

Explanatory Notes for Programs # 1 and 2.

These first two programs are designed for teenage athletes (about 15-16 years of age) who are about to commence barbell training. Teenage athletes should have been performing bodyweight exercises such as various types of push-ups, reclined pull-ups, squatting, lunging, step-ups and abdominal exercises (sit-ups, hovers etc) before commencing this program. An accredited strength coach (such as an Australian Strength & Conditioning Association Level 1 or 2 coach) should be used to teach and coach technique.

These first two programs are very basic - the idea is to prepare the athlete for more advanced training and ensure a solid foundation of muscle and technical preparation. Just because they are basic programs does not mean they are not effective. I have used these programs (or slight variations of them) with every teenage athlete that has commenced their training with me over the last 13 years. It is only after they have successfully completed these programs can we progress to more advanced training.

There are two training days prescribed but you can train 3/wk by altering the order. This means in Week 1, the WK1/Day1 workout is performed twice (eg. Mon and Fri), while the Wk1/Day2 is done once (Wed). The next week the Wk2/Day1 is done twice (Mon and Fri) while Wk2/Day2 is only done once (Wed). Teenage athletes who are commencing barbell strength training **DO NOT NEED TO TRAIN MORE OFTEN THAN THIS.**

The key to the success of these first two programs is the control or regulation of training weights. Most athletes always try to lift too heavy on some exercises but too light on others. This is what the programs and Table 3 do – they prescribe the weight to be lifted. Never train to failure, just learn to train hard. By controlling the training weight, steady progression is ensured. Just how are the training weights determined? Below is the process, but basically we use the one rep max bench press and squat scores to determine the training weights in those key exercises. Then you will need to use Table 3 to determine the training weights for the other supplementary exercises.

Step 1.

Strength testing

Test strength in the bench press and squat (and chin-up if you want). If the athlete has been training performing push-ups and bodyweight squats, then their technique should be sound enough to perform either a one rep max (1RM) or a “reps to fatigue” test, which can be used to calculate 1RM. Ensure all safety procedures such as having competent spotters, collars on the bar and proper technique. Half squats and bench press bouncing off the chest or help from spotters does not count. Again, the use of an ASCA Level 1 or 2 coach is invaluable.

When performing a 1RM test, a solid dynamic warm-up is needed (5-8 minutes). Then perform 5 reps with a light weight, rest 1 minute, 3 reps with a little heavier weight, rest 2 minutes then do one rep at a time with progressively heavier weights till max is achieved with a 2-3 minutes rest between sets.

So for a beginner it might look like this:

20kg/5 reps 35/3 45/1 50/1 55/1 57.5/1 60/1 = 1RM

For more experienced it may look like this:

40kg/5 reps 60/3 70/1 75/1 80/1 85/1 =1RM

This process takes about 10-15 minutes. If you are a coach with lots of athletes and little equipment and time, then you can choose to do the RTF version which when combined with the correction factors in Tables 1 & 2 can be used to extrapolate 1RM. In this situation, the athletes' warmup as above doing the first two sets, then a medium heavy weight is placed upon the bar. Every athlete does one set of as many reps as possible. The amount of reps done conforms to a % of 1RM and therefore has a correction factor to extrapolate the athletes' 1RM. For absolute beginners, use Table 1 while more experienced athletes can use Table 2. So for beginners maybe use the RTF with 50kg (Table 1 correction factors) whereas slightly more experienced athletes could use a heavier weight (eg. 70-80 kg) and Table 2 correction factors.

Thus either by direct testing of 1RM or a RTF test to extrapolate 1RM, you have a 1RM score for the bench press and squat.

Step 2.

Determining training weights

Now all you have to do is multiply the 1RM BP and 1 RM SQ by the % in the programs for the bench pressing and squatting (+Romanian deadlift) exercises to derive what weight you lift in each workout for those exercises. These are the key or core exercises. It is very simple progression. Once you have those weights, you simply multiply those figures by the associated figure for the supplemental exercises that are contained in Table 3.

For example, the DB bench press is performed with 33% of the bench press training weight. If you are bench pressing 37.5 kg for 15 reps, then the dumbbell bench press will be 12.5 kg (each dumbbell) in that training week. The incline dumbbell bench press will be 80% of that, so basically just the next size down (10kg). All the upper body exercises can be based upon the 1RM bench press score ~ the pulling scores are actually based upon a chin-up 1RM, but the chin-up and bench press should be equal (the chin-up will actually be higher in younger athletes).

So by having the 1RM squat and bench press, you determine those training weights, upon which all other training weights are based.

Examples of training weights are provided

Besides the blank templates of Program # 1 and 2, I have provided a complete example of determining the training weights for both programs. All the training weights for the next 8 weeks have been determined in advance. The fact that you will progress in strength is actually built into the %'s used and training weights that have been assigned. If you have problems determining your weights, just study these examples for a while till the pattern emerges. Or scale them to your own strength level.

What if I can't complete the reps with a determined weight

This happens occasionally. Just reduce the weight so that you can get the designated reps. If the weight seems easy, avoid the temptation to increase it. Stick to the program. When you retest strength in week 9 is when you go all out.

Additional Notes:**Warmup-**

General Warmup is a dynamic movement period. It should take 5-8 minutes maximum.

For the general warm-up section do 12 reps of every exercise, alternating upper and lower body dynamic movement drills: Walking lunge, Walking toe-touch, walking angled lunge, Overhead squats, Offset push-up, T-push-up, Band pulls, Band pulls to archer.

Exercise specific warm-up: Also for the bench pressing + squatting exercise + Romanian deadlift, you must also perform a lighter warm-up set of 10 reps with about 40-75% of the designated training weight. For example, if your training weight was 37.5 kg x 15 reps, you would do 10 reps first with 20 kg. **THIS IS VITAL.** It prepares the body for these big heavy exercises. As you get more advanced you will do more warm-up sets.

Order – Follow the order that is written, unless you want to start with the squat exercises. “A” and “B” exercises are super-setted (30-s rest between “A” and “B”) with the cycle starting every 3minute or as specified. For example, start your stopwatch and then do inc db press x 15 reps, rest 30 secs, do close grip pulldowns x 15 reps and then rest till 3 minutes is up on your watch. Then commence the second set of the grouping etc.

Speed- refers to the lowering (eccentric), pause and lifting (concentric) time in seconds. Therefore 311 means 3-s to lower the weight, 1-s pause and 1-s to lift the weight. A zero in the middle (eg. 201) implies no pause between lowering and lifting. “x” means explosive, as fast as possible.

Rest period/Start every- Refers to the time for commencing the next set. If the next set is to commence every 2 minutes and the first set took 55-s, then the athlete has 65-s rest. If the second set took 60-s, then only 60-s rest is taken. Most exercises have a 2.5 or 3-minute turnaround. If time is short you can also do a set of abdominals during each turnaround cycle.

Torso/abdominal training takes place at the end of the resistance portion and entails basic slow speed (eg. Crunch, Reverse Crunch x 15-20 reps) and isometric (eg. Hover, Side Hover x 30-60 second holds) exercises. 4-8 sets should suffice taking 4-8 minutes.

Workout plan:

- Dynamic Warmup – 5-8 minutes
- Resistance exercises – 35-45 minutes
- Torso/abdominal - 4-8 minutes
- Mobility/flexibility - 5-8 minutes

Keep training to 60 minutes or less.