

2017, Fair Lawn, NJ

*Speed
and
Strength
Summit*



> The Corner Stone of Progress

- Everyone wants a magic formula or the keys to success..

Consistency, Discipline and Patience

Resistance Training and Power Transfer

Essentials for Injury Prevention and Enhanced Performance

Chad Coy

> The Question

Overlying Question: How to prevent injuries while helping your athlete achieve maximum potential

- Science behind force production and resistance training
 - All starts with the right warm up
 - SMR
 - Greatest amount of force in the shortest time- Rate of Force production
 - Using Dynamic effort to turn on the nervous system
- Back to the basics
 - Resistance training
 - Importance of core strength and moving loads through space
 - Building Mental toughness

› Active Dynamic Warmup

Why it is the most under rated thing done...

- SMR
- Warm-up combination
 - Stationary drills,
 - movement mechanics
 - muscle activation
 - Low level reactive movement with deceleration mechanics
 - *
- Objectives
 - Increase circulation, body temperature, heart rate, and start to awaken the nervous system
 - Loosen joints
 - Prepare the body/mind for athletic movements
- Injury Prevention



Current Research

- Safran, MR, Garrett WE Jr, Seaber, AV, Glisson RR, and Ribbeck BM
 - Duke University Medical Center
 - <https://www.ncbi.nlm.nih.gov/pubmed/3377095?dopt=Abstract>
 - **Physiologic warming up is a benefit for preventing muscular injury**
 - **Increases length to failure and elasticity of muscle-tendon unit**
- Herman, SL and Smith, DT
 - Department of Sports Medicine, Rochelle Athletics Center
 - <https://www.ncbi.nlm.nih.gov/pubmed/18545176>
 - **4 weeks of Dynamic Warm Up performed daily**
 - **Wrestlers produced longer-term/sustained power, strength, muscle endurance, anaerobic capacity, and agility**



> SMR with HYPERICE Technology



1

Why SMR?



2

VYPER 2.0

Features 3 speeds of high-intensity vibration to warm up, activate, and recover faster and more effectively



3

Hypersphere

Featuring 3 speed of high-intensity vibration to pinpoint and release trigger points faster, deeper, and less painfully



4

Venom: Back

Digitally connected, wearable back device that uses heat and vibration to warm up, loosen, and relax sore/stiff muscles



> Bulletproofing Series

Bulletproofing Series

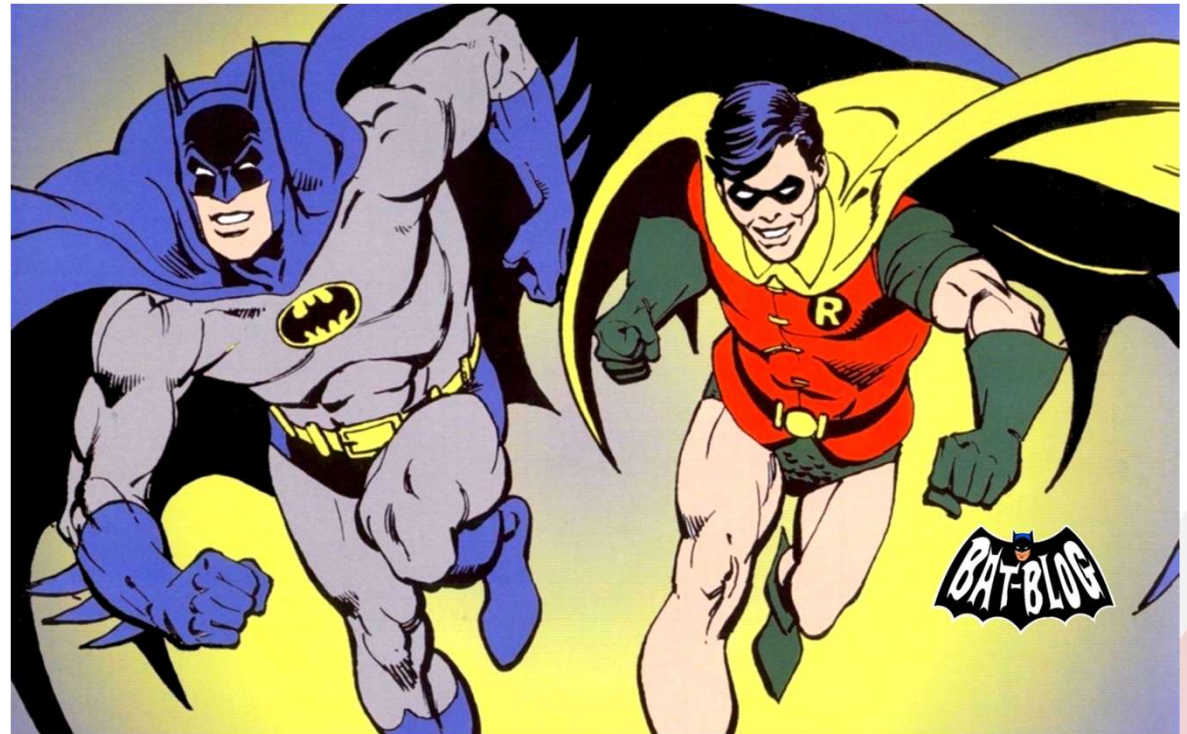
- [Shoulders](#)
- [Lower Back](#)
- [Knees](#)



