

SPECIALIZATION PROGRAM

#### JEFF NIPPARD'S

# BENCH PRESS

### SPECIALIZATION PROGRAM



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## **ABOUT ME**

Jeff is a professional drug-free bodybuilder and powerlifter. Through his informative and entertaining <u>Youtube channel</u> which has gathered a fan-base of over 800,000 subscribers, Jeff aims to share the knowledge he has gathered through university education and field experience with others who are passionate about the science behind building muscle, losing fat and getting healthier.

He earned the title of Mr. Junior Canada for natural bodybuilding in 2012 and as a powerlifter, Jeff held the Canadian national record for the bench press in 2014. As a powerlifter, Jeff has claimed a 502 lb squat, 336 lb bench press and a 518 lb deadlift with an all time best Wilks score of 446.

With a Bachelor of Science degree in biochemistry, Jeff has gathered the requisite scientific knowledge to compliment his practical experience acquired through training and coaching. Jeff has coached women's bikini and men's bodybuilding national **a**nd provincial

champions, professional natural bodybuilders and nationally and IPF Worlds qualified raw powerlifters. He has presented seminars on Block Periodization, concurrent training and nutrition and training for natural bodybuilding in academic settings including the 2014 Online Fitness Summit and at the University of Iowa. He has aspirations of completing a PhD in exercise science or a related field.

Jeff currently lives in Kelowna, Canada where he is producing informative YouTube videos and <u>podcasts</u> while preparing for his next competition season in natural bodybuilding in 2019.



## **KEY TERMS**

**DB:** Dumbbell

LSRPE: Last set RPE

**PROGRESSIVE OVERLOAD:** The gradual increase of stress placed upon the body during exercise training. In training contexts, this generally involves progressively increasing some lifting parameter over time (usually weight or reps)

ROM: Range of motion

**RPE:** Rate of perceived exertion. A measure of how difficult a set was on a 1-10 scale, with 10 meaning muscular failure was achieved.

**TEMPO:** The speed at which the lift occurs.

ECCENTRIC: The lowering ("negative") aspect of the lift

EFFORT: How hard you are pushing the set relative to failure. Measured with RPE or %1RM

**LOAD:** The weight of the external resistance

**INTENSITY:** Effort and load

**VOLUME:** Total amount of work performed. Usually approximated as sets x reps x load

FREQUENCY: How often you directly train a given muscle per 7 days

HYPERTROPHY: The growth of (muscle) tissue

**AMRAP:** As many reps as possible (with good form). Often performed as a test to determine max strength

**PRIMARY EXERCISE:** Main heavy compound movements that involve a large muscle mass (for example: squats, bench presses and deadlifts)

**SECONDARY ("ACCESSORY") EXERCISE:** Compound exercises which involve less muscle mass (for example: cable rows, lunges, hip thrusts, military presses, pull-ups, etc.)

**TERTIARY ("ACCESSORY") EXERCISE:** Isolation movements involving only one joint and primarily targeting a single muscle – these are usually used to isolate a specific, smaller muscle or to generate metabolic stress

**PERIODIZATION:** The organization of training over time

WORK CAPACITY: The ability to recover from a high volume of training



## **F.A.Q**.

#### 1: How do I know if I am progressing?

A: This is a marathon, not a sprint. Since this is more of a strength focused program than many of my other programs, it is much easier to track progress. At the end of the 8-week program, you will do a conservative RPE 9-9.5 1 rep max test on the bench press. If you're stronger than you were at the beginning of the program, then you've made progress. When it comes to tracking progress visually, it can be more difficult and less objective. It can be a challenge to accurately determine if you are making visual progress day-to-day or even week-to-week. Taking physique progress photos every 4-6 weeks and comparing them side by side is a good way to detect visual differences that you simply wouldn't notice in the mirror. But ultimately, because of the relationship between strength gain and muscle gain, the main metric I want you to use for tracking your progress is strength. If you're getting stronger, you're progressing. It is strongly recommended to log every workout either in writing (print the program out or use a separate notebook) or in an app, so you don't have to rely on memory to keep track of personal strength records. Taking body measurements a few times a year can also be helpful (arms, thigh,

waist, neck) but simply focusing on steady strength progression will be your best proxy for determining muscular progress.

#### 2: How much muscle and strength can I expect to gain?

A: How you respond to training will be largely determined by genetic factors and your specific training history (i.e. how close your are to your genetic "limit"). As a rough ballpark estimate for early intermediates with about 1-2 years of lifting experience, you can expect to gain roughly 0.5-1 lbs of muscle per month (6-12 lbs of muscle gained in your second year). For intermediate-advanced trainees, 0.25-0.5 lbs of muscle gain per month is realistic without also accumulating excessive fat gain (3-6 lbs of muscle gained per year). For practical purposes, women can divide muscle gain estimates in half.

Strength gains will follow a similar trend as muscle growth. Because this program really highlights the primacy of lifting technique, you will see drastic strength gains if your bench technique was sub-par in the past. If you've been benching with excellent form for a long time, your strength gains may not be quite as impressive due to your level of advancement and lifting proficiency. It's impossible to be able to give a set number to aim to your bench max because of massive individual differences in anthropometry (arm length, rib cage size, etc.), genetics, etc.

#### 3: What gym training gear should I use?

A: Gym gear is optional as there are no required pieces of equipment to gain muscle and increase strength. With that being said, investing in an 10mm prong or lever belt, knee sleeves, squat shoes, and straps can be beneficial in allowing you to lift more weight for certain exercises.

You can find all of my recommended equipment at the following link: <u>http://Rise.ca/jeff</u>

#### 4: I have a belt. When should I wear it?

A: Use a lifting belt for working sets on exercises like squats, deadlifts and use it optionally on the bench press. Strength is a specific skill, so practice every rep in exactly the same way (meaning, if you're going to use a belt at all, use it consistently and for the same movements). I wouldn't recommend wearing on a belt on light warm-up sets.

#### 5: I am not getting sore from my workouts. Is the program not working?

A: Muscle soreness is largely attributed to eccentric contractions [1] and contractions at long muscle lengths [2]. Delayed onset muscle soreness (DOMS) isn't required for hypertrophy to occur, but the associated muscle damage might play a role in hypertrophy [3]. With that said, the main goal of this program is to build strength and muscle, not to get you feeling sore. In fact, reduced soreness over time indicates that your body is adapting and recovering, which is actually a good thing for continued progress.

#### 6: I am getting very sore from my workouts. Should I skip the gym until I am not sore?

A: You may experience increased soreness when you first begin the program because it is presenting a new stress to your body. Foam rolling or using a lacrosse ball can help reduce DOMS [4] and increase ROM [5], so if you are consistently getting sore week after week, consider adding a short 3-5 minute foam rolling routine at the end of the workouts. Otherwise, training while sore is not inherently problematic for muscle growth unless it puts you at an increased risk of injury. If you're having a difficult time getting into position for any of the planned exercises, or finding it difficult to complete a full ROM due to pain, do not train. Otherwise, in the case of mild soreness, perform a slightly longer warm up for each exercise and use your own discretion with avoiding injury being a top priority. One extra rest day will not set you back very far, but a serious injury will.

#### 7: Should I eat in a caloric deficit, maintenance, or surplus while running this program?

A: Eating in a slight caloric surplus will yield the best results and best recovery, however, if your main goal is fat loss, eating in a caloric deficit will be necessary. As a beginner, you can continue to make strength and size progress while in a moderate caloric deficit and achieve body recomposition (lose fat and build muscle at the same time) if protein intake is sufficient (0.8-1g/lb bodyweight as a ballpark). As an intermediate-advanced level trainee, the likelihood of achieving substantial body recomposition is smaller, but still possible. A caloric surplus is recommended for optimal progress, but some progress can still occur at caloric maintenance and even in a caloric deficit.

With all of that kept in mind generally, the bench press is a unique lift in the sense that it is often more dependent on bodyweight than other lifts. Many trainees will report losing strength on the bench press

much faster than on the squat and deadlift during an aggressive cut. If your goal is to maximize bench press strength, eating in a caloric surplus on this program is recommended.

#### 8: The warm-up isn't enough for me. Can I add to it?

A: You can add warm-up exercises to the protocol but your warm-up shouldn't take any longer than 10-20 minutes. It is important to stay injury-free, so don't rush into your workout. Keep in mind that we are looking to maximize strength, not "sensation". Your pressing muscles shouldn't feel fatigued (or even significantly pumped) prior to your working sets.

#### 9. Why isn't there much exercise variation from week to week?

A: Changing exercises from week to week is more likely to flatten out the strength progression curve. This is to ensure both progression by adding volume incrementally to these specific movements and mastery of these movements in terms of form and technique. Also, since this is a specialization program, excessive variation will be counterproductive to the neural skill we are trying to develop on the bench. Keep in mind that the shift in goals between Blocks 1 and 2 will cut the monotony and create a novel training stimulus to finish the program strong.

