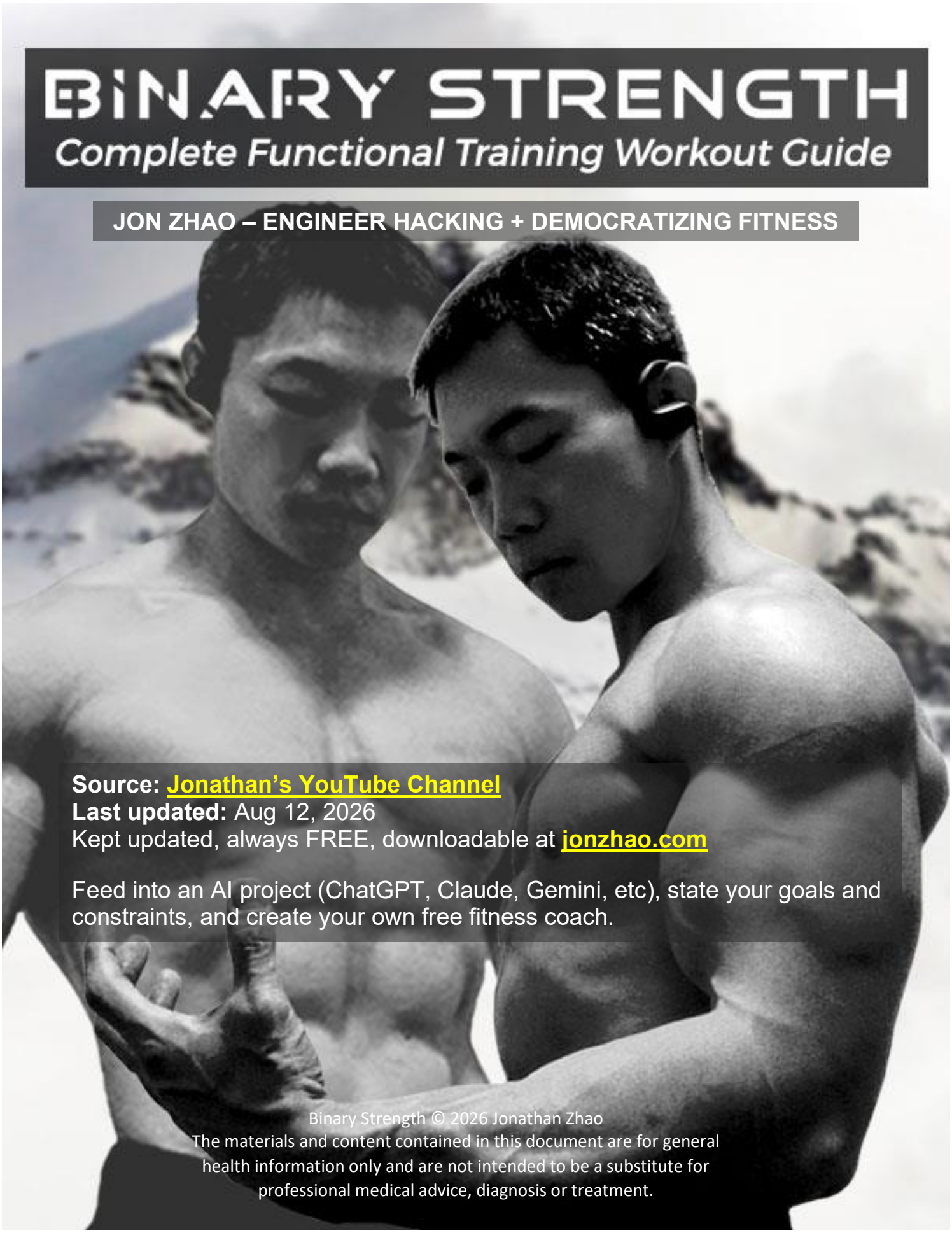
BINARY STRENGTH

Complete Functional Training Workout Guide

JON ZHAO – ENGINEER HACKING + DEMOCRATIZING FITNESS



Source: Jonathan's YouTube Channel
Last updated: Aug 12, 2026
Kept updated, always FREE, downloadable at jonzhao.com

Feed into an AI project (ChatGPT, Claude, Gemini, etc), state your goals and constraints, and create your own free fitness coach.

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To my son Andes



When I realized that if I died tomorrow, you will never know who I really was, I decided to leave behind a trail for you.

Words are always meaningless without action.

Even though we won't spend a lot of time together, I'm always thinking of you.

From these videos and writings, you will learn who baba was and still am.

They are an expression of my soul I'm recording for when you're old enough to understand. Baba never gives up on himself because I will never give up on you. I've lost too much to not be at my best every day.

"Do not pray for an easy life. Pray for the strength to endure a difficult one." ~ Bruce Lee

I know you're watching me and every decision that I make.

Let me show you, how I counter every negative experience in my life with 10X positivity back.

Let me show you, who I really am.

You will learn about the world and yourself as you discover your own path, make your own choices, and live a meaningful life.

No matter what worldly forces try to separate us, I will always be beside you in your own journey because our bond is beyond this world.

Remember that I am always with you even when we're physically apart.

I will always love you.

Thank you for being my son and for all the joy you bring me, the lessons you help me learn in life, and the strength you give me to carry on.

My son Andes, be strong, be happy, be free.

~ Baba

March 2021

Preface



After **dropping 40lbs of fat in 4 months** and building a crap ton of lean muscle as an endomorph who gains fat easily and was highly sensitive to carbs (what I mostly eat now), I realized the reason why regular people like myself aren't in shape easily isn't because of genetics (scientifically only limits 1% of the population) or because we're not trying (I've tried hard before).

It's because the fitness industry and social media business models are purposely holding us back. They sprinkle truths here and there, but the entire business model incentivizes misinformation and too much information. It does not incentivize simple truths from being revealed, otherwise there will be nothing to sell us (programs, fancy expensive equipment, etc.) or get our attention to monetize with ads. I grow tired of this.

If you follow the herd, you will be played. I don't like seeing friends played by the fitness and food industry, just like how I was without knowing it. I don't want my son growing up without knowing the truth, wasting time following popular ways of exercise and eating that are inefficient or unhealthy. Low carb, keto, carnivore, OMAD, all prioritize money making first, quick results that usually don't last. World class coaches rarely use these because they don't teach first principles and self-reliance. I eat between 2-3000 calories / day (depending on goal at the time), around 40% carbs, 25% fat, 35% protein and sometimes fast strategically.

My mission here is to learn and spread real fitness information to improve people's lives in the most efficient way possible by studying world class competitive coaches of various disciplines (bodybuilding, calisthenics, boxing, marital arts, Olympic weight lifting, Olympic gymnastics, physical and mental peak performance coaches, spiritual teachers), distill, then share for free.

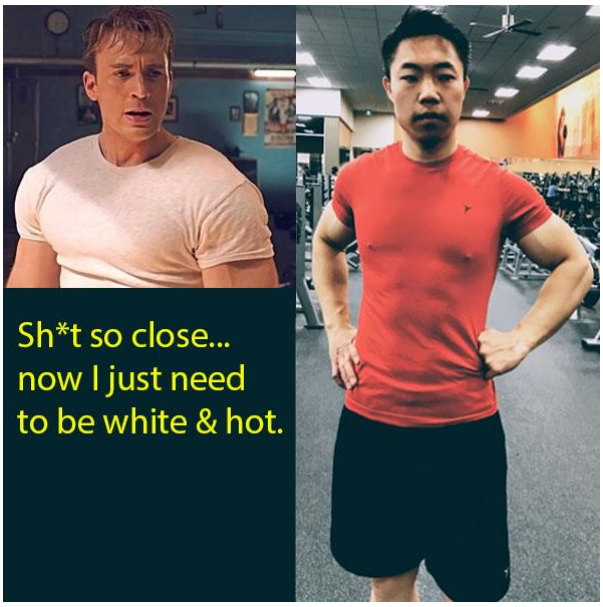
I will never sell any fitness information nor produce anything not worthy for my son. I believe I can make a difference because I don't rely on fitness for income. I have my dream career so **all guides I produce will always be FREE.** I believe it's wrong when information limiting humans is not free and easily available to the public. I define life as time spent at our true physical and mental potential, time spent not at this level is not truly lived to me.

If you find this material useful, then help spread real health and fitness information with me, especially to help professionals like you and me reach our true potential to **work and live better despite having a sedentary job, and ultimately obtain mastery of our mind and body, making decisions with full consciousness, which is my definition of true freedom.**

1. Consider Subscribing to the YouTube Channel if you haven't already
2. Share this doc and YouTube channel with friends or anyone you think may benefit

I stayed off social media for a long time, but just started using Instagram again for hobbies. If you want to reach me, you can DM my Instagram, LinkedIn or drop a comment on one of my videos on YouTube.

Ex-Gym Bro Life



Back in 2019, I began training at the gym with a master level functional trainer who taught me incredible principles in this doc.

We trained with free weights (dumbbells, barbells, kettlebells), cables, Olympic lifting (clean and jerk, snatch, etc.), and bodyweight.

It was fun and I really enjoyed our time together. If you cannot get the results you want on your own, I highly recommend you find and hire a true master level functional trainer who actually cares about getting you optimal results in the fastest time possible.

I didn't discover everything in this doc back then. I was a newb but my trainer lit a fire inside that pushed me to learn deeply from every style of training out there. Back then I was really into lifting heavy weights.

I benched 225 lb for reps, deadlifted and squatted over 405 lbs for reps, all done without a weight belt. I was trained to believe that if you need a weight belt, you're not strong enough to lift that weight (abs and back strength), and I hold that belief. Anyone using weight belts or grip assistance beyond chalk to lift heavier weight is doing something their body can't actually do. I do use gloves nowadays, not for grip, but purely to make sure my hands remain smoother.

In 2020, gyms closed. I didn't want to lose my gainzzz, so I started studying. That's when I went to the next level and discovered how to hack the crap out of the body and achieve a mind-muscle connection that cannot be done with weight lifting, also allowing me to eat more.

This is how I can eat a lot, train only a few short workouts per week, and still be super lean, full of energy, getting stronger and mastering new gravity defying skills that translate to everyday life, sports, or any physical activity. My face became more defined, voice became deeper, muscles became much denser, way more vascular, and shaped in ways weight lifting never achieved. This mostly came from the school of training called calisthenics.

After I researched and saw that everyone who lifts heavy weights develop joint, ligament, tendon, and bone issues WAY earlier than they should, I decided to stop lifting heavy weights because by that point I had already discovered ways to get superior results than weight lifting in a faster timeframe. The only downside was I will not be able to progressively lift heavier weight. That was the only downside. But wait…why did I want to lift heavier weights again?

Exactly.

How to use this doc

This is a **functional-training** guide anyone can use to get high return on investment fast.

You can train using whatever method you enjoy. This guide simply shares the one I developed. It's important that you enjoy the method of training so you happily build it into your lifestyle and look forward to working out. Bodybuilding with weights works too. As of spring 2022, I'm now training using a hybrid of free weights (dumbbells, barbells) and weighted calisthenics to unlock elite level moves. Some moves might not even be possible for me, but it's the journey that matters most.

This is the beginning of a holistic program I will create and **give away for FREE** using the same principles I used to **drop 40 lbs in 4 months and maintain 10-12% body fat year-round and sometimes going down to 8%.** Achieving extraordinary results is not that hard when you know exactly how, **and most importantly what mistakes to avoid (99% online info are mistakes)**, keeping results is even easier. But if you rely on the internet without significant due diligence and critical thinking, you will likely be frustrated at why you're not easily getting and keeping results.

Some or all parts of this doc might offend you. You can do whatever you want. My channel and this material will be most useful to those who chase after nothing except extraordinary results and won't let anything get in the way. No tradition. No bias. No ego, which is completely different than confidence.

I am not a professional coach. Consider hiring one if you need. I simply study materials from professional coaches out of passion. If you know me in real life, I'll answer questions for fun, just ping me. But **I am never going to give you cookie-cutter programs, I will teach mastery so you can create your own programs for yourself as your life changes.** You will achieve results faster than any program to the point people think you're on steroids but you're not. You will keep those results forever.

If you just want a step-by-step guide and think you'll get results and keep them, please close this doc.

What's in this doc now:

- Strength Training - how to exercise to build muscle and burn fat by increasing metabolism to produce the fastest results humanly possible for a lean and muscular physique. Precise exercise form demos will be shown on the YouTube channel.

What's not in this doc:

- Nutrition Optimization, Metabolism Control and Mastery, Mindset

The above is now available in the Binary Strength - Complete Diet Guide.

This guide should be treated as a companion to YouTube videos but already contains significant key knowledge for higher ROI workouts that you can immediately start applying today to get fast results. I will keep this updated and add anything relevant as they come up. You can always find the latest version of this guide at www.jonzhao.com. Welcoming feedback via comments on YouTube or in real life if you know me in person. Thanks.

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Workout Routines

Treat these as *references*. You should aim to master everything so you can create your own routines as your life changes since you know your own body and life best.

Do not expect anyone to care about you more than yourself. Take full accountability.

I can give you shortcuts but I choose not to because it will not make your mind strong long term. I'm only interested in true strength of the mind now.

If you don't have the willpower or simply don't want to be self-sufficient and you are lucky enough to find a true master level trainer, then consider hiring that person. If you can't achieve the results you want on your own even with this guide, you probably need a trainer to help reach your goals. Nothing wrong with that.

Very few people will achieve their fitness goals despite knowing everything needed. Getting shredded requires mental strength. Even getting to 12-15% body fat is nearly impossible for the average man these days because **the *mind* is what gets fitness results** but

1) This generation of men are weak minded (love making excuses or lie to themselves) **just like how I was until I decided to become strong**

2) We're being influenced by many industries at once, making it nearly impossible to be fit, **until you stop playing their game.**

> *"… for the gate is wide and the road broad that leads to destruction, and those who enter through it are many." — Matthew 7:13*

We may start out weak alone but can become strong together, and eventually remain strong even when we stand alone. The word "comfort" originates from Latin, meaning **strong together.** Now this generation defines it as "avoid pain". Truly sad.

Everyone has different fitness goals. I don't think everyone should be shredded. But I do believe if a man wants to be fit but isn't, the reality is that he's either strong and in the process of seeking or he gave up because he's weak. Offensive maybe, but true**. Strong men don't even *think* of excuses. They simply learn, do, measure, assess, repeat.** This guide is a passion project for me written for my son first so he will be strong and not weak. Its second purpose is to help me discover other strong men to go on the same journey together. Its last purpose is to just share it with the world to help whoever wants to be helped.

If you simply want results fast without self-mastery, please close this doc and consider hiring a coach because the reality is this: your genes, lifestyle, tradition, family, mind, all affect you, so you require mastery to learn and be conscious of every aspect of your life, test, and develop methods customized for yourself. This is what a coach does for you, but they can never ever be as good as you if you decided to coach yourself.

All guides I produce aim to help you obtain mastery and be your own coach. My #1 coaching recommendation: https://prophysique.com/ (price undisclosed but word is $600+ USD / month). Check out his YouTube channel (gold being given for free). I'm not paid for endorsing him, but he's the only coach I've come across who I can endorse fully.

Phase 1: Foundations

Level: beginner

Primary optimization goal: wake body up and prepare for massive muscle building in Phase 2: Build Phase, you might build some muscle

Phase duration: 4-6 weeks (depending on how fast you're getting used to it)

Schedule: 2 days / week minimum, 40 min / workout

This routine is **not optimizing for muscle building**. It is optimizing for foundations to the Phase 2: Build Phase to massively build muscle.

