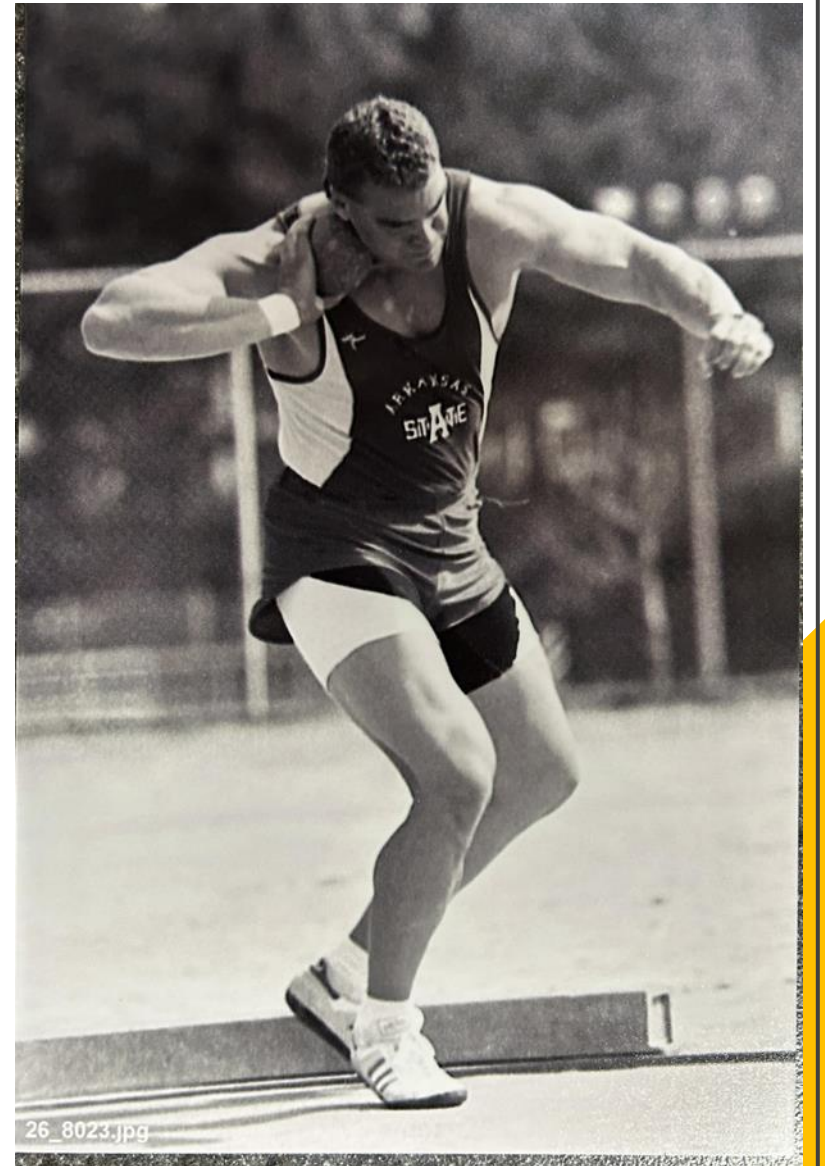


# Rotational Shot Put

ATCA Winter Meeting 2024  
- Speaker Dave Rodely  
email contact: [dave@ralvis.us](mailto:dave@ralvis.us)



# Level Set Terminology

- References to the Athletes Right and Left
  - ALL Right and Left terminology used is in reference to a Right Handed Thrower
- Back of the Ring / Front of the Ring
  - The FRONT of the Ring is where the Shot Put is Released
  - The BACK of the Ring is where the thrower sets up the spin
- Degrees of Toe Turn
  - References to Toe Turn are all Relevant to the location in the Ring  
MOVING/SPINNING to the Left
    - i.e. if the Back of the ring = 12 o'clock =  $0/360^\circ$ .....9 o'clock =  $90^\circ$ ....(remember we are spinning to the Left).....6 o'clock =  $180^\circ$  and 3 o'clock =  $270^\circ$

# Foundational Components

(before spinning with the shot )

