

# THE DISCUS THROW

Separation Anxiety



by: Brian Bedard

# How to Create & Keep Separation

- Separation through upper body discipline
- Lower body efficiency
- Neutral head position
- Maintain torso tension during turn
- Static start for stand throw, pivot and full throws.
- Concept: “Work discus from high point to high point”
- This requires specific flexibility work

# Why is Separation Important?

- Enables thrower to accelerate the discus over a longer path and produce longer throws.
- Allows the thrower to use both, linear and rotational forces to produce longer throws.
- Creates efficient discus path and body movement to channel power into the throw.

# Separation Anxiety



# STANDING THROW

- Wind through proper path.
- Maximize radius.
- Proper posture – draw lines
- Set hips over feet.
- Set release angle with body position / right knee bend.
- Heel to toe.
- Chin moves with chest
- Initiate movement with right foot and left arm.
- No Reverse





# PIVOT TURNS

## Teach Upper Body Discipline

- Static start, no reverse.
- Maximize radius
- Head and chest stay back
- Head turns in one spot
- Set right hip in front of upper body.
- This body position sets the axis of rotation.
- Hold torso tension until left foot contact!
- Right arm stays on top of left leg, until left foot contact.



# Non-Reverse Throws

- Do not train athletes to jump!
- Teach the athletes to work the ground as long as possible.
- Learn to accelerate the discus with lower body first.
- Keep the upper body back over the right.
- Establish relationship with the ground.
- Right foot connection with the concrete.



# FULL THROW

## Wind-Preliminary Swing

- Start young throwers with no wind.
- Prelim swing should be slow big and rhythmic
- Teach them to use lower body first
- Long and loose
- Maximize radius
- Upright posture
- Eyes on horizon line
- Not too fast!
- Chin moves with chest





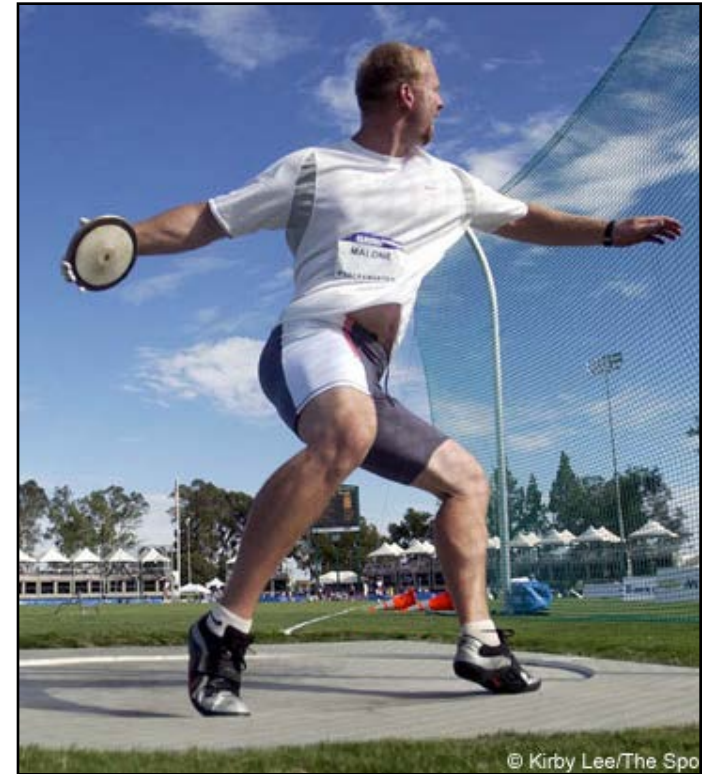
# THE ENTRANCE

- How to initiate movement?
- Shift weight over left foot by bending left knee.
- “Armpit over knee over foot”
- Left arm, left leg system work together.
- Create tension in triangle
- Right leg moves out wide sets tempo
- Knee up toe up right leg.



# THE ENTRANCE

- Left knee rotates in and down to center of circle.
- This movement helps set drive angle.
- Right leg sweeps wide and shortens on entry into circle.
- Don't lead with the head. Chin moves with chest.
- Transition movement begins.
- Upper body slows while right knee and hip move ahead.



