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Baseball Swing Analysis

0 min video

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Baseball Swing Analysis Report

Executive Summary

This hitter demonstrates **exceptional, professional-level swing mechanics** with consistently strong fundamentals across every phase of the swing. From a balanced, well-organized stance through a powerful rotation, clean contact, and a fully balanced follow-through, nearly every evaluated metric — weight transfer, hip rotation, and hand position — graded as "good" throughout the entire sequence. No significant mechanical faults were identified; the primary coaching directive is to maintain and reinforce these outstanding habits while continuing to refine timing and consistency against varied pitch types.

Video Overview

| Metric | Value |

|---|---|

| **Duration** | ~10 seconds |

| **Sampling Rate** | 20.0 fps (1 frame every 0.05s) |

| **Frames Analyzed** | 73 |

| **Total Swings Detected** | 1 |

| **Video Type** | Single at-bat / short clip |

| **Source** | Professional broadcast footage (side angle) |

The footage captures a single swing shown across two broadcast sequences — an initial real-time view (0.0s–1.5s) followed by what appears to be a replay or secondary camera angle of the same swing (7.9s–10.0s). This dual-view provides a rich dataset for cross-referencing mechanical consistency across the entire swing arc.

Swing-by-Swing Breakdown

Swing 1 — Full Sequence

Stance → Load (0.0s – 0.1s):

The hitter begins in a balanced, athletic stance at 0.0s with the bat held high and excellent pre-swing posture. By 0.1s, the load has initiated cleanly — weight shifts rearward while the hands stay elevated and loaded, maintaining a strong coil position. Balance is well preserved throughout the load.

Stride (0.2s):

At 0.2s, the front foot begins descending toward the hitting zone, initiating controlled forward movement. The stride foot plants shortly after, and the first signs of hip rotation appear. Weight transfer remains smooth and directional toward the pitcher. Notably, the bat becomes partially obscured during this phase, though hand path appears to remain disciplined.

Rotation (0.2s – 0.3s):

Strong hip rotation fires at approximately 0.2s, with the hands staying back — creating excellent hip-shoulder separation. At 0.3s, the analyst notes "excellent hip-shoulder separation" with the back elbow well tucked against the body, a hallmark of an efficient, inside-out swing path. This separation is the engine of the hitter's power generation.

Swing Path (0.4s):

By 0.4s, the bat enters the hitting zone with good bat lag maintained. The barrel stays in the zone with the hands tracking inside the ball's path — an indicator of a short, direct swing capable of handling pitches across the plate.

Contact (0.5s):

Contact occurs at approximately 0.5s with the head down and eyes tracking the ball. Balance is maintained through impact, and strong extension begins immediately post-contact, indicating the hitter is driving *through* the ball rather than simply meeting it.

Extension (0.6s):

At 0.6s, full arm extension is achieved with the barrel still working through the hitting zone. The follow-through path is clean, suggesting optimal energy transfer and bat speed through the contact point.

Follow-Through (0.7s – 1.5s):

From 0.7s onward, complete hip rotation is evident as the bat wraps naturally around the body. The hitter holds a balanced finish position from approximately 1.0s through 1.5s, demonstrating outstanding body control and weight distribution. The ability to hold this finish is a strong indicator of mechanical soundness.

Secondary View (7.9s – 10.0s):

The replay confirms the same high-quality mechanics: strong contact position at 7.9s with head down on the ball, a firm front side at 8.6s, full extension at 8.7s–8.8s, and a balanced, high follow-through from 8.8s onward. By 9.6s–10.0s, the hitter begins moving toward first base, suggesting solid contact and a ball put in play with authority.

Technical Analysis by Phase

Stance & Setup

The hitter's stance at 0.0s is textbook quality:

- **Stance Width:** Appears athletic and shoulder-width appropriate, providing a stable base for the kinetic chain.
- **Hand Position:** Rated "good" — hands are held high, creating a strong pre-load position with the bat angled back, ready to fire.
- **Weight Distribution:** Balanced and centered, with no excessive lean forward or backward.
- **Balance Point:** Well-centered over the balls of the feet. The analyst notes "balanced stance with bat held high, good pre-swing posture," indicating readiness without tension.
- **Bat Angle:** Bat held at an appropriate upright angle, allowing for a clean, efficient downward launch into the swing path.

