

ABSOLUTES OF HITTING

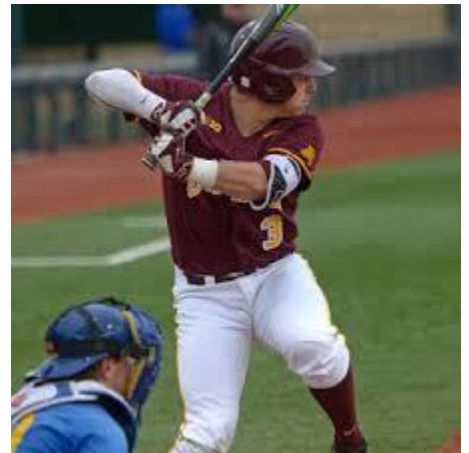
*The Absolutes of Hitting: No matter what your stance, swing, approach or ability there is a sequence of events that must happen in order for **ANY HITTER** to successfully make contact and have consistent success in hitting a baseball. No matter what you do, how you approach the game or how different you swing is --- these are the absolutes of any swing. You can call them "The Laws of Hitting"*

#1 – You must first have a **BALANCED STANCE**

- In order for anyone to be successful when it comes to hitting, you **MUST** first have balance. You need to be an athletic position (knees bent, weight on the toes of your feet, preferably relaxed) with your knuckles lined up (box grip or knocking knuckles) and both eyes fixed on your target. The key here is balance and relaxation. A good swing starts from the ground up! Which leads to.....

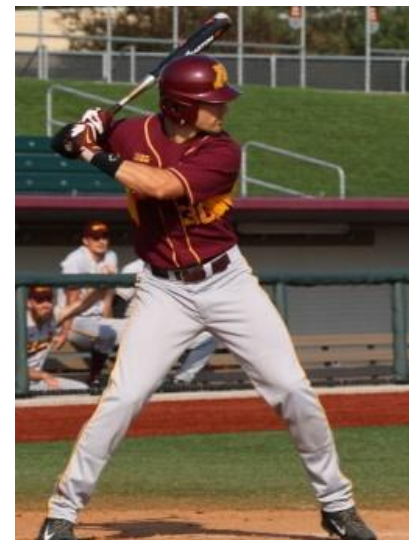
#2 – You must have **RHYTHM, TEMPO & LOAD**

- In order to get off your best swing possible you need to get your body into a position where it can fully maximize itself --- this starts with rhythm and tempo. Think of yourself as an athlete (a boxer throwing a punch, shooting a basketball, throwing a football) all these athletic actions have some orientation of movement dealing with rhythm, tempo and a load (or a trigger). Hitting is no different. The human body needs to get itself in rhythm in order to obvert an incoming object with velocity. The more force/momentum we can apply to this incoming object the more distance/acceleration we can put on it. After all -- the ultimate goal of hitting is to hit the ball as hard as possible. So how do we do this? The first step is creating rhythm. When the pitcher gets in rhythm – **YOU** get in rhythm. You never want to be standing still, get your legs going and start moving slightly forward (very slowly). The second step is tempo (you must have some idea of how hard or how slow the pitcher is throwing) so you can time the ball from the release point to home plate. This is critical because tempo (or timing) will give you an idea of when to get your front foot down (critical component of the swing, it can't start until your foot is down **ON-TIME**). The third part is loading (which incorporates) all three of these actions into one. But what exactly is a load and what does it do? This question leads us to.....