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# TEACHING THE ENTRANCE

## Drills

- 360 degree pivot drill. Helps with balance over the left leg.
- Tap around drill.
- Cone drill for right leg sweep.
- Get to the corner concept.
- Armpit over left knee.
- Hit a target with left hand.



# Sprint Off the Back

- Left knee rotates in and down.
- Left shin sets drive angle off the back.
- Right leg shortens and drives to the middle.
- Right foot is dorsa flexed.
- The drive off the left is a punch!
- Not a lunge off left!



# MOVING TO THE MIDDLE

- Eyes see the sector
- Present your chest to sector
- Right shoulder stays back
- Discus tracks maximum radius out to right side
- Discus path through the middle sets the release path
- Control over-active head and left arm in middle
- Left knee pinches to right knee
- Make every effort to delay the upper body



# FLIGHT PHASE

## Setting Up The Throw

- “Punch & Pinch” closing left knee to right
- Do not advance right shoulder and head.
- Hang discus out to right side.
- Head and shoulders stay back as right leg and hip move in front.
- This movement sets high point or tilt.
- Keep system together.
- Right foot touchdown and turning.





# THE ORBIT

## Discus Path

### Created When:

- Shoulders & head stay back.
- Right leg and hip drive to the middle.
- Race to move legs and hip in front of upper body.
- Right foot dorsa flexed
- Land with depth on right leg
- Left shoulder down when right touches in middle.



Casey is too high in this position. Right foot should be dorsa flexed!

# DOUBLE SUPPORT

## Power Position

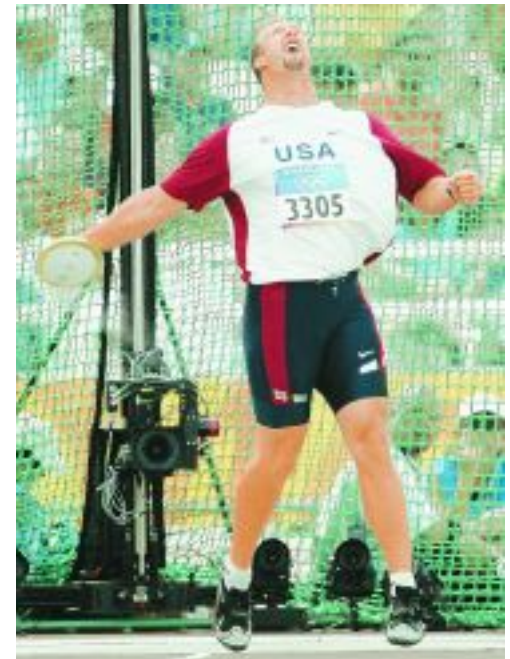
- Get left foot down as soon as possible.
- Upper body inactive until left foot contact!
- Extend working phase
- Left arm and right leg work
- Feel the stretch
- Stay out to the right!



# THE FINISH

## Blocking Action

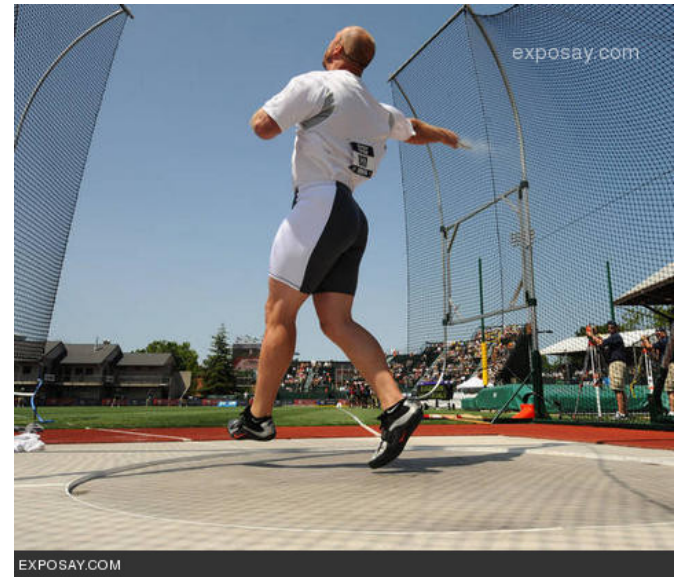
- Left arm moves long through high point – bends and stops at side.
- Left leg straightens.
- Push up through ball of left foot.
- Left drives up, out and sweeps back for reverse.



