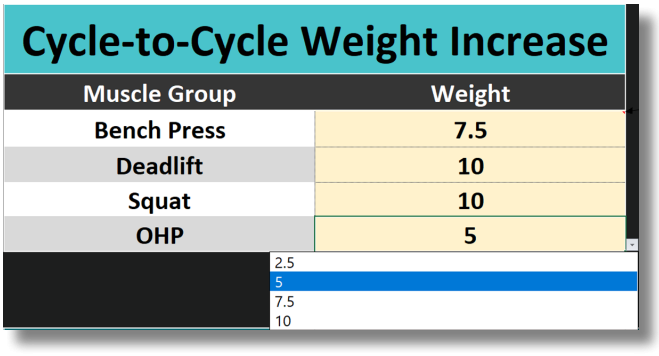
STEP 2: ESTIMATE YOUR 1RM

In the yellow cells, manually enter the weight and number of reps performed of your best set for each exercise you have selected. This should be from a day when you tested out how strong you are on the lift with **one** heavy set. Ideally, you want to use a weight that is heavy enough to get **6 reps or less.** This is because the formula for 1RM estimations becomes less accurate the higher you go in reps. For example, lifting 300 lbs for 4 reps would provide a more accurate 1RM estimation than lifting 225 lbs for 12 reps.



STEP 3: SET YOUR CYCLE-TO-CYCLE WEIGHT INCREASE VALUES

In the yellow cells, select (via dropdown) the value you want to use as your weight increase between cycles. To facilitate progressive overload, your original estimated 1RM will increase every time you start a new cycle and thus the weights you're lifting will increase as well as they are percentages based off of this value. It is recommended that you select larger values for the stronger lower body lifts such as deadlift and squat and smaller values for the smaller and generally weaker upper body lifts such as the bench press and overhead press. The layout illustrated below is my personal recommendation but it is up to your personal preference.



STEP 4: SELECT YOUR ACCESSORY EXERCISES

In the yellow dropdown cells, select the exercises you'd like to include in your program as your accessory exercises. These exercises are crucial for increasing **volume** in your program which is the primary driver of muscle hypertrophy. In addition, they will help develop strength in your main compound lifts by specifically targeting weak points. For example, if you have a weak bench press due to an inability to "lock out" the lift at the final 50% of the movement – then you have to develop your tricep strength. This is done so via accessory exercises targeting your triceps individually at the end of your bench/overhead press workouts.

EXERCISE SELECTIONS	
Muscle Group	**Selection**
Chest Press - Light	
Chest Press - Heavy	
Chest Fly	
Triceps 1	

STEP 5: MANUALLY ADD IN ALTERNATIVE EXERCISES (OPTIONAL)

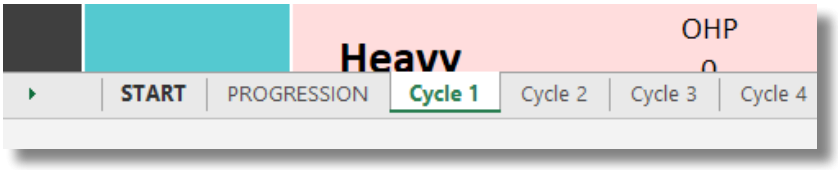
Should you want to train using an exercise which is not included in the dropdown lists mentioned in the prior step, feel free to manually add them in below by manually typing the exercise into the grey space provided under each muscle group. The exercise will then appear in the drop down lists mentioned above.

Chest Compound	Pull Compound	Quadriceps Compound	Deltoids Compound
Bench Press	Deadlift	Squat	OHP
Incline Bench Press	Sumo Deadlift	Front Squat	Seated OHP
			Dumbbell Shoulder Press