Keep this routine for 4 weeks at minimum up to 6 weeks. Treat as reference and customize to your own needs by using exercises in the guide (for example swap out lunges for squats, or mix them up). Change the days as you see fit. The more days you can do the better since you're increasing volume. I doubt you can do 4 times a week as a beginner. If you can, do it, I challenge you. The person who will benefit is you :) But, do at minimum 2 times a week.

Every Week						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
full body	rest	rest	***full body***	rest	rest	rest



// start workout, reference the principles in this doc.
for each full body day {

Use [perfect form, slow controlled pace focused on eccentric phase, proper breathing, common sense listening to body, your fav pump up music]

Use [3 min rest times between sets of exercises difficult for you, like push-ups and lying leg raises, and 2 min for exercises you find easier]

Adjust reps according to your level, try to reach failure (cannot do 1 more rep) for each set. Aim for doing sets with perfect form with as many reps as the last set. It's more important to do as many sets properly as you can than skip sets to get through the routine because we want the muscle groups worked to reach hypertrophy, if you didn't finish some exercises in your timebox, leave it for next time and do those first next time.

Warmup using the following exercises, done in a row, no rest:

Supermans
a. Regular supermans: 1 x 5
b. Y supermans: 1 x 5
c. W supermans: 1 x 5
d. T supermans: 1 x 5

Bridges - 1 x 15

Do workout using the following exercises performed in sequence:

1. Push-ups - 3 x 10 to 15
2. Inverted rows - 2 x 10 to 15
    - If you don't have dip bars yet, replace this with 2 x 15 supermans (pick any 2 out of the 4 variations) and skip supermans in the warmup
3. Lunges - 2 x 10 to 15 each leg
    - Do weighted lunges if you can
4. Single leg bridges - 2 x 10 to 15
    - If single leg is too difficult to do at least 6 on each leg, do regular bridges
5. Lying leg raises - 3 x 10 to 15
6. Bonus (physio exercise for foundational strength and mobility) – 2 x 10 (on each side alternated) bird dogs
    - Do weighted bird dogs if you can

} // end workout

How to Progress to Phase 2

First read the **How to Get the Fastest Results** section. Progress to phase 2 by applying the principles you just read and progressively turning Phase 1 into Phase 2 listening to your own body based on your own goals.

If you don't know how to do this or don't want to, then consider hiring a trainer. Or if you know me in real life, ping me and I'll spend the time to answer your questions and guided you.

Phase 2: Build

Level: intermediate

Primary optimization goal: extremely fast maximum muscle building

Phase duration: 6-8 weeks (depending on how fast you're getting used to it)

Schedule: 2 days / week minimum, 40 min / workout

This routine is **optimizing for massive muscle building**. It's **optimizing for muscle mass first, density second,** achieved through hypertrophy. The muscles built here will have an optimal balance of Type 1 and Type 2 muscle fibers for true functional strength. The physique you build will not be the same as bodybuilders, but it will look athletic.

Keep this routine for 6 weeks at minimum and then you can make it your maintenance routine like I do to be sub 10% body fat year-round or whatever level you want to maintain at. I use the same principles to customize a routine very similar to this to maintain muscle mass, density, and a high metabolism.

Treat as reference and customize to your own needs by using exercises in the guide, swap out exercises or mix them up as you desire to maximize your enjoyment and boost positive feedback loop. Change the days as you see fit. The more days you can do the better since you're increasing volume.

Workout at minimum 2 times a week to trigger changes in your body but I challenge you to do it more than 2 times a week, even up to 4 times a week, can you do it?

Every Week						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
push	rest	rest	***pull***	rest	rest	rest
abs	rest	rest	***legs***	rest	rest	rest

// start workout, reference the principles in this doc
for each workout day {

> Use [perfect form, slow controlled pace focused on eccentric phase, proper breathing, common sense listening to body, your fav pump up music]
>
> Use [3 min rest times between sets of exercises difficult for you and 2 min for exercises you find easier]
>
> Adjust reps according to your level, try to reach failure (cannot do 1 more rep) for each set. Aim for doing sets with perfect form with as many reps as the last set. It's more important to do as many sets properly as you can than skip sets to get through the routine because we want the muscle groups worked to reach hypertrophy, if you didn't finish some exercises in your timebox, leave it for next time and do those first next time.
>
> No warmup needed. Just do some stretches with a resistance band.

Do workout depending on muscle group targeted for that day:

switch (day) {

case **push**:

do {

3 x 6-8 dips off pushup bar // if too easy, do dips with dip bars
// try to do the below with pushup bars for greater range of motion
3 x 6-8 Pike Pushups
3 x 10-12 Declined Pushups
3 x 10-12 Regular Pushups



}

case **pull**:

do {

3 x 10-12 Regular Inverted Rows
3 x 10-12 Declined Inverted Rows
3 x 10-12 Underhand Grip Inverted Rows
3 x 10-12 Ground Assisted Pullups (single leg variation preferred)
2 x 15 Jumping Negative Pullups



}

case **legs and glutes**:

do {

4 x 20 Bulgarian Split Squats (use weights if you can)

- 10 on each side, alternate sides per set, not per rep

3 x 20 Goblet Squats
- Use mixed tempo for each set, do first 1/3 reps very slow, 3 seconds down, 3 seconds up, then do the next 1/3 reps regular tempo 1 second down, but hold for 3 seconds at hardest part, then 1 second to come up, then do the last 1/3 reps regular tempo

3 x 20 Lunges (use weights if you can)
- 10 on each leg, alternate sides per rep

2 x 20 Side-to-Side Squats (use weights if you can)
- 10 on each side, alternate sides per rep



}

case **abs**:

do {

2 x 12 Knee Raise Twists

2 x 12 Knee Raise

2 x 60 sec Plank Hold
- If you can't hold 60 sec, take a very brief break after your max duration, then hold again, repeat until 60 sec is up

2 x 12 Reverse Crunch

2 x 12 Lying Leg Raise Twists

2 x 12 Lying Leg Raise



}

}

} // end workout

Phase 2: Build – Max Volume Hybrid (Short Term Results)

Level: intermediate

Primary optimization goal: extremely fast maximum muscle building short term

Phase duration: 6-8 weeks (depending on how fast you're getting used to it)

Schedule: 2 days / week minimum, 40 min / workout

If you're someone who is willing to suffer and feel negative feelings in a workout in exchange for faster progress, this is a routine you can try.

It's the exact same as the Phase 2: Build routine above except during your rest times you're going to do more work by training a secondary area of your body following these principles:

- Unless you're training just to maintain muscle and not to build more muscle, do not combine pull and push exercises on the same day because often they conflict, even pushups use back muscles, and even pullups use chest. Push and pull compound movements are too taxing on the body to combine for effective workouts and recovery.
- If you're using dip bars for ab exercises like knee raises, you're training incredible isometric shoulder endurance and strength, so avoid combining push exercises with these ab exercises.
- If you're using rings for ab exercises like knee raises, you're training incredible scapula stabilization endurance and strength, so avoid combining abs and pull exercises.
- If you're training push exercises that engage the abs such as pushups, avoid combining with ab exercises.
- You can generally always combine leg exercises with push, pull, ab exercises.

Examples:

Day	Primary exercises to prioritize	Secondary exercises (during rest times of primary exercises)
Push or pull day	Push or pull	Ab exercises (not with pushups, try dips or pike pushups) or leg and glute exercises
Abs day	Abs	Push (not with pushups), pull, or leg exercises
Legs and glutes day	Legs and glutes	Push, pull, or ab exercises

I've tried this method before but I quickly stopped using it because I've learned:

1. I enjoy the rest times between sets a lot, and I will never introduce anything that makes me feel negative during a workout, such as cardiovascular stress by doing more work during rest times. Workouts must be 100% enjoyable to me and something I look forward to in an infinite positive feedback loop.

2. It's very hard to time rest times properly. If I just did pushups, I need to rest 3 minutes, and say I rest 1 minute then start doing lunges, I'll have to continue pushups when the 3 minutes rest is up, but then I need to track a separate rest time for the lunges. You can definitely figure out some combination where you're training leg exercises just enough reps that fit into push exercises etc but I don't want to be thinking during a workout, I go into flow and focus on the movements by instinct without thought to achieve a fully conscious mind-muscle connection.

3. I use rest times to focus on good breathing to maximize ROI by reducing cortisol, the stress hormone. This way I get the benefits of breathing meditation during a workout, and it's one of the most important levers of boosting metabolism, optimizing recovery, to burn fat and build muscle optimally long term. But if you're in a rush for some short term results you can try this method. I don't recommend it though.

Workout Routine Customization

Customize your workouts to a schedule that **you will stick to**. **The moment you fall off the schedule (inevitable for most people), just get back on.**

Push, pull, leg, abs workout split is a good cycle that optimizes ROI, max recovery, and max volume within each week, **resting at least 48 hours between muscle groups worked**. Sample 2-3 days per week plan that cycles between push, pull, leg, abs days:

Week 1						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
push	rest	rest	***pull***	rest	rest	***legs***
Week 2						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
rest	rest	***abs***	rest	rest	***push***	rest
Week 3						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
rest	***pull***	rest	rest	***legs***	rest	rest
Week 4						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
abs	rest	rest	***push***	rest	rest	***pull***

Or you can do full body but likely will be able to do less volume with higher recovery demands:

Every Week						
Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
full body	rest	rest	***full body***	rest	rest	rest

I currently do a push, pull, abs, leg routine 4 days on, 3 days off where legs and push fall on Saturday and Sunday when I have more time and I do a 60 minute workout vs 45 min on weekdays. I train this frequently because I'm still pushing to unlock new skills but if I just wanted to maintain, I would drop to 2-3 x 45 min workouts / week. If I want to train for skills for fun, say pull movements, I'll swap legs to 45 min on weekdays, and make the pull day land on weekend to have 60 min for pull exercises.

I try to train legs for 60 min on weekends because I consume significantly higher calories on weekends (via a concept called double refeeds in the Binary Strength – Complete Diet Guide that only works at ~10-12% body fat or lower), so it's high ROI to take advantage of high calories for increased workout intensity, but especially legs since they activate the most amount of muscles in the body and trigger the highest metabolic and central nervous system stress.

When the weather is warm and I'm mountain biking or rollerblading on the weekend, I'm going to avoid training legs that weekend and for the next couple days after the activities. Otherwise I'd be overtraining since my rollerblading and biking sessions feel intense to me. If you do heavy leg cardio sessions without giving your leg muscles the proper time to recover, you're just delaying recovery and will have poor performance.

Listen to your body and adapt routines to your own life based on first principles. Live your life first, don't be played by the fitness movement and industry which makes you rigid and unable to truly be at your genetic potential and enjoy life to the max at the same time.

Equipment Used

> *Please note: there are Amazon Affiliate links in this guide. I haven't seen any workout and diet guides on the internet this detailed being given away for free so I decided to create them. I derive no joy from selling fitness info, so all guides I produce will always be free. If you happen to buy the same products that I use myself through links in this guide, Amazon gives me a credit to use for all my purchases and I'd be grateful, kind of like buying me a coffee online if you found info I share with you useful. Thank you.*
>
> *The money is insignificant to me, but when I receive affiliate commissions, it tells me that a man read my guides and is on their way to peak state. I don't need to know who that man is to feel joy from knowing that I made a difference in his life. It tells me that a man out there got value and is waking up to eventually reach his true form. That is great.*

Many exercises here are 100% bodyweight.

In general, functional training uses equipment only to accelerate bodyweight training.

Here's the complete list of all home workout equipment I use to lose weight, burn fat, build muscle and maintain peak shape. This is all I use for primary workouts. Costs way less than conventional weight lifting gear and takes up less space:

1. **Dip Bars** (I consider this a must-have for myself, everything else is useful but this is critical, more versatile than dip station): product on Amazon – these are height adjustable to do both push and pull movements

2. **Push Up Bars** (increase full range of motion for push movements): product on Amazon – these are the most stable ones

3. **Pull Up Bar** (pull up = king of all pull movements): product on Amazon

4. **Resistance Band Set** (super versatile for stretches, assist exercises to progress further, and resistance band exercises): product on Amazon

5. **Wrist Guards** (prevent injury in push movements): product on Amazon

6. **Workout Timer** (the most versatile workout timer): product on Amazon

7. **Foam Roller** (speed up recovery, generally good for health): product on Amazon

8. **Olympic Rings** (MAX ROI muscle building + skills training, the end game gear, use when ready, follow along and progress to use this. If rushed, you will injure yourself almost guaranteed. Use this to perform movements that 99.999% of the population cannot, such as a 360 pull or back lever on rings – this is part the endgame fun): product on Amazon

9. **Weight Vest** (MAX ROI strength building to do harder movements, the end game gear, use when ready, progress to this): product on Amazon

Exercises

Push Exercises

Pushup

Areas worked: primary: chest, triceps | secondary: shoulders, core, back (especially if you're doing pushup bar pushups for full range of motion)

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)





(incorrect form, back curved)



(incorrect form, butt too high)



(correct form, body is perfectly straight, back not curved)

Form:

The distance between your hands controls different muscle activations. Wider uses more chest, narrower uses more triceps. Normal position is to start with hands aligned with your shoulders, when looking down, your hands should be right under your shoulders in a straight line aligned with your shoulders. It's ok to be slightly wider than shoulder, depends on what you feel is stable for your frame.

Before you start moving down, with your hands on the floor, **try to rotate your hands outwards to push the elbows inwards, towards your body**, this depresses the shoulders for stability and max muscle recruitment.

Squeeze your abs, squeeze your glutes (butt), find a comfortable place for your feet (preferably feet together to make your body work harder to stabilize), from this position, with hands and feet planted firmly, compress your entire body as if you are trying to make your hands touch your feet (but you can't)

When you move down, at the bottom, your hands should be at your nipple line.

On the way down, **your elbows must be kept tucked close to the body**, not going outwards to the sides, this prevents shoulder injuries and activates the correct muscles.

To prevent back injury, do not curve your back, **keep squeezing the core** for each rep on the way down and **continue to keep the core engaged and tight** to prevent back from arching, back should

be a straight line from neck to waist. To assist the core in stabilizing your lower back, keep squeezing your butt.

Your entire body should form a tight kinetic chain throughout the entire movement.

On the way up, at the very top, push further for the last pump to further activate shoulders, chest, and triceps, **push until you can no longer be any higher.**

If you follow the above, you now understand the ultimate correct form of the push-up, and several important functional training principles applied to a basic exercise that 99% of the population don't know. If done correctly, 12-20 repetitions should be very challenging.

Pushups with Pushup Bar

Equipment required: Pushup Bars

You can max ROI by using a pushup bar to increase full range of motion and reduce wrist pressure, this will also train your upper back. Nowadays I don't do pushups without a pushup bar + weight vest unless I'm doing advanced exercises like pseudo planch pushups or archer pushups, which aren't done with a pushup bar to prevent wrist injuries at extreme angles.



(twist your biceps so they face forward, wrist firm, in straight line with rest of arm, not bent)



(go as low as you can where you can still come up)

Diamond Pushups

If you place your hands together to form a diamond and apply each of the correct form from the regular pushup, you will emphasize arm (triceps) muscles more.



