

# TRAINING THE HIGH SCHOOL THROWER



John Hetzendorf  
Assistant Track and Field Coach Wichita State University  
Email: jhetzendorf@gshockers.com phone:316-978-5546  
Twitter/Instagram: @CoachHetzendorf

## What are we??



or



or



## What do we do??



or



or



Or maybe...



## SAID Principle

- **S**pecific
- **A**daptation to
- **I**mposed
- **D**emand

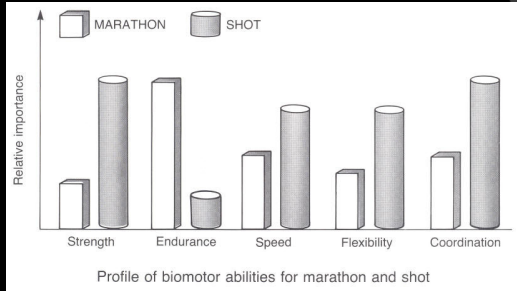
## What we do dictates our needs!! Event Specificity!!

- **What do we need???**
  - Throwing skills and technique
    - Throwing
    - Drills
  - Physical skills/abilities
    - Physical Ability can be broken down into parts or components to make organizing training easier.
    - These components are know as **Biomotor abilities**

## The 5 Biomotor Abilities

- **Flexibility** → Stretching Dynamic and Static
- **Coordination** → Technique and Coordination drills
- **Speed** → Sprints and Plyos/Jumps(Lift/Throw)
- **Strength** → Weightlifting and Specific Strength
- **Endurance** → Conditioning/Work Capacity

### Specificity in regards to the Biomotor abilities



What does the research tell us to do????

**THROW THROW THROW**

### What does the research mean??

- ⦿ Throwing, lifting, jumping and sprinting all help an athlete throw farther
- ⦿ Throwing has the highest correlation or transfer to the competition result (throwing farther).
- ⦿ Both light and heavy implements will help a thrower improve.
- ⦿ Throwing is the most important part of training
- ⦿ As a thrower improves they need more specific training to keep improving
- ⦿ Physical Abilities
  - We can enhance our throwing through enhancing our biomotor abilities specifically strength and speed

### Technical overview

- ⦿ Position
  - Power Position/Finish
- ⦿ Technical Movements
  - Training should reflect technique

### Triple Extension



### Throwing

- ⦿ Good throwing is the summation of forces and movements
  - Olympic Lifts
  - Specific and General Med ball/Throwing exercises
- ⦿ Must Breakdown the throw into simple parts
- ⦿ Strive to make the throw one movement
- ⦿ Progress from simple to complex
  - Half Stand, Full Stand, Pause drill, Full throw

## Drills

- Allows the throw to be broken down into parts
- Learn the movement then take it to the throw
- Best for beginners
- Good for groups and limited time
- With or without implements
- Progression: Nothing > Med ball weights > Implement
- Progression: No throwing > throwing
- Drills (App/Software) Download the information to the throwers body. But throwing teaches the athlete to become efficient and put the throw together
- Classic example of athlete drilling perfect but not throwing perfect. Throwing Reps are a Must

## Overweight and Underweight

- Overweight and underweight throwing is very beneficial to throwing
- Allows the thrower to train specific strength with overweight implements, and train for speed with underweight implements
- Best way to train the specific strength and speed
- You don't have to buy multiple weight shots and discs you can use weights, sand bags, bars, and med balls
- BEWARE!! Make sure to emphasize technique, don't allow the implement to change the technique

## Overweight and Underweight Guidelines

- Boys: Heavy range 13-16lbs --- Light range 9lb-11lb
- Girls: Heavy range 9lb-10lb --- Light range 6lb-8lb
- 10% rule...(guidelines)
- Throw light and heavy all the time
- Stand throws with heavy implements and full throws with lighter implements
- The 2 + 1 method
- Jim Sr. method
- Example
  - Kelsey Slawson

## Kelsey Slawson

Dec. 2015- SP 41' → Dec. 2017- SP 51'

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>○ Throwing plan 15-17                             <ul style="list-style-type: none"> <li>• Improved from 44'-49'</li> <li>• MWF 10lb and 4K                                     <ul style="list-style-type: none"> <li>○ 20-30throws</li> </ul> </li> <li>• TTh 3.5k                                     <ul style="list-style-type: none"> <li>○ Focused on standing throws and finish</li> <li>○ 6-10 stands</li> <li>○ 3-6 fulls</li> </ul> </li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>○ Throwing plan 17-18                             <ul style="list-style-type: none"> <li>• Improved from 51'8"</li> <li>• MWF 4k and 3.5k                                     <ul style="list-style-type: none"> <li>○ 20-30throws</li> </ul> </li> <li>• TTh 5k, 10Lb, and 4k                                     <ul style="list-style-type: none"> <li>○ Focused on standing throws and finish</li> <li>○ 8-12 stands</li> <li>○ 4-8 fulls</li> </ul> </li> </ul> </li> </ul> |
|---|---|

