

A PITCHER'S NOTEBOOK



FOR AMATEUR PLAY

Rookie Edition

A Notebook of Pitching Techniques for
the Amateur Pitcher



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Coach Harold Heap
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In the mid and late 1950's, there was volunteer baseball coach in Springfield, Massachusetts who blended the skills of the game with the skills of life. In this regard, his coaching included camaraderie, fair play, loyalty, and respect for others - all of which shared equal space along the learning curve of the game itself.

His quiet mannerism understood the limitations of youth by stressing we as team, at the same time stressing the efforts of the individual player, in a positive way - regardless of the outcome.

Like so many youngsters of that time period, I am a better person because of his influence. This book is dedicated to you - Skipper.



Before we begin

The amateur game is primarily made up of youngsters between the ages of twelve (12) and twenty (20). That being said, the training and playing aspects of the game can leave some youngsters vulnerable to the following:

1. Disruption to the growth cycle of muscles, tendons and bones due to abnormal stress and exertion on the arms and shoulders.
2. The total dependency on adults with little or no experience.
3. Pitchers who compete at a level not suited to their ability.
4. Players who are pushed into the pitcher position.
5. Public and private ball fields that are poorly maintained, subject to vandalism, gathering spots for troublemakers, and multiple function parks that cram events in simultaneously.

Avoiding these pitfalls can be as simple as acquiring the talents of an experienced *Pitching Coach*.

So, if you're an amateur player who wants to excel at the pitcher's position and develop with consistent quality, a *Pitching Coach* should be your **NEXT STEP.**

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Contents

Section

Pages

Bullpen Session	BP1 .. BP10
Balance	1 .. 5
The Pitch – A Component Approach	7 .. 25
Adjustments	28 .. 34
Equipment	35 .. 46
Catchers	47 .. 50
The Art of Hitting – A Pitcher's Perspective	51 .. 72
Base Runners	73 .. 80



Bullpen Session

What's a bullpen?

On game day, a bullpen is where a team's pitcher or pitchers prepare prior to an appearance. Usually, a pitcher will practice his/her pitch selection, mentally toughen up, workout the butterflies, so on and so forth. The key here is PREPARATION.

So, let's use that same concept and prepare for using our Pitcher's Notebook for Amateur Play.

On the following pages of BP1 through BP10 you'll find a host of terms and situations that are found in amateur baseball. Whether you're a rookie or a veteran, you should find this *Bullpen* section an excellent introduction for the dynamics that follow. In that regard, use this *Notebook* to start your own.

The Amateur Pitcher

Whatever the age, I have a lot of admiration for the amateur pitcher. Because, most of the time, with very little training or coaching, this player is willing to put himself/herself at the center of attention in full view of everyone and pitch after pitch, accept judgment(s) from those with little knowledge of the game, much less the position of pitcher. And if that wasn't enough, to be called from the field as relief for another pitcher, *is a gutsy thing to do!*

Unfortunately, most amateur pitchers are judged by the performance of the pro's and all the glitter and hoopla that accompanies that mind set. In that regard, I constantly remind parents and want-to-be pro coaches to back off a bit. The amateur ballplayer has other things in orbit like homework, social obligations, family chores and the like. So, give the amateur some elbow room. If he/she takes to the game and the position of pitcher . . . so be it.

Who can Benefit from Using This Notebook Amateur Pitchers

- Ø Pitchers with at least two (2) full seasons of pitching experience.
- Ø Pitchers who are fifteen years of age and older.
- Ø Pitchers who have the mental and physical stamina for deliberate athletic training.
- Ø Pitchers who want to prepare for the *next level*.

Amateur Coaches

- Ø Coaches who have a stable player environment
- Ø Coaches with at least two (2) full seasons of baseball above the fifteen year old level.
- Ø Coaches who are NOT in a metering system that spreads available talent based on how much money can be raised by a league/organization.
- Ø Coaches who are not pressured by heavy-handed booster clubs, alumni or sponsors.
- Ø Coaches who do not have serious facility shortages.

What this Notebook is Not

This *Notebook* is not a one-size-fits-all instruction manual. In addition, all the topics contained herein will have numerous exceptions that are best addressed, on the playing field, by an experienced pitching coach.

-Bullpen Session

Velocity vs. Control

Before I go any further, let's remember that we're talking about amateur baseball, we're not considering the professional game with its multimillion dollar training facilities and the kind of coaches and trainers that support that environment. So let's approach this section and those that follow with a sense of reality.

The Starting Point

At every level of play, all pitchers experience a tradeoff between velocity and control. This is due to the conflict between the physical and mental condition - each demanding the pitcher's attention simultaneously. In other words, as a pitcher exerts brute force, hand and eye coordination, equilibrium, depth perception and so forth can be subordinated. Hence, the predictability of each pitch can suffer.

However, if a pitcher moves in a slow and deliberate manner the result(s) can be more predictable.

Striking a Happy Medium

Striking a happy medium means finding a point where control and velocity matches the pitcher's ability. Our starting point is mastering control, and then building velocity. But remember there will be a point when velocity will overshadow control. Stop! Take it down a notch and regain control.

Responsibility

Most amateur pitchers equate pitching control with winning. And that's a good thing! However, there are more important reasons for controlling our pitches and that has to do with the safety of the batter. The fact of the matter is, every amateur player brings three (3) things into the batter's box with varying degrees of competency:

- (1) A batting helmet with a so-so fit, condition and care.
- (2) Varying degrees of coaching/batting techniques for avoiding wild pitches.
- (3) Prior experience.

It's the last subject - prior experience, (unfortunately) which relies on the first two.

Therefore, we as pitchers have an awesome responsibility. We must recognize the limited protection of the batter and conduct ourselves accordingly. Any player or coach who thinks otherwise has no business in amateur baseball. Period!

The Game Vs. the Sport

The *amateur game of baseball* is played strictly for fun. In fact, the key word in that last sentence is fun. Rarely are scores kept, umpires hired and strategies and statistics recorded. Also, teams are usually comprised of any number of players. It's no big deal. Choosing-up-sides, is usually based on friends, classmates, kin, and loyalties.

The *game* of baseball is *played*.

The *amateur sport of baseball* is a different matter all together. The participants are competitors, governed by rules and protocols. Serious competition can start as early as fourteen (14) years of age and go all the way up to the senior level for players over-thirty, over-forty, and even over-fifty.

Throughout this *Notebook* the term *game* will be used as a customary reference for the *sport of baseball*.

Umpires

In the amateur game it's not unusual for umpires to be members of an umpire association. This association on behalf of its members will negotiate a fee schedule and a host of other issues with leagues, park and recreation departments, athletic associations and anyone else who wants or requires their services. In any event, amateur baseball is officiated by amateur umpires. These people are not from the professional game, usually.

Therefore, in the amateur game WE'RE ALL AMATEURS, umpires included.

Hence, every amateur pitcher must bring a sense of maturity to the mound that recognizes this fact.

Be reasonable!

Physical Conditioning

For most pitchers in amateur baseball a reasonable diet, a good night sleep and regular exercise will suffice.

Listen to your parents or legal guardian, and your pitching coach.

Physical Exam and Emergency Information Card

Most amateur baseball leagues and associations require a physical exam in the preseason. Of particular importance is a history of respiratory, back/shoulder/ankle injuries, broken wrists, hernias, eye-hand coordination problems, reactions to bee stings and pollen, heat and sun, and the current use of medication.

A medical information card can be invaluable during an emergency. I use a three (3) by five (5) index card that uses the following format:

Name: _____ Contact Person: _____

Phone# 1 _____ # 2 _____ # 3 _____

Allergies: _____

Tetanus Shot ___yes ___no Booster ___yes ___no
When? _____ Years Ago? _____

Current Medication: _____

Recent Medical Treatment: (any) _____

Family Doctor: _____ Phone: _____

At the end of the season I return all information cards to the player parents/legal guardians.

Bullpen Session

Ready for Coaching

Most amateur clubs will not have a pitching coach.

However, this shouldn't stop you from acquiring the basics. Take advantage of your local library and all the publications and videos on the subject. Also, being somewhat instep with the basics will allow you to be more receptive to the dynamics and complexities of the game that coaches tend to dwell upon at the higher level(s).

A final word(s) about being ready - keep an open mind while progressing through your coaching experience. Don't make the coaching process any more difficult than what it is.

The Pitching Coach

An experienced pitching coach has a ton of knowledge that goes well beyond the pitcher's position. He/she has too! The variables that hang on every pitch dictate no less. Hence, any skipper (head coach) will tell you that an experienced pitching coach will lend insight and energy to any game plan.

What's a pitching coach? What kind of person makes a good pitching coach? What are the qualities of a pitching coach at the lower, intermediate, and the advance levels of amateur baseball?

The best way to answer these questions is to make a general statement then refine the answer for the three (3) levels of competition.

Basically

More often than not, these coaches were pitchers themselves. Each of them started off with a sense of apprenticeship, progressing like journeymen, and finally striving for that recognition as true master craftsmen. Their pride in accomplishment outweighs everything else, everything! Methodically, there a reason for every action or inaction, the probability of something happening or not, and the utter dependence on loyalty and the work ethic. Rarely do these coaches mull on the scoreboard and complain about opportunity(s) lost. The health and well being of the rotation (pitchers) is their primary concern. However, at the other end of the spectrum is an unforgiving nature that has little tolerance for immaturity, selfishness and the lack of heart. Most of the time but not always, these coaches would rather specialize as pitching coaches than assume the head coach position.

Lower/Instructional Level of Competition

These coaches normally concentrate on form and delivery, avoiding injuries, basic game preparation and fielding. Practice sessions are usually combined with the team practice.

Intermediate Level of competition

These coaches expect pitchers to have at least two (2) years of experience and a fair amount of game knowledge. Also, these coaches look for players with a simple array of pitches already established and ready for refinement. Pitching practice is usually scheduled away from the general population (team), with one or two catchers assisting. Sometimes, certain catchers will be matched with specific pitchers. The pitching coach will grade and chart every pitcher routinely. The end results of all this, fields a competitive rotation and prepares the pitcher(s) for the next level.

Advanced Level of Competition

Pitching coaches at this level expect strict adherence to training tables (diets), strength and conditioning programs, one sport dedication, self discipline and a work ethic that promotes individual improvements assisted by the coach on an as-needed-basis only. Pitching coaches at this level tend to study the rotation's contribution to the overall game plan.

Radar Guns

Radar guns and the like only promote brute force with pitchers at the amateur level. Only in rare instances should they be brought to the field. Besides, here's a sobering fact about radar guns: if a pitcher can deliver an eighty-(80) mile an hour pitch with control, then the radar gun shows the evidence of that velocity and nothing more. Over and done with, that's it! But for most amateur pitchers who regularly command the lower numbers the radar gun promotes nothing. Besides, most amateur clubs lack the coaching staff that can use the gun properly for the pitch selection of each player. In addition, these guns are expensive and can be damaged easily by the nonprofessional.

Winning and Losing Pitcher

Every time I hear the phrase, *winning and losing pitcher*, I shake my head with amazement that someone actually thinks there's only one player on the field that's responsible for winning and losing. I also find it difficult, season after season, convincing young pitchers not to fall prey to this mind set. The fact of the matter is, there are eight (8) other players out there just as capable of making plays. A pitcher who realizes this has a valuable resource worth using! In that regard, when properly trained, a pitcher can keep the pitch count low by letting his/her team field outs.

Pitch Count

Progressively counting the number of pitches thrown by a pitcher during a game is mandatory. The underlying reasons for this, has to do with the player's health during and after an appearance. Hence, a pitcher's durability and longevity can be measured with reasonable accuracy if a realistic benchmark is set, given the age and level of competition.

Durability

The constant strain of repetitive pitching without a rest, inning after inning, can have a rippling effect on a pitcher's stamina, mental confidence and readiness for the next appearance. Also, when a pitcher's durability is strained, shifting the workload to other pitchers unexpectedly can upset the rotation schedule.

Longevity

Pitchers who consistently have high pitch counts usually decrease their productivity as the season progresses. In fact, a barrier can develop that will erode the number of innings pitched, with no end in sight. Also, as frustrating as it may seem, the harder a pitcher tries to overcome this barrier the worse things get!

The reasons for a high pitch count can vary. Sometimes it's due to the surface of the pitcher's mound. Sometimes it's due to a pitch that's just not working. And sometimes well, it's just one of those days.

Fielding Errors

Errors on the field can add about four (4) to nine (9) pitches per inning to an existing pitch count instantly! Here's how it works:

Ten (10) to twelve (12) pitches per inning is a reasonable pitch count for an amateur pitcher. This number takes into account any combination of balls and strikes in addition to fielding plays for three batters per inning. However, when we add fielding errors to the mix, this usually sends another batter to the plate which in turn, on average, adds another four (4) pitches to the count. And if that wasn't enough, in the latter innings, most hitters will catch up to whatever is being thrown, thus adding foul balls to the dilemma.

Bullpen Session

Pitch Count (continued)

What's a Good Number?

Pitchers who are fifteen (15) years old should be limited to about sixty five (65) pitches per outing with three (3) days rest before their next appearance.

Pitchers between the ages of sixteen (16) and eighteen (18) at the intermediate level should be limited to about eighty (80) pitches per outing with three (3) days rest before their next appearance. Pitchers in this same age group at the highly competitive level should be limited to about ninety (90) pitches per outing with four days rest.

Pitchers nineteen years of age and older require a pitch count that is specifically tailored to the individual. In that regard a pitching coach will take into account a youngster's place in the rotation, pitch foundation/repertoire, playoff and tournament(s) potential, etc.

Special note:

The above is just a guide. Individual talent, physical ability, health and a host of other things go into fine-tuning a reasonable pitch count that is both safe and manageable. Hence, every pitcher has goals and limits that are unique.

You're Up Kid!

Depending on the age group and level of competition, a pitcher can be called into action on the day of the game or scheduled on a formal listing set days or even weeks in advance.

For ages fifteen (15) to eighteen (18), in the lower levels of competition, little if any advance notice is given to the prospective pitcher. Hence, he/she usually shows up for a game and hears *you're up kid!*

However, in the upper classifications of highly competitive baseball, rotation schedules are generally planned and pitchers and coaches are expected to make them work. That's why it's so important for pitchers at this level to take their diet, physical training and coaching seriously.

The Rotation

At the intermediate and highly competitive level of play you'll hear the term *rotation* when someone refers to a team's pitching staff (players). Basically, this term alludes to all the pitchers as a group and their place or turn randomly or designated, for entering a game(s).

For example, let say a team has six (6) pitchers. During today's game, if everything goes well, pitcher number one (1) will start and is expected to go at least seven (7) innings. Then pitcher number two (2) will close out the game. Tomorrow, pitcher number three (3) will start and pitcher number four (4) will close.

But, suppose pitcher number one (1) and number two (2) weren't effective and we had to call in pitcher number three (3). When additional pitchers are used like this, we usually say, *we had to go deeper into our rotation.*

Pitch Foundation

Every pitcher should have one pitch that yields the greatest degree of confidence. In addition, that one pitch should be the foundation for all other pitches in that pitcher's repertoire. Hence, the reference *foundation pitch*.

With respect to the foregoing, I strongly recommend the fastball as a *foundation pitch*. I make this suggestion because the fastball has numerous variations and it's easy to learn.

A fastball in the amateur game can be defined by its characteristics at three levels of play.

The Lower/Instruction Level

The key here is accuracy and control, with velocity subordinated to good location. The four-seam fastball grip is the only technique employed.

The change-up can be studied at this time but I recommend using it sparingly. My recommendation is based on the follow:

- this level of play tends to have slower bat speeds
- slower bats tend to hit this pitch a lot
- a host of fielding errors usually accompanies back-to-back hits
- a rookie's first impression of this pitch can be less than favorable.

The Intermediate Level

Accuracy and control are key here with velocity increasing as form and posture routines become second nature. The four-seam fastball grip is an ideal technique for reasoning and comparing the two-seam grip and the characteristics of the slider. Pitch location drills are common at this level with concentration on when and why a certain pitch is delivered, in addition to where. Also, the off-speed pitch can be groomed because it now has something to be compared against in a meaningful way. Any player with hopes of making it to the next level should master the four-seam and two-seam fastball with location and the change-up/off-speed pitch.

The Highly Competitive Level

I'm not a big fan on quoting miles per hour, especially in the amateur game, but the fact remains that most pitchers at this level routinely live in the upper seventies (70) and beyond with their fastball. And if that isn't enough, they also claim pinpoint accuracy, when-where-and why.

Pitcher Interview

In the upper levels, a pitching coach will routinely talk or interview prospective pitchers during the tryout period. This helps the pitching coach in many ways. Below are some of the questions that I ask and why:

- Ø Question What did you have for breakfast this morning?
Reason - Is diet part of this player routine?
- Ø Question What your pitch count tolerance?
Reason - Is this player aware of his/her limits?
- Ø Question What the average time in seconds that a batter can run to first base?
Reason - Does this player understand the time and distance relationships of the game?
- Ø Question What was your best game? What was your worse game?
Reason - What does this player think of the baseball experience?
- Ø Question What was your best coach like? What was your worse coach like?
Reason - No names, just a general overview of the player coaching experience(s).
- Ø Question What can I do to improve your pitching skills?
Reason Depending on the level of play, I expect performance from my pitchers and I deliberately look for pitchers who expect performance from me. I respect a pitcher, who demands attention, can't get enough, constantly strives to improve. However, that being said every pitching coach can spot patronage and its intent.

Bullpen Session

The Language of Baseball

Basically, the language of the game supports two (2) functions. The first supports scorekeeping and skill assessment. The second function narrates the experiences of those people in the game.

With respect to the second function, when a player's work ethic includes learning the language of the game, he/she shares a lot of common ground with his/her coach(s). *Need I say more?*

Your local library has many fine publications on the subject. Also, go on the World Wide Web and type in *language of baseball* and take stock of all the great information.

[illegible]

<u>Word or Phrase</u>		<u>Description</u>
Skipper	Head coach of a baseball team
Battery	The combination of the pitcher and catcher

The Cut

At the intermediate and highly competitive level only the most talented candidates will be offered a position on a team's roster while all others will be turn away. The term for this elimination is simply called *being cut*.

Although this process can be rather straight forward, when a college scholarship is on the line, things can get a bit dicey. The loss of a scholarship can mean that extra money for tuition, room and board, so-on-and-so-forth has to come from somewhere else, placing an unexpected strain on the student and his/her family.

In any event, the information stream can take on many forms. As a rule, the head coach or an assistant has the task of informing players of who have been cut. In top programs the head coach will do this personally in a manner that shows honesty, respect, and compassion. On the other hand, other top programs may use a different approach that's no less personal, but avoids a confrontational environment. And still others use a printed list or roster, posted on a bulletin board as advice of who has made the team by position.

Guard Your Secrets

A pitcher's level of talent is usually associated with the time devoted to studying the game and practice. In many respects this can be an agonizing experience. Nevertheless, the learning curve, as volatile as it may seem, will smooth itself out. Hence, what was first learned will be applied, refinements and adjustments will improve and speculation will give way to results. Therefore, a pitcher comes by his/her talent through hard work and sacrifice.

I know this will sound cold and selfish, but, guard what you have learned. A smart pitcher never gives away his/her secrets of experience. Why? Well, because some day you'll be competing for a position against a former teammate or pitching against former teammates. In essence, the less they know the greater you advantage. And pitchers always look for an advantage. ALWAYS!

Other Sports

There's nothing wrong with competing in other sports. In fact, at the amateur level, other sports can be a refreshing change from the pitching experience. But, for the pitcher who wants to excel, a single sport mind set can have tremendous advantages.

