

In lacrosse, training — like playing — requires proper preparation

Specific skills must be mastered, and questions asked, before beginning a program, or else injury risk could be raised

By Jay Dyer, Special to The Baltimore Sun

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Bigger, faster, stronger might sound cliché, but this is the evolution of the sport of lacrosse.

The result is that athletes are engaging in structured training programs in high school, with some athletes beginning in middle school. The goal of these programs is to enable athletes to improve their athletic skills (speed, agility, power, strength and coordination) while attempting to reduce injury risk.

To maximize results, the athlete, strength and conditioning coach, and parents must be on the same page. There are definitive steps for developing an athlete, and skipping a step will put the athlete at greater risk for injury.

Teaching proper mechanics for an exercise such as body-weight squats or push-ups before incorporating external loads will benefit the athlete's progression through a strength training program. Some athletes lack the coordination to perform a body-weight squat, and others have inadequate core strength to do a proper push-up. These skills must be developed before incorporating dumbbells or loaded barbells.

These are skills, just like throwing, catching and shooting a lacrosse ball. They require higher levels of coordination and synchronization of muscles and nerve impulses. Here's a quick test of your squatting skills:

- Do you have equal weight distribution in the balls of your feet and heels?
- Is there valgus (knock-kneed) movement either on the descent or ascent of movement?
- Is your back flat (spine in a straight line)?
- Do your shoulders, knees and ankle line up to form a proper force vector?

If you have any of these issues, you have not mastered some of the basic skills required for squatting.

Working from the inside out, core to extremities, will benefit the athlete's performance. A popular phrase is core training; the core can be defined as the muscles from the base of the sternum to the top of knee.

Exercises that strengthen the abs (transversus abdominis, rectus abdominis, internal and external obliques) back (erectors) and hips are vital to performance.

Prehab (as opposed to rehab) exercises are incorporated to improve stability and strength in areas such as the shoulder girdle and ankle. This is an important step for the athlete and is often skipped because of the athlete's sense of urgency to begin complex exercises.

Proper strength training incorporated with performance training will attain the best results for the athlete. The performance program should incorporate drills for speed development, first-step quickness, change of direction and general conditioning.

A well-rounded program will stress the athlete in both a predictable and unpredictable environment. In a predictable environment, the athlete has control of the surroundings and would not be reacting to another athlete's movements. An unpredictable environment is a practice or playing field requiring the athlete to respond to the movements of the ball and other athletes.

The goals of training are to improve performance while stressing the muscles, connective tissues and energy systems used in practice and games. Preseason preparation is vital to an athlete's performance and reduces the risk of injury.

At a time where athletes are specializing in lacrosse, participation in a training program takes the place of the cross-training effect another sport would provide.

Wondering when the right time is to start an athlete in a strength and conditioning program? When the athlete asks to begin, this is the true "first-step" in his or her next phase of athletic development. The athlete's desire to train will increase the likelihood of a positive training experience.

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