

# *Improving Muscle Composition*

## *Introduction -*

In this training protocol, I have advocated for one key factor above all others: efficiency. Efficient training is not *perfectly* optimal training. Efficient training is precise to a point and it is always based on sound reasoning in the selection of exercises, but it is not bogged down with minute details which detract from the activity of exercising. Being efficient in one's training means being methodical and consistent, not being overly specific or excessively engaged in hypotheticals.

This efficiency, however, is balanced by self-assessment and mental interest in the tasks which one undertakes when training. The mind is the greatest tool in injury prevention, and the ability to make adjustments and improvements is key to the most rewarding part of strength and conditioning training: engaging with one's training to better one's self. Ideally, a training protocol provides structure to an existing lifestyle of muscle building and general wellness. A good training protocol creates an expectation as to what will be in the next training session without being excessively strict as to eliminate all conscious thought about the training being done. The best strength athletes and bodybuilders are all capable of intense mental engagement with their training sessions, even if they choose to not utilize this capability every workout.

Oftentimes, the most debilitating form of chronic fatigue for an athlete comes from mental apathy rather than from physical exhaustion. Where possible, the complete sapping of one's mental interest or willpower should be avoided; as this deficit of faculties can lead to a negative correlation between exercise and wellness. Exercise is a perfect example of something usually wonderful for one's health and confidence that can turn into something awful for one's health and confidence through overuse and under rest. It is difficult to over-exercise in one 45-minute session, but it's easy to under rest between training sessions.

## ***For Whom Was Improving Muscle Composition Written? -***

It is my intention in this training protocol to provide two things for two distinct varieties of amateur athlete/bodybuilder/fitness enthusiast/etc:

#1. For those who want to start a program tomorrow with little individualization or tweaking necessary, I have created a training protocol which only requires free weights and bodyweight, and which can be run with only minor alterations for years of growth in fitness and in physique. This training protocol is intended for those for whom it is not their first foray into lifting weights, but it is not their 5th year competing in strength sports either.

#2. For those who want to experiment with headier training concepts such as advanced rep and load cycling, double linear progression, and stimulus to fatigue optimization, I will employ elements of these subject matters to provide an introductory gateway for further exploration of advanced techniques and training cycles.

## ***What This Training Protocol Is Not -***

This training outline is not a personally-tailored program which considers one's individual strengths, weaknesses, or pre-existing injuries. It is also not a peaking program for any sort of bodybuilding show or strength competition/exhibition. However, if you are interested in a personalized program or in a customized peaking program, I would be glad to provide you with one. I do free consultation calls/emails, so if you are not sure if you are interested in a personalized training regimen or exercise form cues, consider sending me an email at [info@rhyslyon.com](mailto:info@rhyslyon.com) so we can set up a time to chat about your specific interests and needs before committing to any sort of paid service.

Though the difficulty of the training regimen below is adaptable to you and your current capabilities, there is a base level of coordination and familiarity which should be acquired before pursuing this program in its basal form. However, if you are highly interested in pursuing this program with limited experience, I ask that you at least review the videos showcasing proper exercise form on my YouTube channel first - <https://www.youtube.com/@rhyslyon/featured>.

## Essential Concepts for *Improving Muscle Composition*

### *Reps in Reserve* -

Here I will explain how to use **reps in reserve** (RIR) as the central self-control component of recoverable and sustainable training with weights. Reps in reserve is in reference to the perceived number of repetitions which *could* yet be accomplished if a given set were continued. For example, 2 reps in reserve (2 RIR) refers to the point in a set at which one believes they would be capable of accomplishing about 2 additional reps, but definitely would not be capable of more than 3 additional reps.

For *Improving Muscle Composition*, you will want to familiarize yourself with the following estimations as to what certain reps in reserve goals feel like:

**3+ RIR** = Relatively easy to accomplish; not meant to produce muscular damage. Promotes blood flow and prepares relevant muscles for further sets to follow.  
Use: Perfect for warmup sets

**3 RIR** = Right on the edge of challenging; not utterly exhausting in and of itself. Starts the process of muscular breakdown, but more stimuli will be needed to reach optimal outcomes.  
Use: Meant for feeder sets which lead into more challenging sets.

**2 RIR** = Challenging; further sets at this exact effort would result in less reps.  
Use: Though not for terminal sets, 2 RIR is the perfect midpoint between warmup and feeder sets and the final set or sets. Progress can be made solely from doing working sets at 2 RIR, but it does leave potential growth untapped by itself...

**1 RIR** = Very challenging; performing one more rep would be maximally difficult.  
Use: This is the optimal stopping point for Primary and Secondary Movements, as it provides excellent stimulus without risking **rep failure, which is an unwelcome outcome on heavy compound movements**. Both risk of overtraining and risk of injury increase when heavy compound sets are routinely taken to complete failure.  
**1RIR is the perfect cutoff for most working sets.**

**0 RIR** = Maximally difficult; any further attempt at a rep would result in failure. Use: Perfect for controllable (using an exercise which is stable and smooth in its range of motion) hypertrophy sets where the goal is to push the target muscle group to its temporary limit.

**0\* RIR** = 0\* RIR means that one is expected to reach 0 RIR (muscular failure/the inability to perform an additional rep in that moment) and then to employ additional techniques, thereby pushing past the initial stopping point created by reaching 0 RIR. The section ***Hypertrophy Sets*** below will further address the concept of 0\* RIR in practical terms.