- Holding the Shot Put
  - How and Where
    - Shot put should rest on the bridge of the hand
      - NOT in the Palm
    - ALL 4 Fingers behind the ball
      - Common mistake among HS Throwers (I did it wrong in HS and it made the switch to the intl ball uncomfortable, less fun, and a longer adaptation)
  - Palm should face forward NOT toward the sky
    - common mistake among beginners who are worried about getting their “elbow up”
      - Do NOT allow this...its NOT a style it’s a PROBLEM

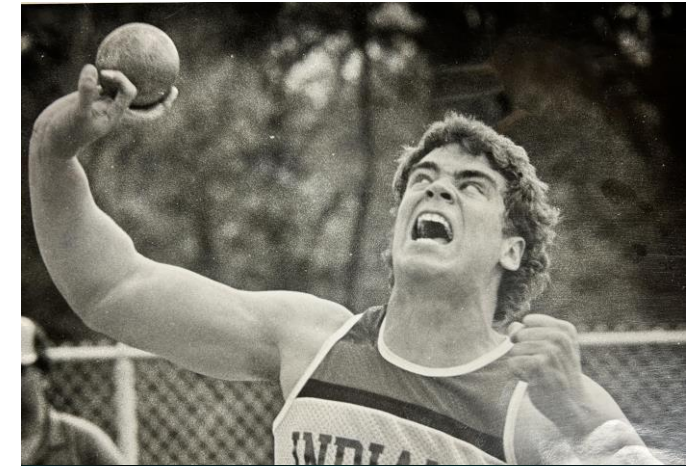
# Hand Positions – Identify good and bad



Dave Rodely



RALVIS Training



*What do you see?  
Good / Bad / Indifferent?*



Video removed – due to lack of utility,  
when discussion is not available  
Companion to the video clip



# Foundational Components

(before spinning with the shot )

- The Release
  - Good release should include a wrist “flip”
  - Hand Pronates further...bringing the elbow up and out further
    - This is evidenced GREATLY in glide throwers who typically hold the shot put in a different starting position
  - Practicing the wrist flip is a great way to embed that motion AND to warm up the wrist



Dave Rodely



RALVIS Training

# Foundational Tools

(before spinning with the shot )

- Stand Throw
  - Non-Reverse (Not long term technique for rotational SP, but walk b4 run)
    - (Lower body) Weight over right leg – turn and drive – climb the block
    - (upper body) allow wrap – be patient – long to short left arm
      - Pull the Shot NOT push
  - Intentional Step over Foul
    - Same components of Non- Reverse but finish hard in a straight line chasing the shot out
    - As you chase the shot out finish tall and allow right leg step directly out the front of ring
      - The better the thrower turns right toe and drives right hip the better the result
- Throw with Reverse
  - Simply a Progression from above such that there is a violent turn and drive with a great block and chase out after the shot AND just switch feet
  - Timing is important and learned – shot put leaves hand – switch happens

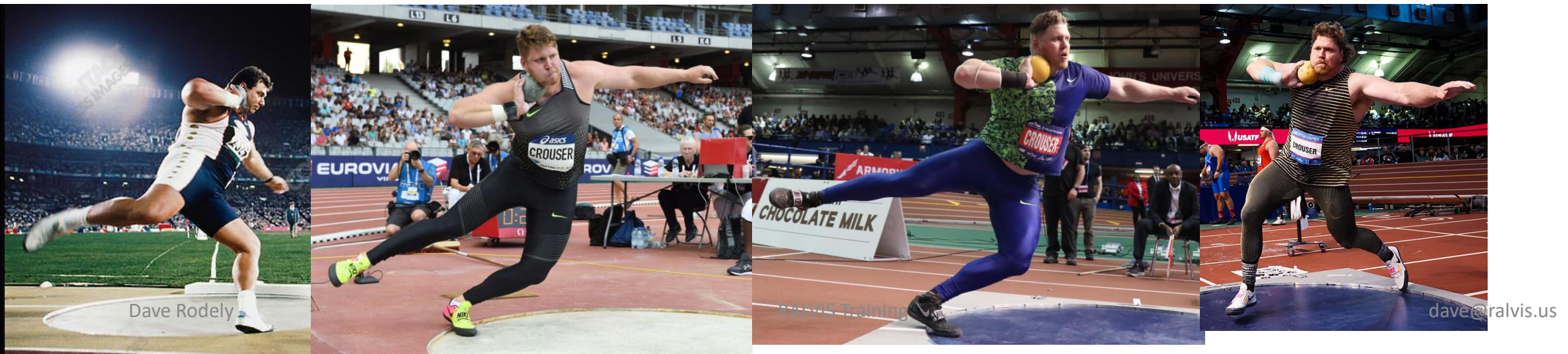


# Spinning with the Shot

(The FUN Stuff!)