#### 10. Isn't this too much volume?

Please see "A disclaimer about volume" on page <u>66</u>

#### 11. Isn't this too little volume?

Please see "A disclaimer about volume" on page <u>66</u>

#### 12. What do I do after I finished the program?

It is generally ill-advised to run the same specialization program for the same lift too frequently. This may increase the risk of overuse and result in diminishing returns on your training. Instead of running the program through again, I would recommend either running a specialization program for a different exercise (coming soon on jeffnippard.com) or run a more generalized program with a focus on volume accumulation, such as my Push Pull Legs Hypertrophy Program.

#### 13. What are the blank boxes in the middle of each program for?

They are for you to track your weights each week, so you can focus on strength progression from week 1 to week 8 of each block. Of course, this will only work if you print the program out. The other option would be to keep a notebook and simply pencil in your lifts each week. Keeping up with this habit of tracking is going to be an extremely important part of your success on this program.

#### 14. I can't do "X Exercise". What should I replace it with?

Please see "Exercise Substitutions" on page 57

Obviously, since this is a bench press program, there will not be a substitute given for that exercise.

#### 15. What is the LSRPE column for?

A: The idea here is to reflect on your last set RPE and ask yourself how many more reps you think you could have gotten. It is a useful way to account for how hard you're working on the final set and how well it matches the target RPE.

Please direct all **questions to** <u>info@strcng.com</u>. Please avoid directing questions about this program to my social media as it is not a reliable means of making contact with me or getting the correct information. Please allow 3-5 business days for a reply.



## **BENCH PRESS ANATOMY**

**Figure 1A**: The Primary Anterior Muscles Active in the Bench Press (Highlighted in Blue)



Figure 1B: The Stabilizing Anterior Muscles Active in the Bench Press (Highlighted in Green)



Figure 2A: The Main Posterior Muscles Active in the Bench Press (Highlighted in Blue)



#### Figure 2B: The Stabilizing Posterior Muscles in the Bench Press (Highlighted in Green)



## **BENCH PRESS MECHANICS**

The barbell bench press is one of the most important upper body exercises for overall strength and muscular development. Although the overhead military press is often touted as a comparable pushing exercise, because the bench press has a far greater potential for overload, it may be better for overall hypertrophy of the "pushing muscles". This is highlighted by the strength discrepancy between world record lifts on the raw bench press and overhead press, which land in the ballpark of 700 lbs versus 400 lbs, respectively.

While the bench press is considered an upper body exercise, it can be easily seen as a full body movement considering just how much a proper setup involves muscles of the back core and lower body as well.

#### WHICH JOINT ACTIONS ARE BEING PERFORMED IN A BENCH PRESS?

- 1. Transverse shoulder adduction (bringing your arm across your body like in a pec flye)
- 2. Shoulder flexion (raising your arm up like in a front raise)
- 3. Elbow extension ("straightening" your elbow like in a tricep pushdown)
- 4. Shoulder internal rotation (rotating your elbow in toward your body)

#### WHICH MUSCLE GROUPS PERFORM THESE JOINT ACTIONS?

#### **1. THE PECTORALIS MAJOR**

- Both the sternal (mid/lower) and clavicular (upper) heads of the pecs are active in the bench press [6]
- The pectoralis major's primary function to adduct the shoulder in the transverse plane (bring the elbows in closer to one another)

#### 2. THE ANTERIOR DELTOIDS

- The anterior deltoid's primary function is to flex the shoulder (raise your arm up toward your head)

#### 3. THE TRICEPS BRACHII

- The triceps brachii's primary function is to extend the elbow (taking the arm from a bent position to a straight position)

#### 4. THE LATISSIMUS DORSI

- The lats function to bring the shoulder joint to a neutral position, meaning that when your shoulder is in a hyperextended position at the bottom of the press (your upper arm is "behind your back") your lats will help bring it back to a neutral shoulder position (your upper arm is "in line with your torso"). [6]
- The lats will be active primarily when the shoulder is behind the torso at the very bottom end of the range of motion

#### IMPORTANT STABILIZERS IN THE BENCH PRESS INCLUDE:

- The lower, mid, and upper trapezius: The mid and upper traps perform scapular retraction, keeping the set up tight throughout the press. The lower traps maintain isometric scapular depression which prevents scapular protraction (upper back rounding forward) and scapular elevation (shoulders shrugging upward)
- The serratus anterior prevents "scapular winging", which causes protraction of the scapulae (upper back rounding forward)
- Rotator cuff: the muscles of the rotator cuff provide shoulder stability, preventing excessive internal or external rotation
- Lower body musculature: leg drive helps keep the torso stable and creates force to be transferred to the upper body pushing muscles
- Erector spinae: the erector spinae stabilize the arch by maintaining lumbar extension isometrically

#### ARE THERE MUSCLE ACTIVATION DIFFERENCES IN THE BENCH PRESS?

The pectoralis major is the prime mover in the bench press, as it shows the greatest EMG amplitude when compared to other active muscles. [7] Since the primary function of the clavicular head of the pectoralis major ("upper chest") is to perform shoulder flexion, the more tucked your elbow is against your sides, the more clavicular head you will utilize [6]. You'll also utilize more of your upper chest with a closer grip and at higher bench angles for the same reason. Granted, contrary to popular belief, EMG data shows similar amplitude for the clavicular head on the incline bench press as the flat bench press, however, anterior deltoid amplitude is significantly higher on the incline press. [8] For this reason, we can think of incline pressing more so as a tool to target the anterior delts rather than as an exercise to isolate the upper pecs. With that said, there is still merit to utilizing a variety of press angles to optimize overall pec development and there is an incline press included in this program in part for that reason.

The anterior deltoids and triceps brachii have a "give-and-take relationship" where the anterior delts are more active when the loads are lighter, while the triceps get more involved as the load increases on the bench press. [9]



## **BENCH PRESS TECHNIQUE**

Now that we understand the anatomy and biomechanics responsible for performing the bench press, we can cover exactly how to perform the bench press properly. Please refer to my bench press technique video for a visual description of the movement.

We're going to split the exercise up into two main components: the set up and the execution.

#### THE SET UP

First, it is important to note that what follows is just one way to set up the bench press and there are other ways to achieve the same end point (which is a safe, stable and powerful arch).

 Always begin with a pre-lift check: ensure the bar is perfectly centered, the weights are properly loaded and evenly balanced on both sides, and you have a spotter present if you are training with heavy loads or high efforts.

- 2. Lie flat on the bench with your head back behind the bar, with your feet up on the bench and squeeze your shoulder blades together, keeping them in this retracted position throughout the whole set up and execution of the lift.
- 3. **Set up your arch** by lifting your arms up and grabbing the bar with a shoulder width grip OR you can reach back and push against the uprights of the bench. I personally prefer to simply grab the bar to set up my arch.
  - a. Lift your hips up high while thinking about pulling your shoulder blades to your butt, which will help force you into scapular depression.
  - b. Push your upper body forward while keeping your feet in place. You can go up on your toes to get more arch if you find it helps.
  - c. At this point you should have your back planted down on the bench and your eyes should be directly under the barbell.
- 4. **Position your lower body for leg drive** by lowering one foot at a time, positioning your feet as far back as you comfortably can while keeping your legs in close to the bench when viewed from front on.
  - a. For regulation powerlifting technique, your heels must be planted on the ground, so you may have to externally rotate your feet or point your toes out to get the heels down.
  - b. Drive your feet into the ground as if you were leg pressing the floor down and out.
  - c. Make sure you've dropped your hips down so that your butt is touching the bench.
- 5. **Take your grip width**. Research has found that wider grips will target the sternal head of the pecs and anterior delt more, while a closer grip will target the triceps and clavicular (or upper) chest more.
  - a. In general, you'll want to grab the bar with a ~1.25-1.75x shoulder width grip. If you are competing in powerlifting, maximum grip width is when your index finger is on the outer knurling ring of the bar.
  - b. It's important to choose a grip which feels safe for your shoulders. A 1.5x shoulder width grip has been shown to reduce the risk of shoulder injury without compromising

lifting performance. [10]

- c. Using a variety of grip widths in training or experimenting to figure out what feels and works best for you makes sense.
- d. Another important factor in determining grip width should be whether or not your joints are "stacked" from the rear position, where the wrists are roughly positioned over the elbows in the bottom of the press. However it's worth noting that some advanced powerlifters don't always keep the joints perfectly stacked so they can take a wider grip and reduce the range of motion.
- 6. Do a quick positioning double check.
  - a. When viewed from the top, your joints should be "stacked" on top of each other, meaning the hand, wrist, upper arm, and shoulders should be connected in a straight line.
  - b. When viewed from the side, your wrists should be directly below your knuckles. Think about "punching the ceiling" to enforce this position.
    - i. Digging in the bar directly above the base of your thumb can help to secure your grip while allowing for minimal wrist extension.
  - c. Right before the lift off, I'll do one final check to make sure my shoulder blades are retracted and depressed by cranking my elbows forward. I think of this as "screwing my back" into position.