### ***Reps in Reserve Ranges -***

Perhaps the core component of *Improving Muscle Composition's* success is its usage of reps in reserve ranges. You'll see what I mean specifically when reading the print-out/snapshot-friendly training days further down, but for now, I need to briefly explain what a range like "3-1 RIR over 3-4 sets" means. 3-1 RIR is asking for a weight to be used (which, after your initial testing week, will be predetermined by the program's internal progression strategy) which can be accomplished at approximately 3 RIR for the 1st set of a predetermined number of reps. Due to reasonable rest periods, a subsequent set will be accomplished before complete recovery has occurred from the 1st set, thus creating a greater challenge to produce the same number of reps in the 2nd set as was produced in the 1st set. This greater challenge would result in a lower RIR. The expectation is that, from the 1st set to the final set (3rd set or 4th set), fatigue will drive up the intensity and drive down the number of reps in reserve (RIR), culminating in a final set at 1 RIR as the goal for that particular movement.

**IMPORTANT!** - Reaching 1 RIR organically from gradual fatigue over the span of 3-4 working sets and then stopping once 1 RIR has been reached is *pivotal* to this program. The exact number of sets, the exact weight load, and the exact number of total reps are all subservient goals to the overarching goal of reaching a challenging final set at a difficulty level of 1 RIR for Primary and Secondary Movements. Why hinge around reps in reserve? Because reps in reserve (RIR)

adjusts for well-being fluctuations from day-to-day. Programs that only use percentages of your maximum 1-repetition attempts fail to account for external factors which will inevitably influence your training sessions and your recoverability from training sessions. *Improving Muscle Composition* requires a bit of conscientious forethought and planning to pick the best weight loads with which to start, but it is an excellent program for its longevity and flexibility.

### ***Repetition Ranges -***

This program uses provided repetition ranges in conjunction with increases in weight to achieve a predictable and stable model for progression. Basically, as long as your reps in reserve (RIR) goal was met with the previously-used rep range, you are encouraged to either:

- A. Go up one number on the rep range goal (Ex. From 6 reps to 7 reps per set)
- or
- B. Go up in weight if at top of rep range (Ex. add 10 pounds to your working sets)

Why use rep ranges in an intermediate program? Wouldn't it be better to plan each training session down to a T for simplicity's sake? For starters, individuals have unique warmup and preparatory needs. Any effort to force everyone to use the exact same warmup procedure will result in wasted time for some and insufficient limbering up for others. The number of warmup sets will inevitably depend upon the weight for which one is trying to prepare and the heavier the working sets, the more warmup sets needed.

As for the range of reps in working sets, it is my intention to provide a program which compensates for unexpected variables and slight misjudgments in difficulty. Let's say for instance, that you just warmed up on bench press and you are attempting your first working set. You're a bit off today. Maybe you didn't sleep well, or maybe lunch isn't sitting quite right. Life happens, but thankfully, that's not an issue with this program's adaptability. You do your first working set on bench press and it's definitely a 2-reps-in-reserve amount of effort to get in the prescribed 6 reps. Now what? You're supposed to get 3-4 sets of 6 reps in at a 3-1 reps in reserve pace, but you're already starting at a 2 reps in reserve pace. Easy - Take a little more rest than is prescribed, hit another set (definitely use a spotter if

you are feeling atypically fatigued or out of sorts), and see if this set is easier, harder, or the same as the previous set. If it is easier or the same, perfect; do another set and then call it a day when you hit 1 rep in reserve as prescribed. If it is harder than the 2-reps-in-reserve first set, call it a day at 2 sets; as you have hit the minimum prescribed reps in reserve goal (1 RIR). Don't kick yourself while you're down by pushing farther than is necessary; let yourself regain your usual strength and resilience back as opposed to digging yourself deeper into fatigue.

### ***Hypertrophy Sets -***

Hypertrophy sets are designed with one particular outcome goal in mind: stimulate a particular muscle group to a degree sufficient to create muscle fiber damage, which then (with proper rest and nutrition intake) leads to regrowth, and ultimately, an increase in the cross-sectional mass of the muscle bodies involved. In more direct terms, hypertrophy sets are meant to challenge targeted muscle groups and cause them to break down, producing small tears in the muscle fibers. These small tears emit signals to the body to start a regenerative process which, coupled with good sleep and food, is essential to *improving one's muscular composition*.

Here's how to perform hypertrophic sets for the sake of this program:

***1st Set - Find Your Groove:*** Perform 8 - 15 reps. Personally, I prefer about 8 - 12 for my hypertrophy-specific sets, but some will find an affinity for higher rep ranges. That is perfectly acceptable; you do the rep range with which you gel the best for these sets with a ceiling in mind of ***2 reps in reserve***. This 1st set is a 'feeder' set, intended to get you in the groove and equipped with a good idea of how many reps 0 reps in reserve will be for the next set...

***2nd Set - Reach 0 Reps in Reserve:*** Perform 8-15 reps with a goal of reaching 0 reps in reserve on the last repetition. In a perfect world, the number of reps done would be exactly 2 more than were done in the 1st set. It doesn't always work out that way, which is perfectly normal. On the other hand, when it all 'clicks' together, you'll find your 1st and 2nd sets will have a predictable rep relationship whereby you can anticipate where 0 reps in reserve will land.