## Med ball/Shot throws

- A thrower can train for both specific power as well as general power with these exercises
- Very versatile
- A bridge from the weight room to the throwing ring
  - Teach a thrower how to apply strength explosively to an implement
  - Although different from throwing, these exercises follow the same kinetic chain as throwing ( legs first or from the ground up)



## Plyos and Sprints

- Throwers are athletes too!!
- A bridge from the weight room to the throwing ring
- Teaches a thrower to use strength from the weight room explosively
- Don't let throwers be afraid to be athletes!!
- Strength without speed is useless



## Training Organization

- Biomotor abilities help to organize training
- Limited time... Get the most bang for your buck
  - throwing

## Breaking it Down

- Workout
  - The daily session or plan for practice
- Training Week or Micro-Cycle
  - The plan for the week (weekly cycle)
  - 5-6 daily workouts or practices
- Track Season or Meso-Cycle
  - A block of 4-12 weeks or micro-cycles
    - Pre Season
    - Regular season
    - Championship season

## The workout/Daily session

- Progression
  - Progression through the work out is dictated by the biomotor abilities
    1. Least taxing to most taxing
    2. Most Dynamic to least Dynamic
    3. To some degree from most important to least important
- Remember the Biomotor abilities and the order.
  - The Warm Up → Flexibility/Coordination  
    - Sometimes Sprints and Plyos → Speed
  - Drills and throwing → Coordination(technique)
  - Special Strength/Sprints/Plyos → Speed(power)
  - Strength Training(Weights) → Strength
  - Conditioning → Endurance

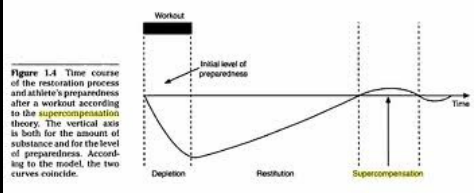
## Training Week or Micro Cycle

- Progression
  - Will vary depending on season and focus (what are we trying to accomplish)
  - Dependent on recovery (volume and intensity)
- Recovery
  - You should be recovered from an activity before you train it again
- Frequency is generally more important than Volume
  - Young athletes generally benefit from more frequent sessions rather than high volume sessions that are spread out.
  - Frequency can make higher volumes easier to achieve

Recovery Times

- Sprinting 24-48 hours
- Plyometrics 48-72 hours
- Weightlifting 48-72 hours

\*Recovery times vary. Based on Volume and Intensity



Weekly workout Guidelines

Training	Pre-Season	Regular Season	Championship
Warm up	Every Day	Every Day	Every Day
Throwing and Drills	Every Practice	2-3 x a week	3-4 x a week
Plyos and Sprints	1-2 x a week	2-3 competitions a week	1 competition a week
Strength Training (Weights)	2-4 x a week	2 x a week	2-3 x a week
Conditioning	2-3 x a week	0-2 x a week (lower volume)	None

The Seasons or Meso Cycle

Progression

- High Volume to Low Volume
  - Low Intensity to High Intensity
  - General to specific
  - Least important to most important
  - Want to be the most ready when it counts!
- The Championship season

Progression through the seasons

Training	Pre-Season	Regular Season	Championship
Warm up	Every Day	Every Day	Every Day
Throwing and Drills	4-5 x a week	2-3 x a week	3-4 x a week
Plyos and Sprints	1-2 x a week	2-3 competitions a week	1 competition a week
Strength Training (Weights)	2-4 x a week	2 x a week	2-3 x a week
Conditioning	2-3 x a week	1-2 x a week (lower volume)	None

Training Tools for the Thrower

- Throwing
- Medicine ball and Shot Throws
- Plyos and Sprinting
- Flexibility
- Weight Lifting

Putting it all together

What Can you Do??

- Time
- Facilities
- Resources
- Group size
- Find a way!!

## General Warm up Examples

- Shocker throwers WU 1
  - Jog 400m-800m
  - Leg Swing x10 front and side
  - Side Shuffle 50m R 50m L
  - Leg Swing x10 front and side
  - Side Shuffle 50m R 50m L
  - Lunge and Twist x10
  - Side reach x10
  - Dance kick x10
  - Lunge and Twist x10
  - Side reach x10
  - Dance kick x10
  - 2x A-Run 30m
  - 2x Butt kick into Ankle pops x30m
  - 2x40-50m build ups
- Shocker throwers WU 2
  - Jog 400
  - Leg swings x10 sides
  - Leg swings x10 front
  - Prisoner Squat x10
  - Leg swings x10 side
  - Leg swings x10 front
  - Prisoner Squat x10
  - Hurdle Mob. 2x6 forward and back
  - Hurdle Mob. 4x6 side
  - Hurdle Mob. 2x6 over under
  - Hurdle Mob. x6 twist right and left
  - Mt climbers to stride x10
  - Groiners x10