Assessment: No adjustments needed. This is a repeatable, athletic setup position.

Load & Stride

- **Weight Shift Timing (0.1s):** The load initiates early and smoothly, with weight shifting to the back side while the hands stay elevated. The timing is rhythmic and unhurried — a sign of good pitch recognition habits.
- **Hand Load Position:** Hands maintain their high position during the load without dropping or drifting, preserving bat path efficiency.
- **Stride Direction & Length (0.2s):** The stride appears controlled and directional (toward the pitcher), landing with the front foot at approximately 0.2s. There is no evidence of over-striding or stepping out, both of which would compromise plate coverage.
- **Front Foot Landing:** The stride foot plants firmly, creating a stable base for rotation. The analyst notes "stride foot planted, beginning hip rotation," confirming proper sequencing.
- **Rhythm & Tempo:** Smooth and fluid — load-to-stride transitions without any hitching or rushing.

Assessment: The load and stride sequence demonstrates excellent tempo and timing. The controlled, directional stride sets up the rotational power that follows.

Rotation & Swing

- **Hip-Shoulder Separation (0.2s–0.3s):** This is the hitter's standout attribute. At 0.3s, the data explicitly notes "excellent hip-shoulder separation," meaning the hips are firing toward the pitcher while the shoulders and hands remain coiled back. This separation is the primary driver of bat speed and power.
- **Hip Firing Sequence:** The hips lead the kinetic chain, initiating rotation before the upper body — textbook sequencing for maximizing energy transfer from the ground up.
- **Back Elbow (0.3s):** Well tucked against the body, keeping the hands tight and the barrel on an efficient inside path.

- **Bat Path (0.4s):** The bat enters the zone with maintained lag, and the barrel stays in the hitting zone through contact — creating a long, productive zone for making contact with pitches at different depths.
- **Hand Path:** Hands stay inside the ball consistently (noted at 0.2s, 0.4s, and 8.5s), indicating the hitter is not casting the barrel or allowing the hands to drift away from the body.
- **Swing Plane:** Appears slightly uphill through the zone, consistent with modern launch-angle optimized mechanics while maintaining enough levelness for consistent contact.

Assessment: Elite rotation mechanics. The hip-shoulder separation and sequencing are the foundation of this hitter's power, and the inside hand path provides the ability to handle pitches in all quadrants of the zone.

Contact & Extension

- **Point of Contact (0.5s, 8.6s):** Contact occurs out front of the body with the hitter in a strong, balanced position. The front side is firm (noted at 8.6s: "excellent contact mechanics, firm front side"), providing a wall for the rotation to work against.
- **Bat Angle at Contact:** The barrel appears to be meeting the ball with good attack angle, and the hitter is driving through the baseball rather than simply reaching for it.
- **Head Position (0.5s):** Head is down and stable through contact — critical for tracking the ball deep and making consistent, centered contact on the barrel.
- **Eye Tracking:** The analyst notes head tracking through the extension phase (8.8s), suggesting the hitter maintains visual focus on the contact point even after the ball has left the bat.
- **Arm Extension (0.6s, 8.7s–8.8s):** Full extension is achieved through the hitting zone, with the arms fully extending at 8.8s. This indicates the hitter is getting full power transfer into the ball and not cutting the swing short.

Assessment: Contact mechanics are excellent. The firm front side, stable head, and full extension combine to produce authoritative, driven contact.

Follow-Through & Finish

- **Rotation Completion (0.7s):** Complete hip rotation is achieved, with the belt buckle facing the pitcher — evidence that the hitter has fully committed to the swing and utilized all available rotational power.
- **Bat Wrap (0.7s–0.8s):** The bat wraps naturally around the body, following a high finish path consistent with a slight uppercut swing plane.
- **Balance at Finish (0.9s–1.5s):** The hitter holds a balanced finish position for nearly a full second, from approximately 0.9s through 1.5s. This extended hold is a hallmark of controlled, efficient swings — hitters who are off-balance cannot hold their finish.
- **Weight Distribution at Finish:** Full weight transfer to the front side is completed (noted at 9.2s), with the back foot pivoted and the hitter's center of gravity stacked over the front leg.
- **Post-Swing (9.6s–10.0s):** The hitter begins moving toward first base at 9.6s while still tracking ball flight, suggesting a well-struck ball put into play.

