EXIT SPEED 101
UNDERSTANDING EXIT SPEED IN 7 MINUTES
EXIT SPEED IS MY FAVORITE HITTING METRIC

Let’s be clear here:

**BAT SPEED** is the speed of the bat itself.

**EXIT SPEED** is the speed of the ball after it hits the bat.

Bat speed creates exit speed.

You want both, but for our purposes, we’ll focus on “Exit Speed” because that’s the ultimate goal.

There are variables when measuring **EXIT SPEED**:

If you’re using softball or baseball (obviously)

Off of a tee or a pitched ball

Wooden or composite Bat

When measuring, use the bat you’d use in a game and measure off a tee (not live pitching).
EXIT SPEED’S RELATIONSHIP TO LAUNCH ANGLE

Launch Angle represents the vertical angle at which the ball leaves a player’s bat after being struck.

“First, exit velocity, generally speaking, means more than launch angle in terms of predicting success. In fact, you can predict batted ball outcomes using exit velocity alone. I have done so in the past, and I could predict how many runs would be scored in any given game with a good deal of accuracy. That’s another topic, though. The key takeaway is this: Exit Velocity trumps angle.”

-- fangraphs.com (by Andrew Perpetua - May 11, 2017)

The higher the Exit Velocity, the likelier a batter is to get a hit. Exit Velocity trumps Launch Angle.

If you want to really dig in, go and read the entire article:

HOW DO YOU MEASURE EXIT SPEED?

I use the Pocket Radar but there are other quality Radar Guns on the market as well. Here’s a quick guide that shows how you can measure your own exit speed. We are starting to get some impressive Exit Speed numbers in from members of The Hitting Vault. College coaches contact us regularly and when we talk about a member of The Hitting Vault, exit speed comes up every time.

Tap the red button as the batter is about to plant their front foot at the beginning of the swing. The radar will show the EXIT SPEED of the ball off the bat. Pocket Radars also have the feature of “continuous reading” so you don’t have to manually click the button each time before the swing.

Keep the radar beam aimed in-line with the path of the ball

Have the Radar Gun 15-20 feet back behind the hitter and down at the level of the ball on the tee.

This allows the spot size of the beam to spread out to make it easy to aim in-line with the path of the ball. It’s also possible to accurately measure behind the net the hitter is hitting into.

Have the net or target at least 15-20 feet away from the hitter.

This allows the ball to be in flight long enough for the radar to find the ball moving in a straight line.

You can learn more and purchase a Pocket Radar here.
**WHAT SHOULD YOUR EXIT SPEED GOAL BE?**

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**ELITE BASEBALL SPEEDS**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Exit Speeds</th>
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<tbody>
<tr>
<td>Ages (8-10)</td>
<td>55-65 mph</td>
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<tr>
<td>Ages (11-13)</td>
<td>60-70 mph</td>
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<tr>
<td>Ages (14-15)</td>
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<tr>
<td>JV (15-16)</td>
<td>80 mph aluminum / 75 mph wood</td>
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<td>Varsity (15-18)</td>
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<tr>
<td>College</td>
<td>95 mph aluminum/90 mph wood</td>
</tr>
<tr>
<td>Pros</td>
<td>100+ mph wood</td>
</tr>
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</table>

**Hardest Hit Baseball in MLB 2018:**
- Gary Sanchez - 121.7 mph (Ground Out)

**Hardest Hit Home Run in MLB 2018:**
- Giancarlo Stanton - 121.7 mph (Home Run)
WHAT SHOULD YOUR EXIT SPEED GOAL BE?

ELITE SOFTBALL SPEEDS

| Ages (8-10): | 45-50 mph |
| Ages (11-12): | 55-60 mph |
| Ages (13-14): | 60-65 mph |
| High School: | 70-75 mph |
| College: | 75+ mph |
| Pros: | 80+ mph |

As a reference point, in my experience here are the things I’ve seen:

Hardest Hit Softball off a Tee: Crystal Bustos, 92 mph
Hardest Hit Softball on a field: Samantha Pappas, 85mph
Hardest Hit Softball by a Jr. Higher in a cage: Nicole May, 78mph
Hardest Hit Softball by an Elementary School hitter: Kaity, 77mph

In my experience if a HS softball hitter can legitimately hit 70mph on the radar gun, their chances of playing a high level of softball are high.

But, many college players average in the 65-73 range. So if you’re a softball player, make it a goal to try and hit 70mph (it would be like pitching 60+). If you can get 75+, give us a call (haha).
HitTrax is a technology that The Hitting Vault has been using to give hitters and our coaching staff great feedback through data. It can measure EXIT SPEED and LAUNCH ANGLE and a variety of other stats through motion sensors and video.

A fun place to visit to see what kind of EXIT SPEEDS other baseball and softball players are getting.

https://hittraxstatscenter.com/leaderboard/

*I do have a disclaimer for this page. You have to take some of it with a grain of salt. No 14U kid has ever hit 100mph. The HitTrax isn’t 100% perfect and sometimes it registers mistakes.
DON'T FORGET ABOUT LAUNCH ANGLE

All this talk about EXIT SPEED, don’t forget the importance of a proper launch angle. Before I mentioned that the hardest hit ball in MLB last year was a ground out.

Let’s simplify what exactly it takes to leave the ballpark.

You need 3 things.

1. Optimal EXIT SPEED
2. Your LAUNCH ANGLE needs to be within 20° - 36°
3. The ball needs to be “Fair”

That’s all it takes.

Launch Angle can be deceiving. Take into account your age and your strength, if may not be possible for your ball to leave the yard. In most cases for youth players line drives register at 10°-19°. This is a good place for smaller hitters to be.

In the Pros the most VALUABLE batted balls are at the 19°-26°. Once you get a ball in the air, it has an opportunity to do more damage than a ball thats hit on the ground.
Making Gains in Exit Speed

OK.

Obviously you want to gain EXIT SPEED. Every bit of EXIT SPEED that you gain increases you ability to do damage at the plate for your team. Faster hit balls means more hits. Singles become doubles, doubles become HRs etc. etc.

The problem: Your EXIT SPEED should be higher.
The Solution: The Hitting Vault

I designed The Hitting Vault to teach hitters the proper body movements in a simple, teachable way. So if you’re a COACH or a PLAYER or a PARENT...this is for you.

The quickest way to achieve gains in EXIT SPEED is having the proper body movements. We teach ATHLETIC/POWERFUL movements.

We created the SwingBuild™ system which breaks the swing down into 6 phases that players can learn quickly (and COACHES can easily teach). We’ve created a large number of supporting drills that help you master each phase and build a swing that crushes.

Our guarantee is that The Hitting Vault will UNLOCK YOUR POWER. We’ve created over 100+ videos that teach you how to UNLOCK YOUR POWER. On top of that, we offer and unheard of 30 day money-back guarantee. No other hitting program offers anything close to this. Later today, we will email you a free preview of the a SwingBuild video - how to make sure your STANCE is UNLOCKING YOUR MOST POWERFUL SWING.

Today is the day to reach your potential as a hitter.

Join The Hitting Vault now!
If you’ve made it this far in the book I’d like to share one more TOOL with you. I’ve created The Hitting Vault to help players UNLOCK THEIR MOST POWERFUL SWING. It’s an annual membership and it’s quickly becoming the internet’s most popular community around hitting. We’d love to have you join us!

OVER 100+ HITTING DRILLS

CLICK TO JOIN THE HITTING VAULT
HAPPY HITTING.