Reminder language in reference to Right-Handed thrower

- Know the Critical Positions
  - Dynamic Balance over the left out of the back with a “counter”
    - Left toe stops in the direction of the throw with extensive distance between the left and right foot (sweep)
    - Significant difference between left toe and left hip (“long bow” = “Back C” during the exit)
      - Upper Body and Left Arm UP
  - Active Right Leg with inactive left (similar to discus but different)
    - Why – Implement distance from axis of rotation AND size of the ring





# Critical Positions (cont'd)

- Dynamic Balance over the Right Toe in the Middle
  - Upon landing right hip literally over the right toe on a significantly flexed knee
- Upper Body (left arm) “re-wrap” in the middle
  - the best throwers get significant “re-wrap”...its difficult to do, but continuing to open the upper body to the throwing area is common among beginning throwers....I don't know that I have seen anyone do this better than Crouser. His demonstration of this speaks volumes to the phrase “positions create power NOT speed”



# Critical Positions (cont'd)

- Achievement of Back C (long bow) at the front of the ring allowing for a pull of the shot vs. a push
- Finishing the Right Hip and Right Toe into an effective BLOCK that throws the body INTO the shot....(what I call chasing it out)
- Finally, there is an effective flip on the shot



RALVIS Training



# Common Technical Problems (Whys & Fixes)

- Over Rotating out of the back
- Leading throw around with left arm and head
- Right leg too close / “tight” to the body
- “Falling” off to the left when entering the power position OR “falling into the bucket”

# Drills to help improve tech:

- **DISCLAIMER** - NOTE that there is a requirement for creating technical proficiency thru the use of drills. = **performing drills correctly...I call this intentional practice**
  - Most throwers (especially kids) just want to throw and see how far they can make it go. This is the same reason that most people who play golf are what I call perpetually mediocre...they go play golf...they seldom intentionally practice. Pro golfers seldom play...but instead spend thousands of hours intentionally practicing.
- All Drills should be performed without a shot put UNTIL thrower has a fair level of proficiency.



# Drills Help the Thrower *LEARN to TURN*

## *Basic Drills & Keys*

### ➤ 0 – 360 Drill

- (match lefts – shift leg – separate knees – right foot glued to ground until left foot is at 90 or past 90 – sweep with a wide right leg)

### ➤ 90 - step out / step middle

- (match lefts – shift left – turn left toe to 90 – step out with right foot (while right foot is leaving pad – left toe continues to turn to direction of throw and stops)

### ➤ Line Drills

- “Skate the Ring” & “Kiss my Butt”

### ➤ Half Turns

- (start upright – with left arm and left toe matched = direction of throw – and right foot at 270) in this drill the weight is distributed over the right leg a bit but it is important for the left leg to remain bent and simulate the inactive left leg exit out of the back AND for the weight to distribute more to the right leg in order to allow the right toe to turn in the middle

# Advanced Drills

## ➤ 90 - step out / step middle / Half Turn

- (duplicate all the keys from each basic drill...just do them together)

## South Africans

- In this drill I recommend that the athlete start with the left toe at approximately 120° (whereby starting position in back = 0° and direction of the throw = 180°) in order to allow the athlete to engage turning the toe which makes it a bit easier to counter – also it is important that the right leg be significantly “behind” or simulating the separation from the left the right would have at the point in time when the left toe reached 120° in a normal exit during a full spin

## ➤ Full Turns

- all the components of a good technical throw just done without the shot put AND I recommend teaching young throwers to stop the spin upon landing in the power position (mimicking the finish of the throw during a drill or dry spin, should only happen without the shot put after the athlete has BOTH mastered stand throwing with the shot put AND has mastered landing in an effective power position for said drill and or dry spin)...the transition is typically for the thrower to move from a paused good position THEN mimic the finish of the throw as a second movement (what we are after here is for the athlete to really “FEEL” the correct positions)

1. Lets do some Q&A....Then...
  2. We can look at some videos to see what we can identify and how to correct it
- QUESTIONS???
  - What Questions do you have – This is the time to ASK ANYTHING about the shot put you might have on your mind