Wide Pushups

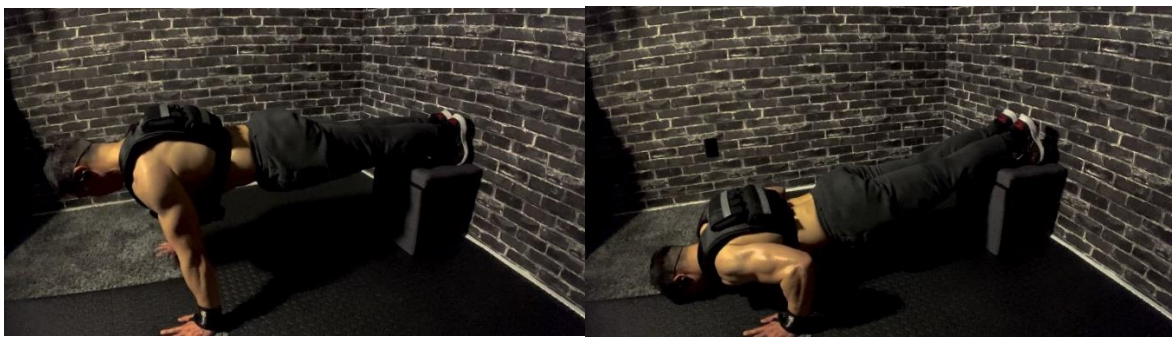
If you place your hands wider, with your fingers pointing outwards more and apply each of the correct form from the regular pushup, you will emphasize your outer chest muscles more.

However, the regular pushup is shown to have generally the same chest developing effectiveness as the wide pushup. Although a wide stance will target minor chest areas the regular form does not, so it's good to mix in for total body strength.



Decline Pushups

Decline pushups are harder and trains the upper chest more. **Training upper chest is the fastest way to increase chest muscle mass.**





(increase full range of motion to max ROI using a pushup bar, works all muscles way more)

Pike Pushup

Areas worked: primary: shoulders | secondary: triceps

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Equipment required: Pushup Bars

Form:

Only do this exercise after mastering the form of the regular pushup.

Start by placing the pushup bars and your hands at shoulder level. Stretch back while walking your feet as close to your hands as possible while keeping your legs almost perfectly straight (will depend on your mobility). For the entire movement try to keep your legs as straight as possible but just listen to your body because it depends on your mobility



Now gradually lean forward while keeping your arms and legs straight (doesn't need to be locked out and perfectly straight)



(As you shift forward, protract and depress shoulders)

Pushing into the ground and moving your shoulder forward is a good cue for protracting. Turning your elbow inwards is a good cue for depressing your shoulder, you can also think about depressing the shoulders as twisting your biceps so they face forward.

Shift your weight forward onto your shoulders gradually and go down like a pushup while keeping your legs straight, **your heel should lift at the bottom but your toes should be on the floor.**



(your shoulder should be in front of your hands at bottom)

Your body should form an L with your legs where the larger the angle of the L the easier it is, you can control the difficulty via distance of toe to chest. Test and find the sweet spot for your feet where you feel strong enough to still be able to push up from.



(left side angle is harder than right side angle)



After you find your feet position, go as low as you can and then come up. When you come up **you need to come up using the same motion you went down**, your shoulder and head would shift back for that full range of motion at the very end.

Don't just come up vertical, actually push backwards to be at the same neutral position you entered from. Push all the way until you cannot push anymore to build full range of motion strength. A good cue to use is on the way down your eyes start by looking at the floor but you should be looking backward towards your thigh as your chin is pressed against your chest at the very bottom

Don't lift your neck high, keep it neutral to prevent lower back pinching and neck strain, this means for the entire motion, you're trying to look down towards your thighs.

As you progress and get stronger, you can decrease the angle until you eventually lift off the ground for part of the movement, max ROI as you develop stabilization muscles.



Keep your wrist position perfectly stable and aligned with your arm to prevent injury as shown below:



(correct: wrist perfectly straight with rest of arm, back of hand face to the side)



(wrong: wrist bent, back of hand facing upwards or downwards)

You can do pike pushups without a pushup bar but it's low ROI due to lack of range of motion, unless you do it on an edge so your head can go below the level of your hand like this:



Dips on Dip Bars

Areas worked: primary: shoulders, triceps | secondary: chest

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Form for emphasizing shoulders:

Only do this exercise after mastering the form of the regular pushup and preferably also mastering the form of pike pushups.

To train shoulders and chest more, the ideal leg position is to have **weight distributed forward** as shown here with feet in front of the center of gravity, not bending knees and having feet behind your center of gravity as most people do. Form an L with your body and keep your core engaged to ensure your back is straight and not arced.



(shoulders depressed, protracted)

Lean forward where your shoulder is in front of your hands to use more shoulders and point your chest towards the floor. Generally, whatever body part is in front will be used most to counter gravity. Move down and go as low as around when elbow is slightly below 90 degrees, don't go further to prevent unnecessary stress on shoulders, especially ligaments and tendons.



Push until you cannot push any further at the very top for extra shoulder and triceps activation, and even some chest activation too.



Make sure the shoulder is moving up and down in a perfectly straight line in the movement to get the highest ROI. If you started leaning forward, when you go down you and when you come back up you should always be leaning forward. If you can't do this it means you're leaning too far ahead for your level, take a step back.

Form for emphasizing triceps:

If you just want to focus on triceps, you can keep your body completely upright with your chest directly facing forward and legs behind you instead of the L shape.

Form for emphasizing chest:

If you just want to focus on chest, then push your chest in front of your shoulders since whatever muscle is in front will carry most of the load, and point your chest down to simulate an in the air pushup. Instead of focusing on pushing down with your hands, imagine using your elbows and biceps to push inwards as if trying to make the bars touch each other (but they can't), this will fully engage your chest When moving up and down your chest should be facing the floor at the same angle

Dips off push up bar, bench, or some low platform

Areas worked: primary: shoulders, triceps | secondary: chest

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

It's safer to use a pushup bar over a bench or chair or anything because a pushup bar is ideal for wrist angle, preventing unnecessary strain on your wrist, but you can use a bench or ottoman or whatever if you want, just pay attention to your wrist. This is a much lower ROI exercise than dips on dip bars, lacking range of motion, only do this if you can't do dips on dip bars yet or if you don't have dip bars.

With pushup bar:



With platform:



Form:

Form an L as shown above, **elbows tucked close to your body**, legs straight and heel on the ground.

The most important thing to remember to properly activate triceps and avoid shoulder injury is to pull your shoulders back and push your chest out to avoid your shoulders being in front of your chest. Your shoulders should be behind your chest by externally rotating your shoulders, NOT internally rotating them. Push your chest out and engage your shoulders, push down, so they are depressed not elevated.

Move down while keeping your elbows tucked close to your body, go as low as you can then come back up, push at the end until you cannot push any further for extra muscle activation.

Do everything slow and controlled 2 seconds down 1 second hold at bottom, 1-2 seconds to come up. Don't make your butt touch the ground so you keep constant tension. As you perform reps, you'll know you've engaged your shoulders and depressed them properly if you turned your head to face sideways 90 degrees either side and do a repetition but your chin cannot touch your shoulders and is always above them.

Pull Exercises

Superman

Regular Superman

Areas worked: primary: upper and mid back, shoulders

Repetitions: this is a foundational exercise, so you don't need to go until failure, play by ear. Your mind is the limit. You know the more the better but don't overdo it, especially if you have shoulder injuries. To increase difficulty, add light weights in hands (5-15 lbs, 20 lbs is likely too heavy for smaller muscles to handle.



(Watch precise instructions on YouTube)



(starting position, hands touching ground)



(raise arm as high as they can go, using your back to counter gravity)

Form:

Lie down on your stomach, relaxed, arms straight ahead, forehead touching ground, keep your eyes on the ground, neck neutral, do not look up to prevent lower back pressure slowly raise your arms as high as possible (1 sec), hold for 1 sec, then slowly down (1 sec), repeat.

This is primarily to build back muscles, so keep your hips and entire lower body on the ground. Squeeze butt to keep spine aligned and protect lower back.

Y Superman

Areas worked: primary: upper and mid back, shoulders – this variation builds strength in different supportive tissues for foundational strength to help you progress to harder exercises.



Form:

Lie down on your stomach, relaxed, make a Y with your arms, **thumbs facing ceiling**, arms straight, forehead touching ground, keep your eyes on the ground, neck neutral, not raised up to prevent lower back pressure, slowly raise your arms as high as possible (1 sec), hold for 1 sec, then slowly down (1 sec), repeat.

This is primarily to build back muscles, so keep your hips and entire lower body on the ground. Squeeze butt to keep spine aligned and protect lower back.

W Superman

Areas worked: primary: upper and mid back, shoulders – this variation builds strength in different supportive tissues for foundational strength to help you progress to harder exercises



Form:

Lie down on your stomach, relaxed, make a W with your arms, bending your elbow 90 degree, forehead touching ground, keep your eyes on the ground, neck neutral, not raised up to prevent lower

back pressure, slowly raise your arms as high as possible (1 sec), hold for 1 sec, then slowly down (1 sec), repeat.

This is primarily to build back muscles, so keep your hips and entire lower body on the ground. Squeeze butt to keep spine aligned and protect lower back.

T Superman

Areas worked: primary: upper and mid back, shoulders – this variation builds strength in different supportive tissues for foundational strength to help you progress to harder exercises





Form:

Lie down on your stomach, relaxed, make a T with your arms, arms straight, **thumb facing ceiling**, forehead touching ground, keep your eyes on the ground, neck neutral, not raised up to prevent lower back pressure, slowly raise your arms as high as possible (1 sec), hold for 1 sec, then slowly down (1 sec), repeat.

This is primarily to build back muscles, so keep your hips and entire lower body on the ground. Squeeze butt to keep spine aligned and protect lower back.

Bird Dog

Areas worked: upper and mid back, glutes, shoulders

Repetitions: this is a foundational exercise, so you don't need to go until failure, play by ear. Your mind is the limit. You know the more the better but don't overdo it, especially if you have shoulder injuries.



(start in neutral position, back straight, core engaged, shoulders depressed, protracted)



(extend arm and legs, opposite side of legs to arm, diagonal path)



(reset after every rep, back straight, core engaged, shoulders depressed, protracted)



(repeat other side)

Form:

Start from neutral position, lift your left knee and right hand off the ground, tuck that leg in and touch your right elbow, then extend that right arm and left leg out, hold for 2 seconds, then go back to neutral position and repeat using the opposite arm and leg

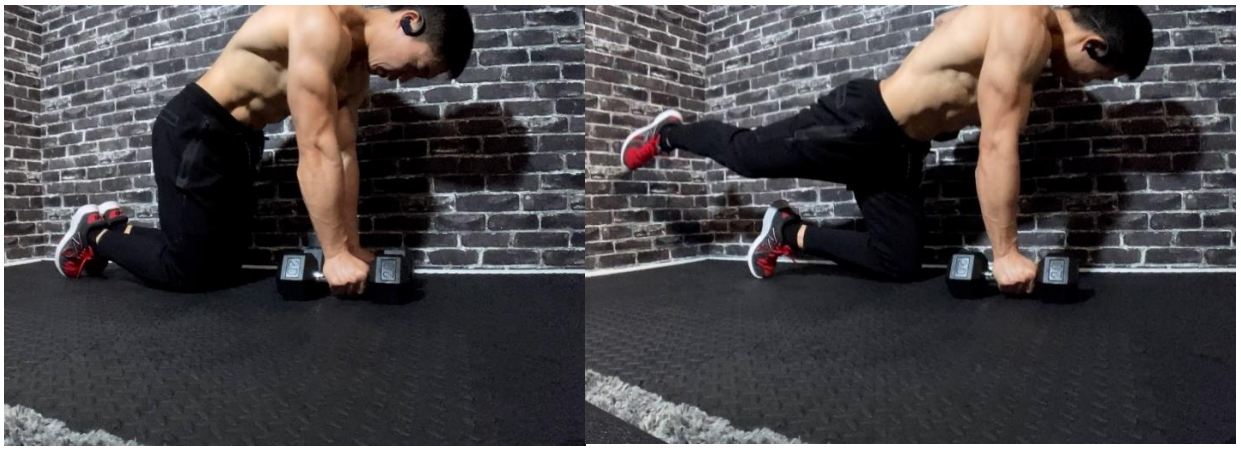
Keep eyes down, neck neutral, to prevent lower back strain. Engage core to keep spine aligned, not hyper-extended.

Weighted Bird Dog

Repetitions: this is a foundational exercise, so you don't need to go until failure, play by ear. Your mind is the limit. You know the more the better but don't overdo it, especially if you have shoulder injuries.

Same thing as regular bird dogs except instead of lifting your arms straight, you use two dumbbells and pull the dumbbell towards your chest, alternating side to side, just like a regular bird dog. Pick a weight challenging for you but not so challenging that you can't even do 6-8 reps (since this exercise is not about reaching hypertrophy).

Start in neutral position, alternate from one side, back to neutral, then to the other side.



Inverted Row (Australian Pullups)

Areas worked: primary: back, biceps | secondary: shoulders

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Equipment required: Dip Bars



(Watch precise instructions on YouTube)



Form:

Before you start, adjust the bar to the highest level at first because the lower you go the harder it is so just try it out and adjust but start at the highest level first.

Start by getting under the bar, grip the bar keeping enough distance between your hands so your wrist forms a straight line forward with your shoulder, from here you can move a little bit wider or narrower depending on what's comfortable for you (narrower will use more forearms and wider uses more back).

Squeeze your abs and butt to make your body a tight straight line and tight. This helps activate your back muscles properly.

Make sure the bar is aligned to your chest level, if you hung a string down the bar it shouldn't fall on your face, or stomach, it should be right at your nipple line

Point your chest out towards the bar while gripping the bar to straighten your spine .

Without bending your elbows, keeping them locked out straight, pull your shoulder back. When done correctly your spine is not curved anymore and is locked into a straight line. This is called scapula protraction.

From here try to twist your elbows inwards, as if you're trying to break the bar in half from the middle with your hands, this depresses the shoulder for optimal back muscle activation and optimal force transfer in the kinetic loop you just formed, the bar as an extension of your body.

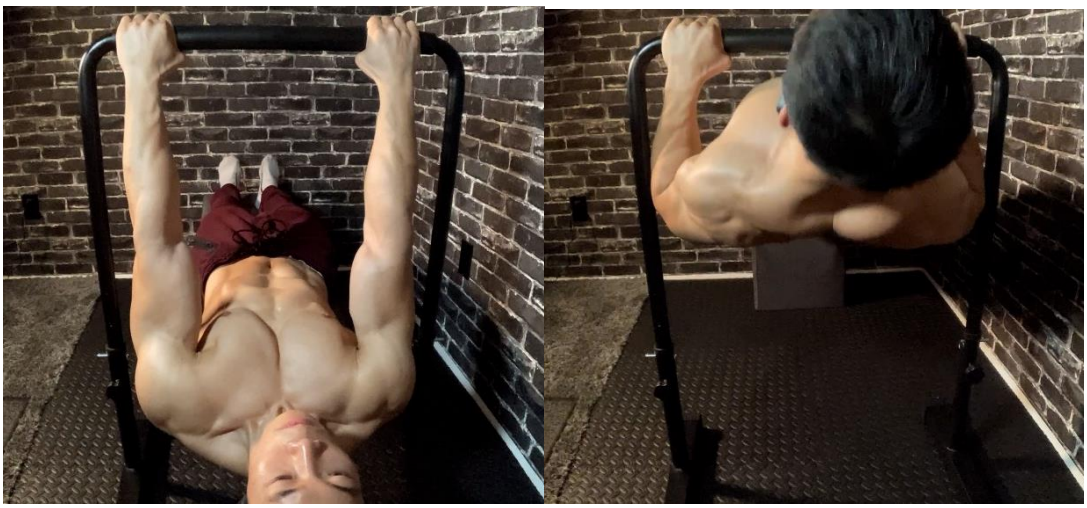
Remember this position because this is the correct neutral position each repetition must return back to.