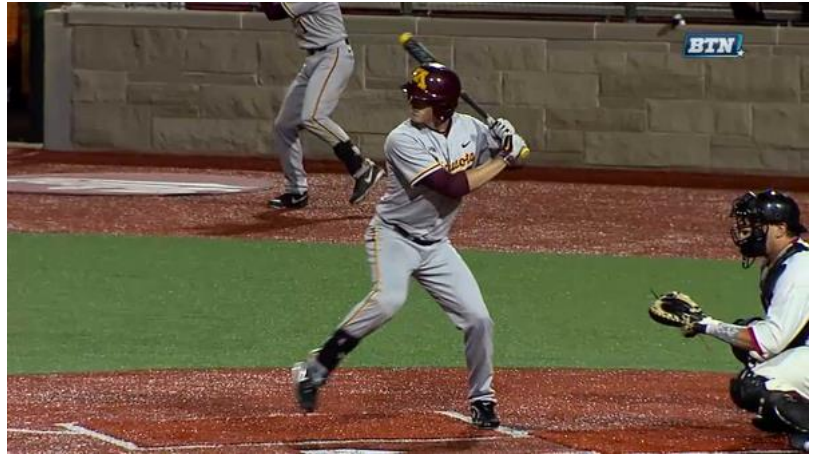
#3 – Must achieve **SEPERATION**

- What does it mean to load and get separated? First we are balanced, then we get into a rhythm, have good tempo --- but how exactly do we load? Loading is using our rhythm (and tempo) together to create **WEIGHT TRANSFER**, our front foot (and lower-body) moves slightly forward. We take our front foot and move it directly towards the pitcher (either by leg kick, slide, toe touch, heel turn) as we do this our hands move slightly back. Think about throwing a punch or throwing a football. Your front foot moves forward while you're throwing arm goes/stays back --- we call this act **SEPERATION**. Separation (in hitting terms) is creating distance between the loading of the hands and the front foot (see picture). Notice how the hands are back behind the knee – but also be cautious of that front arm to make sure it doesn't stiffen out (or arm bar) we want to make sure there is a slight bend there. What you see in this picture is what **SEPERATION** is. Important to note, the sooner your front foot hits the ground, the better! Which leads us to.....



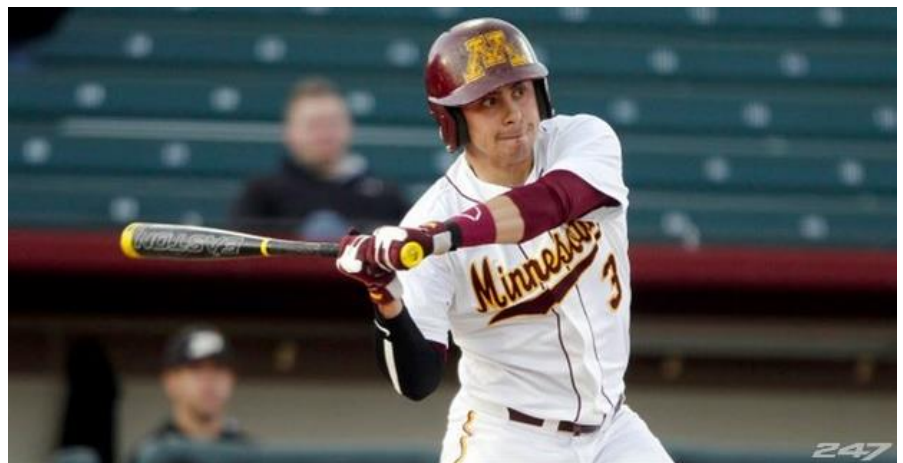
#4 – Must achieve the **LAUNCH POSITION**

- Now what is the launch position? It's the position we put our body in just before we start the swing (or start rotating). It is the one point where everything comes together --- where force, acceleration and momentum all come to a split second halt just before the swing occurs. If we have correctly sequenced our body starting with balance --- incorporated good tempo, created some rhythm and achieved proper separation --- we should now be in the ultimate position to use our **BAT SPEED** accordingly. What is bat speed? Bat speed is how fast we can swing the baseball bat (like arm speed or foot speed) and achieving the correct **LAUNCH POSITION** will ensure we generate the maximum amount of bat speed our body can produce. The Launch Position has three critical components – base, bat angle and elbows. As soon as our front **heel** hits the ground we need to be in the most athletic position possible (see picture). Knees slightly bent, but our base is shoulder-width apart. The bat angle (most importantly) is above our head (we call this head over head) this is not **WRAPPING**, this is the proper angle we need to have in order to obtain maximum bat speed. We **DO NOT** want the angle of our bat to be straight up and down. Gravity will begin to pull that bat head down and through hitting zone once the swing starts and having the angle at 45 degrees will ensure the best possible hand path (we will get to that). The third step is the elbows (most importantly the back elbow). The closer our elbows are together and the more the elbows are angled down --- the more bat speed you will have. It's important to remember that the higher the back elbow --- the more time it will take to slot that elbow to start the swing.



