

Common Errors when Performing Lower-body Free Weight Exercises

By

Jay Dawes, CSCS,*D, NSCA-CPT,*D, FNSCA

And Keith Cinea, CSCS,*D, NSCA-CPT,*D, FNSCA

Lower body exercises should be part of the foundation of any hockey players training program. When coaching athletes, we advocate utilizing exercises that mimic real world activities. This is why we promote the use of multi-joint, free weight exercises whenever possible. These exercises are similar to the demands placed on the body during most sports and daily activities. However, in many cases these exercises are performed incorrectly, minimizing the benefits associated with these exercises and predisposing athletes to injuries. The purpose of this article is to discuss some of these errors and present the coach and athlete with an appropriate description of how these exercises should be performed.

The **Squat** is excellent for developing overall strength and stability in the lower body and the core, as the core must brace in order to stabilize the trunk throughout this movement. To perform the squat the athlete will begin by placing their feet about hip to shoulder width apart. While keeping the feet flat on the ground and the knees aligned with the toes, they will initiate the start of this movement by sitting back at the hips and lowering the body until the top of the thighs are approximately parallel to the ground. Once this has been accomplished the athlete will simultaneously extend the hips, knees and ankles to return to the starting position.

Only after movement proficiency has been demonstrated should the athlete be allowed to use barbells or dumbbells.



Some common coaching cues we that can be used include instruction to lift the elbows up to create a shelf with the shoulders, pull the shoulder blades together, and keep your chest up and out.

Common errors TO AVOID:

- Initiating this movement with the knees rather than the hips
- Allowing the knees to move either inward or outward which puts excess stress on the knees and hips.
- Lifting the heels off the ground, which also increases stress on the knees
- Excessively shifting the hips to the dominant side
- And leaning too far forward which compromises the safety of the lower back

The next progression is to the **Split squat**. This variation of the squat emphasizes more lateral balance and stability than the traditional squat. To perform this exercise, simply assume a staggered stance, and lower the body by dropping the back knee until it is almost touching the ground. While lowering the back knee, simultaneously allow the front hip, knee and ankle to flex. Once at the bottom position simply return to the starting position by raising straight up. Perform 8-12 repetitions on one leg then alternate which leg is in the front and repeat for 8-12 reps for one complete exercise set.



Common errors TO AVOID:

- Again it is critical to make certain the lead knee remains in alignment with the toes or the lead ankle while descending
- Make sure the hips remain pointed forward and do not allow them to rotate outward.
 - Many times we will tell people to pretend they have a camera in the belly button or on the front of the hips, and they need to take a picture of whatever is directly in front of them. This helps the athletes visualize keeping the hips in the correct alignment for the split squat.

Once the split squat is perfected, and we know you have good balance and control in a staggered position, we now move on to the **Lunge**. The lunge is great for improving uni-lateral strength and can really help reduce deficits between the dominant and non-dominant leg. Beginning with a with a hip width stance, take an exaggerated step forward with one leg. Once the entire lead leg

foot makes contact with the ground, flex the hip, knee and ankle of the lead leg until the front thigh is parallel to the ground. The back leg should remain relatively straight and the hips should again be pointed forward. With the front foot flat on the floor and the knee in line with the toes of the lead foot, return back to the starting position by pushing back forcefully with the front leg. As this is a uni-lateral exercise, one set will constitute the desired number of repetitions performed with both the left and right leg in the lead position.



Common errors TO AVOID:

- Don't allow the trail leg to swing outward or collapse inward. At the bottom position the knee, hip, and shoulder be in a straight vertical line.
- Don't allow the heel to come up. This will cause the knee to travel too far past the front of the foot and increase the stress on the lead leg knee.

In conclusion, incorporating lower-body free weight exercises into your training program will improve strength and decrease injury potential. By following the progression listed above, you can safely avoid common flaws that may lead to injury and maximize the benefits associated with each of these exercises.