From here pull, slow and controlled 1-2 seconds up, hold for a second at the isometric phase on top, then slowly down about 1-2 seconds. You can even use 1 second to pullup but use a slower pace when returning. This is how I perform them to save time because we know 70% of your workout results come from the eccentric phase, on the way down.

As you progress, lower the bar to make the exercise more challenging.

Declined Inverted Rows

You can do these with your feet elevated for declined inverted rows to target different areas of the back:



You can also do feet planted in the elevated form to train different areas of your back:



Underhand Grip Inverted Rows

You can change the grip to a supinated aka underhand grip to work the biceps more in the chin-up variation of this inverted row:



Inverted Rows with Feet Planted

If it’s too challenging keep your body straight and heel on ground, you can try the feet planted form, feet flat on ground and knees bent, the further your feet is the more difficult it is, which we want, but adjust according to your level to be able to do at least 6 reps with correct form:



Ground Assisted Pullups

Areas worked: primary: back, biceps | secondary: shoulders

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Equipment required: Dip Bars



(Watch precise instructions on YouTube)

Form:

This is very similar to the inverted row's feet planted form but key difference is your feet goes as close to your body as possible vs far away as possible in the inverted row.



Key for this exercise: focus all time in eccentric phase to build up pullup strength so go up quickly and then come down extremely slowly, 3-4 seconds down.

This is the same as if you jumped up to a bar and focused purely on a slow and controlled descend of the eccentric phase of a pullup. If you have a set up that allows this, do that instead.

Single Leg Ground Assisted Pullups



This is the same as regular ground assisted pullup above except balanced on one leg only, this is what I used to build up pullup strength fast before I started doing pullups.

Jumping Negative (Eccentric) Pullups

Areas worked: primary: back, biceps | secondary: shoulders

Repetitions: this is a highly optimal muscle building exercise and especially good for increasing endurance of your back muscles to help you progress to do proper pullups. Do however many you can with proper form until failure or close to failure (1-2 reps left in the tank)



(Watch precise instructions on YouTube)

Form:

Find a bar and a comfortable distance between your hands. Engage your shoulders and lats by pulling while pointing your elbows forward. With your feet touching the ground, jump explosively and high enough so your chin is over the bar (don't be lazy and cheat).



Keep your core tight and the weight of your legs in front of you to better engage your back. At the very top, hold for a second or so then slowly come down. Go up fast but come down slowly on the negative (eccentric) phase.

You can train biceps more with the underhand grip (left) or use the hammer grip to make it easier on the shoulders (right):





Ab Exercises

Lying Leg Raise

Areas worked: abs

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)



(Watch precise instructions to watch on YouTube)

Form:

Lie on your back flat, for extra core engagement, elevate upper body slightly off ground by balancing using forearms and palms on the floor by your side.



In the beginning you should feel an empty area around your lower back that doesn't touch the ground. **Then engage your core so you feel your lower back touches the ground.** From here, keep your core tight and raise your legs. **Do not let your back form that empty space**, the lower back should always touch the ground by keeping core engaged.

Do not use hips or legs, focus your mind to lift your legs by squeezing your abs and make your abs do all the work to curl your legs towards your chest.



Do not lift past the point where gravity is helping you instead of making it harder for you, do not lift past the point where your butt isn't on the ground anymore (some part of your butt will be off the ground but important cue is tailbone remains on ground).

Go as high as you can with this proper form until fully vertical, perpendicular to the ground.



Depending on your mobility you may need to bend knees a bit. Move slow and controlled, 2 seconds on way up, and 2 seconds down. Do not rest on top (the easiest position) for more than 1 second, as soon as you feel the tension in your abs releasing, it's time to slowly come down again, always keeping the core engaged throughout the movement.

Reset the form after finishing each repetition, re-engaging core so lower back touches the ground then start another repetition

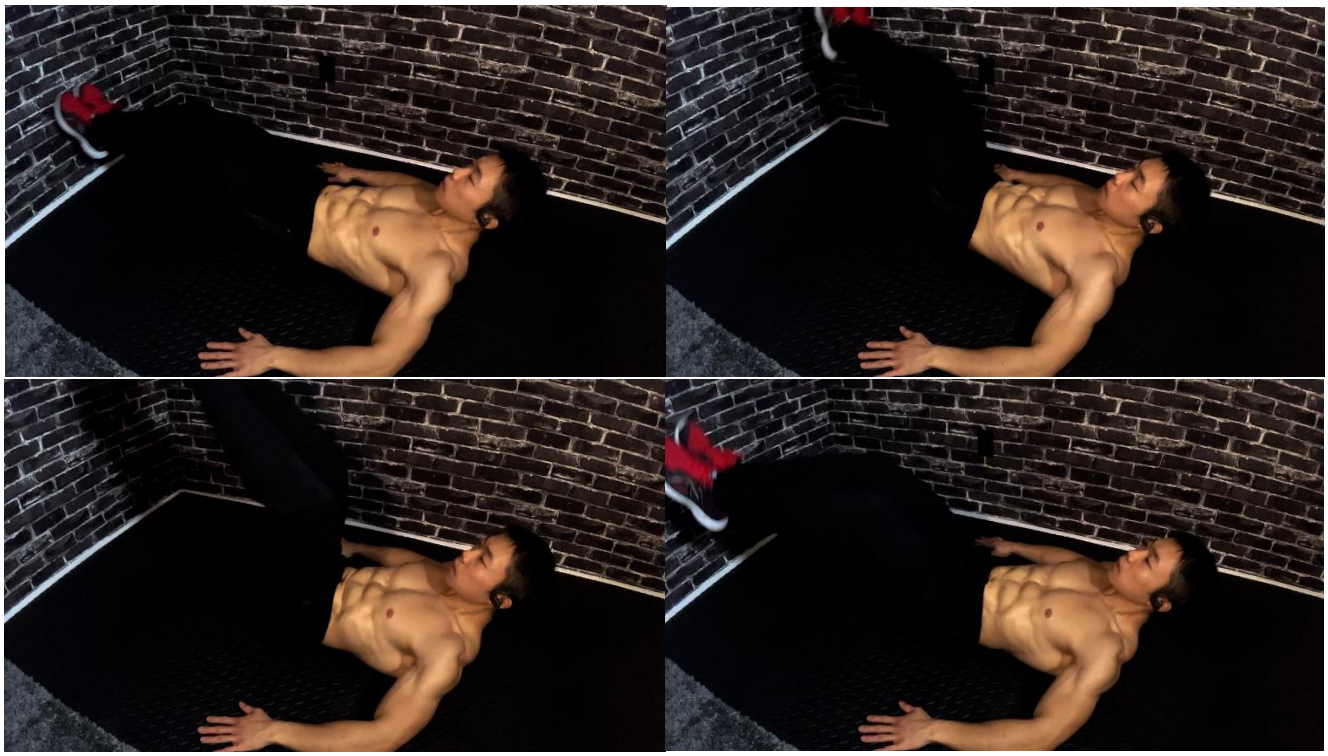
Lying Leg Raise Twists

Areas worked: front abs, obliques

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Form:

The exact form as the lying leg raise above, but legs slightly more bent as you turn in circles pointing using your feet.



Stick to one circular direction for each set. Switch from clockwise to counter clock-wise and vice versa per set **(not per rep).**

You can control the difficulty using the angle between your leg and the ground and how much you bend your knees. The further your leg is and least compressed (close to body) the more work your abs need to do. Select the combination most difficult for you that still allows you to do at least 6-8 reps with perfect form.

Reverse Crunch

Areas worked: front abs

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank).



(Watch precise instructions on YouTube)

Form:

Lie flat on your back and bend your legs at your knee so your calves and thigh form about a 90 degrees angle.



In the beginning you should feel an empty area around your lower back that doesn't touch the ground. **Then engage your core so you feel your lower back touches the ground.** From here, keep your core tight and raise your legs.



Do not let your back form that empty space for this part of the moment, the lower back should be touching the ground as you work hard to keep your core engaged.

Do not use hips or legs, focus your mind to lift your legs by squeezing your abs and make your abs do all the work to curl your legs towards your chest.



Do not lift past the point where gravity is helping you instead of making it harder for you. **Unlike the leg raise, we want to lift past the point where your butt and lower back isn't on the ground anymore** because the legs are bent which will make your abs work as long as the calves are below your abs, but as soon as most weight in your legs is right on top of your abs, tension will be lost.

This is why the true form of the reverse crunch lifts the entire lower back off the ground and straightens the leg to make your abs compress further.



If you're strong enough, do the second part of the reverse crunch by lifting your lower back off the ground as you press your hands into the ground to counter balance, your legs should be vertical or near vertical, do not tilt towards your face because that would make it easier and make gravity take on the work, always make it harder for yourself.

Imagine kicking up but instead of your legs it's actually your abs doing the kicking.

Move slow and controlled, 1-2 seconds on way up. Do not rest at the easiest position for more than 1 second, as soon as you feel the tension in your abs releasing, it's time to slowly come down again, always keeping the core engaged throughout the movement. Come down slow and controlled, 1-2 seconds on the way down.



(bend at knees again as you come back down)



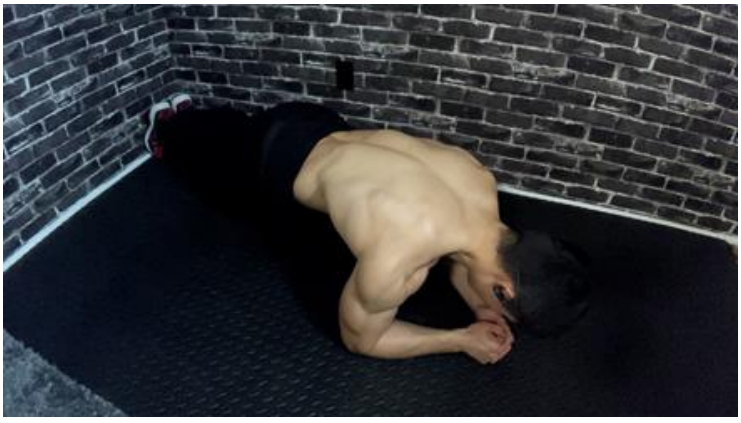
Reset the form after finishing each repetition, re-engaging core so lower back touches the ground then start another repetition

DO NOT make your feet touch the ground, lower your leg so your feet almost touches the ground so you always keep the tension. If your feet touch the ground your brain will want to relax.

Plank Hold

Areas worked: primary: abs | secondary: shoulders

Duration: try to target 30 sec - 1 minute to start, then work up the duration 5-10 seconds more each new workout session, challenge yourself to hold longer every workout, hold as long as possible until failure, your mind will give out before your body does, remember the pain is temporary and exists primarily in the mind.



Form:

Elbows should be shoulder width apart, head neutral, looking down to prevent pressure on spine.

Body should be a straight line, do not curve your back, otherwise lower back will be pressured and injured over time, squeeze your butt and core, then your back will be straight automatically. Do not drop your butt to make it easier.

To make it extra difficult for maximum return on investment, compress your body by imagining trying to make your feet touch your elbows but you can't because they're planted to the ground, this compresses the core even further

Hold as long as possible while your back can be straight, stop when you lose control of your core and your back starts to curve

Knee Raise

Areas worked: front abs

Equipment required: **Dip Bars**

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Form:

Depress and protract the shoulders to prevent injury.

Relax your lower body completely at first to establish mind-muscle connection and feel your legs. Use just enough leg strength to keep feet together.

Lift your knees up using your abs, when your thigh is perfectly horizontal, your knee should be bent at 90 degrees or so, the smaller the angle the easier it is, the larger the angle the harder.

After your thigh is perfectly horizontal, you can go even higher if you can

Do not use hips or legs, focus your mind to lift your legs by squeezing your abs and make your abs do all the work to curl your legs towards your chest. Feel your legs but do not use them.

Come down slow and controlled, maintaining tension constantly. As soon as tension is released at the bottom, perform the next rep, do not rest at the bottom.



Knee Raise Twists

Areas worked: front abs, obliques

Equipment required: Dip Bars

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Form:

Form is exactly the same as the knee raise above, but instead of your knee and legs facing forward, lift them to the side.



You can alternate sides per rep or concentrate on one side then move to the other, change it up for fun.



Leg raises

Areas worked: front abs

Equipment required: Pull-up Bar

Repetitions: this is a highly optimal muscle building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)

Form:



- Start from an active hang. Depress your shoulders by pulling them down away from your ears while keeping your arms straight. Keep your core engaged so your entire upper body is stable.
- Keep your legs together and as straight as your mobility allows. Point your toes and think about making your legs long.
- Lift your legs using your abs until your feet reach around waist or belly button level and your legs are approximately parallel with the ground.
- Focus your mind on compressing your abs to pull your legs upward instead of throwing your legs up using your hips. Your legs should move because your abs are pulling them.
- Move slow and controlled on the way up and down. Do not swing or use momentum. If you start rocking back and forth or need to throw your legs up to complete a rep, the set is finished.
- Come all the way back down under control while keeping your abs and shoulders engaged. Do not relax into a dead hang between reps.
- If keeping your legs completely straight is limited by your mobility, slightly bending your knees is fine. As your strength and mobility improve, gradually straighten them more.
- Once you can perform 3-4 sets of 8-12 slow controlled reps without swinging, start progressing towards the Toes to Bar by increasing the height where your toe points, trying to go higher every time you work out your abs, until your toes can reach your chest and then to the eye level.

Toes to bar (the king of all ab exercises)

Areas worked: primary: front abs, obliques | secondary: shoulders, lats, grip, forearms

Equipment required: Pull-up Bar

Repetitions: this is a highly optimal muscle building exercise, so we do however many we can with proper form until failure or close to failure (1-2 reps left in the tank). Aim to eventually reach 3-4 sets of 8-12 slow and controlled reps.

Form:



- Start from an active hang, not a dead hang. Depress the shoulders by pulling the shoulder blades down away from the ears while keeping arms straight and elbows locked. Imagine twisting the arms inward as if trying to make the elbows touch each other. This locks the shoulders into a strong position for stability and force transfer.

- Keep the entire body active. Engage the core, straighten the legs, lock the knees as much as mobility allows, and point the toes down as if trying to make the body longer.

- From here, compress the abs to slowly raise the toes towards the bar. Think about the abs pulling the legs upward instead of using the hips and legs to throw them up. Slightly bend the knees if needed based on mobility.

- Move slow and controlled. No swinging or momentum. Momentum takes work away from the muscles we're trying to train. If you start rocking back and forth or need to throw the legs up to complete a rep, the set is finished.

- Come back down slowly until reaching the active hanging position again while keeping tension throughout the entire body. Do not relax into a dead hang between reps.

- We can also point the toes towards the left and right to work the obliques. I like center → right → left → center and repeat.



Progression:

Start with knee raises but using the same active hang and form above. Once we can do 3-4 sets of 8-12 slow controlled reps, progress to hanging straight leg raises.