**3rd Set - Revisit 0 Reps in Reserve:** Here's the grand finale! The purpose of the 3rd set is to take a muscle group, which has already been exposed to heavy weights directly or indirectly through earlier exercises, to targeted muscular failure; thus ensuring that both general and specific stimuli have been provided sufficiently to produce growth. How do we accomplish this? By attempting to replicate the 2nd set's number of reps in what is now a further state of fatigue and muscular breakdown. I will outline below how this can best be accomplished, but first, I will provide a word of advice about the relationship between overtraining and muscular growth.

### ***A Word of Caution -***

Here is where I must play the role of the cautious facilitator and contribute a thought about a pervasive gym culture belief which is inherently counterproductive to muscular growth and fitness: **The Gym-Bro Assumption - *More is Better***. Fascinatingly, more is not always better when one is weight training for improved muscular composition. An explanation as to why this is the case physiologically escapes the context of this program, however, the core reasoning behind this phenomenon is easy to articulate and to understand: You are made up of carbon. Your muscles are primarily made up of protein and water. You burn calories. You intake food to keep rebuilding your cells, muscle cells included. If you output (burn calories) more than you intake (consume calories), your body cannot afford the resources to grow quality muscle fibers back bigger and stronger after exercise. Even with enough caloric intake, muscle cellular repair can only keep up with so much muscle damage (the natural and desired effect of weight training) ***at one time***. This is where a ***consistent but recoverable amount of exercise*** (and subsequent muscle damage) plays an ***essential role*** in the process of improving the size and quality of muscles.

Train smart. Eat well. Rest hard.

Now, here's how to sustainably revisit 0 RIR on your 3rd hypertrophy sets for efficient muscle growth:

Employ the technologically advanced training technique of...(drum roll please).... **Rest-Pausing!** Rest-Pausing allows for micro-recovery windows (*rest of about 30 seconds*), enabling a few more repetitions to be completed while still in a fatigued state. I know, super cutting edge, eh? All jokes about their conceptual simplicity aside, when I say that there is no better method by which to promote time-efficient hypertrophic growth than Rest-Pause sets, I mean it!

For comparison, here are some often used alternatives:

**Forced Negatives** - Once 0RIR has been reached the ‘concentric’, or against gravity, portion of the lift is done with assistance and the ‘eccentric’, or with gravity, portion is done unassisted. Do they work for muscle growth? Certainly! Are they superior to resting an additional 15-30 seconds before attempting an additional few reps? Nope. Accomplishing a *complete*, concentric and eccentric, repetition is superior to being assisted through one half of the repetition. “Just take a few breaths and do a couple more” is a superior strategy to Forced Negatives.

**Drop Sets** - Drop Sets are when you reach failure with one weight and then you immediately remove or lessen the weight load (usually by 10-25%) and proceed to do a few more repetitions at the new weight load. Now, I do think drop sets are perfectly reasonable alternatives to Rest-Pause sets, in theory. *However*, the very logic behind why one would take the time to program out a training session at all is central as to why Rest-Pause sets remain the optimal option to push a little further in the final hypertrophy set: Drop Sets pursue a *relative rather than fixated* sense of fatigue (# of Reps in Reserve), which is less useful for tracking one’s training sessions and predicting future progress. Drop Sets absolutely assist you in pushing further past that initial point of 0 RIR. However, replicating, or preferably surpassing, what was done in previous weeks of training becomes increasingly difficult with Drop Sets as there are too many additional variables to keep things consistent. What percentage of weight did you take off for the Drop Set? How long did it take to do so? How many additional reps were achieved? Did you perform more than one Drop Set? With Rest-Pause Sets, the only information that needs to be tracked is the total # of reps accomplished and adherence to a consistent pause.

***I recommend 30 seconds for rest-pause intervals.***



The last thing I will say about final hypertrophy sets and Rest-Pausing is this: ***Rest-Pausing is not an excuse to do sloppy or shoddy reps.*** It is not an invitation to alter the proper form of the movement, thereby enabling additional reps to make your training logs look that much more badass. Big uncomfortable truth coming up here, so be forewarned: ***If maximal effort on every set of every movement of every trip to the gym produced the greatest fitness and physique results, you would not need a training program of any kind.*** Having a bullheaded commitment to hitting failure and beyond on every set and the intestinal fortitude to match is not sufficient to produce optimal results in the gym. ***Self-assessment, consistency, and patience are the names of the game...***

### ***How to Progress with This Program -***

Simple! Just add weight. This program is not built for adding reps above the provided rep ranges. The volume, though intentionally moderate, will not support more than 1 additional set per movement in the grand scheme of things. Frankly, neither will your body. Using minimal effective volume is always preferable to pushing the total number of working sets as the central mode of progression. Physical sustainability aside, ain't nobody got time for a three hour workout! When it's appropriate, (See my section on indicators for when you're ready to add weight) bump up the working weight loads and, in ratio, bump up your warmup weight ranges to accommodate the change from the ground up; beginning with the new intended working set weights in mind.