#5 – Must have direct **HAND PATH**

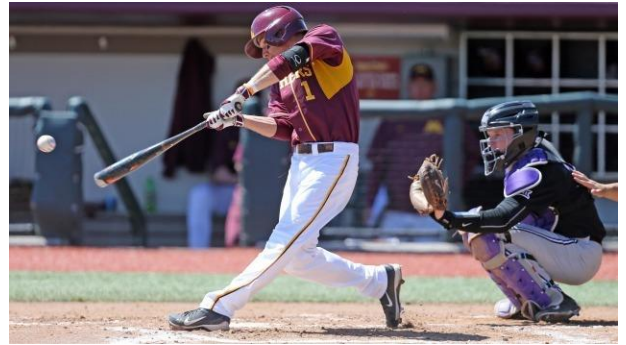
- There is no two ways about it. Once you've achieved the correct launch position and begin to start your swing --- the hands must go **DIRECTLY** to the baseball (point A to point B) the shortest distance between two points is always a straight line! Much easier said than done. So how exactly do we take our hands straight to the ball? First it starts with telling yourself something (like....throw the nob at the ball, keep your hands in tight to your body, let the ball get to you or let it travel) you must have the right mentality in order to hit successfully. First, think about letting the ball get deep (you



always have more time than you think), be patient --- from here start pulling your hands in tight to your body (lead with the nob), make sure your back elbow slots (see pictures) and try to keep your hands on-top of the baseball. You always want to aim to hit the top-half of the ball. Notice both hitters are leading with their nobs, the bat then starts to come off their back left shoulder and immediately enters the hitting zone. What is the **Hitting Zone**? The Hitting Zone is the area in which we have (as hitters) to make contact with the ball and drive it. Remember the pitcher is always throwing from an elevated position (the pitcher's mound is 10 inches above the playing surface) so we are always naturally swinging at an up-angle. This is why it's important to slot the back elbow and think about leading with the nob of our bat. From here we want to have.....

#6 – The Correct CONTACT POINT

- Think about chopping a tree down. Where would stand to chop a giant tree down --- far away from the tree or close to it? If you said close to it you'd be correct! Our body and bat speed is significantly greater if our hands are as close to our body as possible at the point of contact (see picture). Notice where the elbows are, notice how the hands are aligned at contact, **PALM UP -- PALM DOWN**. The head is looking down (watching the ball make contact with the bat). Now look at the lower-half --- the hips are always **LEVEL**, we are making contact with the ball inside our front foot while hitting against a firm front side. But what exactly does hitting against a firm front side mean? Well look at the picture, look at how his front leg is stiff at the point of contact --- the weight shift we talked about early, it all works conjunctly --- so if we did the sequence correct we should have had enough rhythm and momentum going forward where as soon as our front foot (front heel) hit the ground (during the launch position) our body can now naturally work back against our front side generating torque and maximizing the contact point to obtain the most powerful act possible to drive the baseball.



*These three hitters all have vastly different stances, loads and swings but they all arriving at the exact same contact point. The same is true for all amateur, youth and collegiate hitters. The correct & consistent contact point **NEVER** changes.*

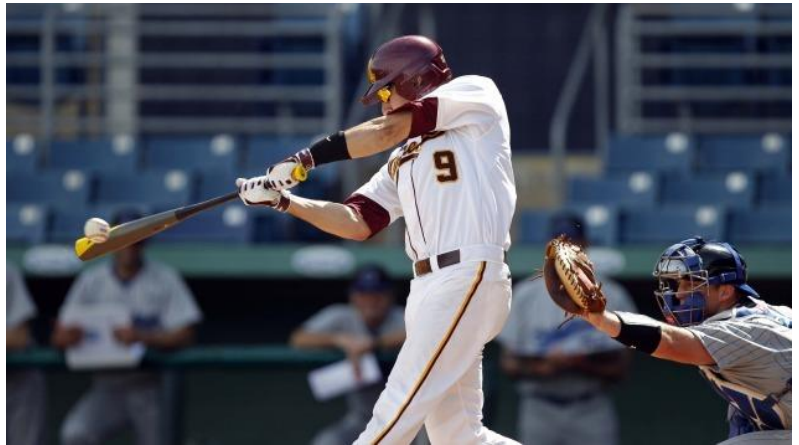
#7 – The Hips ALWAYS LEAD the Hands (The Coil)