Assessment: The follow-through is clean, balanced, and complete. The ability to hold the finish position demonstrates that the entire kinetic chain worked in harmony.

Strengths

- **Exceptional hip-shoulder separation** throughout the rotation phase (0.2s–0.3s, 8.3s–8.4s) — the primary engine of power generation in this swing.
- **Disciplined inside hand path** — hands consistently stayed inside the ball (noted at 0.2s, 0.4s, 8.5s), producing an efficient, short swing that can cover the entire plate.
- **Outstanding weight transfer** — smooth, directional transfer from back to front, rated "good" in every single frame analyzed.
- **Strong, stable head position at contact** (0.5s, 8.6s) — head down and eyes tracking the ball, critical for barrel accuracy.
- **Firm front side at contact** (8.6s) — creates a solid base for the rotational forces to work against, maximizing power output.
- **Full extension through the zone** (0.6s, 8.7s–8.8s) — the hitter drives through the ball rather than decelerating at contact.
- **Well-tucked back elbow** (0.3s) — maintains a tight, efficient swing path and prevents the barrel from dragging.
- **Balanced, held finish position** (0.9s–1.5s) — the ability to hold the finish for an extended period demonstrates mechanical soundness and body control.
- **Consistent mechanics across views** — the primary view and replay confirm identical, repeatable movement patterns.
- **Good bat lag maintained** (0.4s) — stores energy efficiently before releasing the barrel into the zone.

Areas for Improvement

While no significant mechanical faults were identified in this swing, there are minor observations and developmental opportunities worth noting:

- **Bat visibility during load phase (0.2s):** The bat was obscured during the stride/load transition, which may suggest a slight rearward bat drift or wrap during the load. While not necessarily a fault, excessive bat movement during the load can introduce timing variability against high-velocity pitching. *Monitor for consistency.*
- **Hip rotation initiation during stride rated "fair" (0.2s):** One frame noted hip rotation as "fair" during the stride phase before it became "good." This could indicate a very slight early rotation or an incomplete separation at the moment of foot plant. Against elite pitching, premature hip opening can pull the barrel off

the inside pitch path.

• **Limited pre-swing data:** The stance phase captured only one frame (0.0s), making it difficult to fully assess pre-pitch rhythm, timing mechanisms, or any load triggers the hitter may use. More footage of the pre-pitch routine would allow for deeper analysis.

• **Swing consistency against varied pitch types:** Only one swing is captured, making it impossible to evaluate how these mechanics hold up against off-speed pitches, inside/outside locations, or elevated fastballs. Consistency of this swing across different pitch scenarios should be evaluated.

Recommended Drills & Exercises

Even with elite mechanics, targeted drill work reinforces positive patterns and addresses potential vulnerabilities. The following drills are prescribed to **maintain current strengths** and **stress-test the swing against varied scenarios:**

1. Tee Work with Separation Focus

Purpose: Reinforce the exceptional hip-shoulder separation observed at 0.2s–0.3s and prevent any future degradation of this critical mechanic.

How to Perform: Place a ball on a tee at middle-middle height. Take a full load and stride, then pause with the front foot planted — holding the separation position for 2 seconds before firing the swing. Complete 3 sets of 10 reps.

Connection: Builds muscle memory for the separation position that drives this hitter's power. The pause drill isolates and reinforces the feeling of hips leading while hands stay back.

2. Inside-Pitch Short-Toss Drill

Purpose: Address the one "fair" hip rotation observation at 0.2s and ensure the swing stays closed long enough to handle inside velocity.

How to Perform: A partner short-tosses balls from 15 feet, targeting the inner third of the plate exclusively. The hitter focuses on keeping the front shoulder closed as long as possible while turning on the ball with hip rotation. Complete 3 rounds of 15 pitches.

Connection: Trains the hitter to maintain closed shoulders during the stride phase, preventing premature opening that was hinted at in the "fair" hip rotation note. Builds confidence on the inner half.

3. Two-Strike / Off-Speed Recognition BP

Purpose: Test whether these elite mechanics hold up against speed changes and when the hitter must stay back longer.

