

## Baseball Education 101 - TopVelocity.net

### Proper Warm-Up:

5-10 min slow run to raise body temperature.

No cold stretching.

Dynamic stretching is moving and stretching. This helps the heart pump blood into all of the joints and muscles. This feeds the muscles with nutrition and removes waste at the same time.

### Proper Throwing Mechanics:

Most important component of throwing is "Separation."

Separation is a component of throwing that means the separation of the back hip from back shoulder. This builds core torque.

Torque means a turning or rotational force.

Pictures of pitchers with optimal "Separation" <http://topvelocity.net/3rd-component-of-pitching/>

Second most important component of throwing is called "the Pull."

"The Pull" happens after "Separation" when the shoulders have committed to the target. This is when your chest is out and your stomach or core is completely stretched and your throwing arm is back behind your head. Your elbow is just above your shoulders.

Pictures of pitchers in "the Pull" position <http://topvelocity.net/4th-component-of-pitching/>

When throwing arm must not lead body – Body must lead arm until end of delivery.

Load weight back until hips have committed

Throwing elbow must be above shoulders at "Pull" position.

Fingers must stay on top of ball until release.

Release point should be six inches in front of landing foot.

### Proper Hitting Mechanics:

Feet shoulder width.

50% of your weight on left foot – 50% of your weight on right foot.

Load weight back, stride front foot forward. Chin on shoulder looking towards pitcher.

Extend back leg to drive back hip to front knee.

Plant front leg into ground after weight transfer and stabilize hard.

Build core torque

Pull the bat throw the zone with core and hands – Do Not swing the bat around with your arms.

### Proper Infield Mechanics:

Ground balls

Butt goes down when glove goes down.

When butt goes down knees must not pass over toes.

As glove goes down it must stay out front and not under body.

### **Proper Outfield Mechanics:**

#### Flyballs

Be aggressive

If you can make the play, call off your teammate with authority.

When running for the ball, keep head stable.

Do not drift to ball. Run hard and position yourself under flyball.

Catch ball on glove hand side.

### **Strength and Conditioning:**

Baseball is an anaerobic sport

Anaerobic means without oxygen.

The energy systems used in baseball to create energy is the phosphagen system and the glycogen system.

Exercises that train these systems are short sprints at maximum intensity, explosive plyometrics and weight lifting especially the Olympic Lifts.

These systems build fast twitch muscle fibers.

Fast twitch muscle fibers make athletes bigger, stronger, faster.

### **Nutrition:**

The fuel needed to fuel these two anaerobic systems is carbohydrates and vitamins and minerals.

Proteins are necessary to build the new fast twitch muscle fibers after exercise.

Best source of complex carbs, vitamins and minerals and proteins are whole foods.

Whole foods are raw fresh fruits, vegetables, nuts, beans and lean meats.

Most important time to eat is after waking in the morning, just before exercise and just after exercise.