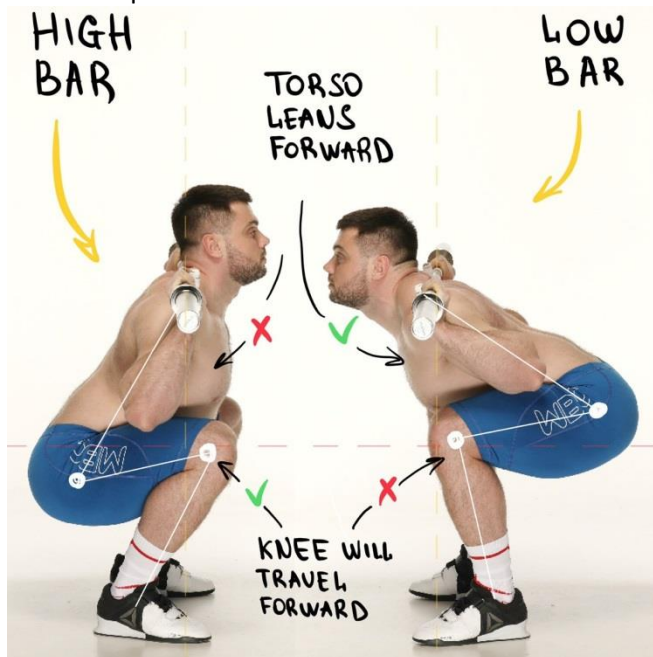


BACK SQUAT HIGH-BAR VS LOW-BAR Preview

The high-bar back squat is the basic movement for Olympic lifts and functional fitness athletes. Low-bar back squat gives more potential to lift a maximum weight, that's why this technique is mainly used by powerlifters, strongmen and partially bodybuilders. Let's try to figure out the difference between these two variations in this article.

When I was asked a similar question in my seminar for the first time, I was surprised as no weightlifters I know have ever practiced the low-bar back squat. Nevertheless, many weightlifters are trying to implement this squat technique in their trainings, because they've heard a word from the strength-athletes that bigger weights could be lifted that way. Thus they try to push their snatch and clean & jerk progression using this technique. Let's try to figure out the difference between the high- and the low-bar squats.



As we can see the main difference is the bar placement on the athlete's shoulders.

- High – the bar is placed on the trapezius muscles.
- Low – the bar is placed 4-6 cm lower, on the level of the lower posterior deltoid and shoulder joint center.



But squats are still squats, and it does not matter where the bar is placed. Therefore there are some details that athletes should take into consideration.

What kind of squats could be good for each kind of sportsman?

The high-bar squat is the basic movement for Olympic lifts and functional fitness athletes. This is because they perform the majority of their basic exercises with a more upright posture, such as snatch, clean, etc.

The low-bar back squat gives more potential to lift a maximum weight, that's why this technique is mainly used by powerlifters, strongmen and partially bodybuilders.

Let's take a closer look at 4 main features of such squats:

1. Torso loading distribution and balance.

The athlete must keep the balance on his mid-foot during the squat regardless of the technique. The main rule is to keep thrust distributed on the heel and big and little toes. You can probably imagine what's going to happen if the athlete excessively shifts his gravity center either to the balls of his feet or to his heels.

In the high-bar position, the barbell is located generally higher. Such bar placement creates a longer lever increasing the chance for the athlete to curve his back or lose his stable and safe posture if he happens to go off balance. That's why strong back muscles and solid torso stabilization is required for the high-bar technique.

In the low-bar position, the barbell is located much lower, which makes the torso lever shorter. This is the reason this technique allows us to lift the bigger weights.

2. Torso position.

Each squat requires a specific torso position to provide proper feet balance.

In the high-bar position, the athlete's posture is more upright, knees move forward and hip joints move lower.

In the low-bar position, the athlete has to do a deeper leaning forward to keep his balance.

3. Flexibility and mobility.

Both techniques have requirements:

The high-bar position. Maximum mobility and bending in the knee and ankle joints are necessary. If the range of motion in these joints is limited then the high-bar position may become uncomfortable.

The low-bar position. This type of squat is much easier for the athletes with a low range of motion in the ankle joints, as the hip joint angle is maximally acute while the ankle remains almost perpendicular to the platform. Nevertheless more specific shoulder joints mobility is required for the safe and steady barbell position on the athlete's back.

4. Muscles activation.

The differences in muscles work in different barbell positions haven't yet been well studied. But athletes that experienced both of these techniques tell about different sensations in how the muscles work.

In the high-bar position, more knee bend happens and more anterior thigh muscles (especially quadriceps) become involved in the movement.

In the low-bar position, the torso is more inclined forward, and this involves all posterior thigh muscles, especially hamstrings and glutes. Quadriceps works quite well too.

To summarize we can state that the low-bar squats grant you the possibility to put more weight on the barbell. But it doesn't mean that you grow much stronger than performing squats with the high-bar position. The low-bar squat provides you some advantage in levers length and muscle involvement thus making squats with a bigger weight easier at these "certain angles". It is important to keep in mind that if you can't overcome the weight with the high-bar position, but can do it with the low-bar position then the reason is the lack of torso strength and stability rather than the legs muscles weakness.

Classic high-bar Olympic squats are perfect to strengthen both torso and legs. And core stability is an indispensable part of every strength, speed, or functional exercise.

It is up to you to choose the high- or the low-bar position.

We have programs that focus on strength development or working out major muscle groups for functional fitness athletes and weightlifters. Well-balanced loadings and the whole array of necessary

exercises will provide you the best results possible. Check the special offer on our strength programs on this page.