

Weight Room Applications For Speed

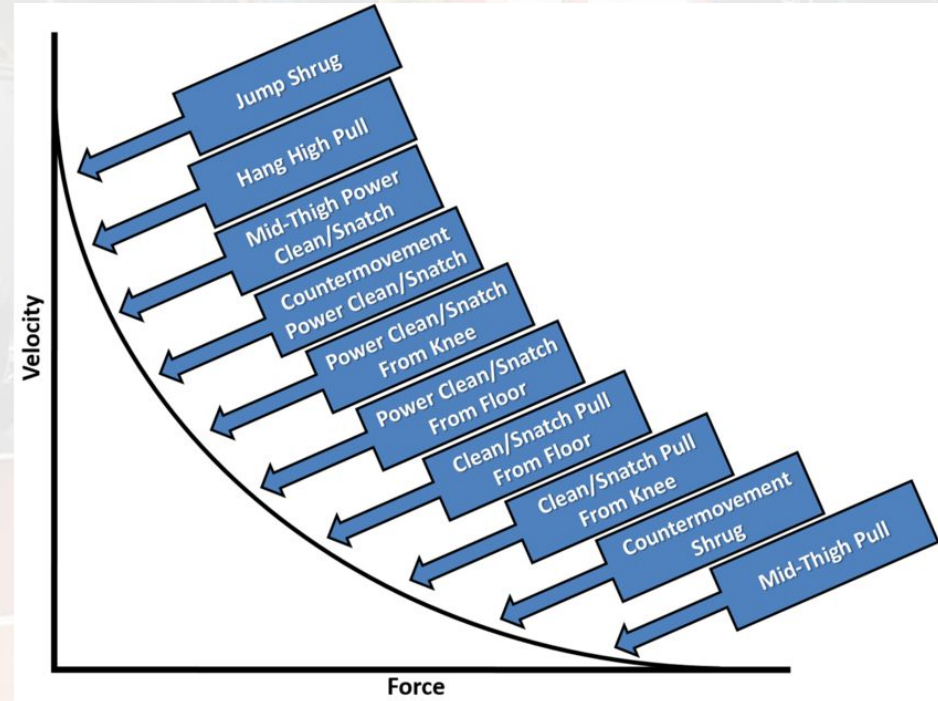


Masterclass Objectives

- 1) **Why does & how can the weight room improve speed?**
- 2) **What are the limitations within the weight room?**
- 3) **What are the priority applications/movements?**
- 4) **What are the most common programming strategies for these applications/movements?**

Weight Room Speed; Fact or Fiction?

- **Force development is plane specific**
- **Relative strength is a critical component for speed success**
- **Teaching intent in a slower-paced environment**



Weight Room Limitations

- **Specificity is, and always will be, King.**
- **Sprinting yields the highest RFD the body can elicit**
- **“Movement problems need movement solutions”**
- **Increased risk of injury**
- **Increased skill/complexity demands?**



3 Keys To Weight Room Success

Deciphering which movements to include and which to ignore

Deciphering Which Movements To Incorporate

Relative Body Strength

- a. Chin up = 1 dead hang (start there!)
- b. Goblet Squat 50% bodyweight x 20 reps
- c. RFE Split Squat 25% bodyweight for 10 reps in 10 seconds
- d. Standing Broad Jump = height (advance = height + 20%)
- e. Standing Vertical = age (in inches)

Deciphering Which Movements To Incorporate

Force Development $\{\{= \text{Mass} \times \text{Acceleration}\}\}$

- **Mass = Athlete's body**
 - Remember, carry over is to SPEED (ground based movement)
- **Force production balanced with force absorption**
- **Isolated production progressed to repeat production**
 - For both production and absorption

Deciphering Which Movements To Incorporate

Applying External Load

- **Relative strength before absolute strength, always**
 - 5RM > 3RM > 1RM
- **Self limiting movements protect athletes (from themselves)**
- **Move slow, become slow**

Weight Room Movements For Speed

Core Lifts:

- 1) **Goblet Squat > Split Squat > RFE**
- 2) **RDL > Trap Bar DL**
- 3) **Chin up Progression (Flex Hang > Eccentric > Band Assist)**
- 4) **Push up**

Weight Room Movements For Speed

Force Production // Force Absorption

- 1) **Squat jump + variations**
- 2) **Repeat hurdle hop**
- 3) **Single leg broad jumps + variations**

“Speed Specific” Mechanical Applications

**Stationary march
with/under band
tension**



“Speed Specific” Mechanical Applications

Band assisted high pogo jump



“Speed Specific” Mechanical Applications

**Fold & recover
march with/under
band tension**



“Speed Specific” Mechanical Applications



“Speed Specific” Mechanical Applications



Programming For Speed In The Weightroom

If you're short on space...or staff...

1) Implement a dedicated 'block' post-ADW and pre-lift

Example:

“Power Block” (10 minutes)

A1) 3 Hurdle Hops (Every 30 seconds) x 3-6 sets

B1) Single-leg snap down x 4 reps per leg - rest 90 seconds after the second leg

Programming For Speed In The Weightroom

If you have space & resources

- 1) Assembly line style - take up space, have athletes cycling through each movement 'station' style.

Example:

A1) Broad jump x 3-5 jumps (for speed!)

A2) Snap down to split stance catch x 3 reps per leg

A3) Lunge ISO Hold with floating heel x 20 seconds per leg

**Rest 2 minutes between rounds/sets*

Programming For Speed In The Weightroom

If you're in JUST a weight room or in a commercial space and have just a squat rack

1) Use superbands to provide tactile feedback on athlete's posture - get specific with SOMETHING

*Refer back to the speed specific movements shown earlier

**Start by programming for TIME duration then progress to intentful reps

Programming For Speed In The Weightroom

Thoughts on contrast training and/or pairing slow with fast movements...

“If you chase two rabbits, you’ll go home hungry”- Dan John

- Most youth athletes lack capacity
- The goal is skill acquisition
- The other goal is physical exposure
- The weight room is a tool, not the end results
- Keep fast first

THANK YOU!

Citations

Suchomel, Timothy & Comfort, Paul & Lake, Jason. (2017). Enhancing the Force-Velocity Profile of Athletes Using Weightlifting Derivatives. *STRENGTH AND CONDITIONING JOURNAL*. 39. 10-20. [10.1519/SSC.0000000000000275](https://doi.org/10.1519/SSC.0000000000000275).