

Turnitin Originality Report

Baseball by

A.V.

From "nothing" (Junk1)

Processed on 10-18-07 9:46 PM EDT

ID: 53417816

Word Count: 623

Overall Similarity Index:

0% 

PL. EX. 72

**sources:**

There are no matching sources for this report.

paper text:

"A fast ball commonly has back spin, which gives it relatively controlled aerodynamic properties in the air. The spin on a curve ball goes in the other direction. This spin makes a curve ball "curve", or drop low and move sideways as it gets close to the plate, which should frustrate the hitter.

When pitching a breaking ball, the pitcher makes down spin by moving his palm and finger tips over the ball when letting go of it. The placement of the curve is dependent on how the ball spins. There are some altercations of the curve ball, but they are shown by ways of their motion when shown on a 12 hour clock. A "12 to 6" curve ball has a "upward to downward" motion as it comes near home, while other sideways curve balls could be shown as "1 to 7" movement or slurves. There isn't a constant point where a baseball curves, but the change from a fast ball's movement becomes increasingly bigger as the ball gets near home.

Usually the "Magnus effect" shows the rules of physics which make a curve ball break. Fastballs travel in the air with top spin that makes a greater- pressure area in the air in front of and beneath the base ball. The base ball's higher seams increase the ball's capability to mix the air and make greater-pressure areas. The causes from gravity are momentarily counter acted as the base ball floats on and into excited air. Therefore the trajectory of a fast ball is more likely to be straight, for at least the area from the pitching mound to the plate.

Contrarily, a curve ball, when pitched with top spin, makes a greater- pressure area on the roof of the base ball, which makes the ball go downward in flight. When added with gravity it gives the base ball an increased drop in motion that is harder for the batter to see. The breaking ball may have a little side-to-side motion as well if on the tilt of the axis of rotation.

At the MLB level, a breaking ball is generally about 10-15 mph less fast than a fast ball. Breaking ball movement is different for each pitcher and changes. Other pitchers use a much more lobbing, slow break and others use a harder, stronger "slurve". The miles per hour change in a curve ball and fast ball, including the breaking ball's motion, serve to fool the hitter. If all goes well a breaking ball will have its biggest curve when it reaches home and make the hitter take a stroke over it.

To pitch a breaking ball perfectly, the right rotation must be put onto the ball when it is released. Usually pitchers hold the base ball further in their palm and finger tips than normal. Pitchers sometimes place their "pointer" finger next to one the base ball's elevated seams in order to get more leverage while rotating the ball. When releasing the ball pitchers then spin their hand on top of the baseball so that they can throw it straight with downward spin. If the motion is not properly done the base ball will have a bad rotation, not curve after being thrown, and be much simpler to "cream" this so called "non-curving breaking ball".

However, when pitched decently, the pitch could have lots of curve; anywhere from five to, at the most, 15 inches.

A common dubbing for a breaking ball is the "double", since the curveball is the second pitch in a pitcher's bag-of-tricks.[1] Catchers also use two fingers when showing that they want the pitcher to throw the "deuce". Some other dubbings for the breaking ball are: "hook", "bender", "King Charlie" "yakka" "hammer" and "Uncle Chaz".

Curveball

From Wikipedia, the free encyclopedia

.....

A fastball typically has backspin, giving it relatively stable aerodynamic characteristics in flight. The spin of a curveball moves in the opposite direction. This spin causes a curveball to "break", or drop down and sweep horizontally as it approaches home plate, thus frustrating the batter.

When throwing a curve, the pitcher creates downspin by rolling his palm and fingers over the top of the ball while releasing it. The direction of the break depends on the axis of spin on the ball. There are many variations of the curveball, but most are described in terms of their movement when superimposed on a clock. A "12-6" curve has a more or less straight downward action as it approaches the plate, while more sweeping curveballs might be described as "1-7" or "slurves". There is no specific point where a ball breaks, but the deviation from a fastball trajectory becomes progressively greater as the ball approaches the plate.

Generally the Magnus effect describes the laws of physics that make a curveball curve. A fastball travels through the air with frontspin, which creates a high-pressure zone in the air ahead of and under the baseball. The baseball's raised seams augment the ball's ability to churn the air and create high pressure zones. The effect of gravity is temporarily counteracted as the ball rides on and into energized air. Thus the travel of a fastball is more or less straight, at least over the distance from the mound to home plate.

On the other hand, a curveball, thrown with topspin, creates a high-pressure zone on top of the ball, which deflects the ball downward in flight. Combined with gravity, this gives the ball an exaggerated drop in flight that is difficult for the hitter to track. The curveball may have some horizontal movement as well, depending on the tilt of its axis of spin.

At the professional level, a curveball is usually about 15 miles per hour slower than a fastball. Curveball behavior is unique to each pitcher though, and varies. Some use a more looping slow curve and some use a harder, faster slurve. The speed difference between a curveball and fastball, as well as the curveball's movement, serve to deceive the batter. Ideally, a curveball will have its greatest break just as it reaches the plate and cause the batter to swing above it.

To throw a curveball correctly, proper spin must be given to the ball as its released. Generally pitchers grip the ball deeper into their palm and fingers than they would a fastball. Pitchers usually position their index finger aside one the ball's raised seams in for more leverage in spinning the baseball. At the release point they then roll their hand over the top of the ball to throw it forward with downspin. If this movement is poorly executed the ball will have lazy spin, not break in flight, and be much easier to hit—the "hanging curve".

When thrown correctly, it could have a huge break from seven to as much as 20 inches.

A popular nickname for a curveball is the "deuce", since it is commonly the number 2 pitch in a pitcher's repertoire.^[1] Catchers often use a two-finger signal when requesting the curveball. Other popular nicknames for the pitch include: "hammer", "bender", "hook", "yakker", "Lord Charles" and "Uncle Charlie".^[1]