### ***The Indicator That You Are Ready to Progress in Weight -***

In this program, I have harnessed the power of repetition ranges as a progressionary tool, week to week. However, there is a terminal edge for progress measured solely in number of reps. Hence, the primary means of progression must come from additions in weight load. It can be difficult to determine when one is ready to progress in weight simply by consulting how one 'feels' the last training session went. If the weight increase indicator is not predetermined, or relies solely on subjective perception, one is likely going to overestimate or underestimate their

current level of preparedness for heavier weights and miss an opportunity for appropriate dosages of stimuli. When you are still learning your body's cues and recovery patterns, it is possible that you will underestimate your own abilities. On the flip side, every addition of even 10lbs on a given exercise could have far more of an impact on your recoverability and energy levels than you anticipate; contributing an undesirable amount of soreness and fatigue. Progress comes fast at this phase but true adaptation to a new stimulus takes time at every new personal best weight load. That is why I like to use a double linear periodization approach - in this case, reps cycle up and down week to week with weight loads gradually rising - in programming.

**IMPORTANT! This is how to progress with 'Improving Muscle Composition':**

For your first week of the program cycle, you will perform 3-4 sets (exact number of sets will vary based on current fatigue levels; the goal is always to arrive at a terminal set of 1 RIR for that week's prescribed rep range) of X reps (X will be 5, 6, or 8 reps, depending on the exact movement) for Y weight. Week two, you will perform 3-4 sets of X reps + 1 rep for Y weight. Week three, you will perform sets of X + 2 reps for Y weight. *If* at least 3 sets of X + 2 reps cannot be performed that week (often this transpires due to excessive or unexpected external stress or fatigue factors), then the preceding week's rep and weight load scheme will be revisited in the following week's training. *If* at least 3 sets of X + 2 reps can be performed (preferably at the prescribed reps in reserve goal of 1 RIR), then the prerequisite indicator for increasing the weight load has been met. Starting again from week one, but this time with a fixated and predetermined increase in weight applied, you will do sets of X reps for Y + 5lbs or Y + 10lbs, depending on the movement.

*For this program, we will use 5lbs for the upper body and 10lbs for the lower body as the preferred weight load increases. In this fashion, reps will rise over three weeks, then, (if the 3 sets of X + 2 reps threshold is reached) reps will fall to the original starting rep scheme while a slight increase to weight loads will be made.*

## ***Determining Your Initial Weight Loads -***

The best way to get a feel for appropriate starting weight loads for *Improving Muscle Composition* is to take an “attempts” week where all 6 Primary and Secondary Movements are tested. ***Squat*** and ***Deadlift*** will be tested on the same day. ***Bench Press*** and ***Overhead Press*** will be tested on their own day. ***Bent-over Row*** and ***Pulldown or Pull-up*** will be tested on their own day.

Shoot for a set of 10 reps with 0 RIR for Squat, Bench Press, and Bent-over Row.  
Shoot for a set of 10 reps with 0 RIR for Overhead Press and Pulldown/Pull-up.  
Shoot for a set of 8 reps with 0 RIR for Deadlifts.

In order to arrive at a reasonable estimate for what weight to use on your test sets, I would recommend warming up with incrementally heavier weight loads until a final warmup set is reached where you can do 8-10 reps smoothly. This ***final warmup set*** should feel like a ***3 RIR*** difficulty.

Once such a final warmup set has been reached, go about 5-10% heavier for your testing set. ***Rest for 5 minutes***, then take an attempt at the target number of reps.

***If you hit or exceed the rep goal by one rep, your starting weight will be your attempt weight.***

***If you fail to get the prescribed rep goal at 0 RIR, falling short by a rep or two, your starting weight will be your attempt weight minus 10%.***

***If you exceed the rep goal by two or three reps, your starting weight will be your attempt weight plus 5%.***

## ***Recommendation for Frequency and Arrangement of Training Days -***

### ***Weekly Split -***

Day One - Legs

Day Two - Stretching (Not addressed in this program)

Day Three - Pressing

Day Four - Cardiovascular Training (Not addressed in this program)

Day Five - Pulling

Day Six - Cardiovascular Training

Day Seven - Stretching

Day Eight (Week Two, Day One) - Legs

...Etcetera ad infinitum...

## **General Warmups**

Example A - Rowing Machine: 500 meters rowing

Example B - Stationary Bike: ½ - 1 mile pedaling

Example C - Jumping Jacks: 2-3 sets of 25 reps

Example D - Jogging: .25 - .5 mile

## ***Training Day #1 - Legs***

### General Warmup

Take 3-5 minutes for light engagement in cardiovascular activity  
(See General Warmups for options)

### **Primary Movement - Squat:**

***Goal*** - 3-4 working sets of 6-8 reps, (See section “Repetition Ranges” for details)  
3-1 RIR, (See “Reps in Reserve” section for details)

- 3-4 warmup sets of 6-8 reps, 3+ RIR, 1-3 minutes rest between warmup sets;  
(Select weight loads with the intended working sets weight in mind, shooting for relatively even jumps in weight between warmup sets)
- 3-4 working sets of 6-8 reps, 3-1 RIR, 4 minutes rest between sets;

Relevant Implements:

Recommended - Barbell, Safety Squat Bar (SSB).