In any event, I strongly advise against, even discourage, contact sports. Contact sports can expose the amateur pitcher to a host of injuries. This is especially the case with back, shoulders and arms.

Also, consideration should be given to overlapping time frames. In this regard it would be inappropriate to participate in a sport only to leave a coach and teammates high and dry just to start another sport. This same train-of-thought should prevail with part time jobs, social commitments, family responsibilities and so forth.

Bullpen Session

The Intermediate Level Experience

The intermediate level of competition can either enhance or retard the learning curve dramatically. In that regard, there are two (2) influences that are responsible for this impact, and they are:

- (1) Finding the right team.
- (2) The emphasis on winning.

Finding the Right Team

If you're a pitcher who wants to learn, develop and apply your skills to perfection you must locate a team that has the resources to help you. By the way, it's not as hard as you might think. Here are some suggestions:

- Compete for a spot on your school junior varsity or varsity team in the preseason.
- Before your summer vacation starts, check out the local champions from last year. See if the same coaching staff is returning. If not, find out where these coaches are that season.
- Read the local sport page and see what the sport writer thinks of the local talent.
- When you find a team(s), ask who the pitching coach is. Talk with that coach in private and ask about the assistance that he/she can give you to improve. If the team has no pitching coach, look for another team.

In any event, remember that you're trying to perfect a skill. You're not just marking time with your friends. Also, it's not unusual to be a little apprehensive. After all, this is uncharted territory. But once the introductions are over and you have a couple of sessions under your belt you'll do just fine.

Winning and the Learning Curve

The availability of resources can enhance the winning side of the game, which is a team goal, and the learning side of the game which is an individual goal. Of particular importance are:

- The depth of talent of the fielding team.
- The depth of talent of the pitchers and coaches.
- The available time and facility for training.

Coaches that enjoy a reasonable balance with the above have the luxury of allowing pitchers to play the game and learn at the same time.

Unfortunately, most amateur coaches struggle with the scales of economy and they try to structure a quality program. Hence, it's not unusual for these coaches to expect their pitchers to just *throw it down the middle*, or to simply *play catch with the catcher*. And that's a shame because rarely will a youngster be called upon to pitch down and inside, or down and away, or even to deliver a setup pitch.

Balance

Of all the training disciplines that a pitcher can experience none are more important than maintaining balance before, during and after a pitch. In fact, everything depends on it. Everything!

This topic is very important and a bit technical. I strongly suggest that you set at least a half an hour aside to read this part. Let it sink in.

Ok, let's begin.

Your balance is dependent on the surface you're pitching on and your body's ability to interpret that surface and respond while you're going through your motion(s). So, on the following pages, we'll focus first on your senses that provide the *interpretation Mode* of balance, and then the *Physical Reaction* required, responding to that interpretation.

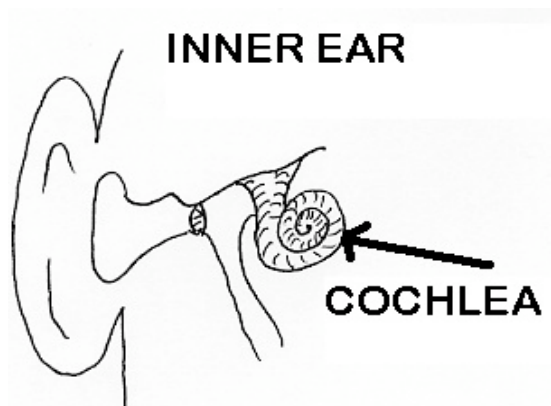
The Interpretation Mode

Balance is a condition that your body maintains constantly with and without your knowledge. To do this, your body has an assortment of feedback mechanisms that helps you negotiate objects and obstacles, in addition to maintaining static balance (motionless). We as pitchers depend on these mechanisms or senses as they're called, to support our work. They are:

1. Our sense of equilibrium.
2. Our sense of sight
3. Our sense of perception.

Equilibrium

Our sense of equilibrium comes from a portion of our inner ear called the *cochlea*. The cochlea is a snail shape component in the inner ear. It contains a liquid, or mucus like substance, that's very sensitive to movement. This substance stimulates receptors in the cochlea that sends messages to the brain that influences your equilibrium. You can compare this action to, say a carpenter's level. When a carpenter's level is tilted, a bubble in a glass capsule will move off a center mark etched in the glass. Bring the carpenter's level back to its straight (level) position and the bubble will go back between the centerline. Hence, the name of the tool - a level.



Balance

Equilibrium (continued)

To show you just how sensitive this part of your body is (cochlea) and how fast stability can be disrupted, do this simple exercise.

1. Stand straight and make sure you have someone next to you to catch you if you fall.
2. Stretch out both arms.
3. Bring one leg up, like a stork.
4. Now comes the tricky part, move your head back and forth by touching your chin to your chest then quickly snapping your head back. Repeat this motion while trying to maintain your balance.
5. Notice how the foot that you're standing on shifts back and forth - balancing and counterbalancing your weight.

Most people quickly learn that it's next to impossible to keep standing without dropping the other leg. Why? Well, because two things are at work here. First, moving the head back and forth quickly, disturbs the *cochlea* inner liquid so suddenly that it's rushing continuous stimulation to receptors in the cochlea, and in turn a barrage of impulses are on its way to the brain. Thus, the brain is trying to interpret, act and react as quickly as it can. Second, dropping the other leg is an unsolicited response by you to protect yourself from falling.

How does this relate to pitching?

If we exaggerate our motion on the mound before, during and after delivery, our sense of equilibrium will restrict - even counteract our work. Most of the time we won't even know it. Why? Because these senses are acting naturally. In fact, they've been doing this since we were born and they can go totally unnoticed.

Hence, while going through your windup and set motion, try to maintain the following:

1. Keep your head looking straight ahead at your target.
2. Don't turn your head sideways.
3. Keep your chin down from beginning to finish.
4. If you must move your eyes off your target, move your eyes only not your head.

Sight

Our sense of sight gives us a visual representation of our physical environment. Hence, if you were to see a deep hole in front of you, your natural reaction would be to avoid it. After all, you must know that stepping into a hole can be harmful to you. Right? You wouldn't want to sprain or twist your ankle, turn your knee, or lose your balance and fall would you? In fact, every instinct tells you to avoid this hole. Right?

Then, how come most amateurs pitchers and their coaches will allow play on a mound that has a deep hole in front of the rubber, a deteriorated frontal slope, and a gouged out hole right where the pitcher's stride foot is suppose to land? I don't know about you, but from where I stand, every time I see something like this my senses tell me to avoid it!

However, because these conditions are so prevalent, we do our best to make due with what we've got. And therein lays a host of problems from our first pitch to our last. With respect to *Sight*, here's what happening:

1. When we stand on a mound our visual interpretation of its condition starts a decision making process.
2. This process either reinforces our confidence or instills apprehension.
3. If our interpretation is positive well, that's that, and we're left to concentrate on our delivery.
4. If, on the other hand, our interpretation instills apprehension, this apprehension will stay with us pitch after pitch.

In fact, this sense of apprehension can be so strong that, subconsciously, it can force us to exaggerate our motion. Normally, most pitchers in this instance will shorten their stride, stand upright during their final delivery, stride shallow left or right, or even drop the ball out of their glove during the windup.

Sight (continued)



The picture above will drive home the point that I'm trying to make with respect to the visual effects on our work.

The first thing we see is a large, gouged hole just before the pitcher's rubber. Our second impression gives way to the downward slope of the mound. And the last, but perhaps the most lasting observation, is the large hole where the stride foot is about to land.

Now think for a minute. Collectively, these observations are not going unnoticed. Your brain is telling you consciously and subconsciously - *d o n' t d o t h i s !* And if you've ever pitched off a surface like this *you know exactly what I'm talking about.*

So, how do we go about *instilling* a positive observation that will support our work? Below you'll see a simple yet effective way of dealing with the influences of visual stimuli - especially the negative ones.



Take your baseball cleats and try your best to make a uniform surface in front of you. Smooth out and flatten out the hole next to the pitcher rubber. Then, go down the frontal slope of the mound and scrape and stomp your cleats on the surface so it has a smooth carpet look. When you get to the hole at the bottom of the slope, fill in as best you can, then build up that area. Be deliberate to form a raised surface here. Why? Because you're trying to leave an impression with your visual subconscious that your stride foot will not slip out from under you when you land. I know this sounds a bit unusual but believe me, it works. Repeat this process as many times as you think necessary. Unfortunately, pitching mounds composed of sand, dried clay and loose topsoil are extremely difficult if not impossible, to maintain.

Balance

Depth Perception

Your depth perception works in conjunction with your line of sight. Both eyes work in collaboration so you can reach for objects, estimate time and distance, and judge a host of other visual scenarios.

Briefly, here's what's happening. A right handed person usually uses his/her right eye as their strongest eye for definitive detail and his/her left eye for perception - both of which compliment the total visual experience.

To help you understand this process better, try this simple drill: *

In the beginning, stand thirty feet apart and play catch using a tennis ball and both eyes. Once you're comfortable with the routine, close your left eye if you're right-handed; close your right eye if you're left-handed. At this point you're using the eye that concentrates on definitive detail. Hence, as the ball comes towards you your sense of recognition is good, but your confidence of catching the ball lessens. Also notice how accurate your sense of location is when throwing at your target but your sense of perception is somewhat in doubt. After a few catches reverse the eyes and try throwing and catching again.

If you are like most pitchers, you're going to find that using only your left eye - if you're right handed, or using your right eye if you're a left handed, has some surprising results. First of all, you'll find that concentrating on accuracy isn't as hard. Second, notice how smooth your rhythm becomes. Also, notice how this exercise directs your head towards your target with little or no movement.

Now put about sixty feet between you and the other player. With both eyes open, try focusing with your left eye if you're right handed, or your right eye if you're left handed, for your primary visual function and let the other eye play a supporting role. Again, notice how your concentration, accuracy and rhythm are smoother. Also, notice how your head stays focused on your target.

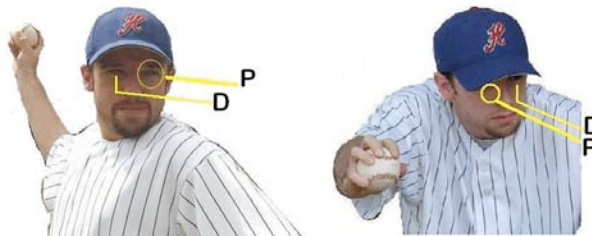
The following will show you a simple way of developing perception and accuracy. You'll need some old socks and a box. First, roll some old socks and fold the tops back. Place a box with a book or similar object for weight, on a chair. Sit fifteen (15) feet away from the box and throw the rolled up socks lightly at the center of the box. If you're right-handed, close your right eye and only use your left eye to focus and support your motion. Do the opposite if you're left-handed. Sounds simple enough. Now try the upper right hand corner, then the lower left hand corner of the box. Not so simple now is it?



* Do not attempt this drill if you have any eyesight or eye-hand coordination problems.

Depth Perception (continued)

D= Definitive detail
P= Perception and depth



Our pitcher above will help explain the proceeding, even better.

The pitcher above is right handed. Hence, his right eye normally defines detail (D), and his left eye supports depth and perception (P).

However, by reversing the normal function of the eyes - like our pitcher on the right is doing, our accuracy can improve remarkably. *

But note this, your velocity will not be overpowering - in the beginning. This training takes a lot of time and patience. Don't expect overnight results. Therefore your practice session(s) should be at least two (2) hours in duration three (3) days a week during the off-season, and two (2) hours in duration one (1) day a week during the playing season. In both cases, remember to use your left eye as your primary focus if you're right-handed, and use your right eye as your primary focus if you're left-handed.

Again, I must remind both the player and the coach to be patient and deliberate.

The Physical ReactionMemory Feel - Response

In the beginning of this section it was stated that:

Balance is a condition that your body maintains constantly with and without your knowledge. To do this, your body has an assortment of feedback mechanisms that helps you negotiate objects and obstacles, in addition to maintaining static balance (motionless).

To maximize our body's natural feedback mechanisms we must combine our memory, sense of feel, and response before, during and after every pitch.

Before

Each time we take the mound we depend on our past experiences to start us off. This involves the assimilation of mound conditions, types of hitters, past grips and so on. As the game progresses, we try to assimilate our most recent experience and continue or adjust our work appropriately. The trick here is to know which is which. In that regard – a dedicated pitching coach can be invaluable.

* This does not take into account corrected vision and other adjustments to sight.

Balance

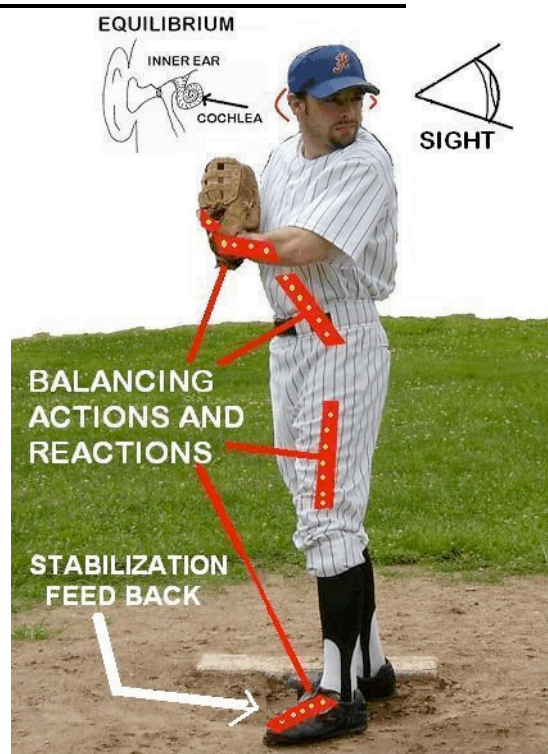
Memory - Feel - Response (continued)

During

As we progress, pitch after pitch, our senses should be giving us feedback. We should be rationalizing - by a sense of feel, every motion. Remember and reinforce good work and correct and adjust poor work. In that regard, a dedicated pitching coach can be invaluable!

After

Make a notebook and mark down things that hurt and helped you - like mound conditions, grips, types of baseballs and their condition, hitter's styles and so forth. Also note the pitching surface, the angle of the slope, the space on the top of the mound that assisted or restricted your movement, and the landing conditions for your stride foot, etc. In that regard, a dedicated pitching coach can be invaluable!



Take a look at our pitcher above and look at all the things that are working for him. First, he recognizes that his sense of equilibrium requires him to be stable and deliberate with his movement. Second, his sense of sight will do two (2) things - it will reinforce his progression by interpreting a manageable pitching surface, and it will perceive depth and detail for locating the accuracy of his pitches. Third, his footing will yield sensory feedback that will in turn start his glove arm, torso and stride leg moving, thus stabilizing his progression and follow through. Then, the entire process starts all over again. But this time his ability of *memory* kicks-in and the process of adjustments will be added to the process. (Adjustments are covered in another section.)

Combining our memory, sense of feel, and response before, during and after every pitch requires a tremendous amount of concentration.



Adjustments

Adjustments are the things that a pitcher does before, during and after every pitch - because something has affected his/her work.

It can be as simple as straightening out the surface of the pitcher's mound or as complex as changing release points, hip movement and pitch selection.

Unfortunately, for the amateur pitcher the process of recognizing how and when to make an *adjustment(s)* can be tricky. In addition, the time devoted to training, space availability, and the skill level of most volunteer coaches doesn't help matters any.

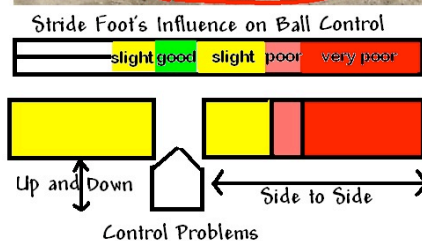
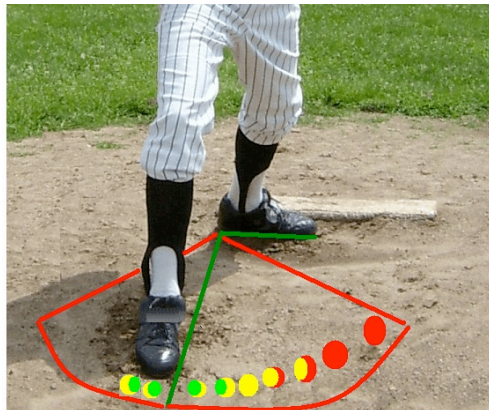
Helping the amateur pitcher make *adjustments* is critical if the player is going to progress and survive on the mound. *And I do stress the word survive !* Without this training many talented amateurs will never develop their full potential.

If you're a coach in charge of your club's pitching staff study these pages closely, reason them out in your mind, and think beyond the picture(s). In fact, try these examples yourself and see if they make sense to you. But remember, the examples that follow are a limited sample of the total population titled - *adjustments*. They're only a starting point, not an end in themselves. Be patient, reasonable and fair with whom you're coaching.

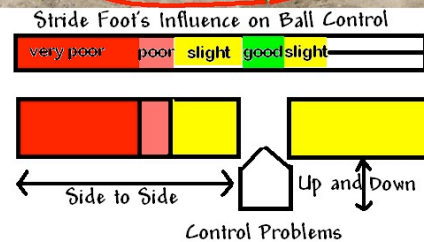
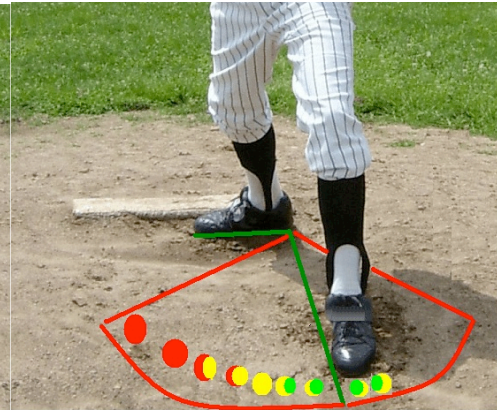
If you're an amateur pitcher you'll need a patient catcher to assist you - someone who's willing to work with you a lot. In that regard, I suggest avoiding fathers, uncles, brothers, sisters and other family members as your first choice. Their criticisms can go well beyond the playing field and can make your life - well, miserable. In addition, their knowledge on the subject may be lacking detail and definition. So, if you're serious about being the best you can be, you need a PITCHING COACH!

The Stride Foot and Location Control

Left-Handed Pitcher



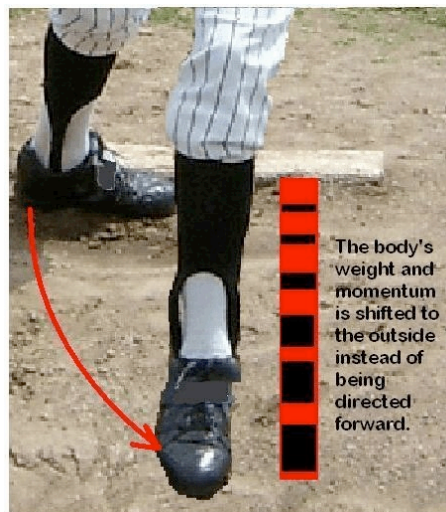
Right-Handed Pitcher



The stride foot can cause all kinds of control problems when it doesn't stretch and land directly along a center line that runs from the heel of the pivot foot to home plate. In our pictures above, the top bar indicates the degree of control from good to poor, and the bottom bars indicate the location problems.

For example, if a right-handed pitcher lands the stride foot -say, off the toe of his pivot foot, then the degree of control that's passed along to the pitcher's form is poor to very poor. In addition, this pitcher location and control problem(s) will more likely be from side to side.