How to Perform: During batting practice, have the pitcher mix in 40% off-speed pitches without signaling. The hitter must maintain their load and let the ball travel deeper before firing. Film from the side angle and compare hip-shoulder separation to the baseline observed in this analysis.

Connection: This hitter's mechanics are outstanding on what appears to be a fastball. The key developmental question is whether the same separation and balance are maintained against changeups and breaking balls.

4. Balance Beam Follow-Through Drill

Purpose: Continue to reinforce the outstanding balance observed in the finish position (0.9s–1.5s).

How to Perform: Place a 4-inch-wide balance beam or 2x4 board on the ground. The hitter takes their stance with their front foot on the beam and executes dry swings (no ball), holding the finish for a full 3-second count. If they lose balance, reset and repeat. Complete 20 reps.

Connection: This hitter already finishes in excellent balance, but this drill stress-tests that balance by reducing the margin for error. It also reinforces proper weight transfer to the front side.

5. High-Velocity Overload Training

Purpose: Ensure the quick, efficient hand path and bat lag observed at 0.4s are maintained against elite velocity.

How to Perform: Use a pitching machine set 5–8 mph above the hitter's typical competition level, or move the machine closer by 5 feet. Focus on maintaining the same inside hand path and bat lag, accepting that contact may not always be perfect. Complete 3 rounds of 10 swings.

Connection: The hitter's inside hand path and bat lag are strengths — this drill ensures those mechanics are durable under velocity stress, where hitters often begin casting the barrel or losing lag.

Video Quality Assessment

| Category | Rating |

|---|---|

| **Overall Score** | **87 / 100** |

| Resolution / Clarity | High — professional broadcast quality with sharp detail |

| Camera Angle | Excellent side-view angle, ideal for swing mechanical analysis |

| Stability | Very good — minor tracking movement but no disruptive shake |

| Lighting | Excellent — stadium lighting provides clear visibility |

| Framing | Strong — full body and bat visible throughout most of the swing |

| Obstructions | Minor — bat partially obscured during load phase (0.2s); slight crowd obstruction in background (non-impactful) |

What Worked Well: The side-angle camera positioning is the gold standard for swing analysis, and this footage delivers it in professional broadcast quality. The hitter's full body, including the bat path, is visible through the most critical phases (rotation, contact, extension, follow-through). Lighting and resolution are excellent, allowing for precise frame-by-frame mechanical evaluation.

What Could Be Improved:

- The bat was not visible during the stride phase (0.2s), likely due to camera angle or body obstruction — a slightly wider framing or secondary camera angle from behind the pitcher could capture load mechanics more completely.
- A ~6.4-second gap exists between the initial swing view (ending ~1.5s) and the replay (beginning ~7.9s), during which no analyzable footage was available.
- A closer, dedicated camera (rather than broadcast footage) would allow for more granular analysis of hand mechanics and bat angle during the load phase.

> ■ *For guidance on filming swings optimally for analysis, visit: https://gameanalyze.ai/guides.html*

Overall Assessment

Skill Level Estimate: Advanced / Professional-caliber

This is an outstanding swing. The hitter demonstrates elite-level mechanics across every phase — from a balanced, athletic setup through explosive hip-shoulder separation, a disciplined inside hand path, firm-front-side contact, full extension, and a poised, balanced finish. These are the mechanics of a hitter who has invested significant time in development and has internalized the fundamentals at a high level.

Top Priority: Because no significant faults were observed, the top priority is **maintaining consistency of these mechanics against all pitch types and velocities.** The one area warranting continued attention is ensuring the hips don't open prematurely (the "fair" rating at 0.2s) — particularly against off-speed pitches that require the hitter to stay closed longer. Incorporating varied-speed batting practice and filming regularly from the side angle will help monitor this.

Final Note: This hitter should feel confident that their swing foundation is extremely strong. The combination of hip-shoulder separation, inside hand path, and balanced finish is exactly what elite hitters build their game around. Keep reinforcing these patterns, stay committed to the process, and trust the mechanics — they are performing at a very high level. The next frontier is not fixing what's broken, but rather stress-testing what works to ensure it holds up in the biggest moments against the best competition. Keep swinging. ■■

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