Not Recommended - Smith Machine, Dumbbells,

\* (See Leg Day Recommendations for form and technique ideas)

### **Secondary Movement - Deadlift:**

***Goal*** - 2-3 working sets of 5-7 reps

- 1-2 warmup sets of 3-5 reps, 3+ RIR, 2-3 minutes rest between sets;
- 2-3 working sets of 5-7 reps, 3-1 RIR, 4 minutes rest between sets;

Relevant Implements:

Recommended = Barbell, Trap (Hexagonal) Bar,

Not Recommended = Smith Machine, Dumbbells,

\* (See Leg Day Recommendations for form and technique ideas)

**Lower Body Accessory:** (See Lower Body Accessory Exercises for options)

***Goal*** - 3 working sets of 8-15 reps, 2-0 RIR, 2-3 minute rests between sets

- 1 warmup set of 8-12 reps, 3+ RIR, 2 minutes rest;
- 3 hypertrophy sets of 8-15 reps, 2-0\* RIR, 2-3 minutes rest between sets;

## Leg Day Recommendations

### **SQUAT -**

The benefits of squatting to terminal depth under weight load cannot be overemphasized. Though it will come with a reduction in weight load to properly execute the movement, reaching a dramatic and full range of motion is an excellent way to discourage injury from mobility or stability imbalances. It also promotes muscular growth in such a holistic way along the full muscle body that exercises which are often included in a program to combat knee stability issues or hip mobility problems are made comparably obsolete by full range of motion squatting. Oftentimes, performing one tried and true compound movement (such as squats) through a full range of motion is a better usage of time and resources than accomplishing two or three other inferior exercises which intend to target the particular muscles involved individually.

### **DEADLIFT -**

Beware overtraining of the deadlift. Unparalleled in their anabolic hormone stimulation (basically, heavy deadlifts tell the body to release growth-promoting hormones due to the mechanical stress placed on the entirety of the body's frame), deadlifts are an excellent tool for stimulating holistic growth. However, they are also significantly taxing on the body. The good news about deadlifts is that a little bit of exposure to moderately heavy weight loads produces ample stimulus for growth. Once you are highly adapted to deadlifts and you have progressed to hefty weight loads, you may find it desirable to start varying your intensity from session to session to stave off mounting fatigue.

For now, putting a reasonable 'ceiling' on the amount of fatigue and soreness you are willing to acquire from deadlifts will suffice.

Approach 1 RIR deadlift sets conservatively.

In practical terms, this means being quick to call it good on deadlifts after only a set or two if the movement is producing excessive fatigue. I would also be conscientious of any mounting inflammation in the lower back due to deadlifting. Proper technique is essential on deadlifts for longevity. If you have any concerns about your form, please don't hesitate to send me an email - [info@rhyslyon.com](mailto:info@rhyslyon.com) , or to drop me a comment on YouTube - <http://www.youtube.com/@rhyslyon> with a link to you performing deadlifts with your current form. Also, try deficit deadlifts (standing on a slightly raised surface in comparison to where the weight plates are, thus creating an elongated range of motion and a lower starting point in relation to your shins). Whenever my deadlift form starts to feel compromised, I come back around to deficit deadlifts, and they never fail to help!

## ***Lower Body Accessory Exercises:***

### *Highly Recommended:*

***Bodyweight or Dumbbell-Loaded Lunges*** - (Two steps = One rep) Overall, one of the best exercises possible for glute development and for improving stability. Perfect for the end of a leg day.

***Hack Squat*** - Excellent for quadriceps! Easy to load this movement. Try varying your foot placement to offer different emphases on the quads.

### *Moderately Recommended:*

***Dumbbell/Kettlebell Front Squats*** - I like front squats with a barbell as well, but I find the added demands placed on the core and lower back when stabilizing a barbell in the front rack position detract from the goal of promoting leg muscle growth. After having done regular squats and deadlifts, I would recommend going for higher reps on this movement to provide greater diversity of stimuli to the target muscle groups.

***Dumbbell/Kettlebell Romanian Deadlifts*** - Again, I like barbell Romanian deadlifts too, but I would recommend mastering dumbbell Romanian deadlifts first before using a barbell. The goal of this exercise is to place tension on the glutes and hamstrings. This is another excellent exercise for promoting stability and resilience in the glute and leg muscles.

### *Recommended with Reservations:*

***Leg Press*** - Leg press has its uses, but I find it vastly inferior to hack squats for hypertrophic work. If one cannot perform squats, leg press is a possible replacement. If one can squat, leg press is generally redundant. It also takes forever to load it with adequate weight loads to produce worthwhile stimuli to the target muscle group.

## ***Training Day #2 - Pressing***

### Warmup Routine

Take 3-5 minutes for light engagement in cardiovascular activity  
(See General Warmups for options)

### **Primary Movement - Bench Press:**

**Goal** - 3-4 working sets of 6-8 reps, 3-1 RIR,

- 3-4 warmup sets, 1-3 minutes rest between warmup sets;
- 3-4 working sets of 6-8 reps, 3-1 RIR, 3-4 minutes rest between sets;

Relevant Implements:

Recommended - Barbell, Dumbbells.