Left-Handed Pitcher



Right-Handed Pitcher



Another problem is when the stride foot is lifted too high or when the shoulders and chest bend over too far, before delivery, the stride foot usually stretches short of its full potential. Hence, this shortness causes the pitcher to deliver upright, limiting much of the body's forward momentum. If this continues, the pitcher can develop pain in the shoulder, back and elbow. Also, when the off-speed and breaking pitches aren't working, this is one of the major contributing factors.

Adjustments

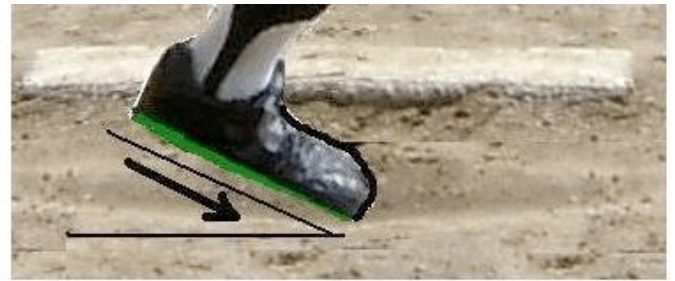
The Pivot Foot

The pivot foot is the foot on the throwing side of the pitcher. Hence, if the pitcher is right-handed then the right foot is the pivot foot. If the pitcher is left-handed then the left foot is the pivot foot. This foot derives its name from the fact that it supports the pitcher's body when the pitcher lifts his/her stride foot, then turns (pivots) and strides towards home plate while in the process of delivering a pitch. Hence, any shortcomings in this foot's discipline will cause all kinds of problems. Here are two of the most prevalent.

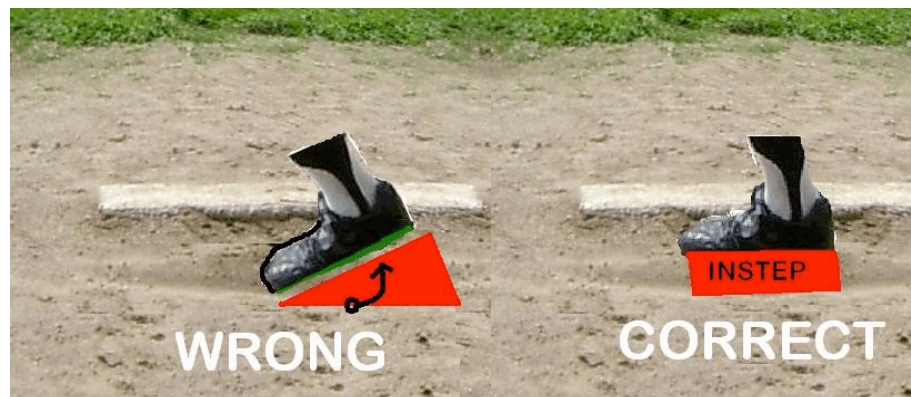
Right-Handed Pitcher



Left-Handed Pitcher



Pointing the toe downward in a hole will ultimately sacrifice some of the body's forward momentum by shifting the pitcher's weight sideways. Hence, the pitcher is forced to shorten his/her stride, keeping the body up, and risk developing soreness to the lower back, neck, and elbow. In addition, any adjustment(s) to the pitcher's ball control that doesn't address this problem first, is worthless.



The most common problem associated with the pivot foot is using the toe to push off. The pivot should remain flat during the initial stages of the pitcher's motion. As the pitcher's forward momentum starts to drive toward home plate - the pivot foot should collapse on the instep, letting the body's forward motion to pull, even drag it, off the rubber. By doing so, the tension relief and alignment of the leg, lower back, hip, mid section, shoulder, neck and arm muscles on the pitcher's throwing side are greatly enhanced. The pictures above are representative of the collapsing technique. Although our examples above are for a right-handed pitcher, the same holds true for a left-handed pitcher.

The Arm During Delivery

Collapsing *W* with both shoulders is common with pitchers who are having problems with the front slope of the mound and pitchers who are showing signs of fatigue. The proper delivery motion should be with the glove arm tucked in and the glove shoulder pointing away from home plate with the elbow of the glove arm extending beyond the plane of the back.



The pitching arm's elbow should be at least shoulder high during the setup and delivery of every pitch. I strongly discourage sidearm, slingshot, and submarine styles.

Adjustments

Grips and Baseballs



The four-seam fastball gives you the greatest velocity and accuracy. However, control problems with this pitch can be due to the movement of the thumb just prior to release. As a result, the ball is released with the fingers on the side and the thumb towards the top. Hence, the ball gets *pushed* out of the hand with little rotation. The lack of rotation is primarily due to the thumb's pinching action on the laces. A dead give-away to this problem is the extreme angle of the wrist and hand at the time of release.



Finding the right grip with breaking balls can be made easier by marking an old baseball with a variety of thumb, palm and finger locations. This is called *dialing the ball*. Combining these grips with a variety of release points can add an impressive assortment to your repertoire. In addition, don't forget how dramatic the pitching surface will influence your ball. A flat surface will not yield the same results as a sloped surface.

Grips and Baseballs_(continued)

A simple thing like the surface condition of a baseball can influence every pitch. Collect a sample of baseballs, like those pictured above. Go through every pitch in your inventory using every ball. Take note of the difference in grip and feel, release, confidence, location, control and predictability. Twenty pitches each, at one half game speed, should be a good sample of what to expect. Practice often.



A baseball with a marked cover can show you how well your rotation is working. If you have access to a video camera with a time delay feature you can actually see - frame by frame, the rotation of every pitch in your repertoire. And remember ROTATION IS SURVIVAL!

Your Adjustments

Condition

Adjustment

Equipment

Pitcher's Bag



Pitcher's Bag (continued)

The pitcher's bag contains most of the equipment you'll need.

*The bag itself should have markings on it so it can be seen and identified easily. However, never put your full name, address and other personal information on your bag. Also, while at the park, always keep your bag closed and never let anyone go in your bag - not anyone.

*Your game glove(s) and spare glove.

*Extra sanitary socks.

*Baby powder (talcum powder).

*Your baseball shoes and a plastic bag to hold them.

*Frozen face wipes in a plastic bag. The night before a practice or game, take three (3) or four (4) face cloths and soak them with water, then roll them into a log shape and place them into a plastic bag. Place the plastic bag into the freezer. Just before leaving for the ball field, take the frozen bag and wash cloths out of the freezer and put them into your pitcher's bag. On a hot and muggy day you'll find these face wipes to be just the relief you need. Never share these.

*Three (3) clean T-shirts dusted inside with baby powder (talcum powder).

*Rosin bags/socks. Make sure you show the rosin bag or sock to the head umpire before taking the mound and explain its explicit use. If the head umpire permits, place the bag or sock off the mound, preferably on the grass behind the mound. When using the bag or sock make sure you do so off the mound - never while standing on the mound or on the rubber.

*Extra shoelaces. A small item - yes. An easy item to forget - yes. But all it takes is one time, when you least expect it and you I promise the stars up above you'll never- never- never never forget shoelaces again! But, don't take my word for it. Try one practice with a busted shoelace - any foot will do. You'll see.

*Cleat picks. These are small wooden sticks that are used to remove mud, clay and sod from the bottom of your baseball shoes. They come in real handy when pitching off a clay-covered mound. Ice cream sticks are great for this. But remember, make sure you show these picks to the head umpire before you take the mound and explain their explicit use. If the head umpire permits their use, place them off the mound, preferably on the grass behind the mound.

*Glove repair kit. This is a lacing kit that can be purchased in most department stores and sporting goods stores. The kit usually contains a lacing needle and rawhide string.

*Large plastic bag. Sometimes, serious accidents happen on the field. If it's necessary to go to the emergency room this large plastic bag should contain the personal belongings that went with you. It should have a distinct mark on it so it can be identified easily. Notice the bag in our example has a large red mark contrasting the white plastic bag. Also, in the bag should be a medical information card that itemizes any medication that you're taking, your family doctor, and other health related items you and your doctor think should be disclosed in an emergency. In addition, how to contact parents, relatives or legal guardian.

*First aid kit. This is a simple collection of things that address minor cuts and bruises.

*Pen and paper. Just when you need to remember something you'll be glad you packed these things.

*Rag. An old towel can come in real handy for cleaning baseball shoes, removing mud off uniforms, etc.

Shoes

Baseball shoes are exactly that - shoes. They're especially designed for baseball. The bottom of each shoe is equipped with cleats or spikes as they're called. Notice the flat paddle like shape of the cleat. This flat design is perfect for performing on dirt surfaces, as oppose to peg cleats, like football and soccer shoes, that are primarily designed for grass and sod surfaces. A typical cleat pattern for pitchers are three cleats under the ball of the foot and three cleats under the heel. Most pitchers prefer the low cut design of the shoe. In other words, the sides of the shoe are below the anklebone. Supporting the baseball shoe are the following items:

[Cleat picks colored in yellow and red.](#) These can be used to pick dirt and mud off the cleats during the game and before putting the shoes away in a plastic bag. The bright colors make them is easy to find in the infield grass. There are two reasons for not putting your baseball shoes away with dirt and mud on them. First, the mud and dirt on your shoes will contain parasites like fleas, ticks and their eggs. You don't want to contaminate your car and home with these. Second, mud and dirt are abrasives and can quickly destroy your shoes.

[A stiff brush.](#) Before putting your baseball shoes away take a stiff brush and scrub your shoes under cold running water. Don't soak them; simply remove the surface dirt top and bottom. Then, allow your shoes to dry in the shade, not in the hot sun.

[A can of shoe polish.](#) When your shoes are completely dry, spread a thin coat of shoe polish on the top surface. After the polish dries, brush off with a shoe brush, but do not use the same brush for cleaning. This coat of polish will protect your shoes from dirt, moisture and cracking.

[Baby powder/talcum powder.](#) When your shoes are completely dry, apply a good dose of baby powder/talcum powder to the inside. Be sure to shake your shoe(s) back and forth so as to coat the entire lining. This coating does two things - first is absorbs most of your body foot perspiration, and second, it will give your feet a cool feeling throughout your next game.

[Shoe-trees.](#) When your shoes are completely dry, cleaned and applied with baby powder/talcum powder, insert a pair of shoe-trees. Shoe-trees can extend the life of your baseball shoes and their fit. They also maintain the form and comfort that your use to.

[Extra shoelaces.](#) Try a practice session with only one shoe laced up. Now imagine if you have luck like I do you're about to pitch the most important game in your career and SNAP! Enough said?

[Toe application.](#) Notice the baseball shoe in our picture has a bright spot on the toe. The toe of this baseball shoe was covered with a boot repair material that comes in a tube. The entire toe and instep was coated, then spread evenly with a stick and left to dry. This coating will protect the shoe's toe from the grinding action caused by the pitcher's delivery motion. Only the toe of the pitcher's pivot foot receives this application. In other words, if the pitcher is right-handed then the right foot receives the application. If the pitchers left-handed then the left foot gets the application.

Equipment

Gloves

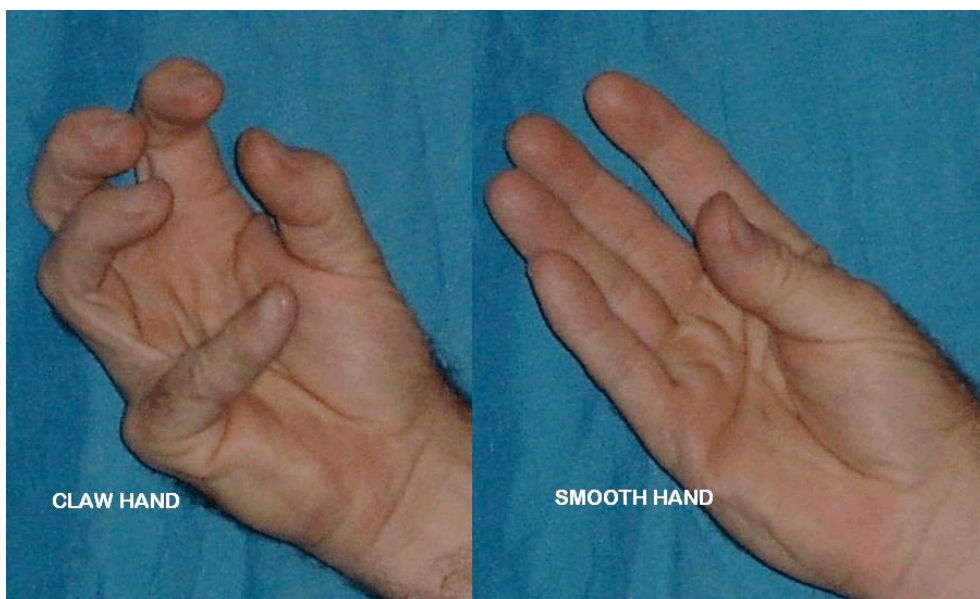
If you're serious about baseball, you must consider your choice of a glove(s) as an important part of your presence. However, for most amateur players, any glove will do - and that's ok. If that's the case, have a great time, enjoy the game and skip this part.

For the serious competitor, read on. Your baseball glove provides you with two things. First, it's your play-maker that will catch and trap baseballs. Second, it supports your balance and stability while going through your delivery motion.

For play-making, most pitchers prefer a twelve inch (12) glove, as oppose to a larger glove - like an outfielder's glove. The twelve inches are measured from the base of glove to the tip of the longest finger on the glove. The pocket of the glove should be deep enough to hold the ball, but not trap it so it can't be removed quickly. The stretch of leather that's sewn between the first finger and the thumb is called the web section. This web can be either a closed weave or an open weave back. Many pitchers prefer a closed weave back.

With respect to your overall balance and stability, the glove contributes more than you think. To begin with, your glove acts like a counter weight initially - on a part of your body that shifting its momentum forward. Then, as you complete your delivery, your glove assists with your follow through motion. In addition, certain mound conditions may dictate different gloves of style and weight - a refinement most amateurs overlook.

All pitchers must choose a glove that conforms to the hand with a smooth form, as appose to a claw form found with gloves worn by infielders. In other words, the glove's pocket and finger section should be somewhat open, not scooped. The main reason being is that the glove hand must be relaxed enough so the tendons and muscles in the wrist and arm can accept the rotating motion of the shoulders, thus pulling back and completing the proper follow though during a pitch. If the glove forces the hand to assume a claw posture, this puts stress on the tendons and muscles of the glove arm. A closed and straight-fingered hand relaxes the tendons and muscles of the glove arm. Try both hand postures yourself and you'll see exactly what I mean. First try the claw posture and see if your glove arm tucks in comfortably while you rotate your shoulders and finish your delivery motion. Then try the other posture.



Gloves (continued)

Changing gloves during a game may be helpful. In this regard, as the mound changes its shape and feel, using a different glove that's either heavier or lighter, shorter or longer, may be just the adjustment your looking for to *fit in better* on the mound. For example, if you encounter a steep mound, you may want a glove that's light, easy to maneuver and has pointed fingers as oppose to curled fingers. Thus, your forward motion won't be exaggerated and overly downward. On the other hand, if you encounter a mound that's eroded with holes and no surface integrity, you might want to use a heavier glove that will direct your motion slightly downward and forward at the same time. In addition, if you encounter an opposing pitcher with a longer stride than you, more than likely your stride foot will be landing on the outer rim of a hole that he/she just made. Hence your stride foot will be sliding down and forward stretching your normal balance posture just when you need it the most. To compensate for this, first fill in the hole and ready that portion of the mound for your stride, then select a glove that will ensure your fit on this corrected surface. Believe me, there no substitute for experience in these situations, so practice often with as many conditions as you can.

Selecting a glove should first start with *comfort and feel*. Take your time here. Try on as many gloves as you can. In fact, some large sporting goods stores have an impressive selection. How do you know when you've got a good one? Surprisingly, it easier than you think. When you got one that just feels right - it probably is. And by the way, don't limit yourself to sporting goods stores. Go around to yard sales, church rummage sales, tag sales, and the like. You'd be surprised at the great buys you can get. As time goes on, try collecting gloves of various styles and weights. Practice with a variety of gloves on different surfaces - see what fits you best, when and where. I have a collection of index cards with notes of every glove I own, noting the best playing application(s) for each.

Rosin Bags and Socks



Rosin is a powder-like material that absorbs moisture. Some pitchers use rosin to improve the grip on the ball when their hand has excessive sweat and moisture. Commercially, rosin comes in a small bag, like in our picture above. The bag has small holes in it that allows the rosin to dust out as the pitcher juggles the bag back-and-forth in the palm of the pitching hand. Unfortunately, the bag and its contents are short lived, usually after one game, so replacing the bag can be somewhat expensive. An alternative to store bought rosin bags is shown on the right in our picture. I've found that a mixture of baking soda and cornstarch works just as well and I can customize the mix. In addition, instead of putting the gripping powder in a small plastic bag, I use an old sock. The combination of the two work perfect, for me anyway. A word of caution here, never let rosin or any other absorbent material get on the back of your pitching hand. The tendency of wiping sweat from your face using the back of your hand will get this stuff in your eyes.

In addition, remember to show the head umpire any rosin bag or rosin sock that you'll be taking to the mound BEFORE YOU ENTER THE GAME. And always place these items at the back of the pitcher mound.

Equipment

Bullpen Jacket, Uniform and Support Clothing



Keeping the shoulders, back and arms warm is a major responsibility for every pitcher, especially when temperatures change during the preseason, prime playing season and post season. The examples shown above will give you some idea of the accessories that you should bring with you.

[*The quilted bullpen jacket](#) is ideal for the preseason. As you work out the kinks from the off-season, you'll want to maintain your body temperature while on the field and in between outings. Never let your shoulders and arm get a chill. Serious muscle and back spasms can develop if you don't keep yourself covered between innings.

[*Old sweatshirt](#) is ideal for the hotter days of summer when a quilted bullpen jacket is just too hot. Simply drape the sweatshirt over the shoulders and back and rap your pitching arm in a [large beach towel](#).

[*T-Shirts](#) with a heavy sprinkling of baby powder/talcum powder can be very refreshing as an in-between-inning change. After a heavy workout on the mound, your back and shoulders will develop a mixture of body oil and sweat. These T-shirts with baby powder/talcum powder sprinkled inside can immediately relieve that cold clammy feeling and cool you down without risking the chills. Also, when combined with a refreshing ice-cold face wipe and a drink of cool water your mind set is greatly enhanced.

Bullpen Jacket, Uniform and Support Clothing (continued)



Our pitcher pictured above has chosen his uniform well. Notice how loose fitting it is. He has plenty of room, especially with the shirt. In that regard, notice how the shirt is slightly pulled out around the waist. Also, the fit with the sleeves and shoulders gives this pitcher more than enough room to move - without pulling and binding. I can't over emphasize this part. In other words, uniforms that are tight and binding, on a really hot day, can cause chaffing and itching.

A detail that's often overlooked is the belt. This pitcher has chosen wisely. He's wearing a wide leather belt with a standard buckle. Belts that are made of stretchable fabrics, strap-n-bind designs will constantly slip down. Also, uniform pants with an elastic waistband as their only support will quickly lose their holding property - and again, will slip down.



Sanitary socks, as they're called, are worn with your baseball shoes instead of gym socks. Take extra care dusting the inside of these socks with baby powder/talcum powder and your feet will resist swelling on a very hot day. Also, purchase at least four pairs at the beginning of the season.

Equipment

Pitch Counter



A pitch counter can be either mechanical or digital (electronic). Our example above shows a mechanical pitch counter. This device is simply a progressive *clicker* that advances numbers sequentially, as the thumb or finger button is depressed. There's usually a ring fixture that allows the index finger to hold the counter and a dial knob off to the side for turning the counter back to zero. Electronic digital counters have buttons that accomplish the same thing.