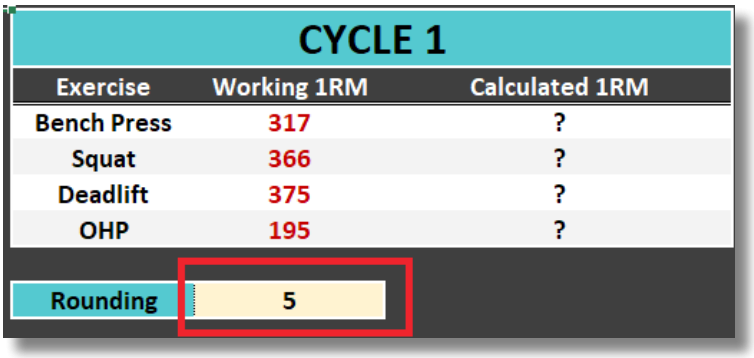
Triceps 1	Triceps 2	Lateral Deltoids	Trapezius
Close-Grip Bench Press	Cable Tricep Extensions	Lateral Dumbbell Raise	Barbell Shrugs
Overhead Tricep Extensions	Dumbbell Tricep Kickbacks	Lateral Cable Raise	Dumbbell Shrugs
Dips	Skullcrushers	Machine Lateral Raise	Cable Shrugs
Bench Dips	Dumbbell Skullcrushers	Cable Y Raise	Trap Bar Shrugs
	Machine Tricep Extensions		Smith Machine Shrugs

STEP 6: START THE PROGRAM

On the bottom of your screen, switch from the **START** tab to the **Cycle 1** tab to get started!

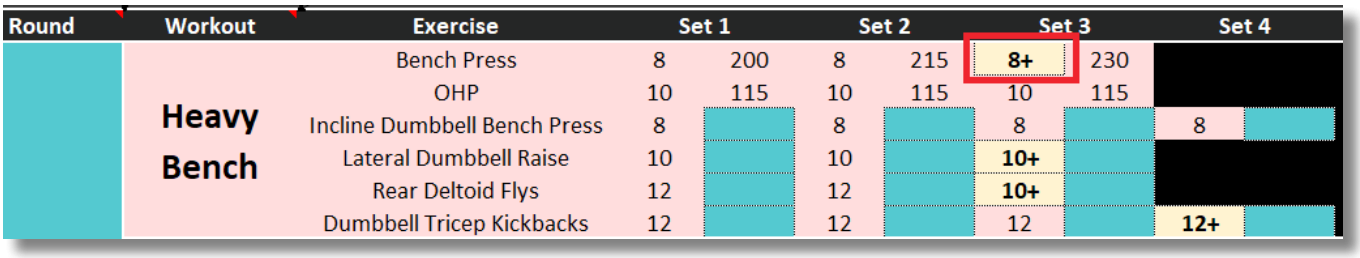


At the top left of your screen, select the rounding value you want to use for this program. The standard is 5 because most commercial gyms only allow you to lift weights in 5 lb increments as the lowest possible plates available are 2.5 lbs (2 x 2.5 lbs = 5 lbs). If you have access to smaller plates, feel free to select a smaller number as low as 1 lb allowing you to lift extremely specific weights like 231 and 314 lbs. Your unit of measurement does not matter here so this works whether you are using lbs or kg.



CYCLE 1		
Exercise	Working 1RM	Calculated 1RM
Bench Press	317	?
Squat	366	?
Deadlift	375	?
OHP	195	?
Rounding	5	

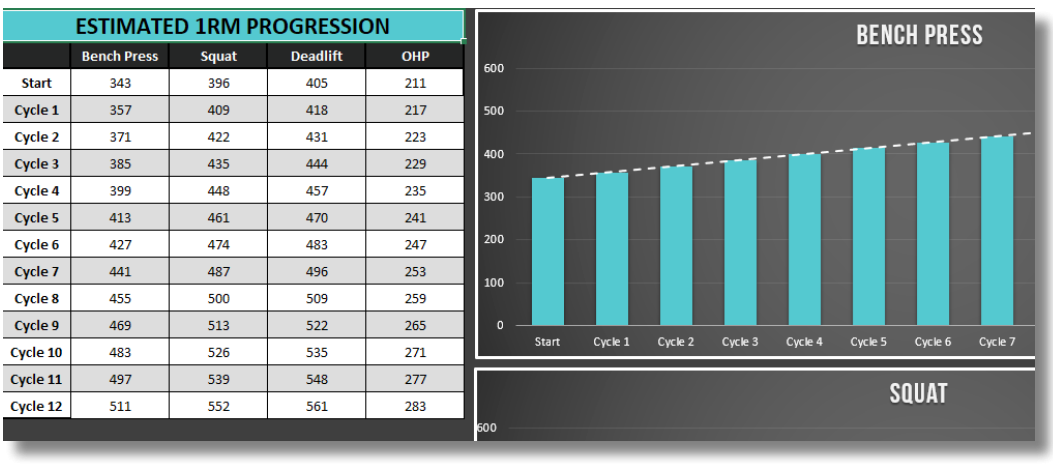
Your first workout will be **Heavy Bench** which is Day 1 of Round 1 in Cycle 1. As you go through the workout, whenever you see a yellow cell with a "**+**" next to the recommended rep number, this indicates an **AMRAP set** meaning you must lift as many reps as you can with a minimum of whatever the rep number is. Afterward, you are to come back to this program and input whatever number you got. This will be especially important for Rounds 1 and 4 where this value is used to estimate new 1RM's used to keep track of your progress.