#### WHAT IF I ONLY HAVE MUSCLE BUILDING (NOT STRENGTH) GOALS?

For those strictly interested in bodybuilding, the same general set up can still apply since the above set up will allow you to overload the target muscles with maximum load. I think bodybuilders tend to exaggerate the difference in range of motion between an arched set up and a flat back set up because if you compare the joint angles in the arched bench press and the flat back bench press, the position of the humerus relative to the torso at the end range of motion is very similar, despite the fact that the bar will have travelled further in the flat back press. So I think that, even as a bodybuilder, you should work on building your arch and not fret about limiting your range of motion when using it. However, with that said, assuming maximizing strength isn't a primary goal of yours, you can optionally

- 1. You can take a less extreme arch (simply keep your shoulder blades retracted throughout the lift and maintain some arch in your lumbar spine)
- 2. You can take a slightly more narrow grip to increase the range of motion (granted, the actual hypertrophic effects of this modification will likely be small)
- 3. If your arch is more shallow, your feet can be further forward (note this will diminish leg drive and result in lower poundage, but may be more comfortable with the smaller arch)

#### THE EXECUTION

Now that the bench press has been set up, it's time to actually execute the set. We're going to break down the bench press execution into 4 phases:

- 1. Unrack
- 2. Brace
- 3. Descend (eccentric/negative)
- 4. Press (concentric/positive)

#### UNRACK

- 1. First, unrack the bar by
  - a. having the spotter help you lift out not up. You should not lose set up tightness or positioning during the lift off.
  - b. If unracking yourself, you may want to keep your butt elevated for the lift off component and then drop your hips down once you've unracked. In any case, it's well advised to have a spotter handy when going near maximal effort.
- 2. Bring the bar forward out of the rack until it's positioned roughly at nipple level
  - a. And at this point you want to ensure you have 4 main points of contact: your head, upper back, glutes, and feet should all be planted.

#### BRACE

- 3. Now that you're in position, take a deep breath into your gut, pressing the air out against your sides or against your belt if you have one. You can also cue yourself to "puff out your chest" at this point to expand your rib cage as much as possible.
  - a. To better understand this, imagine someone trying to poke your stomach and sides in while using your breath to push their finger back out in all directions.
- 4. Grip the bar as hard as you can.
  - a. You can optionally cue to "bend the bar" or "rip the bar in half" which will activate your upper back muscles to help maintain tightness during the descent. This will also ensure everything is "locked in" place as you bring in and hold your air.

#### DESCEND

- 5. While olding your breath, drop your elbows down at about a 45° angle relative to your torso when viewed from the top.
  - a. There can be slight variation between tucking or flaring more from person to person, but a 45° angle is a great place to start.
  - b. When viewed from the side, the bar should be traveling down and slightly forward.
- 6. Lower the bar until it touches your torso, making contact with your lower chest or upper abdominal area.
  - a. On certain days, this program calls for a 3 second pause on the chest.
    - i. The bar should be motionless throughout the entire duration of the pause. Don't let the bar slowly sink into your chest during the pause.
  - b. On other days, the program does not specifically call for a pause.
    - i. Still, on these days, you should aim for a controlled, short 0.5-1 second pause on the chest for all reps. Do not allow the bar to bounce off your chest. If you need to bounce the bar off your chest, the weight may be too heavy or you may need to get better control of the bar on the eccentric.
- 7. You are now ready to begin the concentric (press) phase

#### PRESS

- 8. After pausing on your chest, explode the bar up and slightly back, driving your heels into the floor.
- 9. Think about pressing the bar back toward your face and off your chest, rather than driving the bar straight up. You can also think about "pushing the floor away from you with your feet" to help initiate leg drive and enforce this "back and up" bar path.
  - a. Note: you shouldn't press the bar so far back that it hits the rack or you lose control. Simply bring the bar back into balance over the shoulder joint, restoring the staring position.
  - b. On the way up, you may encounter a sticking point, especially if training at high efforts, where the lift will feel most difficult. Research shows that the sticking point tends to be in the first 20-40% of the concentric range of motion [11] but its precise location will be individual. Typically, the more advanced you are, the lower it will be and the newer you are to training, the more it will be mid-range. [12]

#### HOW TO BREAK THROUGH THE STICKING POINT

- i. Make sure you're pressing the bar up and back (not just straight up) as this will get the bar back closer to your shoulder joint and into a more efficient bar path.
- ii. You can try flaring the elbows out a bit more as you hit the sticking point as this will get your pecs more involved to help the triceps.
- iii. Thinking about moving the bar off your chest with max speed will also likely help you blast through the point where deceleration would normally happen.
- iv. The simplest solution is that you just need stronger pecs and triceps. Keep working on your bench press form overall, stick to the program and you'll get stronger.
- 10. Once you're accelerating past the sticking point, you have the option to exhale but you can hold your breath until you completely lock it out before releasing your air if you prefer.

- 11. As you near the end range of motion, the bar should complete the arch back toward the original start position with the bar over the nipples.
- 12. Repeat the process, starting with bracing phase and then moving into the descending phase and pressing phase again for however many reps the program calls for on that day.



## **COMMON TECHNIQUE ERRORS**

In this section, we'll go over the most common mistakes trainees make during the set up and execution. We'll go in chronological order as they would be likely to happen during the set.

#### **SET UP ERRORS**

#### **1. NO UPPER BACK TIGHTNESS**

Upper back tightness is critical for a safe and effective bench press. You don't need to arch your lower back as much as anatomically possible, but you should get your upper back as tight as you can to get your shoulders in a safe and strong lifting position. Injuries such as long head biceps tendinopathy (often manifesting as front delt pain) are common when the shoulders are not retracted or depressed enough.

Many people retract their scapulae adequately, but fail to depress their scapulae. One way to ensure you

are adequately depressing your scapulae is to make sure your chest is "puffing up" prior to gripping the bar. You should also notice the vast majority of your lumbar arch has been created from scapular depression.

#### 2. NO LEG DRIVE

The most common error to do with the legs is simply not setting up the legs up at all. Many people will perform the bench press with their feet crossed up in the air, hovering over the bench or with their feet way out in front of them on the floor. We want to avoid all of these technique violations as they massively decrease stability during the lift resulting in less load lifted all while decreasing safety of the lift from lack of stability.

If you notice that your legs start squirming around as you fatigue, you are not using leg drive properly. Your feet should not just sit passively on the ground, you should be actively pressing down and out against the ground with your heels. This action will transfer force all the way from the floor up and into the bar, forcing it to move up and slightly back. Think "for every action there is an equal and opposite reaction": pushing the floor down and away from you will cause the reciprocal effect of pushing the bar up and back.

If you're a competitive powerlifter or have goals of competitively powerlifting, depending on what federation you plan to compete it, you will have to keep your heels planted on the ground throughout the press. It is common to see lifters go up onto their toes, without having their heels contact the ground. While pressing off your toes is not necessarily problematic for those with muscle building goals only, if you have powerlifting aspirations your heels will need to be planted. It may be necessary to externally rotate your hips (point your toes out) so that you can get your entire heel on the ground. Another common error related to leg drive is positioning the feet too far forward. To maximize tightness on the bench, you want your feet as close to the hips as possible. This will allow for a more powerful arch, increased leg drive, and more stability overall.

#### 3. IMPROPER GRIP

Many benchers run into all sorts of pitfalls when it comes to grip. Starting with the basics: you want to ensure your grip width is even on both sides. If the bar you are using has a ring in the knurling, use it as a guide to ensure you have even hand placements on both sides. If possible, use the same barbell every time you bench since knurling ring position can vary from bar to bar.

Many trainees also neglect to "stack their wrists", allowing the palms and knuckles to bend backward creating an unstable wrist position and a weaker grip. Wrist wraps can increase wrist stability but good technique should be mastered first before turning to more advanced training gear since you do not want to use the equipment as a "band-aid" to cover up bad lifting habits. Stacking the wrists may feel awkward at first, as it may feel like the bar is going to slip out of your hands. You can also think about "pressing your thumb back" into the bar, which will force you to take a very firm grip and force your wrist into a stacked, neutral position. You should have roughly even pressure in your pointer finger and pinky finger on the bar. If you aren't putting enough pressure with your pinky, the bar can put your wrist into an uncomfortable amount of radial deviation, which can cause wrist pain.

#### **EXECUTION ERRORS**

Keep in mind the order of each phase of execution as we go through the most common errors:

- 1: UNRACK
- 2: BRACE
- 3: DESCEND
- 4: PRESS

#### 1. UNRACKING ERRORS:

The most common unracking error is losing upper back tightness while elevating the scapulae to reach the bar overhead. This can stem from having the bar starting in a position too high up on the rack or by lifting the bar "up" and off of the pins rather than "out" off the pins as much as possible. Having a spotter assist with the lift off can help minimize the risk of losing scapular retraction and depression during the unrack. You should be running a mental checklist to make sure your upper back isn't losing tightness and you haven't lost your lumbar arch before you begin the eccentric phase. If you notice your arch has flattened out or your upper back has shifted backwards on the bench pad, you may want to re rack the weight, consider lowering the bar to a lower pin position and start your lift off over again.

#### 2. BRACING ERRORS:

Similar to the leg drive error, the most common error to do with bracing is simply forgetting to brace at all. Many people just pump out their reps without any real intention or focus on each phase of the lift. While this may be fine for certain exercises, a very highly technical lift like the bench press requires a greater degree of attention at all timepoints in the set.