- Make no mistake about it, the first thing to move (after achieving the Launch Position) is the hips (the back hip is the first to start the swing to be exact) --- the hips are always the driving force behind starting the rotation of the swing. As you work your way from a balanced position to rhythm, momentum and ultimately to the launch position the first thing to go is always the hips. Think about uncoiling a tight spring – now compare that to your body. You just spent the whole first-half of the sequence coiling up your body --- now is the time to unleash it all! So how do you uncoil your body to achieve a max effort result? You can't do this if you just flail your hands at the ball --- it's a full body effort that starts with the uncoiling of the hips. You ever hear coaches say “clear your hips or open up on the ball” – this is what they are trying to say. As you “uncoil” your hips it's important to remember that your back knee always comes forward and doesn't break down (towards the ground) is stays linear towards your front leg. This finally leads us to.....

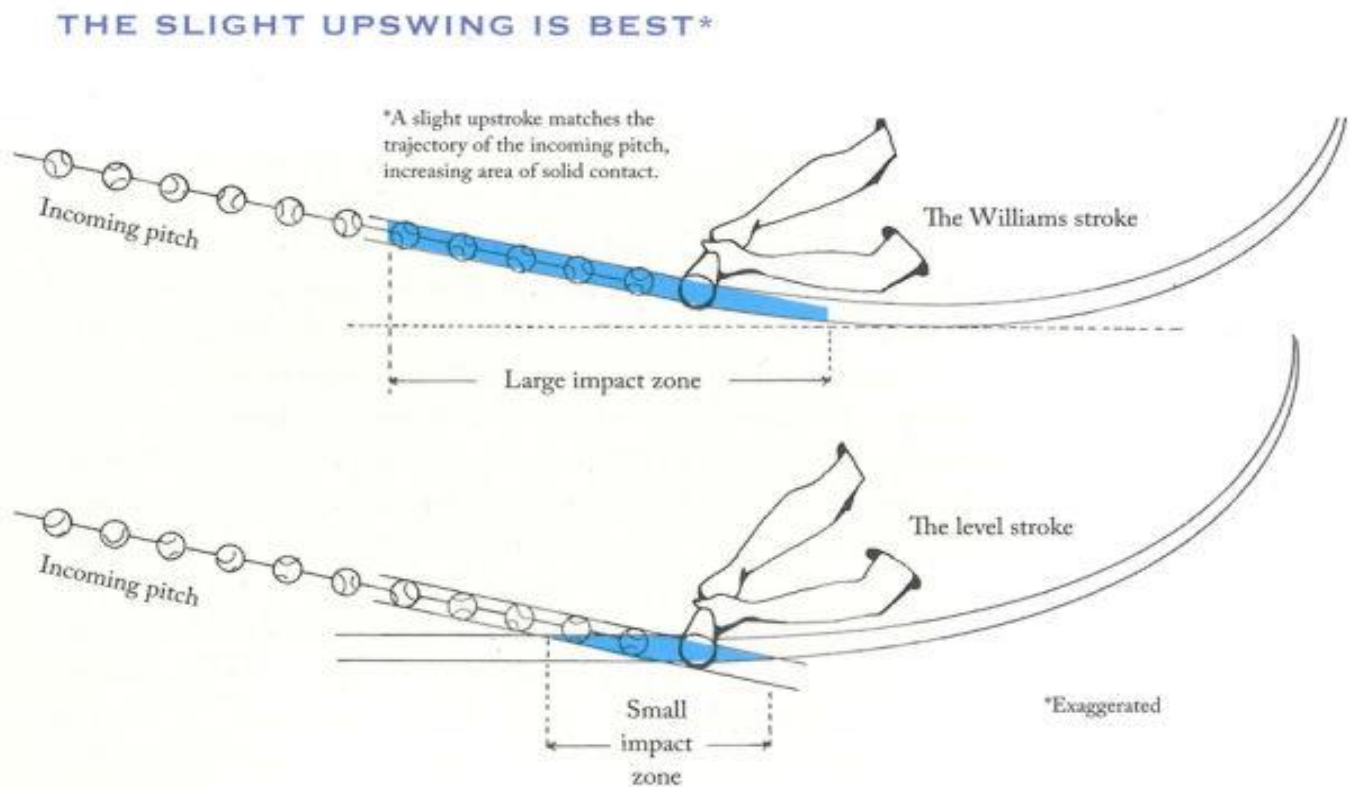


#8 – Must have **EXTENSION** through the baseball

- Whenever we (as athletes) throw a baseball, shoot a basketball, toss a football or hit a golf ball we always hear someone say “stay through the ball or.... get through it” --- we shoot a 3-pointer in basketball and we hear the coach say “get arch on your shot or have a good follow thru!” --- all these antonyms are just another way of saying “**EXTENSION**”. The best way to think about hitting is to tell yourself.... “be short to it, long through it”. Think about extension as a natural part of physics. Once we start our sequence (balance, rhythm, tempo, load, momentum, separation) we have a lot going into the swing --- we



want to be short to the ball (to the contact point) but once all this force begins we want to continue our momentum as long as possible --- this is where the **EXTENSION** comes into effect. The question I get asked all the time is “how can I work on extension?” Well the way to properly work on extension is to actually go back to the beginning of our hitting sequence starting with balance. The more balance you have (before and after the swing) the better, more natural extension you’ll have. If you are falling over after your swing, your extension isn’t going to be very good --- so it’s critical to maintain good balance throughout the entirety of the swing. It’s also important to have proper extension to make sure your wrists aren’t rolling after making contact (when the wrists roll that’s when we get weak groundouts and poor pop off the bat) --- the wrists should stay tight (palm up and palm down) and extend well beyond after making contact. We talked about **THE**