Always frontload the hardest variation we can perform with perfect form. For example:

1 set leg raises + 3 sets knee raises
→ 2 sets leg raises + 2 sets knee raises
→ 3 sets leg raises + 1 set knee raises
→ 4 sets leg raises

Then repeat the same progression from leg raises into toes to bar until we can perform 3-4 sets of 8-12 toes-to-bar reps with slow controlled form and no momentum.

If we can already perform pull-ups on rings with strong control, we can eventually progress to toes to rings for even more stabilization difficulty.

Legs and Glute Exercises

Bridges

Areas worked: primary: glutes | secondary: legs (quads)

Repetitions: this is a foundational exercise, so you don't need to go until failure, play by ear. Your mind is the limit. You know the more the better but don't overdo it, listen to body, there shouldn't be pain.



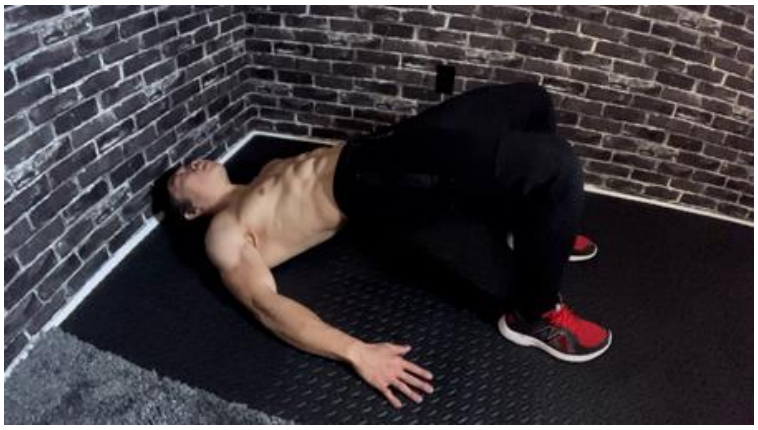
(Watch precise instructions to watch on YouTube)

Form:

Start with butt and both feet on ground. Place your hands flat beside you to balance.



Move slow and controlled, raise hips by squeezing glutes (butt), force should be in heels of feet, not middle of feet or front of feet, you should feel the pressure on the heels only.



Hold on top for 2 seconds before coming down to repeat. To increase difficulty, do this by placing feet on an exercise ball.

Single Leg Bridges

Areas worked: primary: glutes | secondary: legs (quads)

Repetitions: this is a foundational exercise, so you don't need to go until failure, play by ear. Your mind is the limit. You know the more the better but don't overdo it, listen to body, there shouldn't be pain.



Form:

Start with butt and both feet on ground. Place your hands flat beside you to balance. Lift one leg so it's as straight as possible pointing up, bend knees according to your mobility.

Slow and controlled, raise hips by squeezing butt (glute muscles), force should be in heels of feet planted on the ground, not middle of feet or front of feet, you should feel the pressure on the heels only.

Hold on top for 2 seconds before coming down to repeat. Alternate sides per set, not per rep.

To increase difficulty, do this by placing feet on an exercise ball.

Lunges

Areas worked: primary: glutes | secondary: legs (quads)

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank)



Start standing upright in neutral position, core engaged, back straight, shoulders perfectly leveled with ground, looking straight ahead, neck neutral.



Kneel down on one leg by moving one leg back, after coming back to neutral, move the other leg back.

Form:

Stand upright in neutral position, core engaged, back straight.
Kneel down on one leg by moving one leg back, go as low as you can without your knee touching the ground because we want constant tension, touching ground makes it easier, not what we want.

To prevent injury, adjust your feet position so that when your leg bends 90 degrees, make sure your knee never goes over your feet (later when you have increased ankle mobility you can break this rule).

You can do this while staying in the same place without moving forward by taking a step back each time, or you can move forward as you go if you have space and alternate legs with each step.

For this exercise you can either alternate sides per rep or per set.

Weighted Lunges

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until failure or close to failure (1-2 reps left in the tank). Select a weight challenging for you but not so challenging that you can't even do 6-8 repetitions on each side.

Form is the same, but if adding weights, make sure to keep core extra engaged and neck neutral looking forward throughout entire movement to prevent spine from arching.



Squats

Areas worked: glutes (butt), quads

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until near failure



(going all the way down is optional, depends on mobility, as long as glutes is doing most of the work and fully activated, have to go to at least 90 degrees)



Form:

Keep your spine straight and aligned by keeping your head neutral looking ahead and contracting your core to prevent lower back from arching.

Squat down slowly 2 sec, hold 2 sec, go back up 2 sec slow and controlled.

Go as low as you can without losing balance, on the way up, depending on where you want to target, either mostly use legs or squeeze your butt and make your glutes primarily work to push you up instead of legs – I recommend making the glutes do most of the work because we sit too long and tend to cause weak glutes which slows metabolism (largest muscle in body) and poor posture.

You should feel most of the pressure in your heels. You can increase difficulty with a resistance band wrapped behind your neck, supported by your traps and your hands on top and the middle of your feet on the bottom as shown below.



Goblet Squats

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until close to failure

You can increase resistance using one dumbbell, which is superior to holding two dumbbells by the side if it's the same weight, because the core works more to prevent the body from tilting forward.

Form:

The exact same form as the regular bodyweight squat above but holding a single dumbbell like this:



Side to Side Squats

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until close to failure.

Unilateral movements like this counter muscle imbalances for complete functional strength.

Form:

Start in neutral position, core tight, glutes engaged, eyes looking straight ahead, arms out, locked hands as shown below.



Squat down side to side, slow and controlled, feel every area engaged.

Do not pause at the neutral position in the middle, always keep tension in your thighs by shifting weight from one leg to the other.

Remember to always keep the spine straight by contracting your core and looking straight ahead so your neck is neutral.

You can either tilt your feet inwards so they're always planted or tilt them outwards so heel is on the ground, it doesn't matter, whatever is comfortable.



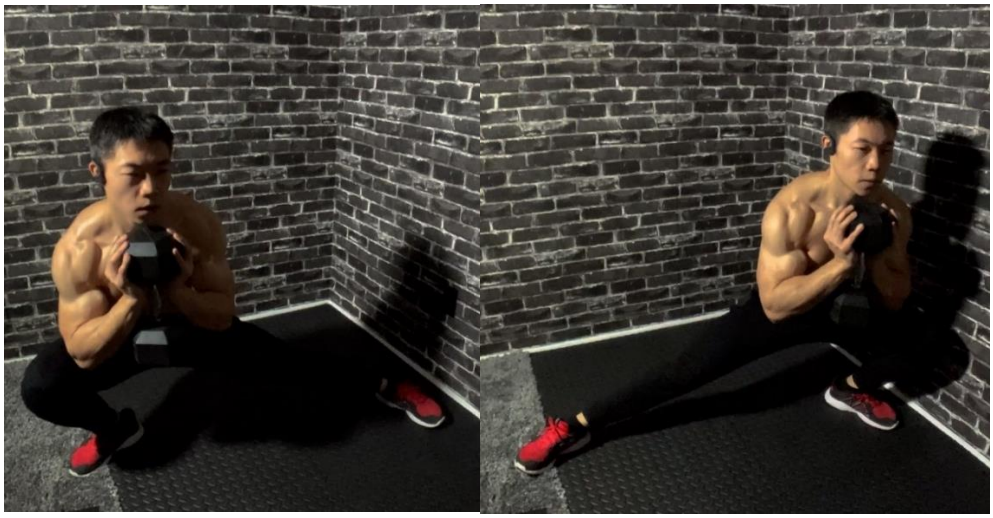

Weighted Side to Side Squats

You can increase resistance using one dumbbell, which is superior to holding two dumbbells at same weight by the side since the core works more to prevent the body from tilting forward.




You can either lift the dumbbell and put it into position like I do, or place it on the ground in the vertical position and use both hands to lift it up, whatever feels safest given your strength level

With weights it might be more stable if both feet are always planted on the ground vs having the unweighted feet's heel on the ground like I do in the unweighted side to side squat above. Feel it out for yourself.

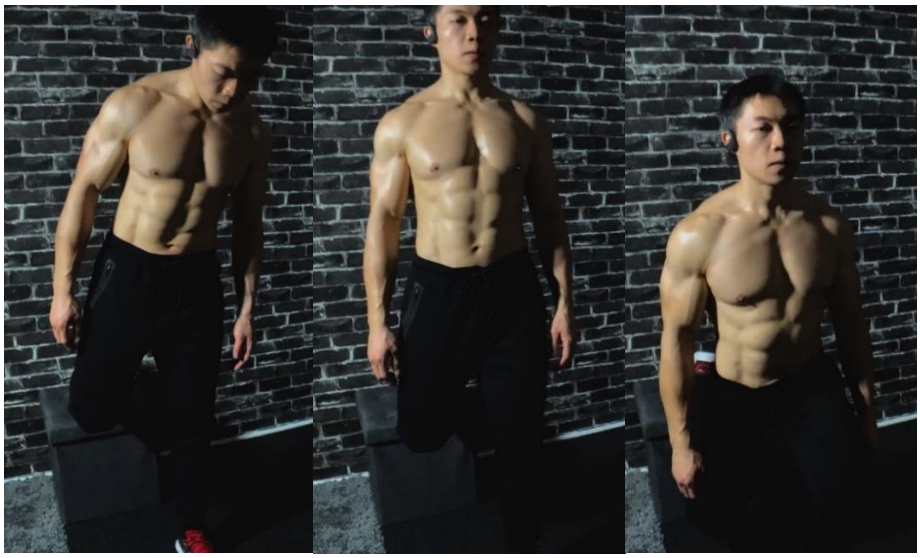


Bulgarian Split Squat

Areas worked: primary: quads (upper leg) | secondary: glutes (butt), calves (lower leg)

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until close to failure

Form:



Place your feet on a platform that feels comfortable.



Make sure your toes and bottom of the front of the your feet (phalanges area shown on left) is always on the platform. There are many people, including fitness influencers (even ones I like) doing this totally wrong, by having their top of their back feet on the platform. This is wasting time because it's decreasing the time under tension of the resting leg. The harder variation is the best variation, not to mention, safer.

Make your you keep your body upright by engaging your abs and look forward to ensure your shoulders are perfectly leveled with the ground. Move down while keeping the phalanges of your feet, the part where your toes connect with your feet, always planted.



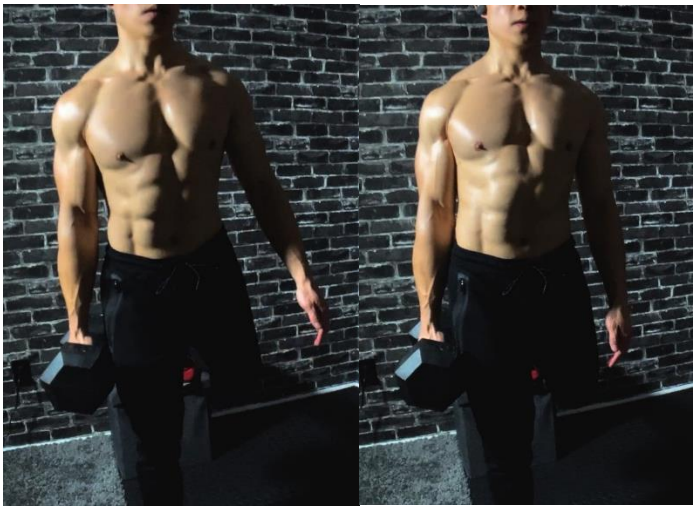
Weighted Bulgarian Split Squats

Repetitions: this is a highly optimal muscle AND endurance building exercise, so do however many you can do with proper form until close to failure

This is something I will always do on leg days because of how high ROI it is. Both legs are constantly engaged while building unilateral strength and preventing muscle imbalances.

Form:

Same as regular Bulgarian split squat but you will need to engage the core extra hard to counter the weight and still ensure body is perfectly upright and shoulders perfectly leveled with ground by looking straight. Push your chest out and shoulders back.



Move down while keeping the phalanges of your feet, the part where your toes connect with your feet, always planted.



Be careful move weight side to side, always engage core to prevent lower back injury.

First Principles

Know Your Why

Before you do anything, define your goal and the **Why(s)** behind that goal. You won't succeed unless this is so clear that you don't need to think about it and you'll succeed more easily if your Whys are evergreen and long term.

My past goal: lose fat

My past Why: so I can have more energy and confidence to tackle any challenge in life

My current goal: maximize strength while keeping the same physique

My current Why: so I can perform more difficult moves to test and surpass my own limits and to excite and inspire my son + previous whys

My System

The system I use today is largely a continuation of master level functional training my trainer instilled in me, built on first principles for superior results and extremely fast body transformations. I simply broke it down and mapped it into a system with core levers that are repeatable and causes predictable results. Then I combined 2 years of scientific research and testing on myself to go even further beyond for **max workout return on investment.**

I'm continuously researching exercise science, learnings from true experts, field testing, and incorporating lessons learned back. There is no definitive "method" or "way" since it's a living and evolving system.

The reason why this system is superior for building a lean and muscular physique much faster than other methods I know of is summarized below:

1) **Extremely fast results** due to maximum return on investment by applying 80/20 rule, minimizing time wasted in *any* suboptimal elements of training, zero tolerance of waste
2) **Maximum muscle building efficiency** by:
    - Performing exercises in ways that causes optimal muscle building
    - Training large muscles but also smaller ones often untrained by weight lifting
    - Strengthening joints, ligaments, and supportive tissue strength to unlock higher and higher ROI exercises
3) **Maximum testosterone production** via specific types of compound movements, required for growing muscle and boosting metabolism, your voice will also be deeper
4) **Dramatically reduces cortisol**, the stress hormone, via specific types of compound movements and good breathing control, further boosts growth hormones
5) **Fast muscle building and increases in metabolism** by maximizing workout volume, optimal central nervous system shock, and optimized recovery, a level that cannot be achieved when lifting heavy weights
6) **Maximum functional full kinetic chain strength** useful for life, minimal energy loss during the day through efficient energy transfers in kinetic chains, which causes:
    - Incredible strength and endurance for anything active like sports (boxing and freestyle rollerblading are my personal fav but it's useful for anything) or even everyday life chores

    - Extremely high energy for active and inactive activities (even when you Netflix)
    - Proper posture muscle memory, auto posture correction
    - A **mind body connection you'll regret not experiencing**, the difference is night and day, **you will perceive time differently and feel an "awakening" feeling as if waking up from a dream**
7) **Long lasting joints, ligaments, tendons, and supportive tissue strength** to feel and look young as you age
8) **Natural body proportions** – this method builds a very particular type of physique anyone can achieve because your body was meant to reach this state, it will not look like body builders, but it will appear and truly be athletic

The only additions I made to the original program I used myself, to further improve, is:

1) For first half of the game (beginners) - I removed the need for any expensive and heavy home gym equipment like barbells
2) For late and end game - I added elite level calisthenics for even higher ROI

Like when Bruce Lee developed Jeet Kwon Do, we must let go of ego, dogma, and take what works from every school of training. Be formless, like water, and strike your enemy.

Who's the enemy?

The enemy is the part of you that wants to settle and be average.

Your endgame true self lies deep within you already, waiting to be unlocked. Once unlocked, you will experience life completely differently, physically, mentally, socially.

You will literally experience time in a completely new way.

You will feel your cells resonate at a different frequency than the average person. This boosts performance at work, life, whatever you pursue.

Time is all we have in the end. When you're at peak state, you get to experience the same 24 hours you had before but in a completely new way that will make you ask yourself: "how did I even live life before this?"

