

Berea Softball Strength Training

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Our Priorities

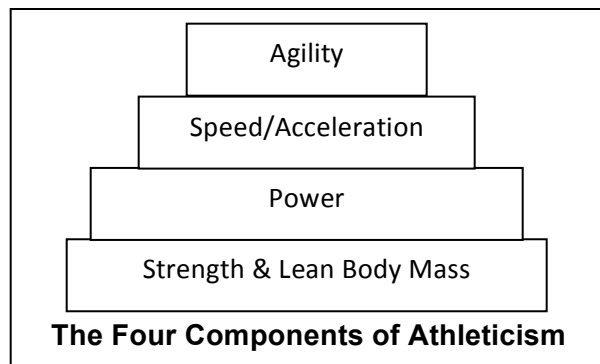
- 1) **Injury Prevention:** Strength and Conditioning programs can be designed to prevent injuries on the field of competition. We can strengthen stabilizer muscles to prevent joint injuries. We can actually strengthen ligaments and tendons to prevent strains and tears. We can prevent muscle imbalances that lead to injury. We can actually increase bone density to prevent stress fractures and broken bones. We can improve reaction time and agility to stabilize joints during competition. Additionally, we will prevent injuries in the weight-room by teaching and enforcing perfect technique on every lift.
- 2) **Core Strength:** For many reasons core training is essential to a first class program. The Core (abdominals, low back, hips) is important in injury prevention due to their role in stabilization. This muscle group is also important in almost all athletic movements. The benefit of a stronger core is obvious in many sports such as tennis or baseball involving a swinging motion. However, the core plays a major role in athletic movements that are crucial in every sport. Having lower body strength with an untrained core, or upper body strength with an untrained core, is like firing a cannon from a canoe. The most commonly used methods of core training are inadequate for athletes. Crunches and sit-ups don't begin to address the needs of competitive athletes. Methods used in body building and general fitness programs do not give our athletes a competitive advantage.
- 3) **Strength Base (and Lean Body Mass):** Most high school athletes just aren't very strong. Strength for the sake of strength is not our goal. However, any program that does not address strength development of the major muscle groups is missing the mark. Traditional strength coaches (especially football) have emphasized this component at the expense of other components. We must be careful not to allow the pendulum to swing to the other extreme. Overall strength in the major muscle groups provides a solid foundation for developing the other priorities. Training your athletes while ignoring this need is like building a house on a swamp.
- 4) **Functional Strength:** It is important that we bridge the gap from strength in the weight room to strength on the field of competition. We will perform movements in the strength program that enhance strength through a range of motion used in various sports. Most sports have in common many basic athletic movements. We will develop strength that is specific to athletics. We will not attempt to become better athletes by training to be bodybuilders or power-lifters. Almost all sports involve closed-chain activities (standing with a foot planted) that require balance and coordination as well as unilateral movements and twisting. Further, most athletes will spend much of the competition with one foot in contact with the ground at a time. Our program design will address

these specific needs of the athlete by forcing them to balance their bodies in various ways in most lifts. We will also use medicine ball drills and stability balls to enhance the training of athletic movements. This could be thought of as “Sports-General” training rather than “Sport-Specific” training. The truth is that most high school athletes don’t have the strength base necessary to benefit from sport specific movements in the weight-room. Additionally, research indicates that it is almost impossible to mimic sport-specific movements in the weight-room without altering proper movement form and putting the athlete at a very high risk of injury. Sport-specific movements should be done in our speed, agility, and conditioning routines and at a sport-specific practice. The specificity principle will be applied to set/rep prescription and by using movements that improve sport specific movements.

- 5) **The Posterior-Chain:** Training the Lower Back, Glutes, and Hamstrings is vital to injury prevention and speed development. Explosion in movements such as vertical leaping and sprinting originate largely in this muscle group. There is a great deal of overlap with core training and posterior-chain training. Development of the hamstring also helps prevent ACL injuries.

- 6) **Energy Systems:** This is where sport-specific issues can be addressed very effectively. Work to rest ratios can be manipulated, particularly in conditioning work, to mimic a specific sport. There are many common practices in coaching that totally ignore the science involved. Athletes who sprint in a competition should sprint in a conditioning program. Athletes who do not jog in competitions should NOT jog in a conditioning program. Cardiovascular fitness in these athletes can be better addressed by interval training. Ignoring the science available on this subject and continuing old coaching practices is like sticking your head in the sand. We must give our athletes a competitive edge by getting out in front of our colleagues on this subject. Adaptation to conditioning has been shown to be very sport specific. Having explosive athletes, who must sprint and jump during competition, jog for conditioning will actually decrease their speed and explosiveness. Research has also shown that straight ahead speed training and agility training (sprinting with change of direction) elicits significantly different end results.

- 7) **Speed/Acceleration/Agility/Quickness:** Coaches and athletes are well aware of the importance of speed, agility, and quickness in all sports. Many coaches do not believe speed can be improved significantly. Research and data show that there are proven methods to achieve significant improvements in speed and agility. Most sports actually depend more heavily on an athlete’s ability to accelerate than the athletes linear max velocity. Speed/acceleration mechanics can be improved by focusing on technique. Ability to decelerate, change directions, then accelerate is most important for most athletes.