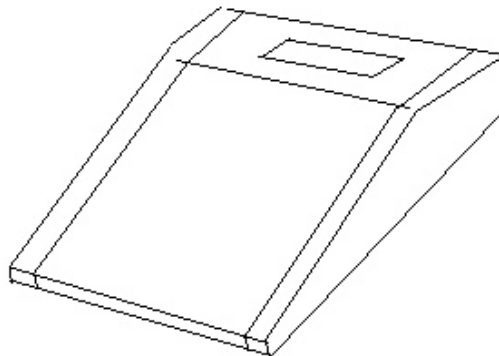
Pitcher Protective Screen



The pitcher's protective screen is made of a sturdy (metal) frame that supports a heavy-duty screen. Usually, there's an angle shape to the total design. As you can see in our picture, the lower portion allows the pitcher to throw over - while the tall portion offers total protection. Also, this design accommodates right and left-handed pitchers by simply reversing the screen. Pitchers and coaches use this protection during batting practice or BP as it's called. Why use a protective screen? Well, during BP the pitcher is vulnerable to the possibility of baseballs being hit directly back at him/her.

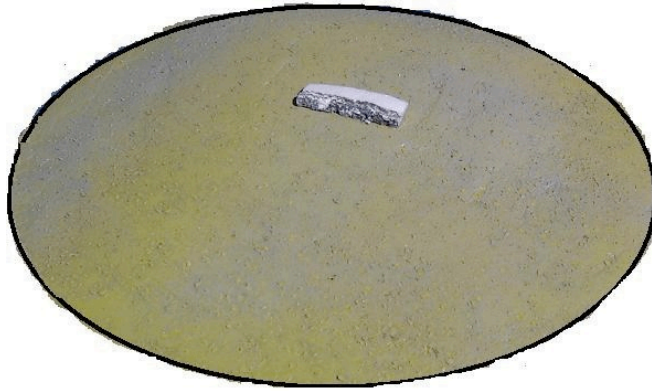
The Portable Pitcher Mound

The portable pitcher's mound simulates the height and slope of pitcher's mound at the ballpark. It's constructed of wood, fiberglass, or a composite material and has a nonskid surface. Some of these portable mounds can fold and have casters for easy movement and storage. Also, the bottom construction has soft rubber-like pads so as not to scar a gymnasium floor. One of the big advantages of using a portable pitcher's mound is that it can extend the training season tremendously.

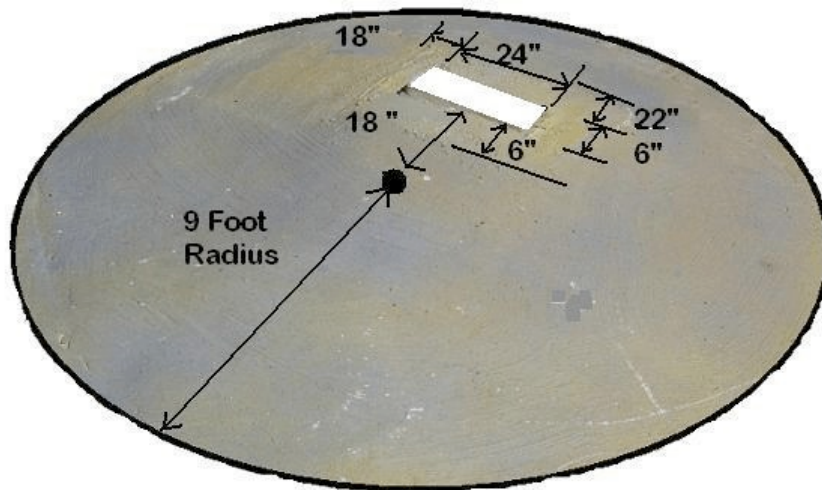


Equipment

The Pitcher's Mound



The picture above shows a typical pitcher's mound found on many public ball fields. The shape is domed and rounded. This is primarily due to the downhill raking action after dirt is dumped on the surface for refurbishment. A raised lip can be found around the edge of the mound, again, due to the downhill raking action. The pitcher's rubber, more than likely, sticks out of the ground because it's mounded on a block of cement. The leading edge of the pitcher's rubber can be scared badly due to the prolong wear and tear from player's cleats. The area in front of the rubber is usually soft and powdery as is the spot on the front slope where pitchers land repeatedly with their stride foot.



The picture above is a generalization of the shape and dimension of a typical pitcher's mound. The height of the mound at its crest is about ten (10) inches high, when measured in relation to home plate, sixty (60) feet, six (6) inches away. The slope is gentle and in proportion to the dimensions on all sides. At the top is a flat plateau area. This surface is deliberately measured on all sides so as to assist the pitcher in maintaining his/her balance, while going through various body motions. The flat object at the crest is called a pitcher's rubber and is usually stark white and level with the top surface.

The materials used to build the mound can be a mixture of soil, clay, crushed brick, hardeners, and sand. The materials used to maintain the mound can be absorbents for rain, and clay, sand and various mound-mixes used for patching holes caused by wear and tear, the elements, etc.

Equipment

The Pitcher's Mound (continued)



During the season, many public ball fields have a pitcher's mound that develops an oblong shape along with a clump of dirt holding the pitcher's rubber at its highest point. In front of the pitcher's rubber is an area with grooves cut on the left or right side caused by the toe of a pitcher.

Maintaining any kind of stability on something like this is virtually impossible. The only place that's flat is on the top of the pitcher's rubber, and this is the first place most pitchers go to. However, this is the last place a pitcher wants to be. If you look at any pitcher standing here, they look like a mountain climber who just reached to the top of Mt. Everest! Standing in front of the pitcher's rubber is the only way to go.

So, how do we deal with something like this? Take an iron rake or your baseball spikes and smooth the dirt from side to side in front of the rubber. This will flatten the surface enough for you to maintain some kind of balance. For the frontal slope, take an iron rake or your baseball spikes and draw the dirt in around the area where your stride foot is going to land and build up that location, then flatten it down with the rake or your spikes.

(As a side note you'll probably have to do a lot of mini-maintenance after every other pitch with your spikes.)



If your club arrives at a ball field and you find this kind of pitcher's mound, you and your coaches should seriously consider rescheduling, or at least move to another field.

The example shown above will do nothing for your balance and accuracy - no matter what you do. In addition, serious ankle, knee, lower back and arm problems can develop using this surface. Also, the danger of delivering a pitch to a batter whose only protection is a batting helmet (in most cases) should be enough to stop things then-and-there!

The Pitcher's Mound (continued)



A simple collection of tools can preserve a pitcher's mound during the season. An iron rake, tamper, shovel, straw broom, wheel barrel, plastic pail and an eighteen-foot (18) round swimming pool cover are sufficient.

But like anything else, the trick is to get someone to use these tools, along with the patching material, to keep the mound in shape. By the way, one of the simplest things to do is to cover the mound with the pool cover thereby protecting the mound surface from the rain.

Here's a suggestion when using mound covers try to use weights to hold the cover down as oppose to using stakes. Stakes tend to get lost in the grass after being plucked out of the ground making them dangerous projectiles when lawn-cutting tractors pass over them.

Grounds Keeping

Amateur baseball is usually feast or famine. This is especially true with grounds keeping. A well-groomed ball field is the result of dedication and a willingness to spend money. A properly maintained pitcher's mound is no different.

For most casual observers, the work of designing, building and manicuring a pitcher's mound goes totally unnoticed. However, consider this - builders must take into account the constant turning and landing of spiked shoes, the elevated slope, exposure to the elements, and a material composition that will support all of the above. And if that wasn't enough, the construction must also support hundreds of games during the season.

Building a good pitcher's mound normally starts with digging up the old mound and laying down a foundation for a new one. The picture below shows you the first step of building a new pitcher mound.



Equipment

Grounds Keeping (continued)

After the proper radius is cut, the old material is removed and the base is prepared. The old rubber is deliberately left in as a guide and the frontal slope is built up. A drainage ring is dug around the edge of the mound - six (6) inches wide, six (6) inches deep, and filled with pea gravel. A layer of small pea gravel should also cover the base of the mound totally; then, progressive layers of mound mix and fine crushed brick should be added wet and tamped down. Concentrate crushed brick, wetting and tamping on the frontal slope as shown in the picture below.



When finished, a layer of sand should be placed on the dome surface and worked in deliberately. The sand acts as a protective buffer for the surface material underneath. It also provides an excellent bed for absorbent material that, added later on, due to weather conditions. The finished product should be soaked repeatedly with water. This allows the materials to settle. During this process the mound will look something like this:



Finish off with more sand evenly, then cover.



The Art of Hitting - A Pitcher's Perspective

When I was playing sandlot ball as a kid, our club invited a local college coach to our practice field to give a hitting clinic. As we listened to him speak, our pitching coach would smile every time this coach would say - and if you hold the bat this way you'll have trouble with the inside pitch, or, if you stand this way you'll have trouble with a pitch that's down-and-away.

It finally dawned on me that I was getting a first class pitching lesson. Each time this coach said "don't do this, don't do that", I remember thinking to myself, "oh really!"

Later on that afternoon we had BP (batting practice) and our guest coach refined his instruction. At the same time our pitching coach stood on the mound and reminded me of the weakness of each batter.

At the end of the day two things were glaringly apparent. First, the art of hitting, like pitching, has *do's -and-don'ts*. And second, a pitcher who knows the *don't s* of hitting has an edge, and pitchers always look for an edge.

Probability

The following pages will highlight the hitting styles found in amateur baseball and their inherent weakness(s). Also, you will find a pitch or a combination of pitches that work well against each style.

However, it should be noted that both hitting and pitching are subject to the human condition, which injects a ton of variables. So let's just say that delivering any pitch has a certain degree of probability for success. Hence, some work better than others. That being the case, I suggest you use this section to start your own notebook, taking note of your best pitches against the hitting styles that you face.

Play-making and the Strike

Before we go any further, you're probably thinking that all the pitches shown in this section are thrown for strikes. Well, you're half right. Sometimes, a strike is just the ticket, but other times it's not. Take for example a player that's susceptible to high a fastball (high heat), regardless if it's a strike or not. Other examples include pitches that can setup the double play, and pitches for a variety of bunting scenarios. A knowledgeable catcher and pitching coach can expand on this aspect for you.

The Art of Hitting - A Pitcher's Perspective

Factors that Determine Style

Five factors determine a hitter's batting style. They are:

1. Player's size and build.
2. Player's stance in the batter box.
3. Player's hand position.
4. Player's bat location.
5. Batting order logic.

Player's Size and Build

If I were to ask ten (10) pitchers in training to give me a description of your build, I'd probably get ten (10) different answers. And that's not surprising. We all have different windows on the world and it's only natural that our assumptions would follow suit. However, how do we cover this subject without me saying one thing and you assuming something else? Well, it's simple really. We're going to use you as a bench mark for judging all other players, with respect to size and build. For example, if I refer to a batter being tall and slim and you consider yourself tall and slim then you can relate to the instruction. On the other hand, if you consider yourself stocky and muscular, then your mind set is visualizing someone different.

The following descriptions are generalizations.

Tall and Slim Build

This player has an attention span that focuses in the upper rib cage area, especially at the shoulders. Although arm extension and bat speed can be good, shoulder movement, wrist action and contact confidence at and below the mid section tend to be less persuasive. The *at bat* posture for these hitters is usually standing straight up with the bat resting on or very near the back shoulder, with the hands and arms tucked in at the center of the chest. Their feet in the batter box take a wide stance causing their stride to be short, shifting most of the burden of their swing to the wrists and arms.

Tall and Average Build

This player is proportioned evenly in the upper and lower torso and has strong and limber legs. Their attention span is dictated by the placement of the hands. If the hands are held high at or above the head so is their attention span. If the hands are held at the upper rib cage so goes the attention span. Arm extension is normally exceptional and bat speed tends to follow the initiation of their upper torso and the stride leg or the lack there of. Bat contact confidence, again, is dictated by the placement of the hands. High hand placement usually indicates contact confidence at the base of the neck down to the middle of the chest. Low hand placement usually indicates contact confidence at the mid section and down just above the knees. The *at bat* posture for these hitters is usually leaning back slightly with the bat pitched back, not straight up and not resting on the shoulder. Their feet in the batter's box can be compact or slightly shoulder width apart. These hitters tend to be patient at the plate.

Tall and Muscular Build

This player is powerful in the upper and lower torso and has strong legs. Their attention span is dictated by the placement of the hands. If the hands are held high at or above the head so is their attention span. If the hands are held at the upper rib cage so goes the attention span. Arm extension is normally compact and bat speed tends to follow the initiation of their upper torso and the wrists. On the pitch, the extension of the stride leg is usually very short; hence the upper torso and the wrists take the brunt of the swing. Bat contact confidence, again, is dictated by the placement of the hands. High hand placement usually indicates contact confidence at the base of the neck down to the middle of the chest. Low hand placement usually indicates contact confidence at the mid section and down just above the knees. The *at bat* posture for these hitters is usually standing straight up with the bat straight up and not resting on the shoulder. Their feet in the batter's box can be shoulder width apart or very wide apart. These hitters tend to be aggressive at the plate.

The Art of Hitting - A Pitcher's Perspective

Player's Size and Build (continued)

Tall and Stocky Build

This player is broad in the shoulders and has a wide girth in the lower torso and strong legs. Their attention span is dictated by the placement of the hands which is usually just off their back shoulder and down slightly. Bat speed is accomplished by a tradeoff between arm extension and wrist speed, with wrist speed leading the way. Overall, *at bat* posture, style of swing, and bat contact confidence is compact and deliberate. This player can have excellent eye-hand coordination and keen ball recognition skills. In the batter's box their feet tend to be far enough apart to balance their weight and striding with the front leg on the pitch is virtually nonexistent. These hitters tend to be patient at the plate, almost to a fault.

Average Height and Slim Build

This player has an upper and lower torso that's evenly proportioned, but sparingly. Arms and wrists act as one when swinging the bat. Very little if any snap is found at the wrists. This player's *at bat* posture tends to appear brittle with their bat leaning on the back portion of the chest and shoulder. Hands can be found tightly near the chin with both elbows pointing down. The attention span for this hitter is at the lower chest exclusively. On the pitch, the extension of the stride leg is usually nonexistent. Bat contact confidence can be a bit shaky and random, but the lower chest area seems to be this player's best chance. If however, high hands placement is the preferred posture contact confidence is at the base of the neck down to the middle of the chest. Low hand placement usually indicates contact confidence at the mid section and down just above the knees.

Average Height and Average Build

This player is proportioned evenly in the upper and lower torso and has strong and limber legs. Their attention span is dictated by the placement of the hands. If the hands are held high at or above the head so is their attention span. If the hands are held at the upper rib cage so goes the attention span. Arm extension is normally exceptional and bat speed tends to follow the initiation of their upper torso and the stride leg or the lack there of. Bat contact confidence, again, is dictated by the placement of the hands. High hand placement usually indicates contact confidence at the base of the neck down to the middle of the chest. Low hand placement usually indicates contact confidence at the mid section and down just above the knees. The *at bat* posture for these hitters is usually leaning back slightly with the bat pitched back, not straight up and not resting on the shoulder. Their feet in the batter's box can be compact or slightly shoulder width apart. These hitters tend to be patient at the plate.

Average Height and Muscular Build

This player is powerful in the upper and lower torso and has strong legs. Their attention span is dictated by the placement of the hands. If the hands are held high at or above the head so is their attention span. If the hands are held at the upper rib cage so goes the attention span. Arm extension is normally compact and bat speed tends to follow the initiation of their upper torso and the wrists. On the pitch, the extension of the stride leg is usually very short; hence the upper torso and the wrists take the brunt of the swing. Bat contact confidence, again, is dictated by the placement of the hands. High hand placement usually indicates contact confidence at the base of the neck down to the middle of the chest. Low hand placement usually indicates contact confidence at the mid section and down just above the knees. The *at bat* posture for these hitters is usually standing straight up with the bat straight up and not resting on the shoulder. Their feet in the batter's box can be shoulder width apart or very wide apart. These hitters tend to be aggressive at the plate.

The Art of Hitting - A Pitcher's Perspective

Player's Size and Build (continued)

Average Height and Stocky Build

This player is broad in the shoulders and has a wide girth in the lower torso and strong legs. Their attention span is dictated by the placement of the hands which is usually just off their back shoulder and down slightly. Bat speed is accomplished by a tradeoff between arm extension and wrist speed, with wrist speed leading the way. Overall, *at bat* posture, style of swing, and bat contact confidence is compact and deliberate. This player can have excellent eye-hand coordination and keen ball recognition skills. In the batter box their feet tend to be far enough apart to balance their weight and striding with the front leg on the pitch is virtually nonexistent. These hitters tend to be patient at the plate, almost to a fault.

Compact Height and Slim Build

This player has an upper and lower torso that's evenly proportioned, but sparingly. Arms and wrists act as one when swinging the bat. Very little if any snap is found at the wrists. This player's *at bat* posture tends to appear brittle. Hands can be found high on the back shoulder, usually. The attention span for this hitter, invariably, is high heat (eye level). On the pitch, the extension of the stride leg is usually nonexistent and all contact confidence can be a bit shaky because of the tendency to rush the swing and randomly at that.

Why Study Size and Build

Pitchers are constantly looking for references to assist their work. So, it's only understandable that if a certain thing happens more often than not, under a given situation, you can use that experience as a template for your work.

To drive this point home, flip back a few pages and notice the similarities of the stocky player, regardless if he/she is tall, average or compact in height. Notice how their wrist dictates the bat's speed and that any movement or stride by their front leg on the pitch is virtually nonexistent.

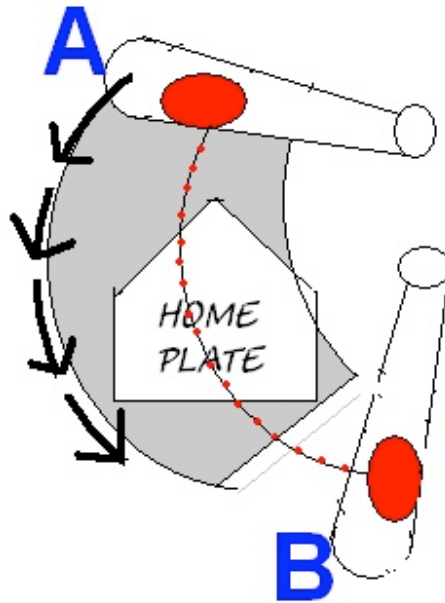
Hence, if you see enough stocky players at the plate do these things, sooner or later you're going to draw some conclusions and assumptions. Also, if you're really sharp, you're going to reach into your bag of tricks and select a pitch that you think works best again, given the conditions that have worked for you in the past.

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box

When a batter steps into the batter's box and plants both feet, this should immediately give us an indication of the *surface swipe path/reach* of his/her bat.

What's the *surface swipe path/reach*? The answer to that question is shown below.



The *surface swipe path/reach* of a baseball bat has three (3) major components. They are:

1. The bat's sweet spot.
2. The bat's coverage over home plate.
3. The bat's greatest reach at the tip A to B, when swung.

Why are these things important? Because, every one of these components has a weakness based on how the batter positions his/her feet at bat. If you know what to look for you can take advantage of these weaknesses.

The Bat's Sweet Spot

When the baseball bat is swung properly, this **spot** concentrates enough energy so as to yield the greatest impact on an incoming baseball. Pitchers try to avoid pitching to the sweet **spot** of the bat.

