

THE THREE PILLARS

SPEED PILLAR TESTS

Track your force. Your speed. Your endurance.

01

**FORCE
PRODUCTION**
39%

02

**TURNOVER
RATE**
31%

03

**SPEED
ENDURANCE**
30%

Percentages are each pillar's weight in your Speed Score.

TAKE ALL THREE TESTS, THEN RUN THE CALCULATOR

Enter your numbers into the Speed Pillar & MSF Calculator to get your pillar scores, your MSF ratio and a week of training built around your bottleneck.

// OVERVIEW

TRACKING PROGRESS

Everything here is about real progress - things you can measure, that actually move your sprint times. To know you are improving you need a starting point and a tracking metric for each pillar, so the progress is not a feeling.

1 FORCE PRODUCTION

How much force you can put into the ground, measured through horizontal plyometric distance.

2 TURNOVER RATE

How fast your nervous system and hip flexors can cycle your legs.

3 SPEED ENDURANCE

Where your top speed caps out, and how well you hold it once you get there.

SAME-DAY TESTING ORDER

If you are doing all three in one session, run them in this order. Turnover is a nervous system test and needs you fresh. Speed endurance goes last because it is the only one that leaves you tired.

01

TURNOVER RATE

>

02

FORCE PRODUCTION

>

03

SPEED ENDURANCE

WHERE TO POST YOUR RESULTS

Post your numbers in the community tab under OFFICIAL TIMES / DISTANCES with your name, then enter the same numbers into the calculator. Keep the record sheet it gives you - that is what you compare against next month.

INTEGRITY NOTE

Do not cheat your score. A low starting number is not a problem - it is room to grow.

// TURNOVER RATE / TEST 01

TURNOVER RATE

5 FOR 5 LOW AND HIGH KNEE TEST

Turnover rate is how fast your nervous system and hip flexors can cycle your legs. The 5 for 5 is simple: move your arms and legs as fast as physically possible over 5 yards, inside 5 seconds. Your score is the number of full steps you take.

5 FOR 5 LOW KNEE

SHORT RANGE OF MOTION

Minimal knee lift. Low, piston-like leg cycle. Arms drive hard.

► WATCH THE 5 FOR 5 DEMONSTRATION

5 FOR 5 HIGH KNEE

FULL RANGE OF MOTION

Same drill, but legs drive up to hip height every step.

1 MARK 5 YARDS

Set two cones exactly 5 yards (15 feet) apart on flat ground. Turf, track or gym floor.

2 SET A TIMER FOR 5 SECONDS

Have a partner hold the timer. You will be moving too fast to time yourself accurately.

3 GO ALL OUT

Arms and legs both move as fast as possible - this is not a jog.
Low knee first, rest fully, then high knee.

4 COUNT YOUR STEPS

Your score is the number of full steps inside the 5 second window.
A partner counting live is more accurate than reviewing video.

5 SUBMIT AND TRACK

Post both step counts in OFFICIAL TIMES / DISTANCES, then enter them in the calculator.

// FORCE PRODUCTION / TEST 02

FORCE PRODUCTION

HORIZONTAL PLYOMETRIC DISTANCE (HPD)

Three jumps, all from a dead stop. Added together they give your total HPD, which is what drives both your force pillar score and your MSF ratio. All three are required - the calculator will not score MSF without them.

1 BROAD TO DOUBLE BOUND 3 CONTACTS

Standing broad jump straight into two bounding hops.

[▶ WATCH](#)

2 TRIPLE BROAD JUMP 3 CONTACTS

Three consecutive two-footed broad jumps, no pause between them.

VIDEO COMING SOON

3 QUADRUPLE BOUND 4 CONTACTS

Four consecutive bounding hops for maximum total distance.

[▶ WATCH](#)

1 FIND OPEN SPACE

You need at least 40 feet of flat surface - grass, turf or a gym floor.
Avoid uneven ground; it throws the distance off.

2 MARK YOUR START LINE

Tape or a cone at the start. All three tests begin from a dead stop, no run-up.

3 PERFORM EACH TEST

Land stable on both feet and mark where your heels land.
Best of 3 attempts, with full recovery between each.

4 MEASURE AND RECORD

Measure start line to heel mark in feet and inches.
No tape measure? The Measure app on iPhone is accurate enough.

5 SUBMIT AND TRACK

Post all three distances, then enter them in the calculator for your MSF ratio.

// SPEED ENDURANCE / TEST 03

SPEED ENDURANCE

100M MAX VELOCITY ENDURANCE TEST

This finds where your top speed caps out and how well you hold it. You run one all-out 100m and pay attention to your body, not your time. Your first attempt is usually the most accurate one, so take it seriously.



1 FIND A 100M SURFACE

A track is ideal. A measured 100m on flat ground works. No hills, no turns.

2 RUN IT ALL OUT, START TO FINISH

Sprint the full 100m at maximum effort. Your first rep is your baseline and your most accurate reading - treat it that way.

3 FEEL FOR MAX VELOCITY, DROP THE SOCK

The moment you feel you have hit absolute top speed, drop a sock.

Not when you get tired - when you peak. Usually around the 60-70m mark.

It can take 2-3 attempts to find the exact spot.

4 RATE CARDIO AND MUSCULAR ENDURANCE FROM THE SOCK ON

1 = strong, in full control, could hold this pace.

10 = slowing dramatically and uncontrollably.

Give two separate scores: one for cardio, one for muscular.

5 SUBMIT AND TRACK

Post your sock distance and both ratings, then enter them in the calculator.

THE POINT OF THIS TEST

The goal is not to move the sock further. It is to feel stronger over that same distance.

// YOUR RESULTS

WHAT YOUR SCORES MEAN

Every score is read against athletes in your own group - your sex and your school level - not against the field. A high school girl is compared to high school girls.

01 FORCE PRODUCTION

BROAD TO DOUBLE BOUND + TRIPLE BROAD JUMP + QUADRUPLE BOUND

Your first-step power and how much force you convert into horizontal distance. Higher total HPD means more usable power off the line and through acceleration. This is your engine size.

02 TURNOVER RATE

5 FOR 5 LOW KNEE + HIGH KNEE STEP COUNTS

How dialed in your nervous system and hip flexor output is, and how well you coordinate the movement. A rough signal for stride coordination at full velocity.

03 SPEED ENDURANCE

SOCK DISTANCE + CARDIO AND MUSCULAR RATINGS

How quickly your speed gets capped and how your body handles the demand after peak velocity. The goal is not to move the sock - it is to feel stronger within the same distance.

MASS SPECIFIC FORCE

All three jump distances plus your bodyweight give you an MSF ratio - force relative to mass. It is the single highest-return number in the whole test. Jump distance is already a mass-specific measurement, which is why every foot you add at the same bodyweight is force you did not have before.

RETEST EVERY FOUR WEEKS

Same tests, same surface, same tape measure. Keep every record sheet the calculator gives you. The score matters far less than the direction it moves.