The bracing phase can be thought of as a brief 0.5-1 second "timeout" where you quickly ensure everything is still locked in place, pull in a big breath of air, and begin the eccentric with intention. Granted, holding the bar at the top for too long will create unnecessary fatigue, so you want to make sure the bracing phase just long enough to get everything set for the descent.

Skipping the bracing phase also often leads to a misgrooved eccentric, meaning the bar doesn't follow a natural, smooth path down and slightly forward, touching the same contact point on the chest in each rep.

#### **3. DESCENDING ERRORS (ECCENTRIC)**

The most common error on the eccentric phase is either overtucking or undertucking the elbows. As mentioned previously, when viewed from the top, you want about a 45 degree elbow tuck, with 90 degrees

meaning the elbows are flared out in the direction of the bar and 0 degrees meaning the elbows are completely tucked in at the sides.

If asymmetrical elbow tracking (one elbow is more tucked than the other) is something you struggle with, ensure you are symmetrically retracting and depressing your upper back, which is often able to fix this imbalance immediately. If your elbows are still tracking asymmetrically, consider slowing the eccentric down slightly when using lighter loads, such as on warm up sets, which can help enforce proper elbow tracking.

Another common error is losing control of the bar in the bottom 20% of the movement. If you are hearing a "thud" when the bar makes contact with your torso, you may be giving up the weight to gravity in the bottom of the ROM. In general, you want to think about doing "pause-and-go" reps, not "bounce-and-go" reps.

#### 4. PRESSING ERRORS (CONCENTRIC)

I think the most common pressing error is initiating the press incorrectly. Many trainees will not bring the bar all the way down to their chest and begin the press prematurely. Others allow the bar to sink too far into their chest, increasing risk of injury and reducing strength potential by needlessly increasing the total bar path distance.

As an advanced technique, it is acceptable to use a slight "sink" into your chest as long as the bar does not sink after you have ended your pause. If you're going to sink the bar, only allow it to sink up to a maximum of approximately one inch and do not initiate the press by having it sink further. For most trainees running this program, it is better advised to simply allow the bar to come to a "soft pause" on the chest which will sufficiently stretch the pecs, allow for the maintenance of bar control and put you in a good position to begin the press.

Another common error is exhaling too early. You want to keep your breath held until about half way up the

concentric ROM or once you've reached full lockout. Premature exhalation will cause your chest to cave in and decrease overall torso rigidity.

Many trainees also fail to press the bar explosively off of the chest – an error that can lead to pre-mature fatigue. When pressing the bar off your chest, imagine there being a karate chopping board 3-4 inches off of your chest that you must break through with the barbell. This mental cue may force you to press the bar off your chest with as much explosive power as possible on every rep.



## WARM-UP

Before we look at exactly how you should warm-up, it's important to first consider what warming up is meant to accomplish. The main purpose behind warming up is to increase core body temperature, improve performance and reduce risk of injury [13] [14]. Because your circadian rhythm largely determines your core body temperature, when you wake up, it is at its lowest and increases throughout the day. There seems to be a "sweet spot" for core body temperature in terms of safety and performance, so try not to train too hot or too cold. Generally speaking, breaking a light sweat through some form of cardio activity/machine is a good idea before jumping into any heavy lifting. Doing at least 5-10 minutes of low-moderate intensity cardio is especially prudent if you train early in the morning [15].

Warm-ups may also serve as a way to increase muscle activation. Dynamic warm-up drills (active stretches that take joints through a range of motion) can improve performance and increase force output [16]. Don't simply "go through the motions." The goal is to always be very mindful about what muscles are contracting and what movement that contraction is creating.

Lastly, foam rolling has been shown to reduce DOMS (delayed onset muscle soreness) [4] and brief foam rolling with a specific focus on "tight areas" before a session can both improve range of motion [17] and prevent injury [18]. Light foam rolling for 2-3 minutes prior to lifting is recommended.

The goal is not to get a pump in your chest prior to working up to your working sets. Your warm-up sets should be performed under an RPEof 5. Warming up and foam rolling the upper back up can help to reinforce good positioning and increase mobility for setting up the arch but be careful not to elicit fatigue in those muscles during the warm up.

Before the first exercise for each bodypart perform a basic loading pyramid:

- Pyramid up in weight with 2-4 light sets, getting progressively heavier
- Such a warm up is only required for Primary Exercises
- For example, if you were working up to 4 sets of 275 lbs for 5 reps on the bench press, you could warm up as follows:
  - Bar (45 lbs) x 15 reps
  - 135 lbs x 5 reps
  - 185 lbs x 4 reps
  - 225 lbs x 3 reps
  - 250 lbs x 2 reps
  - Then begin working sets with 275 lbs for 5 reps
- On a %1RM basis, warm up pyramids can be structured like this:
  - Bar (45 lbs) x 15 reps
  - 40% lbs x 5 reps
  - 50% lbs x 4 reps
  - 60% lbs x 3 reps
  - 70-75% lbs x 2 reps
  - Begin working sets

- Note: Remember that such an extensive warm up is only required for Primary Exercises.

## BENCH PRESS PROGRAM



#### JEFF NIPPARD'S BENCH PRESS PROGRAM

#### BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 1: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	4	6	72.5%	3-5MIN						45° ELBOW TUCK	
	PULL-UP	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
-	ECCENTRIC-ACCENTUATED BARBELL Incline press	2	8	RPE8	2-3MIN						2-SECOND LOWERING PHASE. ELBOWS TUCKED ~30°	
2	INVERTED ROW	3	10	RPE8	2-3MIN						SCAPULAE BACK AND DOWN. PULL WITH YOUR ELBOWS OUT	
	DIP	2	10	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	BARBELL FLOOR SKULL CRUSHER	2	8	RPE7	1-2MIN						KEEP YOUR ELBOWS OVER YOUR HEAD. KEEP YOUR SHOULDER JOINT Motionless	
	HAMMER CURL	2	10	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

#### TOTAL SET VOLUME: 18

LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
BACK SQUAT	3	5	75%	3-4MIN						SIT DOWN AND BACK	
STIFF LEG DEADLIFT	3	10	RPE8	2-3MIN						KEEP YOUR HIPS HIGH	
BARBELL HIP THRUST	3	15	RPE7	2-3MIN						USE A PAD. RIB CAGE AND CHIN TUCKED DOWN	
A1: LYING LEG CURL	3	20	RPE8	0 MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
A2: LEG EXTENSION	3	20	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	

#### TOTAL SET VOLUME: 15

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	5	3	80%	3-5MIN						45° ELBOW TUCK	
	NEUTRAL-GRIP PULLDOWN	4	6	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
ę	BARBELL PIN PRESS	2	8	RPE7	2-3MIN						START WITH THE BAR ON THE PINS. FOCUS ON SPEED OFF OF THE CHEST	
DAY	SEATED FACE PULL	3	15	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	MILITARY PRESS	2	6	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	DUMBBELL LATERAL RAISE	3	12	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	REVERSE PEC DECK	3	15	RPE8	1-2MIN						TAKE YOUR SCAPULAE THROUGH A ROM	

DAY 1

DAY 2

#### JEFF NIPPARD'S BENCH PRESS PROGRAM

#### BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 1: DAYS 4-5

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	4	6	70%	3-4MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	FRONT SQUAT	3	10	RPE7	2-3MIN						FOCUS ON KEEPING YOUR TORSO UPRIGHT	
DAY 4	LEG PRESS	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	ECCENTRIC-ACCENTUATED LYING LEG CURL	3	10	RPE8	1-2MIN						3-SECOND LOWERING PHASE	
	STANDING CALF RAISE	3	12	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

#### TOTAL SET VOLUME: 16

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	PAUSE BARBELL BENCH PRESS	5	5	67.5%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
	SUPINATED PULLDOWN	3	12	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
2	DUMBBELL INCLINE PRESS	2	12	RPE7	2-3MIN						FOCUS ON PRESSING EVENLY. 30° ELBOW TUCK	
DAY	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	1-2MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	CABLE FLYE	3	15	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	V-BAR PRESSDOWN	2	15	RPE7	1-2MIN						KEEP YOUR SHOULDER AND ELBOW LOCKED IN PLACE	
	PRONE TRAP RAISE	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	

TOTAL SET VOLUME: 22

## BENCH PRESS PROGRAM


# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 2: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	4	6	75%	3-5MIN						45° ELBOW TUCK	
	PULL-UP	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
-	ECCENTRIC-ACCENTUATED BARBELL Incline press	2	8	RPE8	2-3MIN						2-SECOND LOWERING PHASE. ELBOWS TUCKED ~30°	
	INVERTED ROW	3	10	RPE8	2-3MIN						SCAPULAE BACK AND DOWN. PULL WITH YOUR ELBOWS OUT	
	DIP	2	10	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	BARBELL FLOOR SKULL CRUSHER	2	8	RPE7	1-2MIN						KEEP YOUR ELBOWS OVER YOUR HEAD. KEEP YOUR SHOULDER JOINT Motionless	
	HAMMER CURL	2	10	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