The Bat's Area of Surface Coverage

Regardless how a bat is swung, it covers a certain surface area. Good hitters know this and try to match every incoming pitch with a good surface swipe. If that wasn't enough, they also try and place the sweet spot of the bat where it will do the most good.

The Bat's Greatest Reach at the Tip A and B

The reach of the bat and the location of the sweet spot depends on the batter's stance and the placement of the feet in the batter's box. As we'll see later, if the feet are positioned badly, the effectiveness of the bat's reach and all the component qualities that follow can be limited.

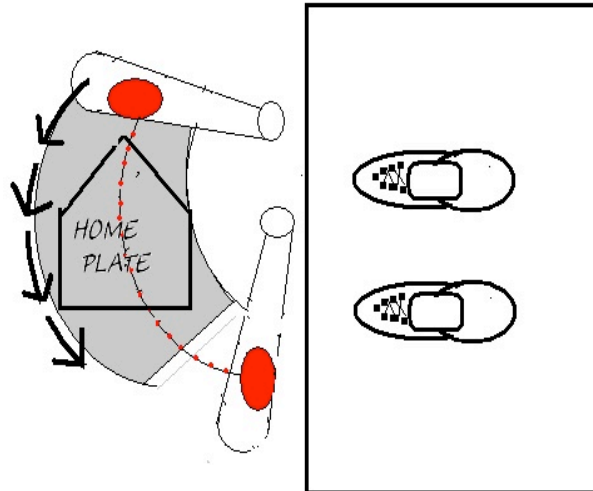
The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)

Squared off stance - center

STANCE IS IN THE MIDDLE OF THE BATTER'S BOX

- SWIPE PATH COVERS CENTER OF HOME PLATE -

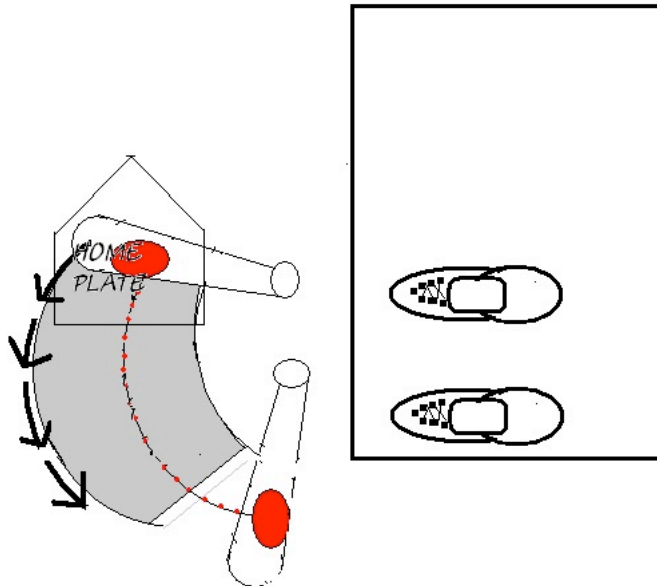


- SWEET SPOT COVER CENTER OF HOME PLATE. -

Square off stance front

- STANCE IS IN THE FRONT OF THE BATTER'S BOX -

- SWIPE PATH COVERS THE FRONT OF THE PLATE -

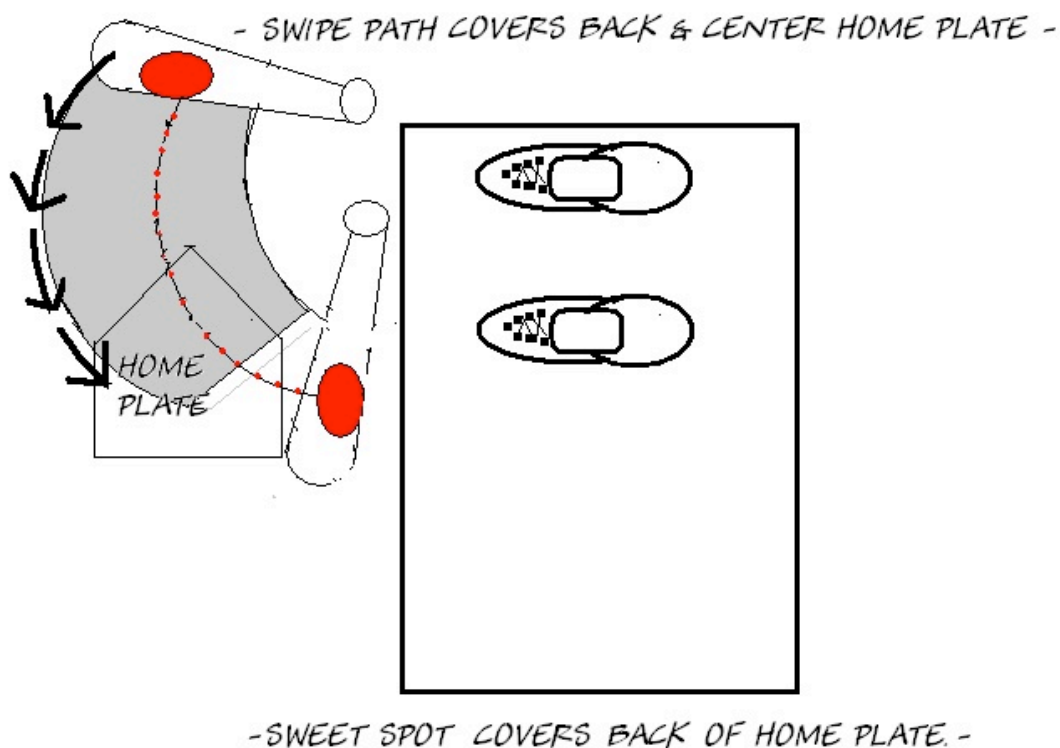


- SWEET SPOT MOVES OVER THE CENTER OF THE PLATE AND THEN CUTS SHARPLY IN TOWARDS THE BATTER -

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)

Squared off stance - rear



So far, this stuff sounds really simple and straightforward. However, suppose a batter steps up to the plate and places the front foot slightly offset to the back foot. This and other foot placement scenarios change everything.

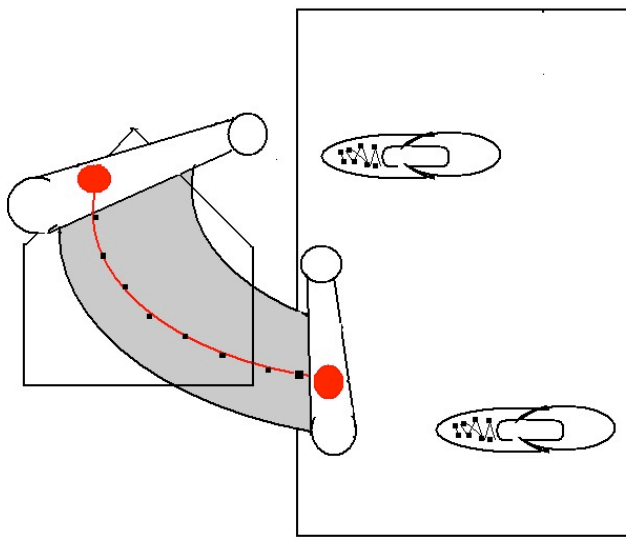
On the following pages I'm going to show you different wipe paths caused by placing the feet in various configurations.

By the way, the examples just given and those that follow are for a right-handed batter. For a left-handed batter simply reverse the picture.

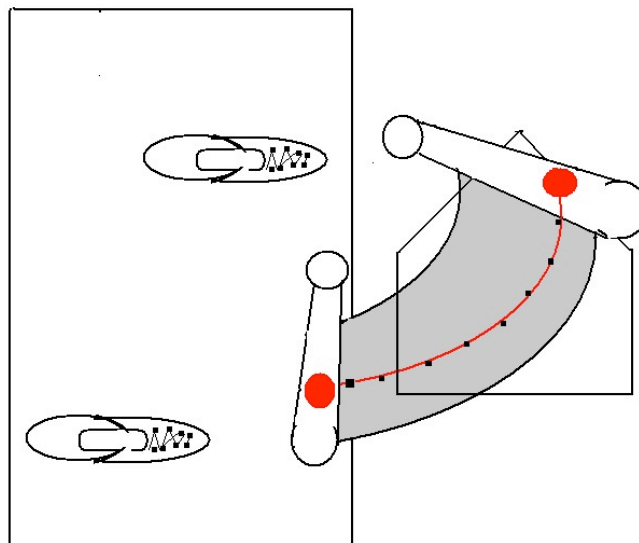
The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)

Open stance right-handed batter

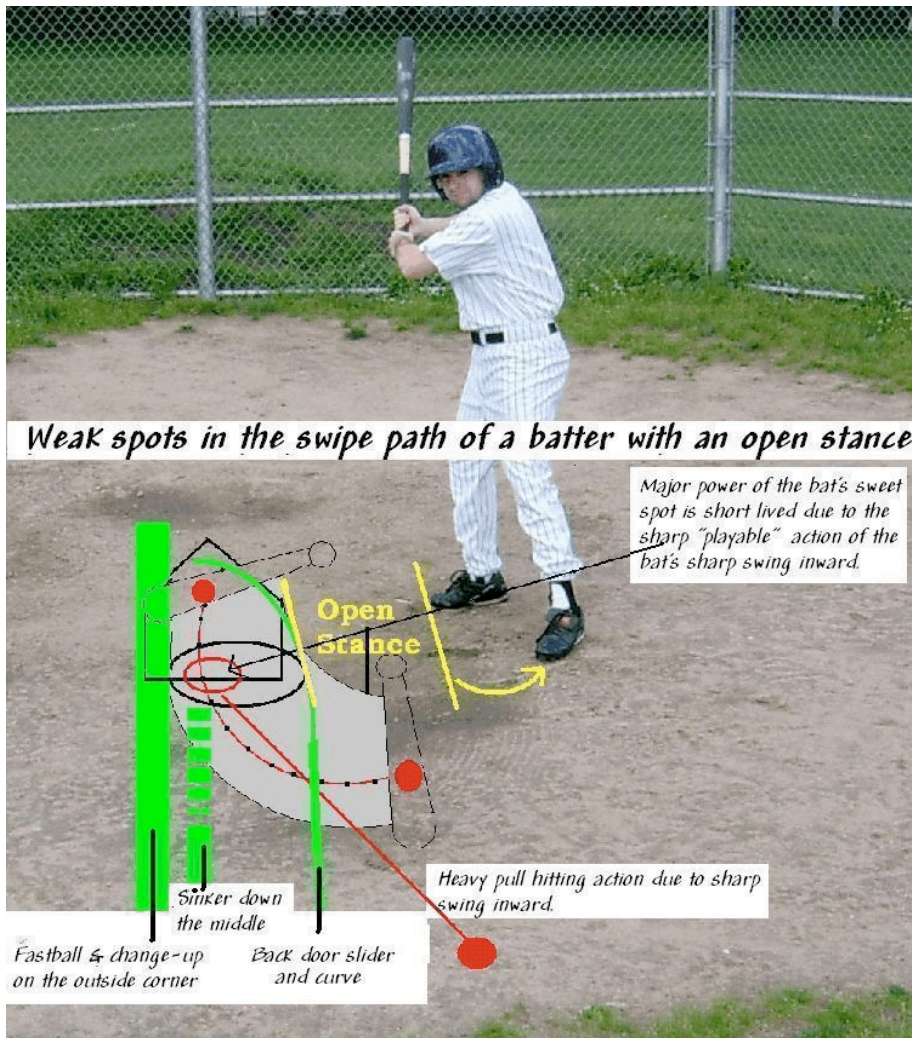


Open stance left-handed batter



The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)



The swipe path of a player with an *open stance* has the following characteristics:

1. The bat's greatest potential is excellent at the front of home plate then diminishes sharply as the swipe path cuts across the face of home plate.
2. Contact with the ball tends to pull the ball aggressively and the bunt is a poor hit for this stance, bringing the ball directly back to the pitcher a high percentage of the time.
3. The following pitches are very effective against this stance:
 - Fastball and change-up on the outside corner.
 - Sinker that drops sharply in front of home plate.

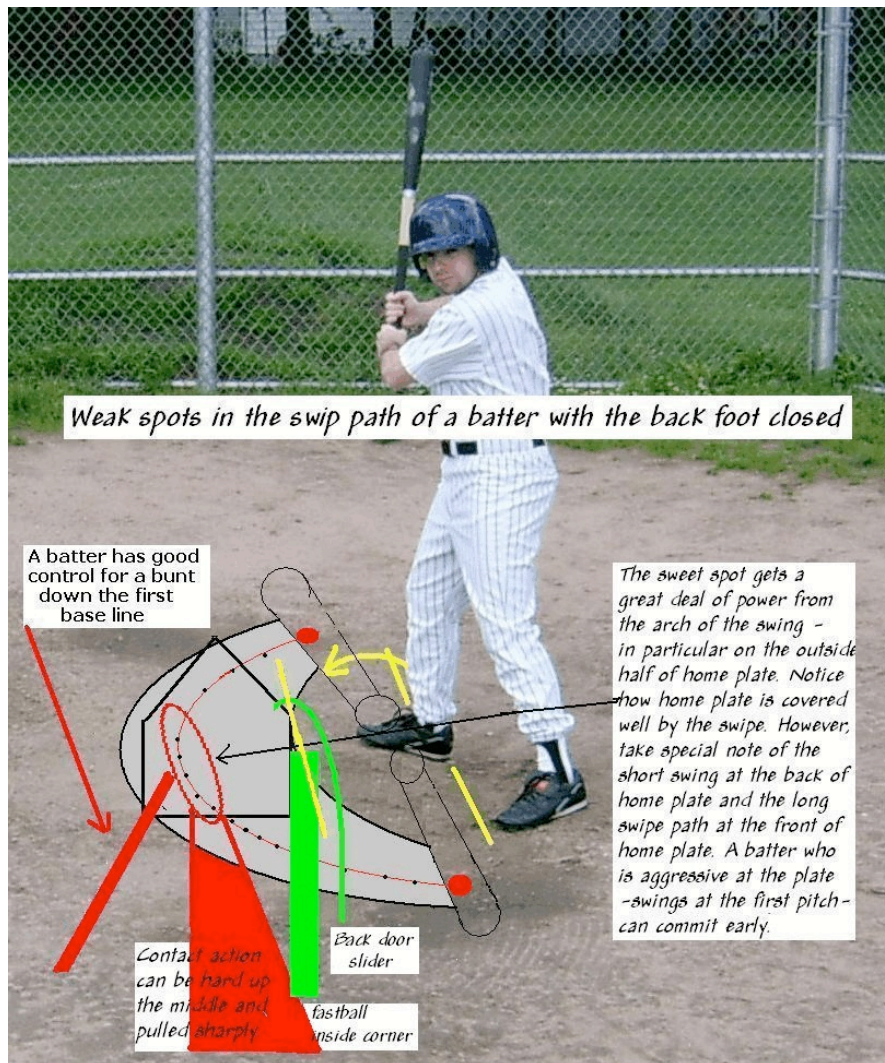
CAUTION:

If the sinker isn't working early it will plow directly through the strongest portion of this stance's swipe path.

- Backdoor slider and sweeping curve. A player that starts off with this stance, and then strides towards the pitcher on the pitch, can overcome these weaknesses. But, effective bat control is difficult. In fact, a hard bat-breaking slider is very effective in this case.

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)



This stance can give the batter three possible hits. They are:

- Bunt down the first baseline.
- Hit aggressively down the middle.
- Hit pulled aggressively along the third baseline.

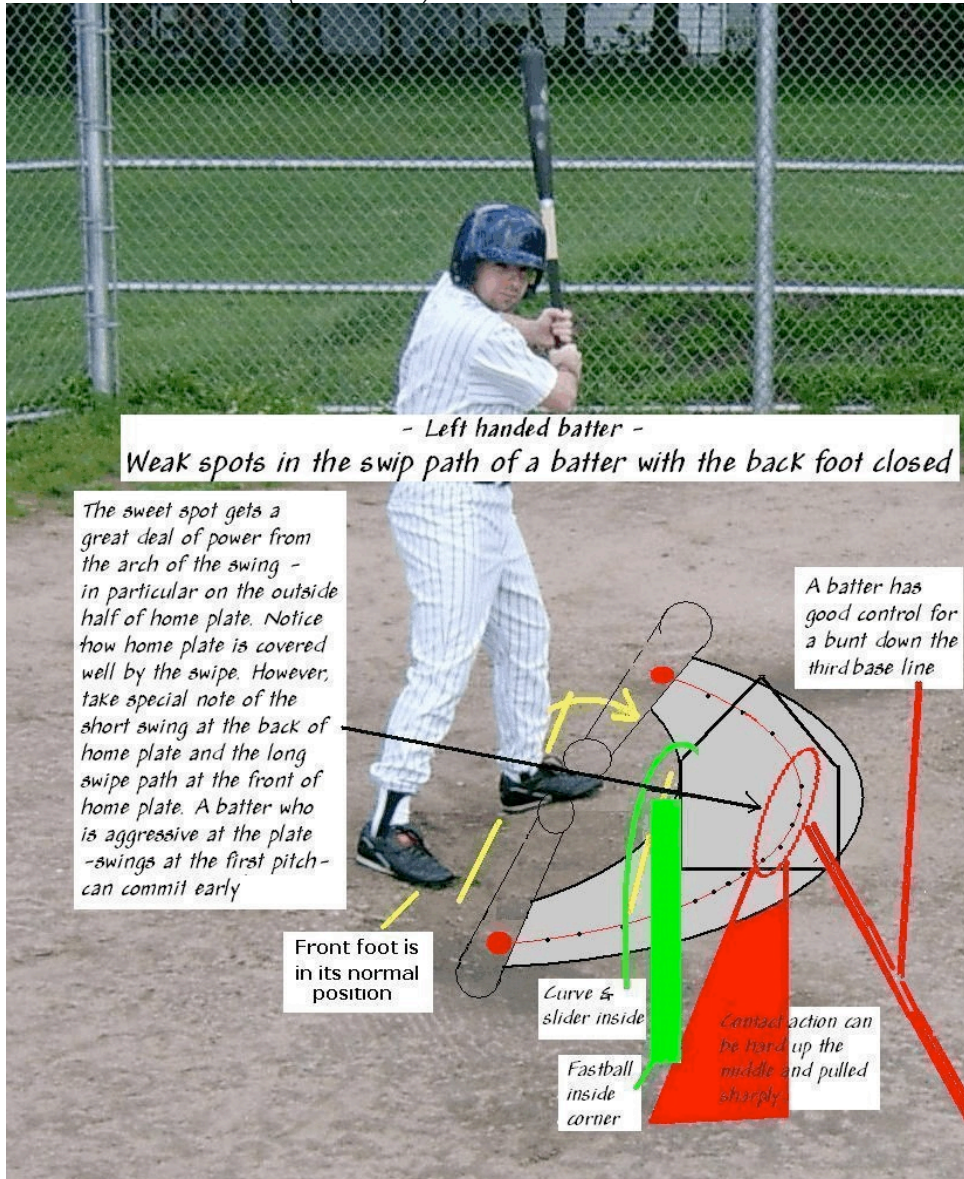
The swipe path of a player with a *closed back foot stance* has the following characteristics:

1. The bat's greatest potential is excellent over the outside half of home plate.
2. Contact with the ball tends to drive the ball up the middle and pulling the ball, sharply.
3. The following pitches are very effective against this stance:
 - Fastball on the inside corner, preferable in the bottom of the batting order for the 6th, 7, 8, and 9th.
 - Sweeping curve from a left-handed pitcher to a right-handed batter.
 - Hard backdoor slider.