› Dynamic Duo

- **Regardless of sport**
“Speed Kills”

- Rate of Force Production
- Dynamic Effort



> Rate of Force Production

- Rate of Force Production
Explosive exercise can be defined as movements in which the **rate of force** production (RFP) is maximum or near maximum for a given type of muscle action

Lower Body RFP

Upper Body RFP

Olympic variations

Olympic movements

Combining the above

› Rate of Force Production

- The Devil is in the details:

1. Speed Skater and MEDBALL Slam [video](#)

> Dynamic Effort

- Dynamic Effort refers to lifting a non-maximal load with maximal speed. You will perform these lifts with lighter weight (50-70% of your 1RM) and will move very explosively. The goal with these days is to increase your power output.

1. DE can be done with strait weight or with accomodating resistance like bands and or chains.

1. [Video](#)

- Deadlift: 6-10 singles using between 50-70% of your max pull. Speed should be between .5 seconds and 1 second and timing starts when the bar leaves the floor and ends at lockout. You should do no eccentric work when performing the deadlift, so use bumper plates. Rest 20-45 seconds between pulls.



- Press: 5-8 sets of 3 reps using between 50-70% of your max.
- Speed should be between 3-4 seconds – timing starts on the overhead press when the bar moves off the chest and stops at the lockout of the third rep.
- For a chest press, the time starts when the bar begins its descent and ends at the lockout of the third rep. For either type of pressing, rest 20-45 seconds between sets.

1. [Video](#)

- Squat: 6-12 sets of 2 reps using between 50-70%. Speed should be between 3-4 seconds – timing starts when the squat is initiated and ends at the lockout of the second rep. Rest 30-60 seconds between sets.



> Strength Moves

- The Big 6
- Squat
- Dead/ hinge
- OHP
- Vertical pull
- Chest press
- Horizontal pull

Bilateral and Unilateral variations should be used on all movements



- Training session

1. ADW-
2. RFP/
3. DE effort- squat 10 x2
4. Strength Cluster#1/
5. Trap bar dead lift 5x5
6. Push Press 4x5
7. Parallel chin 5x5
8. Strength Cluster #2/
9. 1 arm DB Row 3x8
10. 1 arm DB Floor press 3x8
11. Core and Carry
12. Banded twists-3x20 per side
13. Farmers walk 3x sets of 20 yards

> Mental Toughness

[Video](#)



Brendan Tupper



Josh Appel

<https://www.facebook.com/METHODSportsPerformance/videos/709642575864241/>

› SMR with HYPERICE Technology (POST TRAINING)



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