## TOTAL SET VOLUME: 18

LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
BACK SQUAT	3	5	75%	3-4MIN						SIT DOWN AND BACK	
STIFF LEG DEADLIFT	3	10	RPE8	2-3MIN						KEEP YOUR HIPS HIGH	
BARBELL HIP THRUST	3	15	RPE7	2-3MIN						USE A PAD. RIB CAGE AND CHIN TUCKED DOWN	
A1: LYING LEG CURL	3	20	RPE8	OMIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
A2: LEG EXTENSION	3	20	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	

### TOTAL SET VOLUME: 15

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	5	3	85%	3-5MIN						45° ELBOW TUCK	
	NEUTRAL-GRIP PULLDOWN	4	6	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
e	BARBELL PIN PRESS	2	8	RPE7	2-3MIN						START WITH THE BAR ON THE PINS. FOCUS ON SPEED OFF OF THE CHEST	
DAV	SEATED FACE PULL	3	15	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	MILITARY PRESS	2	6	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	DUMBBELL LATERAL RAISE	3	12	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	REVERSE PEC DECK	3	15	RPE8	1-2MIN						TAKE YOUR SCAPULAE THROUGH A ROM	

DAY 2

# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 2: DAYS 4-5

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	4	6	70%	3-4MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	FRONT SQUAT	3	10	RPE7	2-3MIN						FOCUS ON KEEPING YOUR TORSO UPRIGHT	
4	LEG PRESS	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
DAY	ECCENTRIC-ACCENTUATED LYING Leg curl	3	10	RPE8	1-2MIN						3-SECOND LOWERING PHASE	
	STANDING CALF RAISE	3	12	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

# TOTAL SET VOLUME: 16

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	PAUSE BARBELL BENCH PRESS	5	5	70%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
	SUPINATED PULLDOWN	3	12	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
5	DUMBBELL INCLINE PRESS	2	12	RPE7	2-3MIN						FOCUS ON PRESSING EVENLY. 30° ELBOW TUCK	
DAY	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	1-2MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	CABLE FLYE	3	15	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	V-BAR PRESSDOWN	2	15	RPE7	1-2MIN						KEEP YOUR SHOULDER AND ELBOW LOCKED IN PLACE	
	PRONE TRAP RAISE	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	

# BENCH PRESS PROGRAM



# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 3: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	4	6	82.5%	3-5MIN						45° ELBOW TUCK	
	PULL-UP	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
-	ECCENTRIC-ACCENTUATED BARBELL Incline press	2	8	RPE8	2-3MIN						2-SECOND LOWERING PHASE. ELBOWS TUCKED ~30°	
	INVERTED ROW	3	10	RPE8	2-3MIN						SCAPULAE BACK AND DOWN. PULL WITH YOUR ELBOWS OUT	
	DIP	2	10	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	BARBELL FLOOR SKULL CRUSHER	2	8	RPE7	1-2MIN						KEEP YOUR ELBOWS OVER YOUR HEAD. KEEP YOUR SHOULDER JOINT Motionless	
	HAMMER CURL	2	10	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

## TOTAL SET VOLUME: 18

LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
BACK SQUAT	3	5	80%	3-4MIN						SIT DOWN AND BACK	
STIFF LEG DEADLIFT	3	10	RPE8	2-3MIN						KEEP YOUR HIPS HIGH	
BARBELL HIP THRUST	3	15	RPE7	2-3MIN						USE A PAD. RIB CAGE AND CHIN TUCKED DOWN	
A1: LYING LEG CURL	3	20	RPE8	OMIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
A2: LEG EXTENSION	3	20	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	

### TOTAL SET VOLUME: 15

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	5	3	85%	3-5MIN						45° ELBOW TUCK	
	NEUTRAL-GRIP PULLDOWN	4	6	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
e	BARBELL PIN PRESS	2	8	RPE7	2-3MIN						START WITH THE BAR ON THE PINS. FOCUS ON SPEED OFF OF THE CHEST	
DAV	SEATED FACE PULL	3	15	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	MILITARY PRESS	2	6	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	DUMBBELL LATERAL RAISE	3	12	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	REVERSE PEC DECK	3	15	RPE8	1-2MIN						TAKE YOUR SCAPULAE THROUGH A ROM	

DAY 1

DAY 2

# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 3: DAYS 4-5

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	4	6	75%	3-4MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	FRONT SQUAT	3	10	RPE7	2-3MIN						FOCUS ON KEEPING YOUR TORSO UPRIGHT	
4	LEG PRESS	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
DAY	ECCENTRIC-ACCENTUATED LYING Leg curl	3	10	RPE8	1-2MIN						3-SECOND LOWERING PHASE	
	STANDING CALF RAISE	3	12	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

# TOTAL SET VOLUME: 16

	UPPER BODY #3	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	PAUSE BARBELL BENCH PRESS	5	5	72.5%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
	SUPINATED PULLDOWN	3	12	RPE8	2-3min						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
5	DUMBBELL INCLINE PRESS	2	12	RPE7	2-3min						FOCUS ON PRESSING EVENLY. 30° ELBOW TUCK	
DAY	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	1-2min						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	CABLE FLYE	3	15	RPE7	1-2min						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	V-BAR PRESSDOWN	2	15	RPE7	1-2min						KEEP YOUR SHOULDER AND ELBOW LOCKED IN PLACE	
	PRONE TRAP RAISE	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	

# BENCH PRESS PROGRAM



# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 4: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	4	6	85%	3-5MIN						45° ELBOW TUCK	
	PULL-UP	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
-	ECCENTRIC-ACCENTUATED BARBELL Incline press	2	8	RPE8	2-3MIN						2-SECOND LOWERING PHASE. ELBOWS TUCKED ~30°	
	INVERTED ROW	3	10	RPE8	2-3MIN						SCAPULAE BACK AND DOWN. PULL WITH YOUR ELBOWS OUT	
	DIP	2	10	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	BARBELL FLOOR SKULL CRUSHER	2	8	RPE7	1-2MIN						KEEP YOUR ELBOWS OVER YOUR HEAD. KEEP YOUR SHOULDER JOINT Motionless	
	HAMMER CURL	2	10	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

## TOTAL SET VOLUME: 18

	LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BACK SQUAT	3	5	80%	3-4MIN						SIT DOWN AND BACK	
5	STIFF LEG DEADLIFT	3	10	RPE8	2-3min						KEEP YOUR HIPS HIGH	
DAY	BARBELL HIP THRUST	3	15	RPE7	2-3min						USE A PAD. RIB CAGE AND CHIN TUCKED DOWN	
	A1: LYING LEG CURL	3	20	RPE8	Omin						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
	A2: LEG EXTENSION	3	20	RPE8	1-2min						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	5	3	85%	3-5MIN						45° ELBOW TUCK	
	NEUTRAL-GRIP PULLDOWN	4	6	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
e	BARBELL PIN PRESS	2	8	RPE7	2-3MIN						START WITH THE BAR ON THE PINS. FOCUS ON SPEED OFF OF THE CHEST	
DAV	SEATED FACE PULL	3	15	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	MILITARY PRESS	2	6	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	DUMBBELL LATERAL RAISE	3	12	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	REVERSE PEC DECK	3	15	RPE8	1-2MIN						TAKE YOUR SCAPULAE THROUGH A ROM	

# BLOCK 1: VOLUME ACCUMULATION PHASE / WEEK 4: DAYS 4-5

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	4	6	75%	3-4MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	FRONT SQUAT	3	10	RPE7	2-3MIN						FOCUS ON KEEPING YOUR TORSO UPRIGHT	
DAY 4	LEG PRESS	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	ECCENTRIC-ACCENTUATED LYING Leg curl	3	10	RPE8	1-2MIN						3-SECOND LOWERING PHASE	
	STANDING CALF RAISE	3	12	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

# TOTAL SET VOLUME: 16

	UPPER BODY #3	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	PAUSE BARBELL BENCH PRESS	5	5	72.5%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
	SUPINATED PULLDOWN	3	12	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AGAINST YOUR SIDES	
5	DUMBBELL INCLINE PRESS	2	12	RPE7	2-3MIN						FOCUS ON PRESSING EVENLY. 30° ELBOW TUCK	
DAY	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	1-2MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	CABLE FLYE	3	15	RPE7	1-2MIN						KEEP YOUR SCAPULAE RETRACTED AND DEPRESSED	
	V-BAR PRESSDOWN	2	15	RPE7	1-2MIN						KEEP YOUR SHOULDER AND ELBOW LOCKED IN PLACE	
	PRONE TRAP RAISE	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	

# BENCH PRESS PROGRAM



# BLOCK 2: PEAKING PHASE / WEEK 5: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	1	5	N/A	N/A						WORK UP TO A HEAVY SET OF 5 @RPE9	
_	PAUSE BARBELL BENCH PRESS	2	5	65%	3-5min						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
DAY	PULL-UP	3	10	RPE8	2-3min						PULL YOUR SHOULDERS DOWN AND IN	
	MILITARY PRESS	2	8	RPE7	2-3min						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	2-3min						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	HAMMER CURL	3	12	RPE8	2-3min						CURL THE WEIGHT "OUT", NOT "UP"	