One of the common mistakes a battery can make is to assume that this stance is an open stance like the one on page 59. Usually, the backstop (catcher) fails to notice the placement of the front foot and signals for a pitch that falls prey to the strong suit of that posture. Take a look at page 59 and you'll see what I mean.

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)



This is a batter's stance when the back foot is closed, only this time for a left-handed batter.

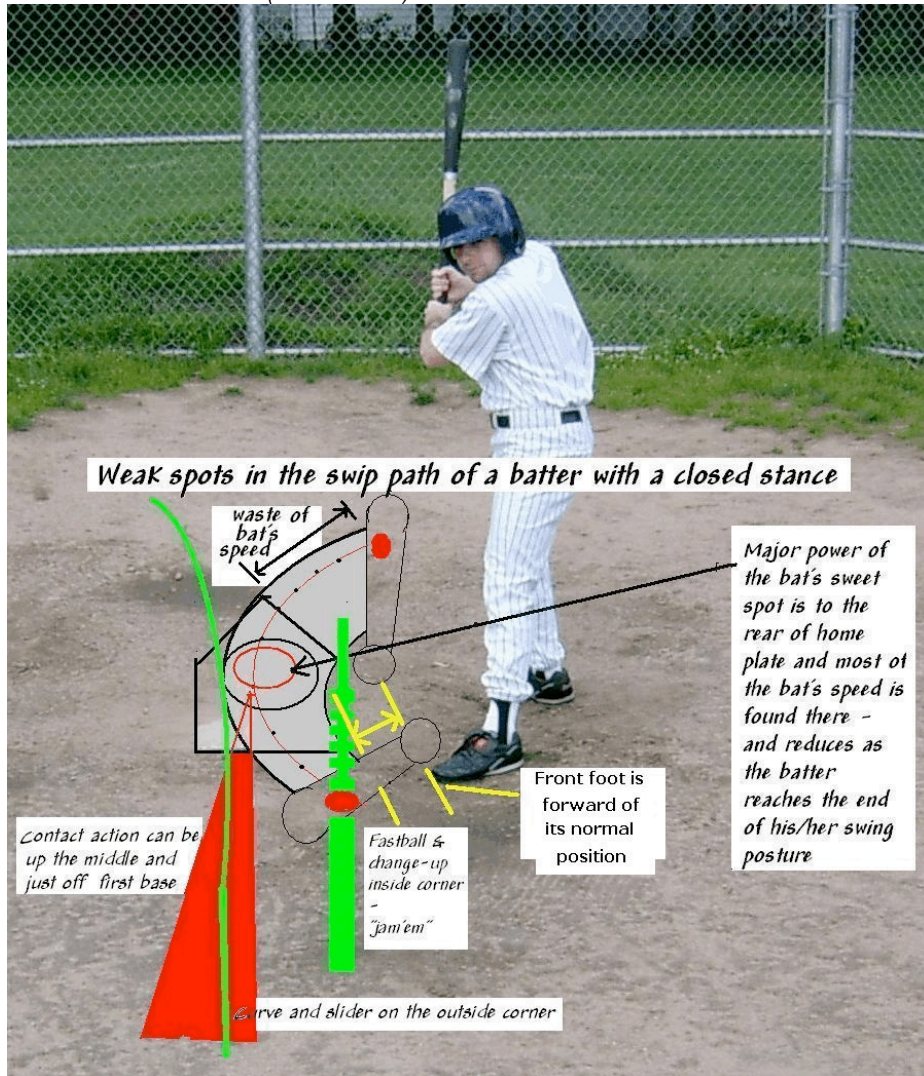
A major weakness for both the right and left-handed batter using this stance is that it retards the bat's speed off the shoulders and forward up to the center of the chest. Hence, the bat's quickness is susceptible to the inside fastball.

A left-handed batter with this stance can be very challenging for a right-handed pitcher. This is due to the small margin of error afforded to the pitcher's angle of attack. In other words, when a pitcher misses the intended target by only four (4) or five (5) inches up or down, left or right, this can cause the ball to plow through the greatest concentration of the bat's energy in the swipe path. The same holds true for a left-handed pitcher and a right-handed batter. The trick is not to get fancy. In situations like this, I strongly suggest a play-making pitch against the upper half of the batting order instead of strikeout approach.

A good defensive pitch is a pitch hard to the inside jam-em!

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)



This stance is for a right-handed batter.

For a left-handed batter the stance would be reversed and most of the contact action will be up the middle and just off third base.

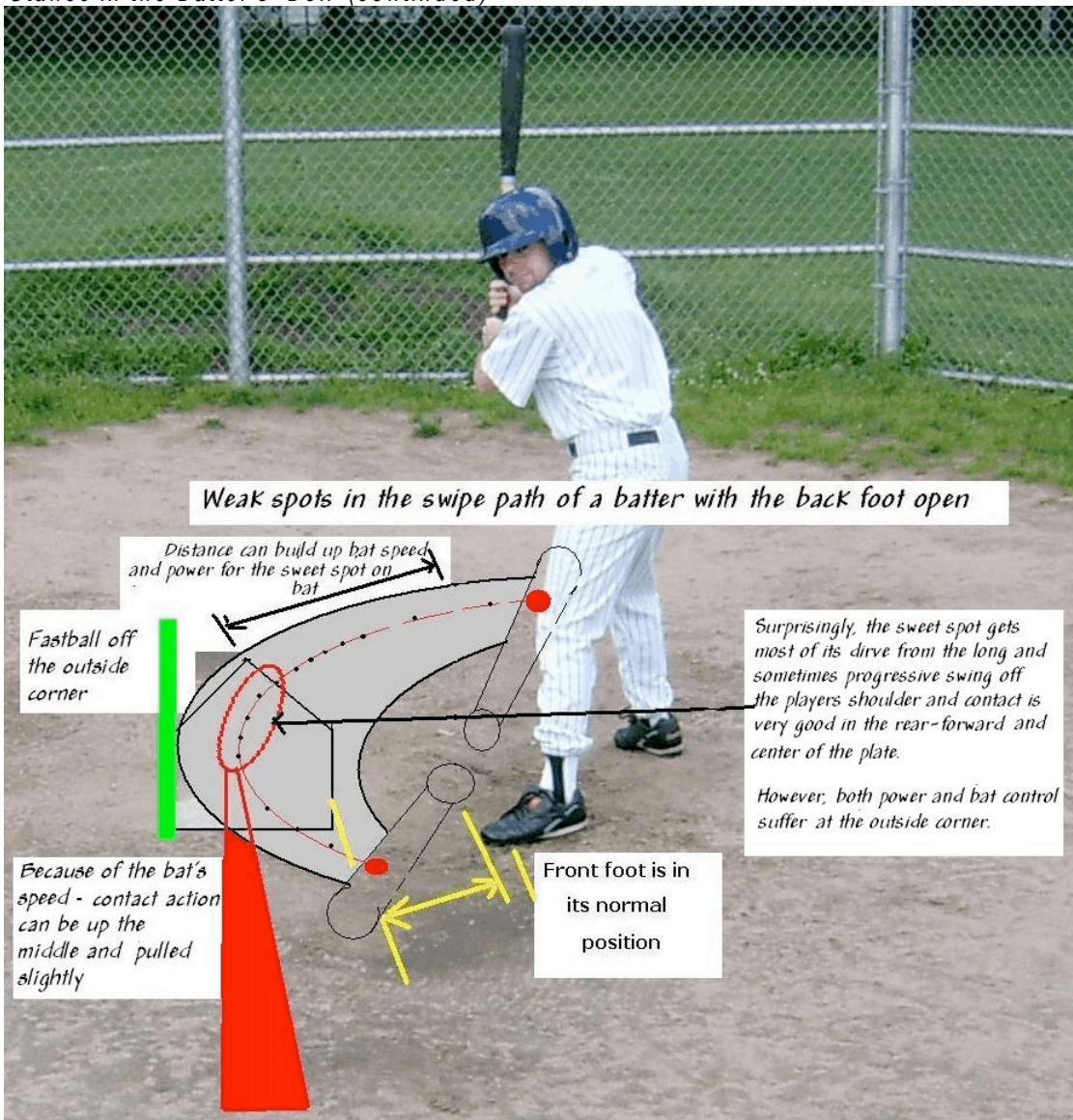
A major weakness for both the right and left-handed batter using this stance is that it retards the bat's speed off the shoulders and the center of the chest. Hence, the bat's quickness off the shoulders more often than not, results in a late swing, especially in the bottom of the batting order. In fact, to the casual observer, this would seem like no big deal. However, repeated foul balls can increase the pitch count rapidly. Pitchers that can control a sweeping curve and a slider off the outside corner of the plate take advantage of the bat's retarded reach.

Batters in the top of the order take this stance when they're trying to *reach* the opposite field. And batters in the bottom of the order tend to take this stance as a matter of poor judgment.

If deep holes in the batter's box dictates this stance for everyone TAKE ADVANTAGE OF IT! Be aggressive here. Batters who fall prey to this shortcoming rarely follow through with good feet mechanics during their swing. So, again - TAKE ADVANTAGE OF IT. A fastball on the inside, just below the hands, is a good pitch here.

The Art of Hitting - A Pitcher's Perspective

Player's Stance in the Batter's Box (continued)



This is one of the most difficult stances a pitcher can face. Initially, this looks like a closed stance however, it anything but! **THE BIGGEST MISTAKE A PITCHER CAN MAKE IS TO PITCH ANYTHING INSIDE.** That includes a backdoor slider. Even worse, missing the target with any pitch often spells trouble.

A major weakness of this stance is that the batter's effectiveness lessens off the front hip area. Hence, pitches that tend to *die* in front of the plate and pitches that *nibble* the front outside corner are the only effective means of dealing with this stance. In fact, this stance can more than make up for holes in the batter's box and sub-par hitters found in the bottom of the lineup.

A left-handed batter with this stance can be a nightmare to a right-handed pitcher. **This is due to the small margin of error afforded to all right-handed pitchers who have a tendency to miss their targets from right-to-left.**

One of the biggest mistakes a battery can make is to assume that this is a closed stance, like the one on page 62. If you compare the two, you'll see what I mean.

The Art of Hitting - A Pitcher's Perspective

Batter's Hand Position

I've often been asked ... "what's the big deal with the batter's hands, coach?" The big deal is this:

1. The hands can indicate a batter's swing pattern with the bat.
2. When the hands start the bat in motion, the weight of the bat tends to keep that bat in motion.

Six things revolve around the hands of a hitter... as far as we're concerned. They are:

1. Position of the hands initially.
2. Grip on the bat.
3. Position of the hands just before the swing.
4. Area of confidence.
5. Two dimensional swipe pattern of the bat.
6. Momentum of the bat throughout the swing.

Position of the Hands Initially

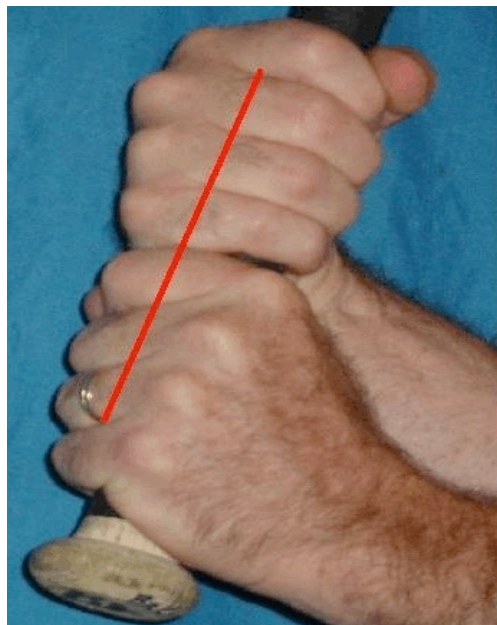
When a batter sets in the batter's box, the hands and the bat can be up behind the head, over the shoulders, down by the rib cage or in some other location. However, the final position of the hands and the shoulders are where we start to judge the *batter's area of confidence* and the *two dimensional swipe pattern* of the bat.

Grip on the Bat

It's almost impossible for a pitcher to see a batter's grip. So, the Backstop (catcher) has to make this call.

Knuckles and Flats of the Fingers Aligned

This grip is good for a *batter's area of confidence* that's in the upper strike zone. In addition, if the batter has exceptional wrist action and arm extension the down-an-away pitch can be hit. A weak spot for this grip can be the inside pitch. This weak spot can be exploited if the batter fails to turn the top hand over throughout the swing or does not stride forward on the pitch.



The Art of Hitting - A Pitcher's Perspective

Batter's Hand Position (continued)

Grip on the Bat (continued)

It's almost impossible for a pitcher to see a batter's grip. So, the backstop (catcher) has to make this call.

Knuckles Aligned and Top Hand Turned Inward



This grip has weak spots, plural, written all over it. Poor hitters, usually found the bottom of the batting order have this grip. Surprisingly, it's not their initial grip. This grip is slowly obtained by wringing the hands when the bat is rested on the shoulder. Also, the hands are usually held close to chest. Most pitchers who fail to take advantage of this grip do so by over pitching. The trick here is not to get fancy. Overall, a good fastball down and in, works well

Knuckles Aligned and Top Hand Turned Outward



This grip is effective and works well for just about any batter. In fact, stocky players that depend on wrist action can use this grip extensively. A batter with good eye-hand coordination using this grip can be very effective against the change-up. However, backdoor sliders and a fastball up-and-inside are often chased by players with this grip. In addition, this is a favorite grip for players that like to *slug bunt*. The open palm of the top hand gives this grip away.

The Art of Hitting - A Pitcher's Perspective

Bat Location

The way a player holds the bat can give us an indication of the:

- Area of confidence.
- Two dimensional swipe pattern of the bat.
- Momentum of the bat throughout the swing.



With the hands at shoulder height and the bat angled back behind the batter's head at about a 45 degree angle, this batter has an excellent opportunity to produce an area of confidence that starts at the center of the chest and covers the thighs. Also, notice the good front arm extension. This bat posture is very difficult to pitch around. The only weak spots are found when the batter doesn't stride forward on the pitch, or, when the upper torso and the wrists are used exclusively. Jamming inside just below the hands and a backdoor slider are very effective here. However, warning, hang the curve or slider or even worse miss by four (4) or five (5) inches up or down, left or right and this player will take you deep. This posture is usually found in the top of the order.



With the hands close to the chest it makes little or no difference where this player's bat location is. This posture presents no area of confidence and is very easy to pitch against. Normally, the lower end of the batting order has this posture, especially with the tall and slim players. However, caution should be exercised here. Do not over-pitch this player. If a pitcher gets behind in the count with the first two pitches - he/she is trying too hard.

The Art of Hitting - A Pitcher's Perspective

Bat Location (continued)



This batting posture can be found at the top of the batting order and with players that are compact in height, slim and average in build. The bat can either stay in this position on the pitch or it can be dropped just above the rib cage before the swing. This player's area of confidence is usually between the shoulders and the upper chest. This batter will chase high heat, especially when he/she is behind in the count. The weak spots of this posture can be exploited if the player has a very wide stance in the batter's box, stands too far back in the batter's box, and does not stride with the front leg on the pitch. Hence, the following pitches work well: down and away, hard breaking slider, curve, forkball and change-up. However, I should mention again, that these players can be at the top of the batting order, so be sharp. Their wrist speed tends to be excellent.



The area of confidence for this player is usually belt high and just above the knees. Tall players with an average and muscular build tend to use this. The pitch that most players with this style will chase is the down and away pitch. Also, it's not unusual for an inexperienced batter to give away a *take this pitch* signal from his/her third base coach using this posture. The swipe path for this bat position varies. If the bat stays like this on the pitch, the player will have a noticeable hole in his/her swing from the mid section out to the hands. If the bat comes off the shoulder on the pitch, but the front leg fails to stride forward, the swing will invariably *chop* the ball for a grounder, or, hit under the ball for a pop-up. However, a word caution here - a player with this bat location in the top or middle of the batting order who's also patient at the plate, will more than likely be a good contact hitter. This being the case, pitching low, or low and away has a high percentage of being hit.

The Art of Hitting - A Pitcher's Perspective

Bat Location (continued)



The area of confidence for this player starts at the center of the chest and covers the thighs. This player can hold the bat in its upright position - on the pitch, or *flick* the head (top) of the bat back a bit just before the swing. In either case, good arm extension and quick wrists are usually supporting this posture. Also, you'll find this posture throughout the batting order on good teams. On lesser teams you'll find it 2nd, 3rd, and sometimes 7th in the order. Power hitters can prefer this style. The only weak spot here is when the batter gets overly aggressive. A good change-up and a setup pitch can work well. *The swipe path of this posture suggests nothing down the middle. A solid pitch here is a quick - down and inside.*

Summary

Each bat location has its own strength and weakness. It also has its own swipe path and area of confidence for the batter. This area of confidence, by the way, is where the batter feels he/she has the greatest opportunity to make contact with the bat.

On page 69 is a collection of the bat postures that we just covered. The half-circles represent the swipe paths of the area of confidence for most hitters.

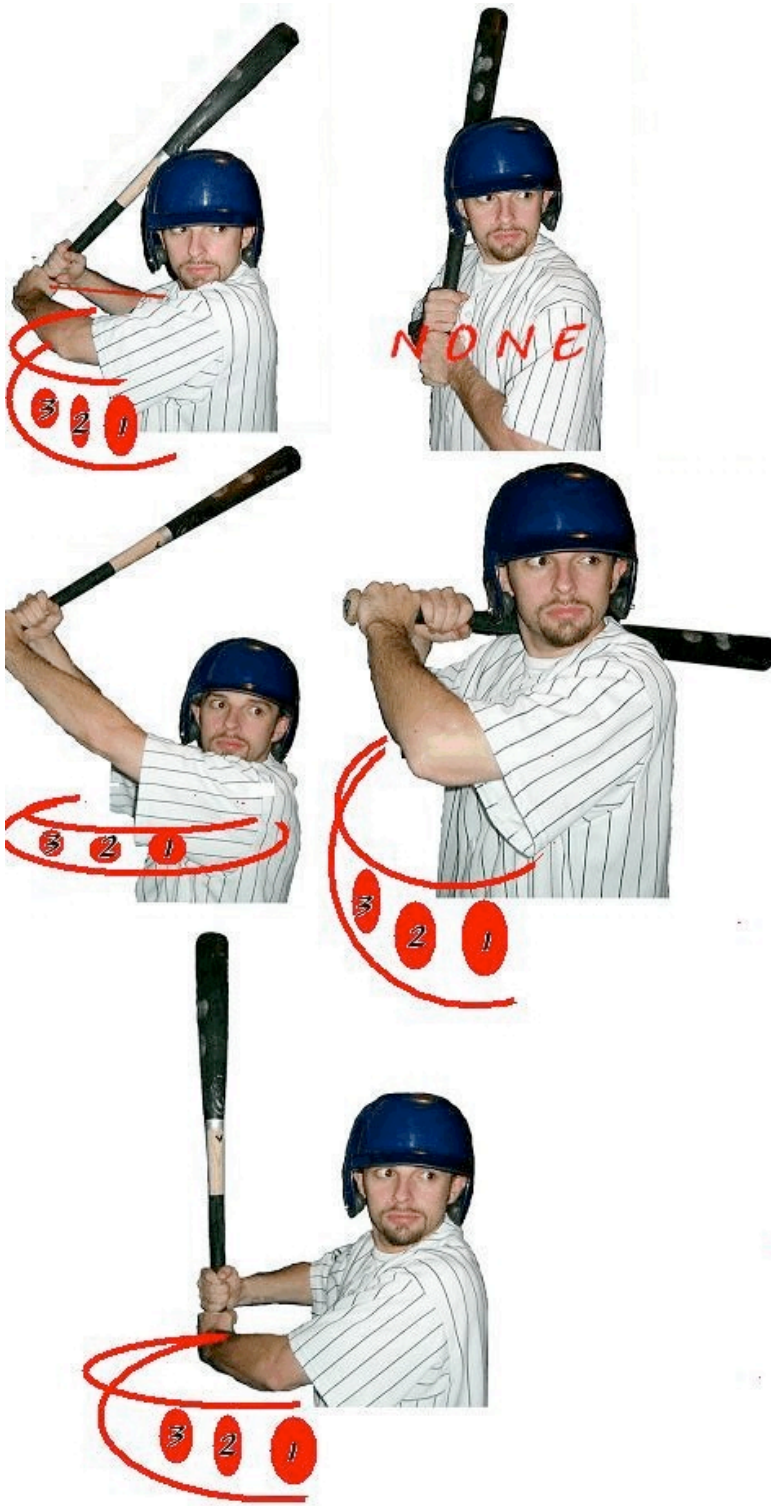
In addition to the swipe paths notice the markings (1), (2) and (3). These numbers represent the contact points for most players in the batting order.