Identifying Problem Areas

Functional Movement Screening: <http://www.youtube.com/watch?v=h8G6jkEf1uI>

Special Considerations for the female athlete:

Female Athletes have similar if not superior lower body strength per pound of bodyweight as do male athletes. The female athlete does have a natural deficit in upper body strength. There is also a gender specific concern with the Q-Angle of the Hip/Knee making female athletes more prone to ACL tears even without contact. Upper body strength, particularly in the upper back region, is important for the throwing athlete to stabilize the shoulder joint and this is particularly important when you consider the average strength deficit in the upper body for female athletes. Strengthening the Quads and Hamstrings can significantly reduce the risk of ACL tears. Equally important to protecting the ACL is Agility training and teaching proper, safe, change-of-direction technique as well as teaching jumping and landing. Once these concerns are addressed there is not much difference in how a female athlete and a male athlete should train.

Upper Body Warm-Up (this does not represent a complete warm-up, this is in addition to your traditional warm-up) Special Consideration for the Throwing Athlete

Shoulder Dislocates w/ band: <http://www.youtube.com/watch?v=Ann0cpxwzM>

Shoulder Tornados: <http://www.youtube.com/watch?v=OTC1nqlzdSU> at 20 seconds

Halos: <http://www.youtube.com/watch?v=RaobmOmQsnU>

Pre-Hab: Shoulder Stability for the “Throwing” Athlete

Band Pull-Aparts: <http://www.youtube.com/watch?v=tZFUENozYq8>

Pulls with External Rotation: <http://www.youtube.com/watch?v=FIPJRZGjDCU>

YTW: <http://www.youtube.com/watch?v=12i9Vmalpx0>

Blackburns: http://www.youtube.com/watch?v=cIPthBp_DKM

Bodyweight Exercises with Band Assistance/Resistance (as requested)

Pull-Ups with Bands: <http://www.youtube.com/watch?v=93gNrOhy5KU>

Inverted Rows (no bands): <http://www.youtube.com/watch?v=5LZa9TzKjRg>

Inverted Rows (with bands): <http://www.youtube.com/watch?v=EXmIE5ZjZa0>

Push Ups Band Assisted: <http://www.youtube.com/watch?v=UNOpF3liRml>

Push Ups Band Resisted: <http://www.youtube.com/watch?v=b5RmN6DyZwk>

Planks/Elbow Bridges (all three directions): <http://www.youtube.com/watch?v=dxRNvxR5XkY> (hold each position for time)

Hanging Toe Touches: <http://www.youtube.com/watch?v=uq6gJGIQQW8>

Resistance Exercises with Bands (as requested)

Face Pulls: <http://www.youtube.com/watch?v=IndlIttUTNMU>

J-Pulls (video shows cable, we will use bands): http://www.youtube.com/watch?v=cJvd_16VeRk

Tricep Press with Band: <http://www.youtube.com/watch?v=jBmBHpVuRVU>

Rows with Band:

Rows with Bell: <http://www.youtube.com/watch?v=J3zfFc1UfHo>

Overhead Squat: <http://www.youtube.com/watch?v=n4kl2GDf8T0>

Good Morning with Bands: <http://www.youtube.com/watch?v=fTxTFVELEzQ>

Crunches with Band Resistance: <http://www.youtube.com/watch?v=wfPfwJti2mA>

Hip Thrusts:

http://www.youtube.com/watch?v=Bdv6UQXAb_s&playnext=1&list=PL5C92E30B790E43D3&feature=results_main

Leg Curls on Ball: <http://www.youtube.com/watch?v=JZZCevWL7CQ>

Standing Chest Press:

Goblet Squat with Bell: <http://www.youtube.com/watch?v=1C0AxoIJzsU>

Single Leg Dead Lift with Bell: http://www.youtube.com/watch?v=cR_RjPDH018

Reverse Lunges with Bell: <http://www.youtube.com/watch?v=xJFPMAMv1bU>

Hyperextensions: <http://www.youtube.com/watch?NR=1&v=mO02ErgQBsY&feature=endscreen>

Glute-Ham Raise: <http://www.youtube.com/watch?v=FM4fcVP4hHo>

Single Leg Squats and Variations:

Heel Touches: <http://www.youtube.com/watch?v=mB3yljrjOfU>

Pistols: <http://www.youtube.com/watch?v=WtojEbjJmNk>

Reverse Lunges: <http://www.youtube.com/watch?v=3GmGSwA03jl>

Bulgarian Split Squat: <http://www.youtube.com/watch?v=gl9jX-6vJtE>

Skater Squat: <http://www.youtube.com/watch?v=5D2MeSV8uQU>

Resisted Jumps (videos coming soon)

Olympic Lifting

Below are a few short videos on the clean from the leading Olympic lifts coach in America right now.

See you Thursday at 4:00.

How to Clean Part I: <http://www.californiastrength.com/videos/viewvideo/44/clean/clean-how-to-video-part-one>

How to Clean Part II: <http://www.californiastrength.com/videos/viewvideo/45/clean/clean-how-to-video-part-two>

How to Clean Part III: <http://www.californiastrength.com/videos/viewvideo/46/clean/clean-how-to-video-part-three>

How to Clean Final Thoughts: <http://www.californiastrength.com/olympic-weightlifting-videos/clean/viewvideo/49/clean/clean-and-jerk-final-thoughts-by-glenn-pendlay>

Some additional demonstrations:

<http://www.youtube.com/watch?v=6TlbDQUWs0s>

<http://www.youtube.com/watch?v=Bc-0IFV1KWQ>

<http://www.youtube.com/watch?v=MyQDppF-udo>

<http://www.youtube.com/watch?v=jsBLietcapY>