## Daily Workout Examples

Pre-Season	Regular Season	Championship
<ul style="list-style-type: none"> <li>• Warm Up 15 mins.                             <ul style="list-style-type: none"> <li>• 2x10 Multi jump circuit</li> </ul> </li> <li>• Drills 20-30 mins.                             <ul style="list-style-type: none"> <li>• Throwing drills</li> </ul> </li> <li>• Throwing                             <ul style="list-style-type: none"> <li>• 20-40 mins. / 15-25 throws</li> </ul> </li> <li>• Sprints                             <ul style="list-style-type: none"> <li>• 5-6x50-60m Build ups to sprint</li> </ul> </li> <li>• Lifting                             <ul style="list-style-type: none"> <li>• Cleans 3-4 sets x 4-5 reps</li> <li>• Bench ,squat 3-4 sets x 6-8 reps</li> <li>• 2-4 Accessory movements 3x10</li> </ul> </li> <li>• Conditioning 20-30mins                             <ul style="list-style-type: none"> <li>• Games – Tag ultimate frisbee, relays</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Warm Up 15 mins.</li> <li>• Drills 10-15 mins.                             <ul style="list-style-type: none"> <li>• Throwing drills</li> <li>• Med Ball and Shot throws (6-12lbs.)</li> <li>• 10 -15 throws</li> </ul> </li> <li>• Throwing                             <ul style="list-style-type: none"> <li>• 30-60mins. / 10/40throws</li> </ul> </li> <li>• Sprints                             <ul style="list-style-type: none"> <li>• 5x20-30m Sprint</li> <li>• Box Jumps 4x5</li> </ul> </li> <li>• Lifting                             <ul style="list-style-type: none"> <li>• Cleans 4-5 sets x 2-4 reps</li> <li>• Bench ,squat 3-5 sets x 3-6reps</li> <li>• 2-4 Accessory movements 3x8</li> </ul> </li> <li>• Conditioning 10-15 mins                             <ul style="list-style-type: none"> <li>• Games – Tag ultimate frisbee, relays</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Warm Up 15 mins.</li> <li>• Drills as needed</li> <li>• Throwing                             <ul style="list-style-type: none"> <li>• 30-45mins. / 10/30throws</li> </ul> </li> <li>• Sprints                             <ul style="list-style-type: none"> <li>• 3x20-30m Sprint</li> <li>• 3x3 Box jumps</li> </ul> </li> <li>• Lifting                             <ul style="list-style-type: none"> <li>• Cleans 2-3 sets x 2-3 reps</li> <li>• Bench ,squat 3-4 sets x 2-4reps</li> <li>• 2 Accessory movements 3x8</li> </ul> </li> </ul>

## Weekly Workout Examples

Pre-Season	Regular Season	Championship
<p><b>Mon.</b> Warm up 2 – Drills 15 mins – Throw 60 mins – Lift Upper Body – Conditioning game 20-30 mins</p> <p><b>Tues.</b> Warm Up 1, 2x10 Multi Jump Circuit – Drills 30 mins, Throw 30mins –Sprint 5x60 build ups– Lift lower Body</p> <p><b>Wed.</b> Warm up 1 – drills 20-30 throw 30 mins – Conditioning game 20-30 mins</p> <p><b>Thurs.</b> Warm up 2 – Drills 15 mins – Throw 60 mins – Lift Upper body</p> <p><b>Fri.</b> Warm Up, 3x10 Multi Jump Circuit – Drills 30 mins, Throw 30mins – Sprint 5x60 build ups – Lift lower body – Conditioning game 20-30 mins</p>	<p><b>Mon.</b> Warm up 2 Sprint 4x30 – Drills 15 mins –Throw 60 mins – Plyos- -Lift total body–</p> <p><b>Track meet</b></p> <p><b>Wed.</b> Warm up 1 – drills 10-15 mins – Throw 30-45 mins Conditioning game 10-12 mins</p> <p><b>Track meet</b></p> <p><b>Mon.</b> Warm up 2 Sprint 4x30 – Drills 15 mins –Throw 30-40 mins – Plyos– Lift total body– Conditioning game 10-12 mins</p> <p><b>Track meet or</b> drills 10-15 mins – Throw 30-45 mins Shot throws x15-20</p>	<p><b>Mon.</b> Warm up 1 Sprint 4x30 – Drills 15 mins –Throw 60 mins – Plyos- -Lift total body–</p> <p><b>Tues.</b> Warm up 2 – Throw 30-45 mins</p> <p><b>Wed.</b> Warm up 1 -- Drills – Film Study</p> <p><b>Thurs.</b> Warm up 1 Sprint 4x30 – Drills 10 mins –Throw 30 mins – Plyos- -Lift total body–</p> <p><b>Fri.</b> Warm up 1 – drills 10mins –Pre meet Throw 10-20 mins</p> <p><b>Track meet (League, District, Regional, and State)</b></p>

Thank You!!!!

Any Questions??