Round	Workout	Exercise	Set 1		Set 2		Set 3		Set 4	
	Heavy Bench	Bench Press	8	200	8	215	8+	230		
		OHP	10	115	10	115	10	115		
		Incline Dumbbell Bench Press	8		8		8		8	
		Lateral Dumbbell Raise	10		10		10+			
		Rear Deltoid Flys	12		12		10+			
		Dumbbell Tricep Kickbacks	12		12		12		12+	

STEP 7: KEEP TRACK OF YOUR PROGRESS

Switch to the PROGRESSION tab at the bottom left of your screen. This screen allows you to keep track of your strength progress as you move along through the program. Your progress through this program should be gradual but consistent and over the course of 6-8 months these strength increases will add up to dramatic changes. Something as little as a 5 lb improvement on a monthly basis will add up to a 60 lb increase in strength over the course of just one year. That is the equivalent of going from a 1RM of 255 lbs (just a little over two plates) to a 1RM of 315 lbs (3 plates) and at this point 255 lbs will now feel like a warm-up or something you can quickly blast for sets of 8 reps!



ESTIMATED 1RM PROGRESSION				
	Bench Press	Squat	Deadlift	OHP
Start	343	396	405	211
Cycle 1	357	409	418	217
Cycle 2	371	422	431	223
Cycle 3	385	435	444	229
Cycle 4	399	448	457	235
Cycle 5	413	461	470	241
Cycle 6	427	474	483	247
Cycle 7	441	487	496	253
Cycle 8	455	500	509	259
Cycle 9	469	513	522	265
Cycle 10	483	526	535	271
Cycle 11	497	539	548	277
Cycle 12	511	552	561	283

16. ABDOMINAL TRAINING

One thing you'll notice in both the beginner and intermediate versions of Hybrid 5 is that there is no set workout for abs. This is because, unlike other muscle groups which require a significant investment of time and energy, the abs are a smaller muscle group which only require training sessions of 15-20 minutes and respond better to a higher training frequency. This is why some individuals go as far as to train abs every other day for as little as 10 minutes and still get excellent results. Instead of establishing a set routine/schedule for ab training, Hybrid 5 will provide a few abdominal workouts (below) and guidance on how to incorporate these workouts into the program. However, every individual is different, and therefore the ultimate decision on how to use these ab workouts will be up to you.

WORKOUT FREQUENCY AND SCHEDULING

Like all muscles, your midsection (consisting of your abdominals and obliques) benefit from a training frequency of **2-3 sessions per week,** as opposed to a single high-volume session performed once per week. However, unlike with other muscle groups such as chest, quads, and back – abdominal training is very flexible and can theoretically be done whenever you'd like. For example, those who'd like to get all their training out of the way when they're at the gym can perform a short 15-minute ab workout immediately after their main workout (it doesn't matter which workout was performed that day).

On the other hand, some individuals who don't want to be at the gym for too long can simply do a quick ab workout on their rest days, perhaps combining ab training with cardio to make an "active rest day". This still counts as a rest day for your body because you are not doing any physically taxing heavy lifting and thus will still allow your body and central nervous system to get adequate recovery. This is assuming you're not doing anything like very high intensity cardio or crossfit.

Select one ore more of the following abdominal workouts (feel free to mix it up and try out all four) and fit them into your schedule however you'd like. As long as you get at least 2-3 ab workouts in per round, you're good!

WORKOUT A: STANDARD WORKOUT

Standard abdominal training targeting all areas of the midsection using equipment commonly found in a typical gym. Great for those who are starting out and don't mind working out abs immediately after their normal workout, or on an active rest day.