It would be a shame if you grew old and didn't know what this felt like.

Functional Training (+my twists) vs Bodybuilding

Disclaimer: *if you want to look like Arnold or drugged up bodybuilding professionals, please close this guide now, it won't help you, you will need to do what bodybuilders do. If you simply enjoy lifting heavy weights, you're going to need to do significant analysis of this guide and pick what might help you.*

I don't train only to look good but I do want to look lean and muscular and NOT like a bodybuilder so I customized the training to perfectly align training and aesthetic goals. For aesthetics, the #1 formula for looking lean is: **the ratio of bodyweight to strength.** If you optimize for this ratio, you will NOT look like a bodybuilder, you will look like an extremely strong and lean athlete. The style of training I developed optimizes for this ratio by design because I am constantly trying to perform more difficult moves that can be too challenging with even 5lbs more weight. This means the training goal aligns with the aesthetic goal. **This is where most people fail because the fitness industry lies to you on purpose.**

With bodybuilding, at some point you will find it very difficult to optimize for strength to bodyweight ratio along with a diet you can maintain. Greg Ogallagher from Kinobody (people love hating on this guy due to his earlier materials but he's a lot more experienced now) also talks about this in his video.

Bodybuilding with weights has a limit to how much you can eat to be lean. Bodyweight training aka calisthenics allows you to easily eat much more calories while being lean. This is why Olympic gymnastics' diets are incredibly satisfying when compared to a bodybuilder of the same weight class and leanness, even when their training time is the same, in fact bodybuilders tend to have to work harder and longer to get the same results.

Bodybuilding with heavy weights and machines is unnatural. **Our ancestors didn't lift 300lbs for fun. Weightlifting, powerlifting, and gym culture should be treated as things people enjoy doing as a fun hobby but it is not the most efficient method to become lean and muscular.** It's highly inefficient and suboptimal but better than not exercising.

Lifting progressively heavier weight and hitting PRs (personal records) is useful for confidence building (but most people cannot control their ego nor know the difference between confidence and ego), but it's not efficient for building a lean muscular physique mainly because of recovery demands, making it harder to maximize volume to build muscle while eating in a way that won't make you gain fat. This is why bodybuilders are stuck in cycles of cutting and bulking (or even lean bulk) and have a harder time with body re-composition where you don't need to be exclusively in a calorie deficit or surplus. **Functional training with bodyweight is the most efficient method to build muscle WHILE in a deficit. This is how you get extraordinary results fast.**

Bodybuilding with weights, especially heavy weights is also extremely inefficient for muscle building because **good technique allows you lift incredible amount of weight, your body will optimize for how to lift that weight in that specific movement pattern.** This is fine but inefficient for getting fast results of losing weight, burning fat, building muscle, building true functional strength useful in life, more energy.

Functional training focuses on inefficiency (safely) and forces the body to work hard to stabilize, usually with very long complete full body kinetic chains that are continuously engaged in every movement. **Dramatically higher ROI in the same timeframe.** In fact, bench press and deadlift performance actually increase dramatically after functional training, specifically with rings. Yes, you hit higher PRs with bench press and deadlifts without doing them for years. Several true experts already explain this. We can strategically use inefficiency (not always) when it can produce more efficient workouts.

Your kid(s) will not give a crap how much you bench, deadlift or squat, but they'll be excited if you show them a handstand, 360 degrees pull, a human flag, front and back lever, defy gravity. Most importantly, you will know you can do things 99.999% of the population will never be able to do and obtain mastery over your entire body. Bodybuilders who can lift incredible weights cannot even do 10 pullups with correct form, without cheating, never mind a front lever.

Weights can and will be used in functional training, especially for legs and glutes, but no need to go heavy. There are movements that are difficult even for advanced athletes with only 10-20lbs dumbbells. It does not need to involve heavy squats, deadlifts, bench press etc. Do them for fun if you want.

Heavy weights also increase injury risk and **100% causes unnecessary tendon, joints, and ligament stress as you age**. I'm optimizing to look and feel young as I age to truly live at the fullest.

Movements that are natural to the body are ideal to create a lean and muscular physique, like the Greek statues or Tarzan, by effectively pushing our bodies to grow, adapt, and perform at their biological potential, reaching an ideal balance of strength, endurance, and energy that's actually useful in life. A side benefit is body proportions that humans are genetically programmed to find appealing.

Activating long and complete kinetic chains in the body stimulates the central nervous system and maximizes lean muscle mass growth and boosts in metabolism that cannot be achieved in the same timeframe using less efficient ways.

Functional training focuses significantly on **full body time under tension**, which builds dense lean muscles, especially smaller muscle groups that are not activated even with free weights. You develop extremely powerful muscle fibers, more so than bodybuilders in the same weight class, with a perfect balance of strength and endurance through type I and type II muscle fiber optimization.

Calisthenics is the advanced school of functional training that solely uses body weight. But weighted calisthenics (weight vests or weight belts) can be used to build more strength and progress faster. **Calisthenics' major flaw is the lack of lower body training** since gymnasts and calisthenic athletes optimize for skills towards the endgame, and heavier legs make skills a lot harder. We can borrow strengths from calisthenics and counter its weak points.

The greater the difficulty of an exercise, the higher the return on investment you get. So to maximize ROI, we have to continuously strive to perform more difficult moves***. "Do not pray for an easy life. Pray for the strength to endure a difficult one" ~ Bruce Lee***

The peak difficulty of any exercise is usually with Olympic rings, which places muscles in constant tension, recruiting stabilizing muscles and activating long complete kinetic chains in the body. Do not try to use these until you've built the muscles (especially small muscles that even free weights don't build), tendons, and ligament strengths, otherwise injury is almost certain

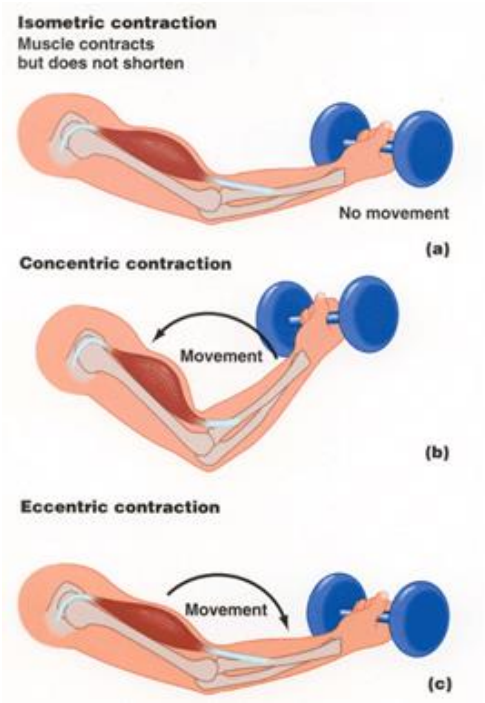
Functional training dramatically builds and relies on the core (abs), it's engaged in almost every exercise, visible abs is guaranteed with consistent training and a good diet.

Functional training also focuses on the glutes (butt), the largest muscle in the body, and legs because heavy leg and glute work is the most effective way to boost your testosterone and growth hormone levels, crucial for building muscle and boosting metabolism to lose fat. **You don't need heavy weights to achieve this.**

Functional training also focuses significantly on unilateral movements (archer push ups, Bulgarian split squats, single leg dumbbell deadlifts, single leg bridges etc.) to ensure no muscle and posture imbalances, a concept borrowed from physio.

Strong balanced functional kinetic chains developed through functional training is what brings you max energy when not exercising. Your glutes, core, back, legs, shoulder blades will have the muscle memory to know how to be engaged when you sit all day, auto posture correction, minimal energy loss.

How muscles grow



Muscles grow through **hypertrophy** (tears, breakdown, rebuild). To achieve hypertrophy, muscles must be worked to a specific threshold every time you exercise. Exercises have 3 phase:

Isometric - when the muscle is tightened and held for some time.

Concentric - muscle going from relaxed to tight, the first half of each repetition. Most people focus on this but this is the least important part.

Eccentric - muscle going from tight to relaxed, the second half of each repetition. ***70% of muscle breakdown and rebuild is actually from the eccentric part of the movement*****,** so that's why each repetition should be slow and controlled if you want to develop fresh muscle fibers, making sure each repetition spends a few seconds in each phase. **If you spend more time in the eccentric phase per rep, you will trigger hypertrophy more efficiently.**

You need the concentric phase to trigger overload but muscles don't tear as much when shortened and contracted in the concentric phase. After that concentric phase, the eccentric phase that follows it is a perfect timing window for micro-tears to optimize growth (source 1, source 2) since the muscle is lengthening again while still contracted, but it was just under great load from the concentric phase, so it's going to tear efficiently here. **This is how you save time.** You can also just do regular gym bro style too, regular tempo reps, but you'll need more reps and spend more time. This is what my trainer taught me and it was key to how I got insanely fast results without working out frequently or for hours each time. **If you don't focus on the eccentric phase AND you try to optimize to keep on increasing weight, literally you're decreasing your progress speed because with higher weight your ability to focus on the eccentric goes down. This is how the fitness industry keeps you working out MORE instead of LESS. Time to wake up.**

Muscles do not understand math, how many repetitions you do, **they only understand time under tension and resistance level (load) when worked in their full range of motion**.

Types of Muscle Fibers

Type I (slow twitch) muscle fibers use more aerobic respiration and are more efficient over long periods of time. This is mostly trained using high rep endurance-based training.

Type II (fast twitch) muscle fibers use more anaerobic respiration and are better for short bursts of speed and power.

Type II is what my training focuses on for the type of energy and physique built because building type II will give you more endurance than you'll ever need, unless you want to run marathons, but I'm not interested in a marathon runner physique, if you are you should close this doc.

However, to maximize testosterone, growth hormones, and for cardiovascular benefits, leg and glute training will primarily be Type I. This is because we stand, walk, and do many things in our life that benefits from Type I lower body muscle fibers and rarely ever need Type 2 lower body muscle fibers. **We do not need to squat or deadlift 300+ lbs for functional strength that translate to everyday life and maximum ROI for more energy throughout the day.**

Volume, Reps, Sets, Frequency

Hypertrophy is reached through maximizing volume via amount of high-quality reps done in the timebox chosen by maximizing time under tension (safely without injury).

If you want to build or maintain muscle, burn fat, supercharge your metabolism, then the goal per workout would be to maximize the volume of work done so you can trigger hypertrophy.

Volume is defined as work your muscles actually do. Meaning if gravity is helping you via momentum, you're decreasing work. No momentum should be used for hypertrophy optimization.

Volume can be optimized via frequency + number of sets per workout. 2 days x 12 sets per day is better than 24 sets in one day because it's diminishing returns after 16 sets so 2 days of reaching hypertrophy per week with proper recovery gives you better progress than one day.

To get max ROI for each workout session**, frontload the hardest form of the hardest compound exercise** that you can still do with correct form such as dips, wall handstand push-ups, whatever your max difficulty reached is

Reps

A rep (repetition) is one complete motion of an exercise done with full range of motion

Sets

A set is a number of reps you do in sequence

To achieve hypertrophy, ideal is 12-16 sets / workout, comprised of exercises combinations you choose, generally 3-5 sets per exercise is good, 5 exercises x 3 sets = 15 sets, 3 exercises x 4 sets = 12 sets etc

Dropsets, supersets, all these complex techniques are seriously way too complicated for almost everyone, ignore these unless you're bored, you can search and learn about them but I don't use them and never did for progress, regular sets are all you need

Failure is defined as when your form breaks down and you cannot keep perfect form anymore for that rep, can't do 1 more rep with proper form.

Since we are maximizing volume, if you're only training a body part once a week like I do, you should go to failure each set because your body will have enough time to recover. If you're training the same body part more frequently with less rest in between (maybe you enjoy a workout schedule and method where you work out very often and train the same muscle twice or more a week) then you should go to near failure (can maybe do 1-2 more with proper form) but not failure per set because by reducing workout intensity, you can recover properly before the next time that muscle is worked again.

Frequency

How long you exercise in a session should be **treated as a timebox you decide for your own lifestyle but at minimum triggers hypertrophy**

2 x 30-45 mins / week is enough to trigger changes in physique (by reaching true physical failure each set), no need to go over 1 hour per working session, diminishing returns

MAX ROI is 4 times per week if you're using a push pull abs leg split (like in the Phase 2: Build phase), going from 2 days to 3 days a week is a huge difference, 3 – 4 still big difference, 4 - 5 you start to eat into recovery ability per week, 5 to 6 definitely eating into recovery since only leaving 1 rest day. If you really enjoy working out and want to workout everyday or almost every day, you must reduce volume per day so you can recover properly.

Performing Reps in a Set

Number of Reps

Quality of reps: how many repetitions should not be the focus, must let go of ego and don't chase after a number of reps, the body only knows about the quality of each repetition so the **form of each repetition must be the focus first, number of reps second**

Number of reps: exercises that you can only do **1-5 reps max builds strength, 6-12 reps for hypertrophy (muscle building), 12+ reps for endurance** (will still build muscle but approaching more endurance end of spectrum). This assumes you apply perfect form slow and controlled reps with emphasis on the eccentric phase.

Muscle fatigue per set: every set should fatigue the muscle to make your workout trigger hypertrophy, either do enough repetition to failure (cannot continue anymore) or close to failure such as leaving 1 reps left in the gas tank (learn to feel this over time). This needs to be fine-tuned depending on your workout planning because if you go to failure too often, you don't recover fast enough, hence you will not make gains as fast as if you recover as much as possible within the same amount of time. If training frequency is higher, then likely you should not go to failure every set. If training frequency is lower, then likely you should go to failure on each set. But this also depends on how you structure your workouts. Listen to your body.

Form

Full range of motion is crucial, it builds full range of motion strength and maximizes the muscle gains you get from each repetition because of maximum recruitment of large and small muscles, tendons and ligaments. Hypertrophy research indicates full range of motion is definitely superior for muscle building.This also develops proper posture over time, 2 birds with 1 stone, combining physio together with muscle building.

The more difficult you make a single rep (safely, proper form), the better, as it recruits max number of cells (muscles of all sizes, tendons, ligaments) to work for each rep.

Anything you can do to destabilize the body to make the movement more difficult will create exponential return on effort through max recruitment of cells engaged and central nervous system stress, leading to compound effects for increasing lean muscle mass and metabolism for fat burning.

Never try to make any rep easier, no momentum, no compensating using other muscles you're not targeting for that exercise, otherwise you're wasting each second you put into workouts, waste compounds. Ego is what the fitness industry uses to hold people back and keep people continuously engaged in inefficient exercises (unless you simply like lifting heavier weights).