Not Recommended - Smith Machine,

\* (See recommendations page for technique advice and variation ideas)

### **Secondary Movement - Overhead Press:**

**Goal** - 3-4 working sets of 8-10 reps, 3-1 RIR,

- 1-2 warmup sets of 6-10 reps, 3+ RIR, 1-3 minutes rest between sets;
- 3-4 working sets of 8-10 reps, 3-1 RIR, 3-4 minutes rest between sets;

Relevant Implements:

Recommended = Barbell, Dumbbells,

Not Recommended = Smith Machine, Cable Machine,

\* (See recommendations page for technique advice and variation ideas)

### **Upper Body Pressing Accessory:** (See Pressing Accessory Exercises for options)

**Goal** - 3 working sets of 8-15 reps, 2-0\* RIR, 2-3 minute rests between sets

- 1 warmup set of 8-12 reps, 3+ RIR, 2 minutes rest;
- 3 hypertrophy sets of 8-15 reps, 2-0\* RIR, 2-3 minutes rest between sets;



## **BENCH PRESS -**

The bench press is an exceptional movement for building the pressing muscles of the upper body, especially the pectorals and the triceps. It is, however, far overemphasized in most ego-lifting/bro split programs. The best advice I can give for programming the bench press is to hit it hard and then move on. Because the movement is (relatively) simple with its point A to point B range of motion and its stable environment (laying across a bench is far more stable of an environment from which to lift than a squat, for instance), it's easy to overemphasize the primary movers (the pectorals and the triceps) to an imbalanced degree. Am I saying to avoid the bench press? Definitely not, it's an excellent movement for building size and strength in the upper body, but it is not as holistically beneficial to one's fitness as a movement like dips (against gravity with no bench for stability) or overhead press (farther from your center of gravity).

For variations, I like to switch up my form, alternating between what I would call 'paused' reps (pausing at the bottom of the movement and then exploding upward with maximal force) and 'smooth' reps (keeping constant tension on the muscle by lowering and raising the weight at a consistent tempo). 'Paused' sets will usually result in one or two less reps, but they are essential for creating power out of the bottom of the bench press, enabling further muscular growth as you get stronger and handle heavier weight loads.

## **OVERHEAD PRESS -**

Overhead Presses are hard. They are easily the most humbling of the pressing movements, but the rewards can be massive. For variations, overhead presses can be done with different levels of stability, depending upon the desired impact. Most stable = seated with your back against a bench at approximately 65 - 80 degrees (I do not recommend overhead pressing on a bench at exactly 90 degrees as it creates an unnatural angle for the shoulders. If you need to 'fix' the angle of a 90 degree bench, put a few weight plates underneath the front foot of the bench to reduce the sharpness of the angle. Just make sure your alteration doesn't jeopardize the stability of the bench.) Least stable, but perhaps most valuable: standing with a barbell. Can be done by cleaning the barbell, but until you have mastered overhead pressing, I would recommend performing standing overhead presses from a rack.

## ***Pressing Accessory Exercises:***

### *Highly Recommended:*

#### ***Incline Press @ 25-45 degree angle*** - (Dumbbells, Barbell, Smith Machine)

Really any implement will do for these; the angle and the stretch achieved at the bottom of the movement are what make this movement worthwhile. I especially like to do a closer grip (one finger length away from the inside edges of the knurling on a standard barbell or about 20 - 24 inches apart) on this movement as it produces a better stretch and incorporates the triceps well.

#### ***Dips*** - (Bodyweight, Assisted, or Weighted)

Unparalleled for triceps growth, dips can easily find a valid role in any strength and muscle-building program. Do them with slow negatives and/or pauses at the bottom for an intense tricep pump. The only thing of which one should be aware when it comes to dips is that some individuals experience difficulty or discomfort in accomplishing dips to parallel (elbows and shoulders reach a parallel level at the bottom of the movement). If this is the case for you, no sweat; there is a great variation for dips which assists with this: bench dips. (I will plan to make a video on bench dips at some point, but essentially, bench dips are performed by putting your hands behind you on one bench and your feet out in front of you at a similar height to your hands on another bench. You then descend (dip) at the elbows and then press back up to the starting point. Excellent for the triceps, just like regular dips!

#### ***Close Grip Bench Press*** - (Barbell, Smith Machine)

Fantastic movement for developing the short head of the tricep and for improving overall pressing strength. I like to go ½ thumb length out from the inner edge of the knurlings (the grippy part of the barbell, not the smooth part) for my grip, but definitely experiment to find the most comfortable width for you. The positioning of the movement will ensure that your triceps will fatigue first and will thereby be the ‘limiting factor’ on the movement, but it never hurts to also mentally focus on the muscle or group of muscles you most intend to recruit and grow.

## ***Training Day #3 - Pulling***

### Warmup Routine

Take 3-5 minutes for light engagement in cardiovascular activity  
(See Cardio Warmups for options)

### **Primary Movement - Bent Over Row:**

**Goal** - 3-4 working sets of 6-8 reps, 3-1 RIR,

- 3-4 warmup sets, 1-2 minutes rest between warmup sets;
- 3-4 working sets of 6-8 reps, 3-1 RIR, 3 minutes rest between sets;

Recommended Implements - Barbell, Smith Machine,

Not Recommended Implements - Dumbbells,

\* (See recommendations page for technique advice and variation ideas)

### **Secondary Movement - Pulldown/Pull-up:**

**Goal** - 3-4 working sets of 8-10 reps, 3-1 RIR

- 1-2 warmup sets of 6-10 reps, 3+ RIR, 1-2 minutes rest between sets;
- 3-4 working sets of 8-10 reps, 3-1 RIR, 3 minutes rest between sets;

Recommended Implement - Cable Machine, Band Assisted, Bodyweight,

\* (See recommendations page for technique advice and variation ideas)

