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Basic Core Exercises for Endurance Athletes

Participating in an endurance sport suggests that one must be able to compete for prolonged periods of time. Obvious endurance sports include long distance running and cycling. In addition to the aforementioned, many other sports require athletes to possess some degree of aerobic fitness and muscular endurance. Athletes who participate in sports such as tennis, basketball, golf, and soccer find themselves competing for long periods at a time. An athlete who possesses superior aerobic fitness and muscular endurance is bound to have an advantage over his or her competitor near the end of a game or match.

Possessing adequate muscular endurance, especially of the “core,” may also help to reduce injury risk. An athlete who lacks the necessary muscular endurance capacity to perform at a high level late into a game or match may be increasing his or her risk of injury. For example, a golfer may compensate for a lack of core strength by increasing the degree of activity of his or her shoulder muscles. Over time, these increased forces at the shoulder may overstress the tissues causing an injury. The purpose of this article is to introduce the reader to a few basic core exercises that will help to improve one’s muscular endurance of the core.

Side Plank (aka Side Bridge) Exercise

One should assume the pose demonstrated in figure 1. The head, torso, and pelvic region should be in alignment and the legs may be held as shown or with one foot placed on top of the other. Once in the pose, perform an abdominal brace (an isometric contraction of the abdominal muscles) and hold the position for the desired period of time (table 1).

When the side plank exercise is no longer challenging, progress to the side plank with hip abduction exercise (figure 2). Again, assume the same position as previously

mentioned. Next, raise the top leg (hip abduction) off of the bottom leg while maintaining the correct plank position. Perform sets and repetitions on each side of the body.

Front Plank (figure 3)

One should assume a prone position with the body supported by the feet and the forearms. Alignment of the head, torso, hips, and legs should be maintained. It is not uncommon for one to raise the buttock region higher than the torso and the legs. Correct this technique error by lowering the hips. One will notice that it will feel more difficult to maintain the proper plank posture as the hips are brought into alignment. Next, perform an abdominal brace holding the position for the desired number of repetitions.

To increase the challenge of this exercise, lift one leg at a time while maintaining the front plank pose (figure 4). The extension of the leg should be generated by the gluteus maximus muscle (buttocks), not from the low back.

Take Home Message

These are only a few core exercises that may be performed to improve one’s muscular endurance. I recommend that all athletes incorporate core exercises that both maximize endurance capacity and mimic sport-specific positions. A certified strength and conditioning specialist will be able to advance your core exercise routine. ■

Table 1. Sets and Repetitions for Basic Core Exercise Routine

Exercise	Sets	Repetitions	Hold Time	Rest Time
Side Plank	1 – 2 sets, each side	2 – 3 reps, each side	10 – 30 seconds	30 seconds
Side Plank with Hip Abduction	1 – 2 sets, each side	20 – 30 leg lifts, each side	1 – 2 seconds at the top of the lift	60 seconds
Front Plank	1 – 2 sets, each side	2 – 3 reps	10 – 30 seconds	30 seconds
Front Plank with Hip Extension	1 – 2 sets, each side	20 – 30 leg lifts, each side	1 – 2 seconds at the top of the lift	60 seconds



Figure 1. Side Plank



Figure 2. Side Plank with Hip Abduction

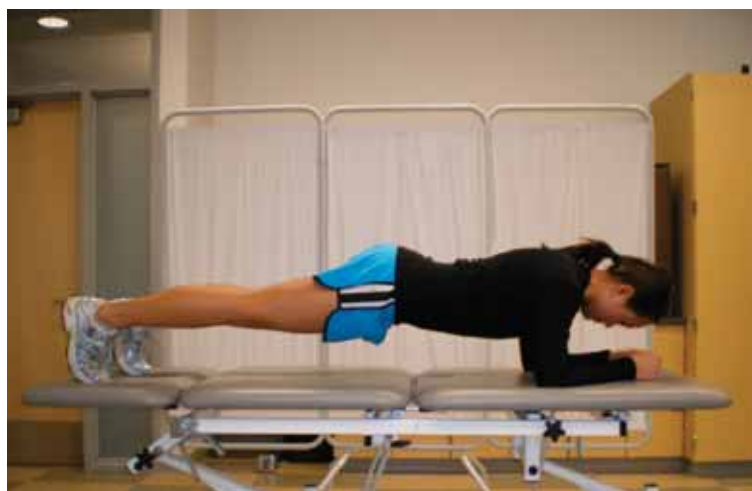


Figure 3. Front Plank



Figure 4. Front Plank with Hip Extension