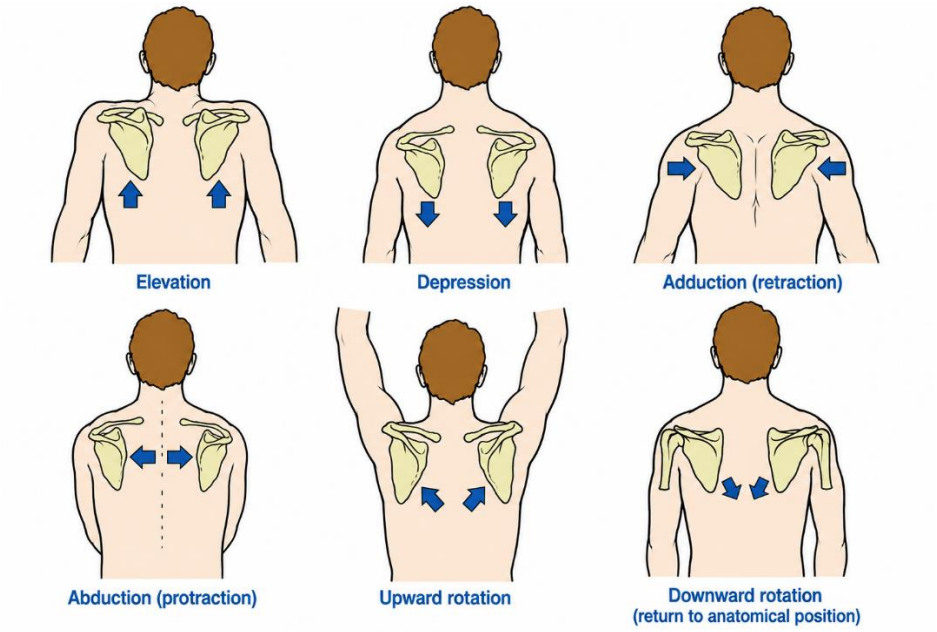
General good principles for all exercises to prevent injury and activate the correct kinetic chains: by default keep your core engaged and glutes tight – some exercises you do not need this but just remember this saying "core tight, glutes engaged" this stabilizes your body to activate the right muscles targeted during movements for maximum correct muscle recruitment, it also automatically protects your back, especially lower back.

If you want to keep your body straight, you need to point your feet, squeeze your legs, glutes, and abs, full body engagement.

Scapula Control

The shoulder blade aka scapula is crucial to calisthenics / bodyweight movements in functional training. Even in back exercises like pull ups, the shoulders are involved.

Scapula strength is generally very weak for office workers because our shoulders are always in the typing position, often elevated, and abducted, and sometimes upward rotated, literally the worst combination.



Reference these definitions when we dive into the form of each exercise but in general just remember that we want the shoulder to move naturally and avoid unnatural movements that will risk injury and have suboptimal kinetic chain activation. Luckily functional training doesn't have any unnatural movements that gym machines and many conventional bodybuilding exercises do. However, it's still important to be conscious of what your scapula is doing for every exercise.

For inverted rows (Australian pull ups), protract and outwardly rotate as the arm reaches forward, then as you pull, retract and inwardly rotate back to the starting position, squeeze at the end of each movement to build greater scapula strength, which will make it easier to perform exercises with perfect form as you progress.

For pull ups the scapula should outwardly rotate and elevate as the arms reach upward, then as you pull, inwardly rotate and depress back to the starting position – a common mistake even in the calisthenics community is depressing the scapula in the beginning, you depress at the end, if done at the start this is going to cause shoulder joint injuries.

Push exercises like pushups: as you go down, the scapula should retract and slightly inwardly rotate (depending on how wide the hands are placed apart), on the way up, the scapula should protract and slightly outwardly rotate.

By far the best free content on exercise form fundamentals, physio, injury prevention, and best of all, injury healing movements that actually work is from Eric Wong's precision movement: https://www.youtube.com/user/ericwongmma.

Tempo

As mentioned, because muscles do not understand how many repetitions you do, it only understands **time under tension and resistance level** so the tempo of each repetition matters. Generally good idea to aim for 1-2 sec concentric, hold for 1 sec, then 1-2 sec eccentric. Very controlled repetitions. Explosive movements (1 or < 1 second repetitions) is only useful for athletic performance or training for strength not building muscle. At endgame, when you mainly train for strength or just maintenance you can adjust so reps are faster.

You can add an additional 1 sec to each phase: concentric, hold, eccentric for some sets to mix things up and cause muscle confusion. For example, for lunges or squats that are high volume, you can train endurance and hypertrophy together in 1 set of 30 reps split into 10 x slow reps, 3 sec in each phase, 10 x regular tempo but 3 sec hold at isometric phase, then 10 x regular tempo.

Super slow reps like 10+ seconds spent in each phase is not useful for hypertrophy, this is proven in the calisthenics community and scientific studies. But it is useful to train for calisthenics competitions, where you simply want to train to do a movement slowly.

Rest Times

You rest between sets of exercises to allow the muscle to recover and perform the next set with max effectiveness.

Use a workout timer because you need consistency to make progress and not train randomly. Always keep your rest times as perfectly consistent as you can.

Always rest enough between sets to do another set with very similar number of reps than the last one (80-100% # reps as last) because as mentioned the goal per workout is to maximize the number of high-quality reps done in the timebox chosen, nothing else matters, if you gas out by front loading too many reps in first few sets without enough rest time, you achieve less volume within the timebox, wasting time.

Rest times for muscle building is usually 2-3 minutes, 3 minutes for hard compound movements (pushups), 2 minutes for less taxing exercises, listen to your body, everyone is at a different level, the same exercise may require more or less rest time for you, don't exceed 3 minutes rest time though as a beginner, you shouldn't be doing anything that requires more than 3 minute rest times

3-5 minute rest times is needed for extremely difficult exercises like unassisted handstand pushups but these train mostly skills, for fun, not needed for hypertrophy

Resting too long between sets reduces the efficiency to hit hypertrophy threshold

Do not sit or lie down when resting, stand and walk around, keep moving to regulate blood levels so you don't tire out fast or get light headed. Walking also helps burn some calories while you're resting, might as well.

For unilateral movements like Bulgarian split squats where you're training one side per set, you start timing after your first set on one side ends so you return to that side after the 3 minutes (or whatever rest window you're using) is up. For example:

- 00:00 start doing Bulgarian split squats on right leg
- 00:30 finished right leg, start resting right leg while you immediately work the left side, noting that you should start the right side again at 03:30
- 01:00 finished left leg, start full rest
- 03:30 since you started resting the right leg at 00:30 your rest time is up
- repeat

Breathing

Muscles require oxygen to perform. Breathing must be mastered for high ROI workouts and boosting metabolism by reducing stress from fight or flight responses, reducing and minimizing cortisol build up.

Compound movements puts a lot of stress on muscles so it's important to breathe properly during movements so your muscles have all the resources it needs to perform each rep effectively to get the most out of every workout. Always breathe consistently, controlled, and focused. **Do not hold breaths during functional training.**

Unlike heavy weight lifting, such as deadlifts and squats, you do not need to hold your breath to protect your body (mostly back) under extreme load because with functional training you'll perform exercises that your body can naturally handle at your level, no extreme loads with high risk of injury.

Even when doing static exercises (isometric holds), you should never hold your breath, always breathe because muscles need oxygen when placed under stress. However, the difference here is that because muscles are constantly under tension with isometric holds, you must breathe faster short breaths instead of slow longer breaths.
In general, for dynamic exercises (any movement that has a concentric and eccentric phase) breaths should be controlled and not too short and not too long. You should try to breathe in from your nose as often as possible but always out from your mouth. Breathing in from your nose might be harder at first with more oxygen hunger but your body will adapt. Breathing in from your mouth causes more fight or flight response and stress that affects metabolism and central nervous system stress. There are limited benefits of breathing in from the mouth but many for breathing in from your nose.

Sometimes when the movement requires extreme amount of muscle tension, or you're just pushing yourself very hard (a great thing), you may need to breathe in from the mouth, but still very controlled, by manipulating the airway using your tongue and teeth.

Breathing out should always be done with your mouth because when breathing out it is much easier to control the pace using how wide your mouth opens. Use your tongue and teeth for airway control.

When giving it your all, often you'll naturally grunt as you exhale through your mouth. Inhale on the eccentric phase and exhale during the concentric phase. To remember this, just think when you need to summon the most power (concentric phase) you release your breath like blowing off steam from your engine and when you perform the eccentric phase on the way back to neutral position, you gather energy for the next rep by breathing in.

Breathing slowly helps you focus on mind-muscle connection but most importantly it regulates blood pressure so you don't get light headed and pass out.

Breathe using your stomach for most of the breath. It's ok if the last part of the breath uses the chest but the more you use your chest to breathe, the shorter the breath, and you'll gas out faster and likely feel lightheaded too.

Breathing properly trains your body to use oxygen more effectively during workouts and 24/7. This also allows you to progress faster by increasing volume per workout over time. Most importantly, it trains your body to subconsciously breathe properly all the time, reducing fight or flight stress which boosts metabolism and improves recovery, more gains short and long term.

Focus on good breathing during rest periods between sets.

When you breathe correctly using deep relaxed breaths from your belly and not short breaths from your chest, working out kills 2 birds with 1 stone by actually reducing stress and anxiety in the body and achieves similar benefits as breathing meditations to reduce fight or flight responses in the central nervous system, which boosts metabolism and is key to getting you results long term.

When to Work Out?

Day of Week

The more days you work out effectively, the faster you'll get results via volume, assuming you're recovering optimally.

Time of day

Keep it simple, macro-optimizations first. Time of day is micro-optimization. Workout whenever that balances your own life flexibility and energy. Previously I do it before dinner because I find I perform well with enough food by that time. Now I workout in the morning at the gym purely to get the social benefits of sensing people around. Work out whenever that fits your life.

There are no benefits to strength training at high intensity fasted, unless your body is definitely fat adapted where it uses fat for fuel as preference. For most people who aren't already a fat burning machine, you will not have the energy to have a high ROI workout. The only exception is if the night before you had a feast or if the day before was very high calories like a refeed day or at minimum you had a lot of carbs late at night so you have energy being stored as glycogen into your muscles at night and there's enough energy stored in the liver to use in the morning.

If you do strength train fasted then you should eat immediately after the workout to fuel muscle growth and minimize muscle loss.

Fasted exercise has benefits when it is not high intensity strength training, eg cardio, for which there are also benefits of not eating for 2-3 hours after cardio.

Cardio, do you need it?

If you enjoy doing cardio, do it, if not, don't do it.

Cardio will increase your appetite and make it easy to overeat due to both physiological and psychological feedback loops. This is why very lean and muscular men rarely do cardio.

If you're crunched for time and need to lose body fat in a short period of time, you can add cardio to accelerate that process, but it requires extreme discipline to not overeat to compensate for the recovery demand that comes with it. You likely need to track calories and macros in an app.

Our ancestors did not do cardio for fun, they conserved energy and only used it for when they really needed it.

Cardio should be treated as for fun or to build…well **cardio**vascular performance, for heart health.

However, science concluded that the difference for life expectancy between a world class cardio performance athlete vs a regularly active person is almost nonexistent. Best to treat cardio as activities you do for fun while focusing on the rest.

That said, cardio does have tremendous psychological and emotional benefits. Sometimes when I need to increase endorphins for boosting mood, I start an outdoor jogging routine.

Cardio will burn calories. We'll talk about that later in detail but you don't need cardio to be 6 pack lean easily as long as your body is processing food optimally and using energy optimally. **My fastest fat burning personal protocol does not use cardio beyond 60 min of walking outside per day.** This is the same approach used by elite trainers I trust.

HITT (high intensity interval training) will decrease optimal muscle gain and maintenance. Whenever the central nervous system is taxed and muscles are used anaerobically, besides resistance training, there is always a chance of losing muscle AND it will 100% definitely impede recovery needed to maintain or gain more muscle. I do HITT type of activities knowing this but only if it's fun to me. Done consciously. Not done to burn fat like the internet says. Trust science and actual coaches with enough real experience. **My optimal fat burning state requires no HITT to maximize recovery, optimize hormones, and minimize stress.**

Even aerobic cardio like cycling eats into the same recovery your body needs (cardio and weightlifting are made up by humans, the body just wants to recover). Doing cardio makes it much harder to know how much more to eat and rest to match the cardio done so unless you have cardio consistently into your routine and you can adjust your food and recovery protocols to handle it, I advise against it unless it's activities you're doing for fun since life > fitness.

If your body has so many issues that are not addressed, you may want to use cardio to speed up fat loss, but it's diminishing returns, what you actually should focus on is not cardio, you should focus on making your body be at its proper state first, where it will burn fat extremely efficiently. Apply the pareto principle aka 80/20 rule.

Doing cardio will decrease your performance when you actually need it for the highest ROI workouts.

Functional training will automatically increase your cardiovascular performance due to the focus on time under tension, proper breathing, and mixed exercises that train both anaerobic and aerobic performance. Highest ROI.

More specifically when I do leg days, I use compound movements with high volume to tax the cardiovascular system significantly and trigger body responses that gets superior fat burning results than cardio due to metabolic stress for days afterwards

After your body is at its optimal state, you can use cardio strategically to eat more food during feasts, after diet breaks, or for hitting goals you want faster via mini-cuts.

Cardio (besides walking) will definitely counter muscle building and will not help you reach your ideal state where you're burning fat 24/7 at a maximum rate. **It's the hours in the day where you're not active that actually matter, <u>NOT the time you're active</u>.** That's why some of the best cardio athletes don't look strong, don't even look that fit, but their hearts are extremely large and pump oxygen significantly more efficiently than regular humans because they optimized for it. If that's your goal, please close this guide.

The only cardio optimal to maximize fat burning 24/7 is walking.

All that being said, if you've done many things and your fat loss is still impeded and you've hit a plateau of some sort, then increasing cardio might be one of the things that helps break through the plateau to shock the body into burning fat again.

the way I think about it is:

- Default to no cardio, except for things that you enjoy doing, and consider it as play.
- If time allows, maximize daily walking time. 30 minutes to 60 minutes or more.
- If you hit a plateau, try doing more cardio consistently and see if that breaks the plateau.

Recovery

Muscles are built when the body is resting and recovering. We can maximize recovery for the highest workout ROI by controlling: sleep, nutrition (macro and micro-nutrient optimization), supplements, full rest days, stress, hormones, metabolism and our central nervous system.

There are also several good practices to speed up recovery and improve our holistic health:

1. **Get higher quality sleep**

   Sleep is when hormones that burn fat, build muscles, regulate how food is processed, etc. are produced. One of the easiest ways to boost results fast is to improve sleep quality.

2. **Get frequent deep tissue massages**

   I prefer Chinese Tuina massages which uses deep pressure and acupuncture pressure points that release tension. Swiss deep tissue massages might be ok. I suggest avoiding Shiatsu massages which are based on superstition and not real science. I also suggest avoiding Thai massages because there are very few true Thai massage experts and the style of stretch-heavy massage can be dangerous. In general, deep tissue massages should feel sore but not painful. Lastly, for your safety, never let anyone step on your back for any massage style used, even if they are trained licensed professionals, it’s just not worth the risk of harm.

3. **Sauna + Contrast (Hot–Cold) Therapy**

   Heat and cold are simple tools for recovery and resilience. In the sauna, we raise core temperature to relax muscles, increase blood flow, and practice calm breathing under mild stress. With cold, we sharpen alertness, reduce perceived soreness, and train our nervous system to settle quickly after spikes. When applied properly, it speeds up recovery significantly.

Beginner protocol (2–4x/week):

1. **Pre-hydrate:** We drink water 15–30 minutes before. Optional: add a pinch of salt or electrolytes.

2. **Warm-up round:** 10 minutes in a moderate sauna (65–80 °C / 150–175 °F), nasal breathing, seated, shoulders relaxed. Step out earlier if lightheaded.

3. **Cool rinse:** 1–2 minutes cool shower or room-temp air until we feel comfortable again.

4. **Repeat:** 2–3 total heat rounds, each 10 minutes, separated by cool rinse and light sipping.

5. **Post-session:** 10–15 minutes of quiet sitting, slow breathing, and re-hydration (electrolytes or water + fruit). A light protein-rich meal fits well here.