HITTING ZONE earlier. If your bat head can stay in the hitting zone for a prolonged period of time it limits the error of swinging and missing and increases the probability of driving the ball further.

The following diagram was first published in 1971 by Ted Williams in his book “The Science of Hitting”, this picture illustrates the basic principles of hitting. Earlier I talked about how the pitcher’s mound is 10 inches in height (60 feet and 6 inches away). So a standard 6’0 tall pitcher would be standing at an elevated position of 82 inches in relation to the batter. So why at the youth and collegiate levels are we teaching kids to swing down on the ball with flat swings when clearly the pitch is coming in at elevated angle (nearly an 8-10 degree down angle) in relation to the batter? Why has it taken us 44 years to figure out what Ted Williams already knew in 1971?

#9 – The **HEAD & EYES MUST** remain **STILL**

- The last and final part in our Absolutes of Hitting is arguably the most important. No matter what we do, no matter how much we move (or don't move) the one thing we must **ALWAYS** do is **TRACK THE BASEBALL** and we do this by limiting the movement with our head as much as possible. Make no mistake about it, the most important part of the swing is your eyes --- because you can't hit what you can't see. Tracking the ball might sound simple --- but believe me it isn't. You'd be amazed how often tracking the ball longer can solve 90% of hitting problems --- when it comes to slumps and problems hitting remember this, "the most complicated of problems usually always require the most simplest of solutions" and there's nothing more apparent than tracking the ball --- or as we've always been told since Day #1 – "keep your eye on the ball". It doesn't matter if your 4 or 34 --- it's the best hitting advice you'll ever receive. It's important to know that the head can move forward during the load (very slightly, very steadily) but it can absolutely never **DIVE, DUCK or DROP** --- once the head pulls off the baseball (or doesn't follow the ball all the way into the hitting zone) your chances of making success decrease by a factor of 50% --- it's all luck at that point. Tracking the baseball is as much of an art (and as much to be practiced) as the swing is --- if not more importantly. Tracking, seeing the ball and picking it up as early as possible is paramount to success. The longer, more clearly you can see an incoming object coming at you --- the more time you'll have to react. We can't achieve this if our head is moving or dancing while loading. **Hitting is seeing and seeing is hitting!**