# Now to videos - Identifying strengths and development needs (what do you see)

- Lets figure it out together...
  - What key problem(s) do you see
  - What needs to happen
  - What should we work on to improve it



Video removed – due to lack of utility, when discussion is not available Companion to the video clip





Video removed – due to lack of utility, when discussion is not available Companion to the video clip





Video removed – due to lack of utility, when discussion is not available Companion to the video clip





Video removed – due to lack of utility,  
when discussion is not available  
Companion to the video clip





Video removed – due to lack of utility,  
when discussion is not available  
Companion to the video clip

Video removed – due to lack of utility,  
when discussion is not available  
Companion to the video clip





Video removed – due to lack of utility, when discussion is not available Companion to the video clip



# Creating your own Demons

## - Seen this done by BOTH coaches and athletes

- First things First – Spend time on what matters
- What makes athletes great throwers?
  - Explosive Power and Technique (THROW A LOT)....very few Americans grew UP throwing the shot put
  - There are ONLY 3 Energy Systems Spend time in the Right PLACE
    - Primary = (ATP/PC)
    - Secondary = AnaGlyc for Condo
    - When AerobGlyco? = NEVER...You are wasting time and improving Red Muscle Fiber
  - Time is limited WHY are you wasting it doing something that doesn't matter or WORSE YET is counter productive
- Case Study – Journal Article from 80s...Early in career (400s for fouling)
  - Result – Got rewarded for spending time on the wrong thing
- Athletes Especially / Coaches sometime
  - What are you working on?
    - Trying NOT to....XYZ...How do you do that?
- My FAVORITE.....Becoming proficient and doing it wrong
  - See this in throwers who are less athletic and lack focus to have “intentional practice”
  - Your ROLE as coach here is easily achieved and easily missed (Ask Questions)
  - THE BEST 2 Questions I have found =
    - What were were you working on in that throw/rep/etc
    - What are you going to do (trying to uncover what they are focused on)



# Identifying Future Shot Putters

-Way too Big to be a Gymnast

- Commitment is Key as a thrower but those who have the most upside potential as shot putters do have similar characteristics
- SIZE ?
  - Leverage = Long Torso, Long Arms (++)
  - Big and Strong (+)...Fat & Slow (ineffective)
- Muscle Fiber = Fast Twitch type 2a (fast), 2x(very), 2b(super)
  - (how do you identify?)
- Important Explosive strength Metrics:
  - P2 Clean / Back OH SP / Vert / SLJ / 20yd laser / 1RM Bench
  - Pwr Index = square root BW (lbs) x square root of vert (in)
  - $KE = mv^2$  (velocity = dist/time)
- Agile Helps...but with young throwers you have to remember that they are developing and may look &/or be uncoordinated early
  - Are they still growing? Give em a chance...
  - Are they committed?
  - Repetition is the mother of skill & few of you spent childhood spinning
  - I was still tripping over the half court line in 8<sup>th</sup> grade basketball, but I had put in at least 1,000 reps learning to spent prior to 9<sup>th</sup> grade and it showed UP

# Coaching Language & Tips

- Tell Athletes what to do vs. what NOT to do
  - Its OK to tell thrower what went wrong, but then focus on the solution NOT the problem
  - My conversation with the former WR Holder re: “working on not fouling”
- Find your own cues and make sure the athletes know what it means and what to do with it & use them often
  - Examples:
    - Skate the Ring / Head & Hand on the Bolts / 2 pieces Butter Bread / Match Lefts / Shift Left / Chase it Out / Hole in the Sky / Throw the Rt at the ToeBoard / Pressure Back on the Right /
- One of my most used words coaching BOTH elite and youth throwers are **AGAIN!....**They hear this ALOT because they need to do it ALOT!
- Another Frequent = BETTER! – they NEED to hear this with some enthusiasm because doing drills is NOT exciting, but Throwing IS, and if you FAIL to give +reinforcement during drills, they will see what they can do it make it go farther in order to get some +reinforcement of their own.
  - This is ONE of the REASONS throwing into a Net during Indoor is soooo useful
    - THEY DON'T KNOW HOW FAR IT IS GOING, but they know how it feels and how it looks

# Parking lot info – questions which might need more explanation



Dave Rodely



PALVIS Training