- (1) Represents batters 1,2,3,4 and sometimes 5 in the order.
- (2) Represents batters 5, 6, and 7 in the order.
- (3) Represents batters 7 (sometimes), 8 and 9.

In this regard, a good hitter will make contact during the forward portion of their swing. Average hitters tend to make contact with the ball during the mid portion of their swing. And less than average hitters tend to make contact during the initial stages (back) of their swing. To put it another way the better the hitter the quicker the recognition of a hittable pitch and in turn a faster reaction to moving the bat forward.

The Art of Hitting - A Pitcher's Perspective

Bat Location (continued)



The Art of Hitting - A Pitcher's Perspective

Batting Order Logic

Why are some players first in the batting order, while others are placed last? The basic answer to that question is two fold. First, the top of the order is suppose to *get-something-going* and generate momentum for the rest of the batting order. In essence, these players should be the team's best hitters. Second, that momentum should produce base runners, and base runners score runs.

Sounds simple doesn't it? Well, it's not. In fact, most people would be amazed at the jockeying that goes on when planning a batting order. For example, here are some of the things that a head coach will consider:

- Who's playing healthy today and who's not?
- How many days off has it been and who's affected?
- How's the field, and how deep is the outfield?
- Has the opposing club seen our players at bat?
- Who's pitching on the apposing team, what's their stuff?

However, we as pitchers take a different approach.

- **First**, we consider the basic strategy of a batting order.
- **Second**, we consider (assume) the batting speeds in that order.
- **Third**, if we have little or no experience with the opposing team, we take what we know as the athletic requirements for each fielder, then match that against the batting order accordingly.

With respect to the third item just listed, suppose we see a player who fifth (5th) in the batting order, and we have no experience against this hitter. But, we do know that he/she is playing shortstop. Hence, our basic baseball knowledge tells us that the shortstop is supposed to be the team's athlete - quick reflexes, good mobility and excellent hand-eye coordination. At this point, if nothing else, our pitching staff should give this batter a healthily dose of respect.

Order in the		Characteristic
Lineup		
1 st	..	Lead off hitter, better than average bat skills, gets on base, skilled base runner.
2 nd	..	Better than average bat skills, will advance the runner, skilled at avoiding the double play, quick on the base path.
3 rd	..	Better than average bat skills, will sacrifice bunt in addition to hitting to the opposite field, quick on the base path.
4 th	..	Better than average bat skills, usually a power hitter, very dependable, but can be sluggish coming out of the batter box.
5 th	..	Average bat skills, dependable hitting skills, will improve as the game goes on.
6 th	..	Average bat skills, but, as a DH or substitute this player can alter the game dramatically. # 3 or #4 type hitters make good DH .
7 th	.	Average to below average bat skills, however - can produce surprise hits if under estimated. Also, a good hitter can be placed in this spot deliberately so as to disrupt the pitching and fielding efforts of an opposing team. Placing a #3 or #4 type hitter is a typical move here.
8 th	..	Average to below average bat skills, however - can produce surprise hits if under estimated. Also, a good hitter can be placed in this spot deliberately so as to disrupt the pitching and fielding efforts of an opposing team. Placing a #3 or #4 type hitter is a typical move here.
9 th	..	Average to below average bat skills, however - can produce surprise hits if under estimated. Also, a good hitter can be placed in this spot deliberately so as to disrupt the pitching and fielding efforts of an opposing team. Placing a #3 or #4 type hitter is a typical move here.

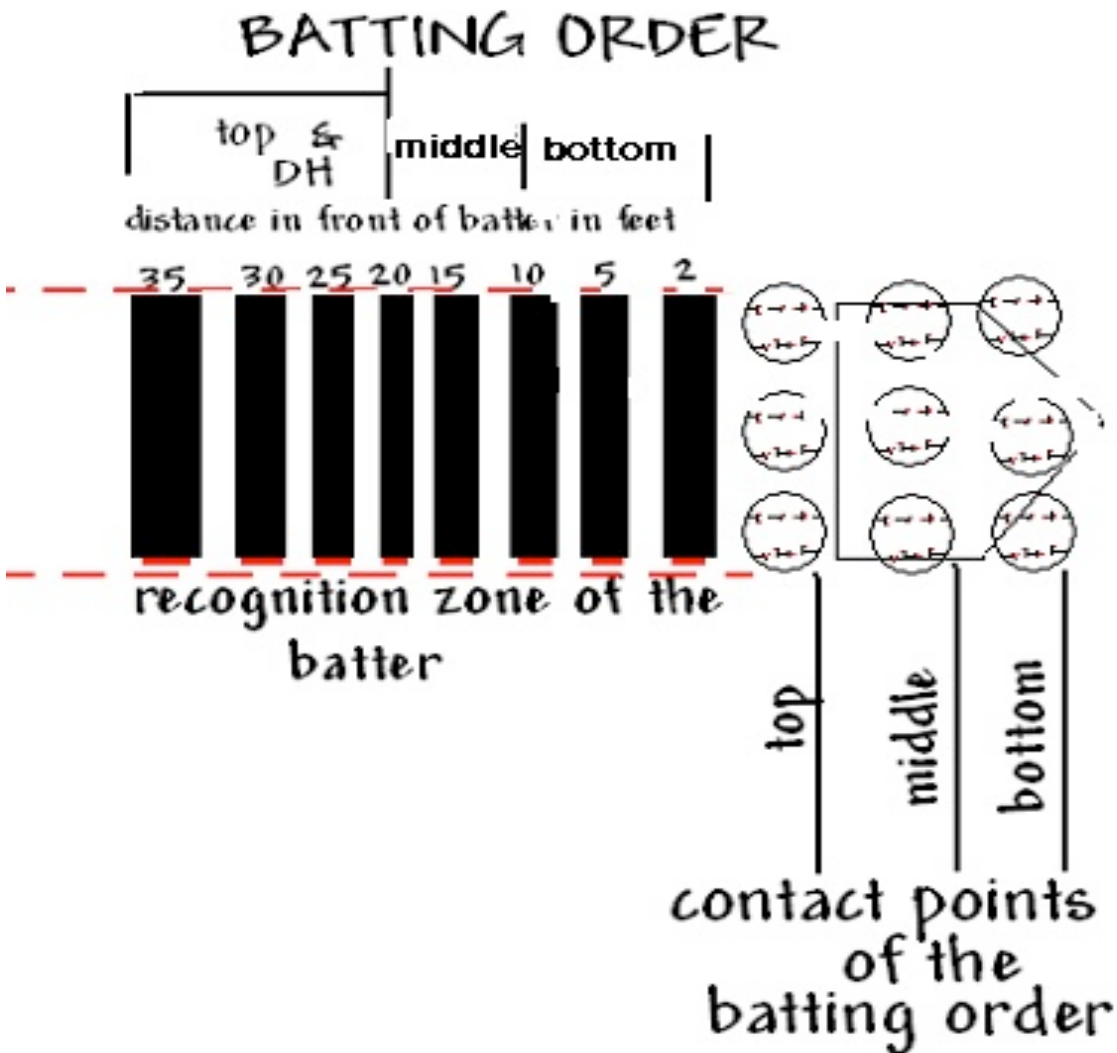
The Art of Hitting - A Pitcher's Perspective

Batting Order Logic (continued)

Contact Points

On page 68 references were made to where most hitters in the batting order make contact with an incoming pitch. Players 1,2,3,4 and sometimes 5 tend to make contact towards the front part of their swing. Players 5, 6 and 7 tend to make contact in the middle of their swing. Players 7 (sometimes), 8 and 9 tend to make contact in back portion of their swipe path. On page 69 we saw where these locations were for a variety of batting positions.

If we were to take a bird eye's view - directly overhead - of a player at the plate, those same contact points would look something like this:

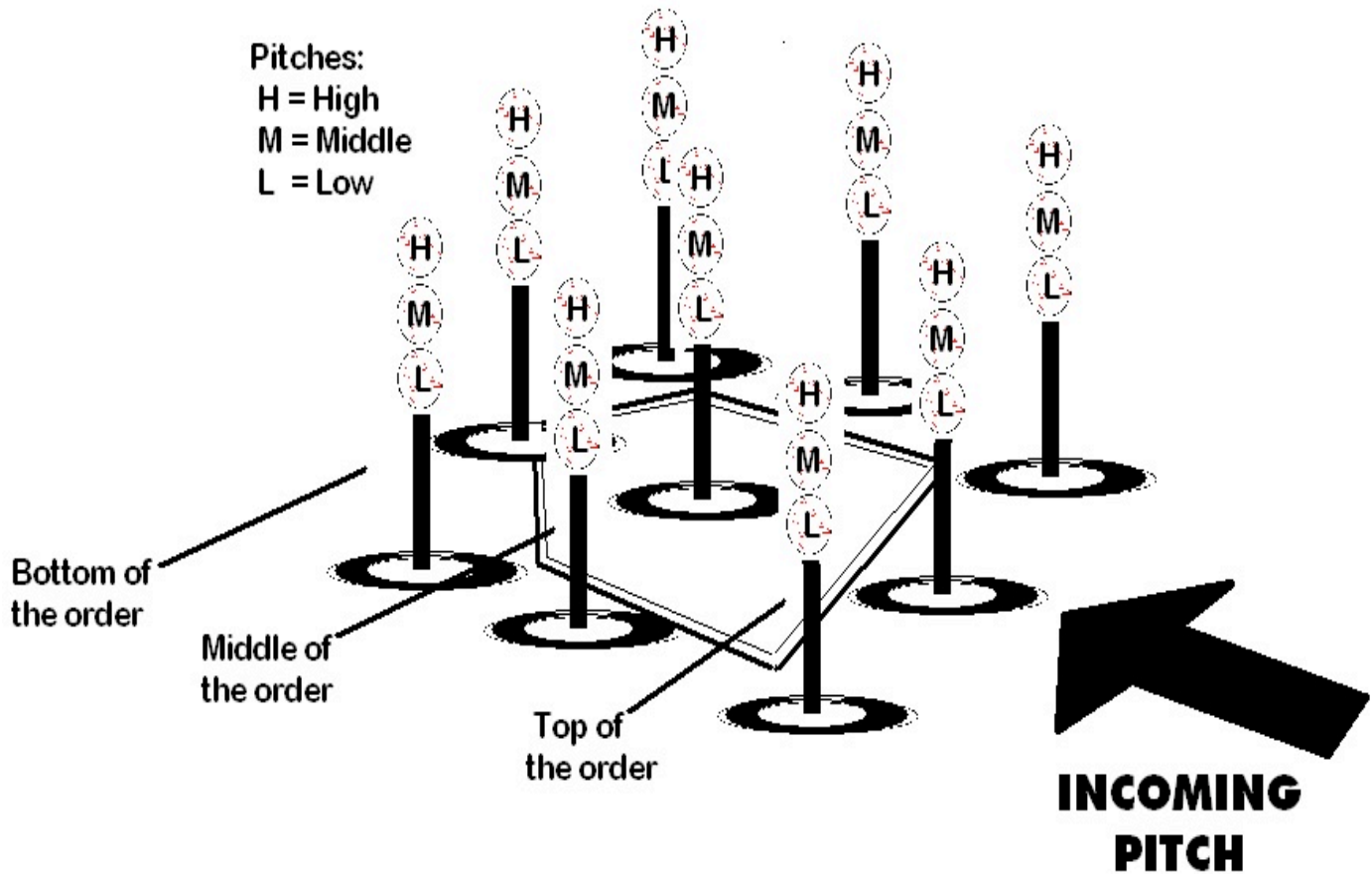


Notice the correlation between the contact points and the recognition zone of each group of players in the batting order. Those players in the top of order seem to have a quicker response and a higher quality at bat because of their recognition zone(s). Hence, their contact with the ball tends to be in front of their front hip.

The Art of Hitting - A Pitcher's Perspective

Where Does the Ball Go ?

Here's an outstanding exercise that will show you where the baseball goes, generally, when hit by a variety of hitting styles and pitch locations.



At home plate, place a batting tee with a baseball at various *heights* and *locations*. The *height* will be for pitches that are high, midway and low in the strike zone. The batting tee *location* will be for the contact(s) that are found in the batting order.

Here's where things get interesting. For every hand posture, foot placement, and swipe path that you can itemize take a swing at the baseball. Chart where and how the ball goes. If you chop the ball for a grounder note it next to the style of the batting posture and type of pitch.

The key here is to do this enough so you get a fair representation of how a batter can influence a baseball under certain conditions. During an actual game, you'll be amazed at how accurate this practice session can be!

By the way, it helps if your pitching coach directs your batting posture(s) while someone shags baseballs. Also, if you video the practice session it can be studied over and over again.

Base Runners

Base runners can pose two (2) challenges for a pitcher. The first challenge has to do with *time and distance* on the base path, and the second has to do with *distance and time* with play-making.

Time and Distance on the Base Path

After making contact, a batter can go from the batter's box to first base in about 4.5 to 5.5 seconds. In other words, a player can run ninety feet in about 4.5 to 5.5 seconds.

Now consider this:

If a player can run ninety feet in 4.5 to 5.5 seconds, then it's only logical that eighty (80) feet can be covered in less time, and seventy five (75) feet even less!

And that's exactly what a base runner is doing when he/she takes a ten (10) foot or a fifteen foot (15) lead off any base heading to the next. Hence, if a base runner takes a ten (10) foot lead off first base, then he/she only has to cover eighty (80) feet to make it to second base. So, instead of taking 4.5 to 5.5 seconds, the time is reduced to about 4 to 5 seconds. If a base runner takes a fifteen (15) foot lead, the time is now reduced to about 3.75 to 4.75 seconds.

Why is this so important? And why is stealing second base such a problem for the battery?

The answer to these two questions has to do with the combined time, in seconds, of the following:

- The *time in seconds* that a pitcher goes from a static position, to his/her release.
- The *time in seconds* that the ball travels to home plate.
- The *time in seconds* it takes the catcher to catch the ball, retrieve it from the mitt, then set the body in a throwing posture, then release the ball.
- The *time in seconds* it takes the ball to go from home plate to second base.
- The *time in seconds* it takes the fielder covering second base, to catch the ball then reach down and tag the base runner.

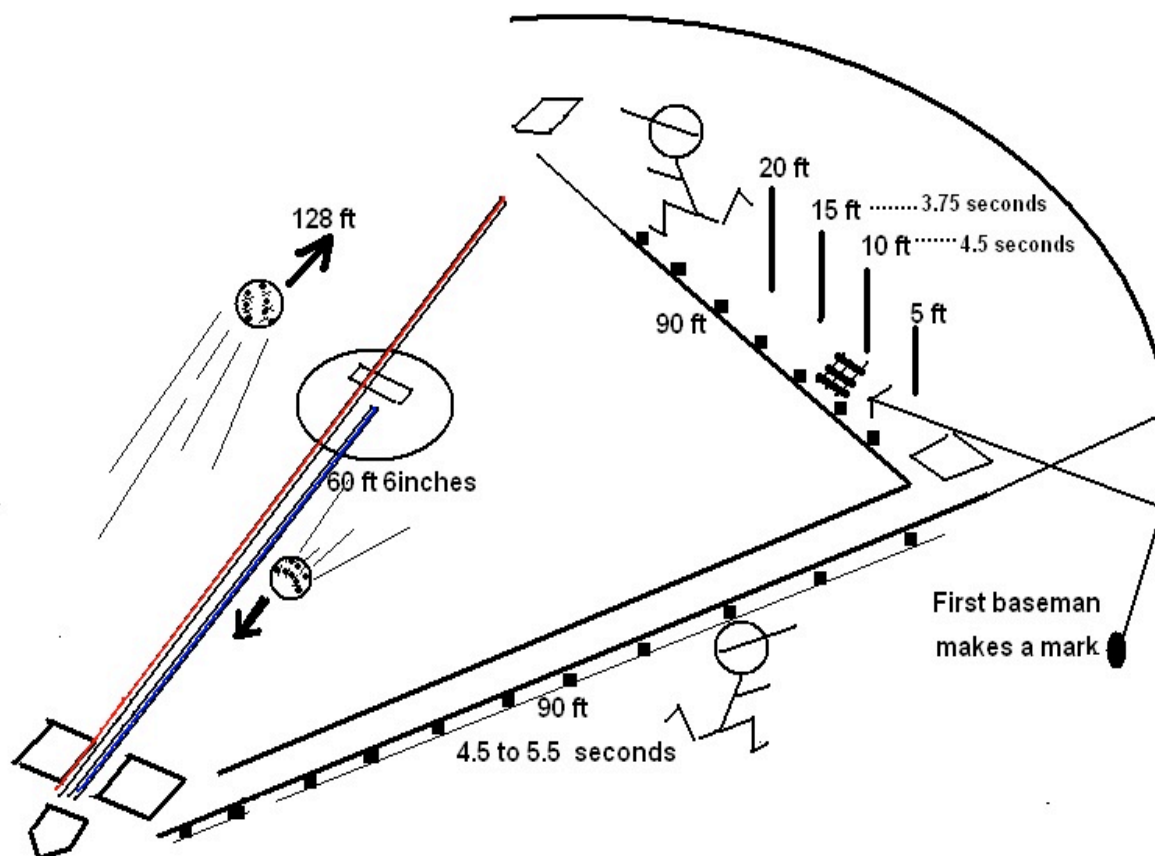
Now remember, while this is happening the base runner is running from first to second base. So, if the pitcher lets a base runner take a ten-foot lead off first then all this action has to be quicker than 4 to 5 seconds. Even less time is afforded when the base runner takes a fifteen-foot lead, which now has a time of 3.75 to 4.75 seconds to beat!

Keeping the base runner checked, as we call it, reduces that player's ability to eat-away at the time it takes for the pitcher, catcher and fielder covering second base to do their thing. Usually, a base runner will take a ten foot lead, and that's a given. But, if a pitcher allows more than that, he/she is giving up valuable seconds which his/her team can't afford.

On the following page you'll see an easy way to practice *checking* a base runner on first base.

Base Runners

Time and Distance on the Base Path (continued)



Here's an easy way to practice *checking* the base runner. The players needed for this drill are the pitcher, catcher, the first baseman, second baseman and your quickest runner on the base path.

- First, have your first baseman step-off ten (10) feet from first base, and make a mark on the infield dirt with his/her spikes. Then do the same thing at fifteen (15), then for twenty (20) feet.
- Second, have the fastest runner on your team start at the ten (10) footmark and see if he/she can steal second base. Then, do the same thing for the fifteen (15) footmark, and again for the twenty (20) footmark.
- A pitching coach usually notes every battery combination and its ability to check base runners. In that regard, some pitchers are quicker to the plate than others while some catchers are quicker to second base than others.