**Upper Body Pulling Accessory:** (See Pulling Accessory Exercises for options)

**Goal** - 3 working sets of 8-15 reps, 2-0\* RIR,

- 1 warmup set of 8-12 reps, 3+ RIR, 2 minutes rest;
- 3 hypertrophy sets of 8-15 reps, 2-0\* RIR, 2-3 minutes rest between sets;

## **BENT OVER ROW -**

Rows are the meat and potatoes of any back training day. Mechanically, it is a simple movement, but there are two specific aspects of rows which are worth mentioning: #1 - Range of Motion. Bentover rows can be done in a position where the spine is close to parallel to the floor. This is an excellent way to build the spinal erectors and other deeply (close to one's spine) situated muscle groups of the lower and middle back which play essential roles in stability. However, this can result in inflammation of the lower and mid back; inflammation which can be distracting and inhibiting for subsequent training days. I would recommend cycling your positioning (between fully parallel and 15-30 degrees north of parallel) and your chosen implements for bentover rows every few weeks; primarily to avoid overuse of stabilizing muscles. Bentover rows and deadlifts recruit many of the same muscles in the lower and middle back and this can lead to a negative feedback loop of mounting discomfort and pain if both movements routinely leave one with chronic inflammation.

## **PULLDOWN/PULL-UP -**

I grouped pulldowns and pull-ups together as they are essentially two distinct difficulty levels of the same basic bodily movement: pulling oneself upwards/pulling an object downwards. Ideally, strength training, like this program provides, will assist you in reaching a level of physical control over your own body weight where you will be able to accomplish pull-ups in the prescribed rep ranges. However, that is most definitely an advanced accomplishment! Tremendous gains in muscular strength and size can be obtained through pulldowns alone.

***A quick tip for back training:*** The hardest part of any pulling movement is the pinnacle of the rep. Holding an object still against your body (such as a cable machine bar pulled to your upper chest in a pulldown) requires immense effort from your back muscles. Humbling as it is, I know of no better cue for back development than to have someone pause for a full second count at the end of a rowing or pulling motion. I almost *always* pause in my back training now, as I have seen such excellent results in my back development from doing so. I predict that you will as well!

## ***Pulling Accessory Exercises:***

### *Highly Recommended:*

#### ***Alternate Row*** - (Cable Machine, Dumbbells, Hammer Strength)

Simply a way to push the rowing motion farther without stressing the lower back and spinal erectors as much as bentover rows do. These would be done seated or, for the dumbbell version, supported by a bench and done one arm at a time.

#### ***Shrug*** - (Barbell, Smith Machine, Trap Bar)

Shrugs target a concise movement pattern - the raising and lowering of the shoulder complex. They are straightforward, but if performed with a slight pause at the top of the rep, they will light up your traps like no other. These can be performed with or without grip aids (such as wrist straps, like figure-eight straps). If your grip is the primary limiting factor on your shrugs, I would recommend increasing how often you train your grip directly. (See section 'Add-ons')

### *Moderately Recommended:*

#### ***Stiff-Arm Pulldown*** - (Cable Machine)

These are a great exercise for isolating the latissimus dorsi (aka lats) through a unique motion. Excellent for someone who has difficulty 'engaging' or feeling the lats directly through other movements. Rarely necessary; but a fun movement.

### *Recommended with Reservations:*

#### ***Upright Row*** - (Barbell, Dumbbells, EZ Bar)

Arguably, upright rows are as much for the brachialis (muscles underneath the biceps brachii) and deltoids as they are for the upper back. I put upright rows under recommended with reservations due to the plethora of ways this movement can be done ineffectually or even dangerously. Start light and emphasize the usage of your traps and middle delts for optimal applicability to this program.

## ***Add-on Exercises -***

If time is the biggest limiting factor in your ability to progress with your fitness and physique goals, the weight training program you have just read is 99% as effective as any time-efficient weight training program can be. *Improving Muscle Composition* stands out for its focus on the essential movements which provide huge returns on investment for the amount of time and effort put into them. However, occasionally you may find yourself with an extra 10 minutes to spend while you are at the gym. This section is included to provide exercise ideas for low-impact (exercises which do not contribute heavily to overall fatigue or to prohibitive amounts of muscle soreness) and high efficacy movements to be added onto the core *Improving Muscle Composition* program.

**Leg Day Add-ons:** (2-4 sets of 10-20 reps recommended, 1-2 minute rests)

Leg Extensions - Add these for isolated quadricep training

Leg Curls - Add these for isolated hamstring training

Calf Raises - Add these for isolated calf training

**Pressing Day Add-ons:** (2-4 sets of 10-20 reps recommended, 1-2 minute rests)

Tricep Extensions - Add these to emphasize the long head of the triceps

Tricep Pushdowns - Add these to emphasize the short head of the triceps

Dumbbell Side Raises - Add these to emphasize the middle head of the deltoids

**Pulling Day Add-ons:** (2-4 sets of 10-20 reps recommended, 1-2 minute rests)

Bicep Curls - Who are we kidding? You were going to add these no matter what. :)

Barbell Grip Holds - Often overlooked, forearms contribute a lot to a physique!