Strength days note: If muscle growth is our priority, we skip full cold immersion for the next 24 hours after lifting. Hot and cold switches or sauna alone won't meaningfully blunt muscle growth for most of us but long ice baths immediately post-lift likely will because it skips all phases of muscle break down and goes right into recovery.

Safety guardrails: We avoid extremes. If dizzy, nauseated, or "off," we step out. Those with cardiovascular disease, uncontrolled blood pressure, pregnancy, or fainting history should clear this with a clinician. No alcohol.

Mindset: This isn't a toughness contest. We aim for **calm exposure**—steady breath, relaxed jaw, and an easy exit at the first sign our body asks for it. Consistency beats heroics. 20 to 40 focused minutes, a few days a week will go far in optimizing recovery.

You can improve recovery by trying methods I mentioned above and also apply learnings from the Binary Strength Diet Guide in parallel.

Undertraining

Undertraining depends on your goal. I'm going to assume you want lose fat and build muscle, so you will need to maximize volume. There are two ways you could be under training:

Worst Undertraining:

Undertraining per workout, wasting the workout: if you're not reaching hypertrophy, your workout is wasted. Do not be like those people at the gym who aren't tracking their rest times, who are giving up way earlier than they should per set, who are just doing whatever they feel like and going with the flow. If you already started a workout, then give it your all.

2nd Worst Undertraining:

Undertraining per week, not maximizing volume and taking advantage of the full recovery windows you have in the week.

The only real way to know if you're undertraining or not is to push yourself in the time you allocated, find the threshold of when you're overtraining, then reduce volume until you feel it's right.

Overtraining

For anyone into fitness, they will most likely overtrain and not undertrain. They will likely be undereating too out of fear of gaining fat, which causes more overtraining. This is just an unfortunate reality achieved by the fitness industry as they maximize engagement and reach in their genius marketing.

You don't make progress when working out. Working out is a stimulus that triggers body changes. **You make progress during the hours you're NOT working out.**

Overtraining essentially adds a ton of inflammation and stress in the body, so the signs of overtraining are very similar to being in a stressful life situation. It's the same fight or flight response being triggered plus some other symptoms.

Signs of overtraining:

- Whatever physical signs you normally feel when stressed out in general, uniquely for you (everyone has different signs)

- Sleep quality drops, waking up early or can't fall asleep
- Faster heart beat
- Light headedness
- Sore or stiff joints
- Feeling physically or mentally drained
- Not able to workout as hard as usual
- Walking or regular activities feel harder than usual

Overtraining tends to cause electrolyte deficiencies like sodium, potassium, magnesium etc. Check with a doctor or simply eat more food to replenish electrolytes to test and see if it's any of these.

If you notice you've definitely been overtraining, the best thing you should do is de-load for 1-2 weeks, meaning cut back on all strength training, either reduce time (less sets) or intensity (lower difficulty), maybe even eat more. You'll have to assess and test for yourself but you definitely need to help the body recover and reduce the stress placed on yourself, otherwise you're just impeding progress short and long term.

Injury Prevention

No exercise is supposed to cause pain during the exercise, if there is pain, the form is wrong. A single injury can set you back significantly.

To prevent injuries to joints, ligaments, tendons, and muscles:

- Must understand the proper form for each exercise and not do any exercise unless you really understand the proper form + do proper stretches per type of exercise performed before each workout.
- Progress gradually using progressive forms to do exercises too difficult for your level vs doing the end form right away.
- Don't overdo isometrics like plank hold, combine with dynamic exercises that have concentric and eccentric phases.
- Master scapula control
- Do proper stretching and at least one warm up set to prepare the body before each workout

How to Get Fastest Results

This document is not just about getting results so you can be part of the 1% of the population that's lean. If you believe the contents here, you will probably be closer to the 0.01% percent of the population. **The difference between the 1% and 0.01% is the 0.01% can be lean with significantly less effort** and not prioritize their life around fitness. It can be achieved by letting go of past beliefs.

The unflashy tortoise wins the race in fitness and body transformations that last. All true fitness experts know this.

The worst mistakes humans still make in fitness is sudden extreme actions and usually cycling between them: period of overeating – binge eating, under training – not enough exercise, under eating – emotional guilt and starving, over training – either frequency or weight too high.

The fitness and food industry both enjoy this because it is a continuous cycle of money making. They've already won and will continue winning more.

They have successfully introduced mental disorders to the mass public: eating disorders and exercise disorders. This is an amazing accomplishment that no other industry has ever accomplished. Social media tech companies come close with similar accomplishments by introducing anxiety and depression to the mass public, although they might not have done it as intentionally as the food and fitness industry with eating and exercise disorders.

You will always fight a losing battle unless you stop playing the game, exit, and wake up. That's how you fight and win.

Your body adapts to everything perfectly. If you over train, under eat, under train, over eat, whatever you're doing that's trying to get rapid results using extreme methods, your body will react negatively and move further away from its true genetic potential to easily be 6 pack lean all year round by maintaining an ideal state. You might get short term results but those results will be limited and 100% guaranteed won't last.

For extremely fast rapid results, do not chase after results. You will feel demotivated because you keep thinking about the end. **Focus on the process and trust the process.** 40 lbs of fat lost in 4 months, 10 lbs of muscles gained is very easy if you just follow the process. The less muscle you have the faster you'll gain it, the more fat you have the faster you can lose it. You have to trust the process.

The human body has not changed for thousands of years. If you believe popular beliefs online you would have to accept that the body has changed or some miraculous discovery (low carb, keto, lifting weights etc) is how people can be fit long term etc. **Wake up.**

To progress forward is extremely simple. Assuming you're applying all First Principles in this doc already, then you can use the following 3 workout goals to progress in the fastest way possible:

Goal 1: Push to the MAX for everything

1.1 Push to the max for every set

- The key is to listen to your body and know if you can do 1 more rep physically or is it just your mind holding you back for that rep and then **always go to your physical limit, not mental limit**
- Your physical limit of a set is **the moment proper form breaks no matter how hard you try aka the definition of failure**

1.2 Maximize the volume of work your muscles do each workout

- Science and experience show 12-16 sets / workout is ideal for muscle growth, with proper form
- No need to track workouts, reps, sets etc, I never do because I don't live for fitness and keep a strict lifestyle. My life doesn't optimize for fitness and has a lot of variety, different things happened that week, that day etc, how you perform a rep will not be the same every time.
- **Frontload the hardest exercise and the hardest form of that exercise first** that you can do. **As you tire out in the workout window, reduce difficulty** either by going to an easier variation of the exercise (for example feet planted in the inverted row) or changing exercises or using assistance like from a resistance band. For example for dips, you could wrap a light resistance band and support your feet with it to make it easier. Remember we are optimizing for max volume of work done. Always test to see if you can do another set targeting the muscle group you're focusing on. For example, say after 2 sets of single leg ground assisted pullups you cannot do 1 more set with proper form, then try to do 1 more set using the easier form with both feet on the ground.

Goal 2: Train your muscle endurance until you can do 40 min workouts with a single muscle group

- When starting out you probably cannot do 40 minute workouts focusing on a single muscle group like the Phase 2: build routine's push, pull, abs, legs routine
- **First decide which muscle group you want to prioritize**
- **Then progressively do more sets using that muscle group in your workouts by swapping out other exercise sets.** For example:
    - Assuming you're doing an easier full body split in the beginning such as the Phase 1: foundations routine.
    - Say you want to focus on chest, triceps, shoulders, so you would do as many more set of an exercise targeting those areas as possible, such as pushups and pike pushups. You swap out exercises sets not targeting your focus area (swap out sets of legs, or abs, or back) so you can keep the same workout timing window you decided for yourself (remember over 60 minutes is diminishing returns, 30-45 min will get your extraordinary results with consistency if you're applying all principles correctly)
- You can decide what kind of physique you want to build and the order your muscles develop by controlling how you prioritize the progressions, for example:
    - You can focus on just doing more pushups and pike pushups each workout sessions to train incredible push endurance (bigger and stronger shoulders, triceps, chest) and basically go all out focusing on progressing to a 40 minute push day like the Phase 2: build routine's push day **– this is the fastest way to progress if you're not working out very often, say only 2-3 times a week**
    - Or you can choose to focus on total body endurance, so you alternate the muscle group focused on to build endurance more frequently. **This method is the slower way to progress if you're only working out 2-3 times a week but it can be extremely effective if you're working out 5-6 times a week**. You could focus on shoulders, triceps, chest by doing more push exercise sets on one day of your workout. At the next workout, you would switch the focus to back and do more sets of pull exercises like the inverted row and ground assisted pullups.

Goal 3: Prioritize recovery because recovery is how you change your body, not when you're actually working out. Working out is only the input that triggers the actual response we want to generate.

Do not over train. Rest properly between sets. Rest enough that you can do at least 80% of the previous set's reps. Enjoy that time and actually let your body rest vs feeling anxious and wanting to do more work. This is key for long term results and totally body stress reduction and central nervous system optimization.

Let a single muscle group recover before training it again. Unless you simply like working out everyday and you've tweaked your routine in a way where you can recover within 24 hours, you should not train that muscle the day or two after working it. I usually leave at least 48 hours before training that muscle again. For example: if you did many push exercises one day, don't do push exercises using the same muscles until they are no longer sore.

Everyone's recovery ability will differ depending on your body and stage you're at, listen to your body. You might need longer than 48 hours.

Advanced Strength Training

The Russian Method from Dominik Sky is by far the most effective programming I used to increase strength fast. It's how I'm able to do 5x5 90lb weighted pullups when I could barely do 1 rep at 90lb.

We begin by choosing a weight that lets us perform **five or six crisp pull-ups** (our 5- or 6-rep max). From there, we *build volume first* and only add load once we can handle the volume. We progressively overload via small, steady increases in reps or sets to signal the body to adapt. Here's how it plays out:

1. **Set the baseline weight.** This is weight we can do **5–6 reps** with perfect form.
2. **Work up the sets.** On the first workout, we do **3 sets** with that weight, stopping before failure and resting generously (3–5 minutes is recommended for heavy sets). At the next session, we do **4 sets**. In the third session, we do **5 sets**. Adding sets before weight.
3. **Earn the right to add weight.** Once we can do **5 sets of 5 reps** at the baseline weight, we know our body adapted so we **reduce the number of sets back to 3** and **increase the load by 5–10 pounds**. Small increases help us prevent injuries and maintain proper form.
4. **Rebuild the reps.** With the new, heavier weight we start at **3 sets of 3 reps**. Over the next workouts, we increase *reps*, not weight: first aim for **3x4**, then **3x5**. After we can do **3x5**, we add a fourth set, then a fifth. We never bump the weight until we can do **5x5** at the current load.
5. **Respect recovery.** Rest days are non-negotiable; muscles grow during recovery. This method isn't about leaving the gym destroyed every time, it's about steady adaptation. Taking at least 48 hours before training the same muscle group again and getting quality sleep is key.

Example progression for weighted pull-ups

Phase	Load	Sets x Reps	Focus
Baseline	5 or 6-rep-max weight	3x5	Establish good form; long rests
	same	4x5	Increase volume
	same	5x5	Build up to full volume; when achieved, move to next phase
New weight	+5–10 lb	3x3	Heavier load; fewer sets and reps
	same	3x4	Add a rep in each set
	same	3x5	Aim for 5 reps per set
	same	4x5	Add a set once 3x5 is comfortable
	same	5x5	Full volume at this weight; repeat the cycle by adding 5–10 lb

This cycle can be repeated indefinitely as long as progress continues. The key is patience: we make **one change at a time**, either adding sets or weight, and we give our body time to adapt. By focusing on recovery and gradual increases, we avoid burnout and keep our training sustainable.

Auto Regulation

This is just a fancy term for learning how to be attuned to your body and listen to what it's telling you by knowing what signals to be aware of and what to do when you see them. Guidance below:

Make ONE change at a time, otherwise you won't know what's working and what's not. The only exception is if you got a thorough analysis from a coach and they gave you a concrete plan.

Give it at least 1 week to make a judgement on a change just like A/B testing, you need to reach statistical significance. Your body usually needs 1-2 weeks to respond.

If you don't feel motivated to exercise then something is wrong. Debug to find out why. Is it a lack of energy or lack of will power or is your workouts producing a negative physical or emotional response?

If it's lack of energy, then did you eat within 1 hour of working out? If not, it might be because your body needs energy to fuel the workout.

If you're in a caloric deficit, you might be going too low, try eating a bit more that week.

If you've been working out the day before, it might be time for a full rest day and reassess if you're working out too often during the week to have enough recovery

If it's not lack of energy but just willpower, reassess your life goals. Workouts must be positively reenforcing your lifestyle's feedback loop. Adjust whatever you must to want to work out.

After performing a set of an exercise and having rested, if on the next set you're not able to reach 80% of the number of reps in the last set, it means either you're not resting long enough to give your muscles enough time to recover in between sets OR you're overloading your muscles too fast early on in the workout.

If you feel light headed, stop working out, go eat something with high glycemic index. You can eat refined carbohydrates or fast digesting fruit like bananas so you get sugar asap to fuel the workout. If you're still lightheaded after eating, stop the workout.

If an exercise hurts, stop, something is wrong, most likely the form is incorrect or an old injury. No exercise should cause pain.

If you no longer find exercises challenging, it's time to increase the difficulty to progress further and shock the body to respond again to avoid hitting plateaus. I did this by introducing Olympic rings, and then a weight vest.

If you want to train for muscle mass and you can't perform an exercise with at least 6 reps, then it's too difficult for you. Decrease the difficulty of the exercise somehow, either using lever, dropping weight, using aids like resistance bands to help counter gravity, etc.

Final Word



Unlike amassing wealth, you cannot get lucky or use any ungenuine methods to become shredded. If you achieve it once, you know you did something that very few people on the planet can do.

In the past, only warriors would be lean and muscular. Then as humans became more civilized, warriors were replaced by athletes. In the modern age, one of the greatest social trends is that everyone wants to look like an athlete. But the problem is the intense focus on aesthetics only. Most people just want results their eyes can see.

The real prize in my opinion is obtaining the soul of a warrior. Everything else, including a lean and muscular physique happens naturally as a byproduct.

I challenge you to become more, for the worthy reason of becoming a stronger man, not for fleeing superficial reasons that objectify our dignity, because:

“Our bodies will decay, but true strength will always remain.” ~ me

Words are always meaningless without action because actions reveal our true intentions. Strong men have character. One of the most important characters is integrity, to be trustworthy. If you’re a man of your word, and you say anything suggesting you want to be 10% body fat, **then you must take action.**

I believe men should not say anything future looking about their intentions unless they’re already in the process or will definitively back it up with action. Men who talk too much lose the weight of their words. I was like this years ago until I woke up.

Men are only becoming weaker, hiding behind screens, talking too much, complaining about being hurt, hurting others on purpose, and having no accountability. **A lack of accountability leads to victim mentality, which leads to suffering and mental stress because it is the weakest form of being.** Social media isn’t the problem, it simply made it easier to become weaker.

“Do not pray for an easy life. Pray for the strength to endure a difficult one.” ~ Bruce Lee

Science and technology are great, but there is great value in studying history. Find out who suffered incredible injustices but didn’t complain. Who were objectively victims but never thought of themselves as victims? Understanding these people will make you stronger.

I believe you can master your body and reveal your ultimate form that already lies deep within you, waiting to be unlocked.

I wish you live a meaningful life and discover…your true potential.

Onwards, my friend.

~ Jonathan Zhao, April 2022