### TOTAL SET VOLUME: 14

	LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BACK SQUAT	4	8	70%	3-4MIN						SIT DOWN AND BACK	
Υ2	BARBELL RDL	3	15	RPE7	2-3min						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
DA	LYING LEG CURL	3	12	RPE7	1-2min						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
	DUMBBELL WALKING LUNGE	3	12	RPE8	1-2min						12 STEPS EACH LEG. MEDIUM STRIDE LENGTH	
	STANDING CALF RAISE	3	8	RPE8	1-2min						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

### TOTAL SET VOLUME: 16

	UPPER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL SPEED BENCH PRESS	6	3	70%	2-3MIN						FOCUS ON STAYING TIGHT AND SPEED OFF THE CHEST	
	WIDE-GRIP LAT PULLDOWN	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
AV 3	DUMBBELL LATERAL RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	SEATED FACE PULL	3	20	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	PRONE TRAP RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	
	EZ BAR CURL	3	12	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

# BLOCK 2: PEAKING PHASE / WEEK 5: DAY 4

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	4	6	75%	3-4MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
4	FRONT SQUAT	3	10	RPE7	2-3MIN						FOCUS ON KEEPING YOUR TORSO UPRIGHT	
DAY	LEG PRESS	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	ECCENTRIC-ACCENTUATED LYING Leg curl	3	10	RPE8	1-2MIN						3-SECOND LOWERING PHASE	
	STANDING CALF RAISE	3	12	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

# BENCH PRESS PROGRAM



# BLOCK 2: PEAKING PHASE / WEEK 6: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	1	AMRAP	85%	N/A						DO AS MANY REPS AS POSSIBLE @RPE9	
_	PAUSE BARBELL BENCH PRESS	2	5	65%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
DAV	PULL-UP	3	10	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
	MILITARY PRESS	2	8	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	2-3MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	HAMMER CURL	3	12	RPE8	2-3MIN						CURL THE WEIGHT "OUT", NOT "UP"	

### TOTAL SET VOLUME: 14

	LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BACK SQUAT	4	8	70%	3-4MIN						SIT DOWN AND BACK	
Υ 2	BARBELL RDL	3	15	RPE7	2-3MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
DA	LYING LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
	DUMBBELL WALKING LUNGE	3	12	RPE8	1-2MIN						12 STEPS EACH LEG. MEDIUM STRIDE LENGTH	
	STANDING CALF RAISE	3	8	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

### TOTAL SET VOLUME: 16

	UPPER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL SPEED BENCH PRESS	6	3	70%	2-3MIN						FOCUS ON STAYING TIGHT AND SPEED OFF THE CHEST	
	WIDE-GRIP LAT PULLDOWN	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
AV 3	DUMBBELL LATERAL RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	SEATED FACE PULL	3	20	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	PRONE TRAP RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	
	EZ BAR CURL	3	12	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

# BLOCK 2: PEAKING PHASE / WEEK 6: DAY 4

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	3	8	70%	3-5MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
4	HACK SQUAT	3	12	RPE8	2-3MIN						SIT DOWN AND BACK	
DAY	REVERSE HYPEREXTENSION	3	10	RPE8	1-2MIN						SQUEEZE YOUR GLUTES TO MOVE YOUR LEGS	
	LEG EXTENSION	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	SEATED LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	

# BENCH PRESS PROGRAM



# BLOCK 2: PEAKING PHASE / WEEK 7: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	1	3	N/A	N/A						WORK UP TO A HEAVY SET OF 3 @RPE9	
_	PAUSE BARBELL BENCH PRESS	2	5	65%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
DAV	PULL-UP	3	10	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
	MILITARY PRESS	2	8	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	2-3MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	HAMMER CURL	3	12	RPE8	2-3MIN						CURL THE WEIGHT "OUT", NOT "UP"	

### TOTAL SET VOLUME: 14

	LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
DAY 2	BACK SQUAT	4	8	72.5%	3-4MIN						SIT DOWN AND BACK	
	BARBELL RDL	3	15	RPE7	2-3MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	LYING LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
	DUMBBELL WALKING LUNGE	3	12	RPE8	1-2MIN						12 STEPS EACH LEG. MEDIUM STRIDE LENGTH	
	STANDING CALF RAISE	3	8	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

### TOTAL SET VOLUME: 16

	UPPER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
DAY 3	BARBELL SPEED BENCH PRESS	6	3	70%	2-3MIN						FOCUS ON STAYING TIGHT AND SPEED OFF THE CHEST	
	WIDE-GRIP LAT PULLDOWN	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
	DUMBBELL LATERAL RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	SEATED FACE PULL	3	20	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	PRONE TRAP RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	
	EZ BAR CURL	3	12	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

# BLOCK 2: PEAKING PHASE / WEEK 7: DAY 4

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	3	8	70%	3-5MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
4	HACK SQUAT	3	12	RPE8	2-3MIN						SIT DOWN AND BACK	
DAY	REVERSE HYPEREXTENSION	3	10	RPE8	1-2MIN						SQUEEZE YOUR GLUTES TO MOVE YOUR LEGS	
	LEG EXTENSION	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	SEATED LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	

# BENCH PRESS PROGRAM



# BLOCK 2: PEAKING PHASE / WEEK 8: DAYS 1-3

	UPPER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	BARBELL BENCH PRESS	1	1	N/A	N/A						WORK UP TO A HEAVY SINGLE @RPE9	
_	PAUSE BARBELL BENCH PRESS	2	5	65%	3-5MIN						3-SECOND PAUSE. FOCUS ON SPEED OFF THE CHEST	
DAY	PULL-UP	3	10	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
	MILITARY PRESS	2	8	RPE7	2-3MIN						RESET THE BAR AFTER EACH REP. THINK ABOUT DOING A "DEAD PRESS". Squeeze your glutes to keep your torso upright	
	MACHINE CHEST-SUPPORTED T-BAR Row/Retraction	3	10/10	RPE8	2-3MIN						FIRST 10 REPS RETRACT YOUR SCAPULAE AND PULL YOUR ELBOWS OUT, Last 10 Reps only go through a scapular rom (your arms don't Move)	
	HAMMER CURL	3	12	RPE8	2-3MIN						CURL THE WEIGHT "OUT", NOT "UP"	

### TOTAL SET VOLUME: 14

	LOWER BODY #1	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
DAY 2	BACK SQUAT	4	8	72.5%	3-4MIN						SIT DOWN AND BACK	
	BARBELL RDL	3	15	RPE7	2-3MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
	LYING LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	
	DUMBBELL WALKING LUNGE	3	12	RPE8	1-2MIN						12 STEPS EACH LEG. MEDIUM STRIDE LENGTH	
	STANDING CALF RAISE	3	8	RPE8	1-2MIN						PRESS ALL THE WAY UP TO YOUR TOES, GET A STRETCH AT THE BOTTOM. Don't bounce	

### TOTAL SET VOLUME: 16

	UPPER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
AY 3	BARBELL SPEED BENCH PRESS	6	3	70%	2-3MIN						FOCUS ON STAYING TIGHT AND SPEED OFF THE CHEST	
	WIDE-GRIP LAT PULLDOWN	3	8	RPE8	2-3MIN						PULL YOUR SHOULDERS DOWN AND IN	
	DUMBBELL LATERAL RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR DELTOIDS TO MOVE THE WEIGHT	
	SEATED FACE PULL	3	20	RPE8	1-2MIN						PULL YOUR ELBOWS UP AND BACK. FOCUS ON SCAPULAR RETRACTION	
	PRONE TRAP RAISE	3	15	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR UPPER BACK TO MOVE THE WEIGHT	
	EZ BAR CURL	3	12	RPE8	1-2MIN						CURL THE WEIGHT "OUT", NOT "UP"	

# BLOCK 2: PEAKING PHASE / WEEK 8: DAY 4

	LOWER BODY #2	SETS	REPS	RPE/%1RM	REST	1	2	3	4	5	NOTES	LSRPE
	DEADLIFT	3	8	72.5%	3-5MIN						FOCUS ON KEEPING YOUR SPINE NEUTRAL	
4	HACK SQUAT	3	12	RPE8	2-3MIN						SIT DOWN AND BACK	
DAY	REVERSE HYPEREXTENSION	3	10	RPE8	1-2MIN						SQUEEZE YOUR GLUTES TO MOVE YOUR LEGS	
	LEG EXTENSION	3	15	RPE8	1-2MIN						FOCUS ON SQUEEZING YOUR QUADS TO MOVE THE WEIGHT	
	SEATED LEG CURL	3	12	RPE7	1-2MIN						FOCUS ON SQUEEZING YOUR HAMSTRINGS TO MOVE THE WEIGHT	



# **EXERCISE SUBSTITUTIONS**

# **UPPER BODY PUSH:**

**ECCENTRIC-ACCENTUATED BARBELL INCLINE PRESS:** Eccentric-accentuated dumbell incline press, eccentric-accentuated incline machine chest press

DIP: Assisted dip, Close-grip bench press, Dumbbell close-grip bench press,

BARBELL FLOOR SKULL CRUSHER: Cable tricep kickback, Dumbbell skull crusher, California press