EXERCISE	TARGET	SETS	TIME/REPS	REST TIME
Cable Crunches	Upper Abs	4	12 Reps	60 Sec
Hanging Leg Raises	Lower Abs	3	8 Reps	90 Sec
Planks	Overall Abs	1	60 Sec	N/A
Dumbbell Side Bend	Obliques	3	12 Reps	60 Sec

WORKOUT B: HOME WORKOUT (NO GYM EQUIPMENT REQUIRED)

Normal abdominal training in terms of which muscle are being activated, but the workout can be done entirely from home assuming you get a little creative using common household objects. This is a great option for those who want to train abs separately from their main workout, but don't want to drive all the way back to the gym.

EXERCISE	TARGET	SETS	TIME/REPS	REST TIME
Flutter Kicks	Overall Abs	2	30 Sec	60 Sec
Lying Leg Raises	Lower Abs	2	15 Reps	60 Sec
Toe Touch Crunches	Upper Abs	2	15 Reps	60 Sec
Mason Twist	Obliques	2	30 Reps	60 Sec

WORKOUT C: LOWER ABS EMPHASIS

This workout has an emphasis on the lower abs, and is a great option for individuals who have a visible 4-pack but are trying to get a 6-pack. Although the "4-pack look" is often due to genetics, sometimes it is due to uneven development of the abdominals. In that case, this workout can help specifically target and stimulate growth of the lower abs.

EXERCISE	TARGET	SETS	TIME/REPS	REST TIME
Hanging Leg Raises	Lower Abs	3	10 Reps	90 Sec
Lying Leg Raises	Lower Abs	2	15 Reps	60 Sec
Planks	Overall Abs	2	45 Sec	60 Sec
Mason Twist	Obliques	2	30 Reps	60 Sec

WORKOUT D: SLIM WAIST WORKOUT

This workout has reduced oblique training. Although the obliques are an important muscle group for both strength and visual physique aesthetics, some individuals who are genetically predisposed to having very thick obliques may feel they contribute to the look of a wide waist. This workout will focus primarily on the upper and lower abdominals as opposed to the obliques in order to avoid making them any thicker and thus widening the waist even more.

EXERCISE	TARGET	SETS	TIME/REPS	REST TIME
Cable Crunches	Upper Abs	4	12 Reps	60 Sec
Hanging Leg Raises	Lower Abs	3	8 Reps	90 Sec
Planks	Overall Abs	2	45 Sec	60 Sec
Decline Crunches	Upper Abs	2	15 Reps	60 Sec

17. VIDEO TUTORIAL

Due to the complexity of this program, the above written explanation of how to use the Hybrid 5 Excel model may be insufficient. Therefore, I have created an extensive video walkthrough of how to go about accessing, setting up, and using the Hybrid 5 Excel program.

Topics covered include:

- How do I open the .ZIP file?
- Can I open or view the Excel files on my smartphone?
- How do I transfer this onto my phone?
- Where is the Beginner Excel model?
- What do I read first?
- How do I start?
- How do I change cycles?
- What do all these numbers mean?
- What do all these question marks and #N/A mean?
- What numbers do I need to manually input to use the program?
- How do ensure I am progressing?

Check out the description box below the video for timestamps of each topic covered.

The tutorial can be accessed via the following link:

http://bit.ly/Hybrid5Tutorial

18. DISCLAIMER

If you do not agree to be bound by these Terms & Conditions, you must not use this training program. This program is not a substitute for any medical diagnosis or professional care. Igor Opeshansky is not a doctor, dietician, or medical care provider. The contents of this program are to be taken only as advice. This program or any products provided by Vitruvian Physique Inc. or Igor Opeshansky are not to be used without the supervision of your doctor. You must consult your doctor before beginning ANY meal plan or exercise program, no exceptions.

As with any exercise program you assume certain risks to your health and safety. It is possible that you may become injured doing the exercises outlined in this program, especially if they are done with improper form. If you choose to participate in these risks, you do so of your own free will and accord, knowingly and voluntarily assuming all risks associated with the exercises outlined in this program. These risks may also exist for those who are currently in good health right now. Anyone not in good physical and mental health should NOT partake in any of the activities or exercises outlined in this program.

You are using this program at your own risk. Vitruvian Physique Inc. and Igor Opeshansky are not responsible for any injuries or health problems you may experience as a result of using this program. You hereby agree to hold Igor Opeshansky and Vitruvian Physique Inc., together with all its related entities, harmless for any action, suit, claim, loss, injury, or damage arising from any and all injuries sustained arising out of your use of this program or any of the services offered by Vitruvian Physique Inc. and Igor Opeshansky.

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