Leg Raises/Roman Chairs - Add these for direct abdominal training

## ***How I Would Run Improving Muscle Composition***

Here are a few suggestions straight from my own training logs which have helped me immensely and would have helped me even more if I had implemented them years ago when I was first getting serious about my fitness and physique:

**#1. Do not overthink implement selections:** For the sake of muscular growth, your quadricep muscles, for example, **do not care** what particular implement you use for your squatting movement. Your muscles only care if they do or do not receive adequate stimulus, nutritional uptake, and sleep. As mentioned before, this is not a powerlifting or strength sport specific program. This is not about achieving a certain score in competition or setting a new record. Avoid fixations on the little details. Do not ruin an otherwise enjoyable training session by getting bent out of shape when someone else is using your favorite squat bar or bench in the gym when you're planning to use it. The worst training sessions are the ones that take 15 minutes longer than needed because you chose to wait for a piece of equipment which could have been adequately subsidized with an available implement.

**#2. Do not fixate on the poundages as the sole indicator of progress:**

Tracking progress via increases in strength or resilience to a given stimulus is great! Being informed as to when it is time to up the weight or to go up on the rep range is essential to progressing on a training protocol like *Improving Muscle Composition*. However, as the real progress from lifting is only fully incorporated into one's physique after adequate recovery, it is genuinely difficult to ascertain week-to-week whether one is failing to progress optimally or if one is simply in a prolonged adaptation to stimulus/cellular rebuilding phase. Progress is rarely linear, so expect plateaus or delays.

In short, don't forget to track the numbers, but don't obsess over one particular set of numbers, such as the # of pounds on the bar for any given set. Progress comes in many forms, and often the fruits of your labor will not all be harvestable at the same time. Some things (cardiovascular conditioning comes to mind) require a brief window of time in which to show notable improvement. Others (looking at you, maximal force production) can require weeks of adequate (but not excessive

or else you'll actually *inhibit* growth) weight load and volume on compound movements coupled with weeks of adequate sleep and nutritional refueling to see progress.

**#3. Know Your Expected Reps in Reserve and Weight Loads:** Every single training day is unavoidably different from the last. It is implausible to control every variable in one's life to ensure 100% performance capacity is reached for every training session. The best way to see through all of the daily fluctuations in training performance to the upward trend in aptitude and body composition undergirding your training is to track your total workload (# of reps x # of pounds). In the basic protocol above, we looked at a rudimentary method of progression and a simple way to alternate your training sessions with a double linear periodization (rep ranges and weight loads alternate increases to produce growth and progress). Now, the best way to capitalize on this structure is to record and review your sets, reps, weights and rest periods. This is where consistency in the selection of your implements (barbell, dumbbells, specialty bar, etc) comes in handy, but it is not absolutely necessary to stick with one implement week in and week out. A squat is a squat. A press is a press. Sure, some implements are mechanically easier or harder to use, but as long as the range of motion is the same, the potential for growth with proper weight loads will be similar. Learn from what works and what doesn't work by briefly logging what happened each training session.

### ***When Improving Muscle Composition Has Run Its Course -***

I am providing one final section here to address the inevitable: You will outgrow the *Improving Muscle Composition* training protocol. In some ways, that is the whole point. *Improving Muscle Composition* is an excellent training protocol for people who are dedicated health and fitness enthusiasts but who also have no current desire to participate in advanced strength or fitness exhibitions such as are found in the sports of powerlifting, weightlifting, strongman/strongwoman, bodybuilding, Crossfit, or other weight training-related sports.

There will come a time when progress on *Improving Muscle Composition* will slow down if not stagnate. The reason why this occurs is easy to articulate, but difficult



to see coming in reality. The three-week cycle format, though excellent for simplicity and conciseness, cannot endure past athletic intermediacy and continue to promote consistent improvement. Once you are *adapted* to the challenges of a three-week cycle, your body will find three weeks to not be a sufficient period of time in which to make meaningful improvements to your already conditioned neuromuscular strength potential. You will find yourself unable to fully recover in time for an increase in weight or reps from week-to-week. That's okay, that means you are ready for longer and more intricate strength and conditioning programs.

If you want to delve into specific training protocols geared around a particular strength sport or an advanced bodybuilding program, hit me up! I have personally competed in drug-tested powerlifting meets and drug-tested strongman events, and I intend to switch my training towards an aesthetic and holistic emphasis next. From personal experience programming myself for competitions and from professional training courses in personal training (at the time of writing this I am a certified personal trainer through the American Council on Exercise, aka ACE), I know what it takes to customize a training protocol to address weaknesses and maximize strengths.

I would love to encourage you in your health and fitness journey by providing a more intense training protocol to scratch that itch for something challenging...  
Email me anytime - [info@rhyslyon.com](mailto:info@rhyslyon.com)

### ***Epilogue -***

Well, that's a wrap! If *Improving Muscle Composition* improved your strength, fitness, and physique, please don't hesitate to reach out and let me know how it helped your training. If you know of anyone who would benefit from the information provided in this training protocol, feel free to send it their way too! Finally, if you would like to contribute a donation to support my ongoing project of creating comprehensive and practical training programs, I gratefully invite you to send donations via PayPal here - [paypal.me/rhyslyon](https://paypal.me/rhyslyon)

I hope *Improving Muscle Composition* provides you with a complementary framework for your health and fitness journey. You are one of the few with the willpower and wherewithal to have sought out a training program to fit your interests; that is highly admirable. I have no doubt your willingness to learn and to put in hard, diligent work will continue to serve you well in all your pursuits.

Here's to many more fun and challenging training sessions ahead! 😊 🏋️

Sincerely,  
Rhys Lyon

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