

How to improve your ranking in the front squats

One of the things I teach students when they take sport specific training seminars is the best way to assess an athlete's level of lower body strength is the front squat.

I like to use the power snatch to the velocity side of a force-velocity curve, and the front squat to rank the force side of the force-velocity curve.



Giving guidance for the power snatch during a seminar

One of the reason why I prefer the front squat is that it is the most honest test for lower body strength. You cannot cheat on it, otherwise you will get seriously injured.

Interpretation of good technique in the back squat can lead a fairly large margin, while the front squat is pretty straightforward.

If you want to cheat in the front squat, you will shoot the hips back during the concentric contraction, and then you will likely drop the bar on your quads, resulting possibly in an incapacitating injury. Front squats are a reflection of the axiom: honesty is best policy.

Another major advantage of the front squat is that it will immediately assess flexibility because you will not be able to perform the front squat unless your flexibility is superior in all the major joints. When you have a strength test that requires flexibility, your athletes have a strong incentive to train for flexibility. This is obviously not the case with the back squat, but it is particularly true for the bench press addicts who have problems supporting the bar in the right position on the clavicles. If an athlete has very tight forearms and external rotators of the shoulder, it will be virtually impossible hard to hold the bar. This is another lift where an experienced weightlifting coach can help with the proper technique.

How to Perform the Front Squat.

To perform the exercise, use a pronated (palms down) grip as you would for a power clean. Squat down until the hamstrings cover completely the gastrocnemius (upper calf) muscles. You should not be able to see daylight between the hamstrings and calves muscles.

Keep the trunk upright, and push the elbows up and in.



Coaching the perfect front squat

Some people will use two spotters when going for maximum. I find this practice for dangerous, as spotters often nowadays have the attention of a door knob, and will mistime the spotting, leading to a lower back or knee injury.

I recommend that if trouble completing the concentric range: shoot the hips back, while pushing the bar away from you. It will save you from an injury.

Problem solving #1 : Keeping the elbows up and in.

If you cannot keep the elbows up and in, the infraspinatus and the teres minor are too restricted. Find a good soft tissue practitioner that can give you rapid increases in mobility. There are many forms of these techniques available to give the soft tissues the proper elasticity. I highly recommend the Kinetic Chain Enhancement courses. To register for the next class, contact info@strengthsensei.com

Problem solving 2; Arms are too big, and shoulders are too tight,

For athletes with a tight shoulder girdle, they may want to try using straps to hold up the bar. What you do is place your shoulders under the bar and grasp the straps with your palms facing each other (i.e.,

semi-supinated or neutral). You'll find that using straps in this manner enables you to keep your elbows high without discomfort.



Problem solving # 3 Kyphosis occurring during fatigue

It means that your scapulae retractors are too weak. Therefore do more rows in your programs

Here are three types of rows that will help with this problem

1. [Pronated Grip Seated Face Pull](#)
2. [One Arm Dumbbell Row](#)
3. [Bent-Over Rowing with Ez Bar](#)

The best system to increase the front squats

People in the know will agree that opposed to the back squat, most it is best to train in a lower rep range, and frequently endorse doing singles in that lift.

Every expert agrees that doing more than 6 reps in that lift is a complete waste of time, as the scapulae retractors cannot hold the proper position isometrically when the duration of the set is too long.

The following are set-rep protocols recommended by weightlifting coaches of multiple Olympic medalists. (To avoid confusion, recognize that sets always come before reps, so that 2 x 5 means 2 sets of 5 reps, not 5 sets of 2 reps.)



Dmitry Klokov, a proponent of the isometric pause in the front squat

Wave-Like Pattern 1

With this protocol, the trainee should be able to use more weight during each successive “wave” as the nervous system adapts to the workout. For example, a lifter might squat 150 kilos for 3 on the first wave, 160 kilos for 3 on the second, and 170 kilos for 3 on the third.

1 x 7, 1 x 5, 1 x 3, 1 x 7 , 1 x 5, 1 x 3, 1 x 7 , 1 x 5, 1 x 3

Wave-Like Pattern 2

This is simply a variation of the previous workout, but it’s designed for a more advanced athlete who is striving for maximal strength, especially relative strength.

1 x 5, 1 x 3, 1 x 2, 1 x 5, 1 x 3, 1 x 2, 1 x 5, 1 x 3, 1 x 2

Wave-Like Pattern 3

Amongst all the loading parameters patterns recommended, this is the one most recommended by elite weightlifting coaches. It does require you to do **twelve sets** of work.

1 x 3, 1 x 2, 1 x 1

1 x 3, 1 x 2, 1 x 1

1 x 3, 1 x 2, 1 x 1

1 x 3, 1 x 2, 1 x 1

Patient System 1

Choose a weight that is very challenging (but possible) to lift for 8 sets of 2. In every workout try to get to 8 sets of 3. Once you can do 8 sets of 3, increase the weight.

East-German Stair Step System

5 x 2 followed by a decrease in load of 7%, then 5 sets of 3 at new step load.

Modified Hepburn Method I

8 sets of singles followed 5 x 3-5

To get more out of this system, I would do the first 8 sets of singles with a regular stance, then the 5 x 3-5 with

the heels elevated by 2-2.5 cm.

Modified Hepburn Method II

8 sets of singles @ 50X0 tempo, followed 5 x 3-5 @ 32X0 tempo

In this approach, I would do the first 8 sets of singles with a regular stance, then the 5 x 3-5 with the heels elevated by 2-2.5 cm.

What are the best plateau busters?

I have asked the following question to every single expert: "If the front squat is not up to par, what do you recommend?" Here are some of the answers:

1. Squat more often (most common answer)
2. Do one and quarter reps in bottom position.
3. Pause between 2-3 seconds in the bottom position. (See Modified Hepburn II.)
4. Standing or seated good mornings
5. Partial squats in the power rack to disinhibit the nervous system, then full range reps.
6. Increase regeneration

Depending of country of origin, my colleagues' approaches differed:

- Increase Yin herbs
- Anti-inflammatory herbs
- Acupuncture (Chinese)
- Laser treatments to break down scar tissue
- Use methods such as frequency specific micro-current (FSM)
- Manual therapies
- Applied kinesiology

The front squat in my opinion is the best expression of maximal strength of the lower body in an athletic population. I trust you have enjoyed the tips and methodology presented in this article to get to new levels of proficiency in this lift.

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