In addition to being a drill, having the first baseman step-off ten (10) feet during a game and marking a spot on the infield dirt where the pitcher can see it reinforces the *checking* mind set. Also, if the catcher can't see it, for whatever reason, the first baseman can signal the catcher if the base runner goes too far, beyond a certain point.

Base Runners

Distance and Time with Play-Making

Our *distance and time* consideration takes into account the feet and seconds that elapse after a ball has been hit and subsequently reaches a fielder. (By the way - these considerations are often overlooked by many professional as well as amateur pitchers.)

For example, let's say that a batter hits a line drive to our shortstop. Usually, that ball will travel slightly over one hundred (100) feet and our shortstop will have possession of the ball in about 1.8 to 2.5 seconds. Then, on average, a throw from the shortstop to first base can be accomplished in about 2.00 seconds. Hence, the shortstop's throw to first base can beat the runner. Remember that it takes about 4.5 to 5.5 seconds for most amateur players to run ninety feet. So, our shortstop has 3.8 to 4.5 seconds to make the play. By the way, if you're wondering about the time spread in seconds for our play-making, this spread accounts for the shortstop's location - shallow or deep, and the infield's surface that will influence the ball - short/tall grass, wet grass, one hop or two, etc.

However, as easy as the play unfolded for our shortstop in our foregoing example, let's say the same play has a base runner on third. Our shortstop now has to gain position of the ball then *check* the base runner on third so he/she doesn't take an excessive lead towards home, then throw to first base for an out. *But not so fast here !* If we take a closer look at the *distance and time relationships involved in play-making* we'll soon see that the base runner on third has a better than average chance of scoring as soon as our short stop releases the ball !

Let's take a closer look at the events as they unfolded:

- 1st Our base runner can cover ninety (90) feet in about 4.5 to 5.5 seconds, and even quicker if he/she takes a ten or fifteen foot lead off third.
- 2nd- When our shortstop releases the ball to first the clock starts ticking.
- 3rd- On average, an amateur shortstop can throw to first base in about 2.0.
- 4th- The first baseman has to make the catch and react to the runner going home in about 1.3 seconds, then throw the ball home in about 1.5 seconds.
- 5th- On average, the total elapsed time so far is 4.8 seconds (2.0+1.3+1.5). That's if everything goes like clockwork.
- 6th- A good base runner that has a ten foot lead or better, can easily run from third to home plate in under 4.8 seconds.

Another example of *time and distance relationships with play-making* can be demonstrated when a ball is hit to the outfield. In amateur baseball it's not unusual for a base runner to advance when balls are hit to the outfield even when caught for an out. Again, remember that a base runner can travel ninety feet (90) in about 4.5 to 5.5 seconds. So, even the most talented amateur outfield would be hard pressed to catch a ball, and then make a decision on what to do with the ball then throw it accurately to a designated teammate, all in under 4.5 seconds.

However, I should qualify the statements above with respect to balls hit to the shallow parts of the outfield. Most players who gain possession of the ball hit to shallow left, center and right field have a better than average chance to holding most base runners.

Base Runners

Distance and Time with Play-making (continued)

The foregoing gave us a glimpse at just how dynamic the game of baseball can be with respect to *distance and time for play-making*.

However, does this really present a new wrinkle for a pitcher? YOU BET IT DOES!

To help you understand this section better, suppose there's one out and we have a base runner on third. In addition, our pitcher is right-handed and is facing a left-handed batter.

Our pitcher notices that this batter is tall and slender, holds the hands close to the chest and rests the bat on the back shoulder. Also, this batter is eight (8) in the batting order. Here's what our pitcher should be considering:

- 1st The eight (8) spot in the batting order shouldn't present a major threat assuming the batting order logic and observing this player's prior appearance at bat.
- 2nd - This player's batting posture suggests a swing that depends primarily on the arms and wrists with very little hip, torso or front leg striding towards the ball on the pitch.
- 3rd Resting the bat on the back shoulder throughout the delivery, coupled with an upright stance in the batter's box suggest a bat speed that's sluggish with a weak swipe path.
- 4th - With a runner on third, stealing home on the pitch is unlikely - not impossible, just unlikely.
- 5th - Our pitcher should concentrate on the batter, or what is commonly referred to as the play is at the plate
- 6th However, our pitcher shouldn't discount the batter tagging a pitch adding a host of *distance and time* variables that might allow our runner on third to score.
- 7th - Taking all of the above in account, our pitcher should keep the pitch selection simple. Nothing fancy - whatever is working that day should be delivered with a strikeout as the main objective.
- 8th - Strikes should be delivered to the inside from the hands to the knees. This way, if contact is made, the ball will more-than-likely travel between the pitcher mound and first base, thus eliminating much of the elapsed *distance and time* that would occur if the ball were hit towards third base or the shortstop.

The preceding was just a simple example of how pitcher's can influence a team's effectiveness on the field, not to mention the boost in momentum when it's their turn at bat.

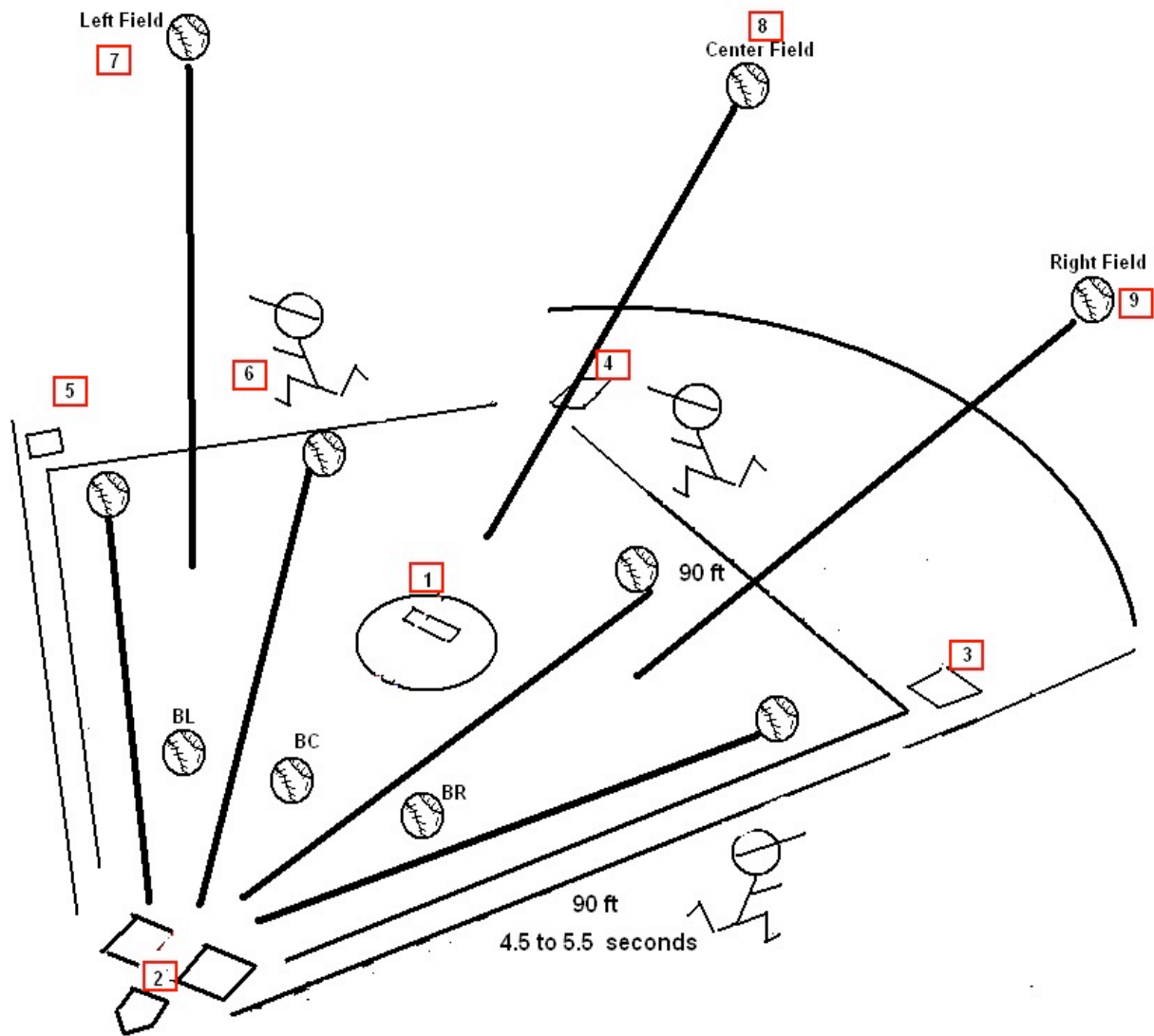
On the following page you'll see a diagram of a baseball field accompanied by a *distance and time* chart for a variety of conditions. When referring to these numbers please remember that we're talking about amateur baseball and the prevalent field conditions that support that environment.

In addition, please note that the *distance and time* chart marks *time* when a fielder takes possession of the ball. These values do not consider the play-making aftereffect. This is because of the large disparity in time(s) due to various competitive levels(s) of play for any given team and player.

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Base Runners

Distance and Time with Play-making (continued)



Distance and Time with Play-making (continued)

Time and Distance Relationships

Fielders Possession of the Ball After Batter Makes Contact

(all times in 0.00 seconds)

Position	BUNTS BL-BC-BR	Shallow		Medium		Deep	
		Grounder	Flyball	Grounder	Flyball	Grounder	Flyball
1 Pitcher	1.75 - 3.00	1.20 - 2.00	3.50	N/A	N/A	N/A	N/A
2 Catcher			7.00				
3 First Baseman	N/A	1.57	3.50 7.00	1.79	3.50 7.00	3.00	3.50 7.00
4 Second Baseman	N/A	2.85	3.50 7.00	3.19	3.50 7.00	3.65	3.50 7.00
5 Third Baseman	2.70 - 3.50	1.88	3.50 7.00	2.00	3.50 7.00	2.34	3.50 7.00
6 short-stop	2.70 - 3.50	1.85	3.50 7.00	2.30	3.50 7.00	3.50	3.50 7.00
7 Left Fielder	N/A	3.00 3.30	3.03 4.90	3.16 3.94	3.07 4.71	4.00 7.81	4.90 5.78
8 Center Fielder	N/A	3.47 5.00	3.80 4.75	4.00 5.80	2.80 4.00	3.65 5.00	3.35 4.45
9 Right Fielder	N/A	3.50 4.50	2.80 3.60	4.85 5.43	3.40 4.00	5.81 6.25	4.62 4.97

Our picture on page 78 shows the travel path for a variety of hits, while the chart above shows the corresponding elapsed time span for those hits to reach each field position/fielder. Also note that the chart breaks down the fielder's position - shallow, midway and deep.

I should note that certain positions, like center field, have time lapse disparities for ball possession at the shallow, medium and deep field position(s) that don't make sense - at first glance. However, a closer inspection of the position and the major activity that orbit that position can explain the disparity. So, on page 80 let's look at our picture on page 78 and the chart above for the activity in center field.

Base Runners

Distance and Time with Play-making (continued)

Position	BUNTS BL-BC-BR	Shallow		Medium		Deep	
		Grounder	Flyball	Grounder	Flyball	Grounder	Flyball
8 Center Fielder	N/A	3.47 ↓ 5.00	3.80 ↓ 4.75	4.00 ↓ 5.80	2.80 ↓ 4.00	3.65 ↓ 5.00	3.35 ↓ 4.45

Grounders that are hit to shallow center field take between 3.47 and 5.00 seconds to reach the center fielder while grounders hit to deep center field take between 3.65 and 5.00 seconds. Notice how the quickest times 3.47 seconds and 3.65 seconds seem to be reasonable. But, notice the longest elapse times are 5.00 seconds for both shallow and deep center field, while grounders hit midway (medium) center field is 5.80 seconds. That's a 0.80 second difference! The reason for the extra 0.80 seconds is due to initial position of the center fielder - before the play action. Usually, a center fielder will take a position shallow or deep, based on the player at the plate and the possible action that might follow. When a grounder is hit midway, it normally catches the center fielder off guard. Hence, more often than not our center fielder - who's been playing deep, has to *run in* on the play to gain possession.

In addition, a flyball hit deep to center field usually has a quicker elapse time for the fielder to take possession then that hit to shallow center because of the bat's influence on the ball. A fly ball hit to shallow center field is usually a pop-up caused by a batter hitting underneath the ball. Hence the extra loft time.

Pitch Selection for Distance/Time Relationships

When we're dealing with base runners, our pitch selection has to consider the strength and weakness of an opposing hitter in addition to what happens when a hitter makes contact.

In a prior section called The Art of Hitting - A Pitcher's Perspective, we saw the cause and effect of various batting styles, contact points and batting order logic, where the ball goes - usually, when hit by those batting styles and contact points. All in all, this information can help you reason-out your pitch selection when there are runners on base.

A final word is in order here. Don't let this overwhelm you. Start with the basics - the base runner(s) and how and where they're advancing, then consider the batter's stance, body posture, batting order, etc. Then decide on what the play-making should be - concentrate on the out at the plate, pitch to the double-play, the bunt, a fly out etc. In any respect, this is a skill that requires dedication to detail, lots of trial and error, and a coach and coaching staff that willing to let you learn by doing - even during game time.

INDEX

A

Adjustments	28,29,30,31,32,33
Amateur pitcher	BP1,BP2
Angle of attack	8,10,11,13

B

Baby powder	35,36,37,40,41
Backstop	15,25
Bags, rosin	39
Baking soda	39
Balance, depth perception	4,5
interpretation mode	1,2
physical reaction	5,6
sensory feedback	5,6
sight	2,3
Base runners	73,74,75,76
Baseball condition	15,33
Baseball rotation	21,24,33
Baseball shoes	35,37
Bat location	66,67,68,69
reach	55
speed	BP7,52,53,54
Batter	51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
Batter hand position	13,52,53,54
attention span	52,53,54
seeing pitch	13
stance	55,56,57,58,59,60,61,62,63
sweet spot	47,55,56,57,58,59,60,61,62,63
swipe path	10,47,55,56,57,58,59,60,61,62,63,68
Battery	BP8,47
Batting order	12,70,71,72
Batting practice	51
Belts	41
Benefit, Notebook use	BP1,27
Body language, catcher	48
Breaking pitches	14
Bullpen	BP1,27
Bullpen jackets	40
preperation	BP1,27

INDEX

C

Catchers	25,27,28,46,47,48,49
Catcher's placement	36
Coach, pitching	BP4,BP7,BP10,28
Coaching, ready for staff	BP4,BP7,BP10,28
Cochlea	BP5
Control vs velocity	1,2,47,48,49
Corn starch	BP2
Counting, pitcher durability	BP5
pitcher longevity	BP5
Curve ball	11
Cut, the	BP9

D

Distance, catcher problems	48,49
time playmaking	75,76
time relationships	76,79,80
Durability, pitcher	BP5

E

Emergency card	BP3,48,49
Equilibrium	1,2
Equipment	35,36,37,38,39,40,41,42,43,44,45,46

F

Face wipes	36.00
Fastball	11,59,60,61,62,63,65
Field captain	47.00
Fielding errors	BP5
sight	2,3
Forkball	23
Foundation pitch	BP7,52,53,54

G

Game vs sport	BP2
Glove arm	7,38,39
Repari kit	36
Gloves	36,38
Grips, baseball	15,16,17,18,19,20,21,22,23,24
Grounds keeping	45

INDEX

H	
Head coach	25
Hitting, pitcher's perspective	51,52,53,54,55,56,57,58,59,60,61,62
styles	63,64,65,66,67,68,69,70,71,72
	51,52,53,54
I	
Infield coach	25
Inner ear	1
Intermediate level	BP4,BP6,BP7BP9,BP10,25,47
Interpretation mode	1
J	
Jacket, bullpen	40
L	
Language of baseball	BP8
Left-handed batter	14,47
Longevity, pitcher	BP5
M	
Maturity	BP3,25
Movement, baseball of	24
N	
Notebook, benefit of	BP1
Notebook, is not	BP1
O	
Other sports	BP9
Outfield coach	25
P	
Perception	1
Physical condition	BP3,48,49
Pitch angle of attack	12,13,14
change-up	19,20,25,47,59,62
	7,8,9,10,11,12,13,14,15,16,17,18,
components	19,
	20,21,22
control	BP2,4,27,29
control problems	32
count	BP5,BP6
counter	42
sheet	25
sheet percentages	26,27

INDEX

P

(continued)

Pitch, count tolerance	BP6,BP7
curve ball	21,22,25,60,61
dialing the ball	32
forkball	23,25,61
foundation	BP7
four seam fastball	16,18,19,23,24,25,32,60,61
grips	15,16,17,18,19,20,21,22,23,24
location	47
mixing up	47
movement	24
off-speed	19,20,25
pitch-out	15
predictability	25,47
release points	8,18,20,22,24,28
rotation lack of	32
setup	51
signals	47
sinker	25,59
slider	24,25,59,60,61
strike	15,26,48,49,51,61,64,76
targeting	25,27,47
the dynamics of	8
two seam fastball	17,18,19,23,24,25
velocity	BP2,15
when-and-why	25,26
Pitcher, age level	25
armature	BP1
balance	1,2,3,4,5,6,38
coaching ready for	BP4
delivery posture	7,26
exaggerate motion	2
finding the right team	BP10
mound adjusting	2,3,39
mound conditions	9,26,28,29,30,43,44,45,46
mound construction	45,46
mound cover	45
mound flat surface	32
mound front slope	2,3,6,9
mound observations	2,3
mound portable	42
mound rubber	2,3,9,10,11,13,14,46
mound tools	45

INDEX

P

(continued)

Pitcher, glove arm	6,7,31,38
glove changing	39
glove hand	38
head	7
injury	27
interview	BP7
knees	7
learning curve	BP7,BP9
left-handed	14,25,30
levels of competition	BP4,BP7,BP9,BP10
longevity	25
maturity	BP3,48,49
notebook benefit	BP1
other sports	BP9
perception	48
physical conditioning	BP3,48,49
pitch count	BP5,BP6
pivot foot	7,29,30
repertoire	25
right-handed	13,25,29,30
rotation	BP6,25,32
shoulder angle	31
sidearm	31
slingshot	31
stride foot	29
style and motion	7
submarine	31
talent level	25
targeting	25,27,47
throwing arm	FRAGILE,7
winning and losing	BP5,BP6
Pivot foot	7,30
Placement of catcher	48
Playmaking	51
Posture at bat	52,53,54
Power trigger	8
Probability	51
Protective screen	42
Public ball field	9

INDEX

R

Radar guns	BP5,BP6
Recognition zone	8
Release points	8,18,20,22,23,24
Repertoire	25
Responsibility	BP2
Right-handed hitter	14,47
Rosin	39
Rotation of pitchers	BP6,25,32

S

Sanitary socks	36,41
Screen , pitcher's protective	42
Secrets, guard your	BP9
Shoetrees	37
Sight	1,2,3,4,5
Signaling, catcher by	47,48
Slider	11
Sport vs game	BP2
Stride foot	7,29
Style and motion	7
Sweet spot of bat	47,55,56,57,58
Swipe path of bat	55,56,57,58,59,60,61,62,63

T

Talcum powder	35,36,37,40,41
Targeting pitches	14
Thumb balancing grip	16,17,21,23
Toe applications	37
Travel zone	8
T-shirts	35,36,40

U

Umpires	BP3,39,48,49
Uniforms	41

W

Winning and losing pitcher	BP5
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