BARBELL PIN PRESS: Pause barbell floor press, Pause dumbbell floor press, machine chest press

MILITARY: Dumbbell seated shoulder press, machine shoulder press

DUMBBELL LATERAL RAISE: Machine lateral raise, band lateral raise, cable lateral raise

DUMBBELL INCLINE PRESS: Machine incline press, barbell incline press

CABLE FLYE: Dumbbell flye

# **UPPER BODY PULL:**

**PULL-UP:** wide-grip pulldown, neutral-grip pulldown, assisted pull-up

**INVERTED ROW:** Cable seated row, Pendlay row

HAMMER CURL: Pronated EZ bar curl, Rope cable curl

**NEUTRAL-GRIP PULLDOWN**: Supinated pulldown, single-arm pulldown

SEATED FACE PULL: Elbows out row, prone trap raise

REVERSE PEC DECK: reverse cable flye, dumbbell bent over rear delt raise

SUPINATED PULLDOWN: Cable pull-over, single-arm pulldown

MACHINE CHEST-SUPPORTED T-BAR ROW: Chest-supported dumbbell row, seal row

PRONE TRAP RAISE: scaption, 45° bent over shrug

EZ BAR CURL: Dumbbell supinated curl

# LOWER BODY SQUAT:

**BACK SQUAT:** hack squat, front squat, leg press

LEG EXTENSION: single-leg leg extension, sissy squat

FRONT SQUAT: hack squat, goblet squat, walking lunge

LEG PRESS: hack squat, walking lunge, Bulgarian split squat

DUMBBELL WALKING LUNGE: single-leg leg press, Bulgarian split squat

# LOWER BODY HIP HINGE:

STIFF LEG DEADLIFT: Barbell RDL, 45° hyperextension

**BARBELL HIP THRUST:** 45° hyperextension, barbell glute bridge

LYING LEG CURL: seated leg curl, glute ham raise

**DEADLIFT:** stiff leg deadlift, block pull

**ECCENTRIC-ACCENTUATED LYING LEG CURL:** eccentric-accentuated seated leg curl, Nordic ham curl

# CALVES:

**STANDING CALF RAISE:** leg press calf raise, seated calf raise



# **PROGRAM EXPLAINED**

This program is split into two distinct phases (blocks), each with a specific goal.

Block 1 is a conjugate-style volume accumulation phase and Block 2 is a DUP-style peaking phase. The overall goal of Block 1 is to master proper bench press technique while building an enormous work capacity through the use of large training volumes and exercise variation. The primary goal of Block 2 is to "transmute" the adaptations built in Block 1 into maximal strength and peak performance through increased intensity (effort) and decreased volume.

# **BLOCK 1: VOLUME ACCUMULATION**

Hopefully by now the technique and common errors sections have convinced you that the bench press is a complicated exercise which requires a good deal of skill and total body control. Mastering pressing technique is the single most important factor for maximizing strength on the lift, which is why we are making it a top priority early in Block 1. You will see that Block 1 focuses on mastering the bench press while using many different accessory movements to assist with different aspects of the lift and increase total workload without risking overuse injury.

Accessory lifts can alter tension curves, emphasize certain parts of the range of motion, and emphasize specific muscle groups more than bench pressing alone. Since this is a full body program, we are looking to strengthen stabilizing muscle groups without depleting energy for the bench press.

Throughout Block 1 the level of exertion (intensity) is kept relatively low so that proper lifting habits can be engrained. It's very important that focus and attention to detail is kept at the forefront of this block rather than simply trying to hit personal records with poor (and potentially dangerous!) technique.

This phase uses a 3x per week bench pressing frequency, which will allow for skill development through neural [19] learning, while still keeping your joints pain free from the relatively lower intensity.

# **BLOCK 2: STRENGTH PEAKING**

By the time you reach Block 2, you will have accumulated a great deal of bench pressing volume and mastered the skill aspect of the lift. At this point, your form should be nearly perfect: every rep should look identical.

In Block 2, frequency and volume decrease as exertion is steadily increased until it is pushed to the max at the end of the block. Since strength is very lift-specific, **[20]** this block will mainly utilize barbell bench pressing with less exercise variation. Managing recovery also must be placed at the forefront in Block 2 when heavy loads are being handled regularly. For this reason, other pressing exercises will be kept to a minimum as the majority of our "recovery capacity" should be invested in the bench press. The accessory work included on upper body days is also set toward maximizing recovery and will increase stability of the shoulder joint, the most common bench press injury site **[21]**.



# **TRAINING VARIABLES**

# FREQUENCY

# WHAT DOES THE SCIENCE SAY ABOUT TRAINING FREQUENCY?

The main thing we can conclude from the scientific literature on frequency is that training each muscle twice per week is better than only training each muscle once per week [22]. One potential limitation of training frequency research is that studies are always volume equated so the subjects are actually doing the same amount of total work. In the real world, it is less likely that volumes would be equal when frequencies are different. Higher frequency training typically allows us to do more volume within a week. To illustrate this point, just imagine the recovery differences between doing 4 sets of bench 5 days per week versus doing 20 sets of bench in 1 session. So what the frequency research really tells us is that:

1. There is probably no special benefit to training a muscle more than twice per week with the same amount of volume.

2. Training a muscle more than once per week is more optimal for hypertrophy, even when volume is the same.

The flipside of principle #1 above is that, if training a bodypart more than twice per week allows you to perform more volume, then it most likely will result in increased strength and size because of the dose-response relationship between volume and hypertrophy [23]. For this reason and the fact that frequent repetition is critical for motor learning and technique mastery, this program uses a 2-3x per week training frequency for the bench.

# **EFFORT/INTENSITY**

# HOW HARD SHOULD YOU PUSH EACH SET?

Because of the size principle (see below) and its implications for hypertrophy, pushing yourself reasonably close to failure becomes more important as training advancement accrues (this is emphasized more in Block 2). It's well established that mechanical tension is the central mechanism of hypertrophy [24]. On a large scale, increases in tension are achieved through progressive overload while on the cellular level, mechanical tension is closely tied to motor unit recruitment. A "motor unit" is made up of one motor neuron and all of the muscle fibers it innervates. Motor unit recruitment refers to the way motor units are activated to cause an increase in the contractile force a muscle can produce. This occurs according to the "size principle" of motor unit recruitment where the smallest slow-twitch muscle fibers are recruited first, then gradually faster twitch muscle fibers will be recruited as oxygen is depleted from the local area. With this principle in mind, training near failure (but not always to failure, because of differential effects on fatigue) becomes increasingly important, as it will ensure that there is adequate motor unit recruitment in the larger faster twitch muscle fibers.

## So how do you determine how hard to push it?

This program uses both percentage-based and RPE-based methods for determining what weights you

should use, which will ultimately determine your level of effort.

# %1RM BASED EXERCISES

Loads for primary exercises (squat, bench press, deadlift) are determined based on a percentage of your 1 rep max (1RM) for that exercise. The main advantage of using a %1RM approach is that progression is ensured in an objective manner week to week. Nothing is left up to how you're feeling that day – there is a set weight prescribed in the program, and it's your responsibility to hit it. This level of precision and structure is good for certain exercises because it allows for complete accountability.

## How to determine your 1 rep max

Of course, to use a %1RM approach, you must know (or at least have a rough idea of) what your 1 rep max is for that exercise. Of course, not everyone will know what their 1RM is at any given time. It may be tempting to simply test your 1RMs – lift as heavy as possible with good form for one repetition. Although this is a seemingly simple solution, testing one rep maxes can be unnecessarily risky, and there are at least 2 better options to give you a ballpark estimate of this number. For the sake of this program, you want to use a "working max" – a weight you can definitely hit on any given day.

## Always use a spotter's assistance when testing 1 rep maxes!

Using the bench press as an example:

- 1. Do an AMRAP test as follows:
  - Warm up by pyramiding up in weight using estimated 1RM
  - Bar x 15, 50% x 8, 60% x 4, 70% x 3, 80% x 2, 85% x 1
  - Do a set of as many reps as possible with 90% of your estimated 1RM using a spotter for safety
  - Alternatively, you can pick a weight you think you can do about 3-5 reps with, and do as many reps as possible using a spotter for safety

- Plug the results of the AMRAP test in to this 1RM calculator to determine your new working 1RM:

http://www.exrx.net/Calculators/OneRepMax.html

2. Plug the results of a recent "tough set" taken close to failure in the 6 or lower rep range into this calculator, which will estimate your 1RM: <u>http://www.exrx.net/Calculators/OneRepMax.html</u>

Note: If you do the AMRAP tests before beginning the program, do them on its own day and then rest at least 2 days before beginning Week 1, Day 1.

# **RPE-BASED EXERCISES**

In contrast to the objective nature of the %1RM-based method, the scientific literature tends to use two subjective scales for calculating effort: rate of perceived exertion (RPE) and reps in reserve (RIR). This program uses RPE to gauge effort for all secondary and tertiary exercises. The RPE scale is ranked from 1-10, with 1 implying nearly no effort was used, and 10 implying maximal effort was achieved (training to failure) [25]. I think this can be more easily conceptualized as RPE9 meaning work at about 90% of your maximal effort, RPE8 bring about 80% of maximal effort, etc. Another way to think about RPE is as the inverse of "reps in reserve" (RIR). RIR is a scale which attempts to gauge how many additional reps you would be able to complete after ending the set [26]. While research has shown that RIR is not very accurate for newer lifters [27], I think it is a good tool to understand at this point in your training career. So, to clarify, an RPE of 9 would mean you had 1 rep left in reserve. An RPE of 8 would mean you had 2 reps in reverse, etc.

In the program, the last set RPE column (LSRPE) is left blank for you to fill in. The idea here is to reflect on your last set and ask yourself how many more reps you think you could have gotten. It is a useful way to account for how hard you're working on the final set and how well it matches the target RPE.

# AN IMPORTANT DISCLAIMER ABOUT TRAINING INTENSITY (EFFORT)

While I admire a strong work ethic, similar to volume, more effort is not always better. Properly applied effort is what we are always looking for. This means that we should reserve training to failure (or near failure) for when it fits within the context of the program as a whole.

As mentioned previously, Block 1 of the program may require some restraint and may prescribe an effort lower than what you are used to. We can think of this as taming the beast before we unleash the beast in Block 2.

# VOLUME

Volume loosely refers to the total amount of work you're doing. This is often approximated as sets x reps x load, but is often simply thought of as the total number of sets. Total volume can be viewed as both volume per-session and volume per-week. Per-session volume requirements are actually quite low, with the research showing just one single set to be an adequate stimulus for strength and size, [28] however, multiple sets (3-5 sets) per muscle group are thought to be required to maximize strength and size [29]. It is important to remember that not all volume is created equally and more volume isn't always the answer. A study comparing 5 sets of 10 reps versus 10 sets of 10 reps on the squat actually showed greater strength responses in the 5 sets group, despite using half the volume. Additionally, the 10 x 10 group lost muscle (on average) in their legs [30], so there appears to be a volume limit past which more volume is not helpful for hypertrophy.

When it comes to per-week volume, James Krieger recommends an absolute minimum of 10 sets per week per muscle group [22] with 10-20 sets per bodypart per week being a good ballpark estimate for intermediate-advanced trainees. Because of the large degree of overlap between bodyparts on compound exercises, tracking set volume per bodypart has its complications and limitations. For this reason, we will be measuring total sets per workout. These numbers will be instructive for you when moving on to further blocks of training or other programs so that you can have an idea of how your body responds to the persession "upper body" and "lower body volume" laid out in this routine.

# AN IMPORTANT DISCLAIMER ABOUT TRAINING VOLUME

If you're coming to this program from a background of super high volume training, hopefully this routine will help you find the balance you need for a long and prosperous training career. Before you fall into

the dangerous trap of underestimating effective programming, please remember that this program is intentionally structured in such a way that the two blocks build on each other. Also keep in mind that throughout the program, our number one priority is quality of execution.

Just because someone may be running a higher volume training program than you does not imply that they will see better results. This is because there are so many factors other than volume that go into proper program design, so it is careless and shortsighted to judge a program based merely on how many sets it has you doing. Granted, volume has been identified as one of the primary factors driving strength and muscle growth, so it must still be considered a central tenet of program design. However, this shouldn't tempt us to fall for either of the two most common volume misconceptions:

- 1. The "Pedestal Myth": the false idea that volume matters more than everything else. The reality is that ALL program variables must fit together like a puzzle, and it would be inappropriate to put one variable on a pedestal.
- 2. The "Quantity-Over-Quality Myth": the false idea that more volume is always better. Like the rest the training variables, volume must be properly managed within the training week and compliment the other, more foundational programming factors like proper exercise execution (technique), the prioritization of recovery and the management of effort.

# I ELABORATE ON BASIC VOLUME CONCEPTS AT THE LINKS BELOW:

Fundamentals Ep 2: <u>https://www.youtube.com/watch?v=7S0NjKYIJ7I</u> Volume Science Explained: <u>https://www.youtube.com/watch?v=gwv3Jq0UqWs</u>



# **EXERCISE VIDEOS**

# **UPPER BODY:**

**UPPER BODY PRESS:** 

Bench press: [Technique Tuesday video]

Barbell floor skull crusher: <u>https://www.youtube.com/watch?v=AYW6GwsZIXM</u>

Barbell pin press: <u>https://www.youtube.com/watch?v=8d2BUba3oNE</u>

Barbell speed bench press: [Technique Tuesday video]

Cable flye: <u>https://www.youtube.com/watch?v=kZJZWtfNpVI</u>

Dumbbell incline press: <a href="https://www.youtube.com/watch?v=8iPEnn-ltC8">https://www.youtube.com/watch?v=8iPEnn-ltC8</a>

Dumbbell lateral raise: <a href="https://www.youtube.com/watch?v=3VcKaXpzqRo">https://www.youtube.com/watch?v=3VcKaXpzqRo</a>

Eccentric-accentuated incline barbell press: https://www.youtube.com/watch?v=yKhDNrK jRA

Military press: <u>https://www.youtube.com/watch?v=k4WoLZbonns</u>

Pause barbell bench press: [Technique Tuesday video]

V-bar pressdown: <a href="https://www.youtube.com/watch?v=ek-UELpEsLl">https://www.youtube.com/watch?v=ek-UELpEsLl</a>

# **UPPER BODY PULL:**

EZ bar curl: <u>https://www.youtube.com/watch?v=zG2xJ0Q5Qtl</u>

Hammer curl: <u>https://www.youtube.com/watch?v=zC3nLlEvin4&t=2s</u>

Inverted row: <a href="https://www.youtube.com/watch?v=XZV9IwluPjw">https://www.youtube.com/watch?v=XZV9IwluPjw</a>

Neutral-grip pulldown: <a href="https://www.youtube.com/watch?v=ImATh1ZTffc">https://www.youtube.com/watch?v=ImATh1ZTffc</a>

Prone trap raise: <a href="https://www.youtube.com/watch?v=37Z6a08Ksul">https://www.youtube.com/watch?v=37Z6a08Ksul</a>

Pull-up: <a href="https://www.youtube.com/watch?v=eGo4IYlbE5g">https://www.youtube.com/watch?v=eGo4IYlbE5g</a>

Reverse pec deck: <u>https://www.youtube.com/watch?v=6JqWoP25lR0</u>

Seated face pull: <a href="https://www.youtube.com/watch?v=QbpmaP-0xz8">https://www.youtube.com/watch?v=QbpmaP-0xz8</a>

Supinated pulldown: https://www.youtube.com/watch?v=BwPiRfNBb4g

Wide-grip lat pulldown: <a href="https://www.youtube.com/watch?v=CAwf7n6Luuc">https://www.youtube.com/watch?v=CAwf7n6Luuc</a>

# LOWER BODY:

# **HIP HINGE:**

Barbell hip thrust: <a href="https://www.youtube.com/watch?v=LM8XHLYJoYs">https://www.youtube.com/watch?v=LM8XHLYJoYs</a>

Barbell RDL: <u>https://www.youtube.com/watch?v=JCXUYuzwNrM</u>

Deadlift: https://youtu.be/fc4\_hq7tjkU

Reverse hyperextension: <u>https://www.youtube.com/watch?v=3kzAV20d\_dE</u>

Stiff leg deadlift: <u>https://www.youtube.com/watch?v=jYEVqa4C0yg</u>

Eccentric-accentuated lying leg curl: <u>https://www.youtube.com/watch?v=gb5nb40ontk</u>

Lying leg curl: <u>https://www.youtube.com/watch?v=1Tq3QdYUuHs&t=1s</u>

Seated leg curl: <a href="https://www.youtube.com/watch?v=EL0CsoDSmrg">https://www.youtube.com/watch?v=EL0CsoDSmrg</a>

# **SQUATTING PATTERN:**

Back squat: <a href="https://www.youtube.com/watch?v=bs">https://www.youtube.com/watch?v=bs</a> Ej32IYgo

Dumbbell walking lunge: <a href="https://www.youtube.com/watch?v=D7KaRcUTQeE">https://www.youtube.com/watch?v=D7KaRcUTQeE</a>

Front squat: <a href="https://www.youtube.com/watch?v=wyDbagKS7Rg&t=72s">https://www.youtube.com/watch?v=wyDbagKS7Rg&t=72s</a>

Hack squat: <a href="https://www.youtube.com/watch?v=m2DiSYKPzqk">https://www.youtube.com/watch?v=m2DiSYKPzqk</a>

Leg extension: <u>https://www.youtube.com/watch?v=YyvSfVjQeL0</u>

Leg press: <a href="https://www.youtube.com/watch?v=IZxyjW7MPJQ">https://www.youtube.com/watch?v=IZxyjW7MPJQ</a>

# CALVES:

Standing calf raise: <u>https://www.youtube.com/watch?v=YMmgq08Jo-k</u>



# **COMMENTS FROM JEFF**

For customer support please email **info@strcng.com**. As much as I love connecting on social media, I am not able to reliably respond to the questions I receive across platforms so please direct any questions to the email above. Please allow 3-5 business days for an email reply.

Thank you so much for your support and good luck with the training!


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