# THE FINISH

## Right Side Action

- Right foot and knee help turn the hip.
- Right hip moves in front of chest.
- Discus stays back as long as possible.
- Feel the stretch!
- Right side will finish in front of blocking left side.



# THE RELEASE

- Hang it out to the right.
- Extend that radius.
- Right eye on the discus at release.
- Hold left side block.
- Get right side all the way through!
- Left foot leaves first.
- Right foot stays in contact on delivery.
- Discus right edge down.



# HOW DO THEY THROW SO FAR?

- Flexibility
- Specific Strength
- Very Tall
- Long Levers
- The Non-reverse
- Good technique!
- Working the discus over a longer path
- Drugs??

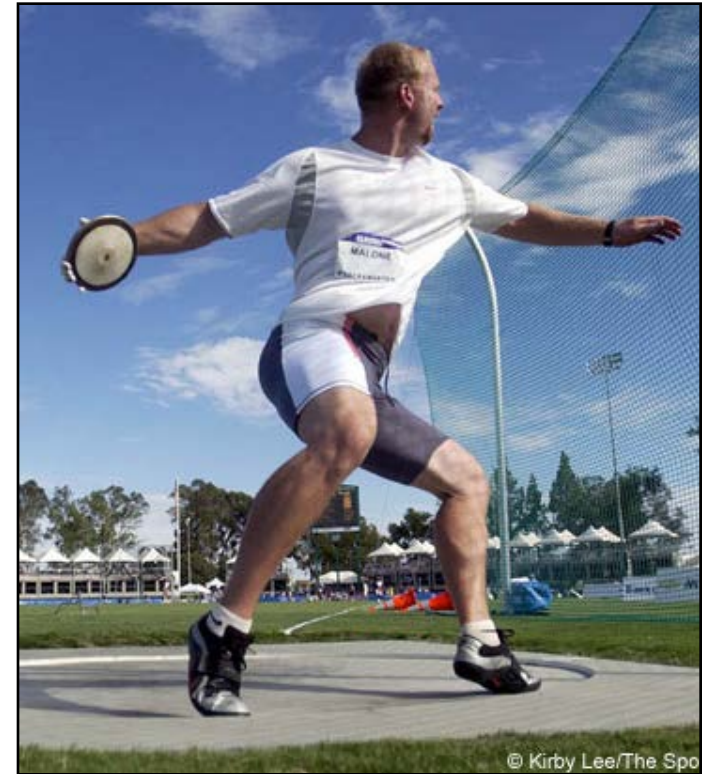




# TEACHING THE ENTRANCE

## \*Drills\*

- 360 degree pivot drill.
- Tap around drill.
- Cone drill for right leg.
- Get to the corner concept.
- Armpit over left – string



# PROBLEMS AND CORRECTIONS

## Problems:

- Falling to the middle.
- Loosing discus down right sector line.

## Corrections:

- Get body weight over left at start.
- Head and left shoulder too involved.
- Landing piked in the middle. Posture to the middle.
- High point up too early.
- Upper body active to the middle.

## **PROBLEMS:**

- Under-rotation to middle.
- Fouling out the front.
- Hopping up off the back.  
Too much air time.

## **CORRECTIONS:**

- Continuous left knee turning off the back.
- More active right leg at the back.
- Stronger block. Non-reverse training throws.
- Setting and keeping axis.
- Deeper bend and rotation of left knee in and down to the middle of circle.

## **PROBLEMS:**

- Throwing before left is down. Causing flat throws.
- Staying back on right leg at finish.

## **CORRECTIONS:**

- Left arm catch drill.
- Get left down earlier.
- Pivot turn drill: teaches patients.
- Non-reverse throws
- Keep upper body on back ½ of circle.
- Axis of rotation stays in tact.

# COACHES: WHAT TO LOOK FOR?

## View From Back Of Ring

- Getting over the left with armpit / knee.
- Staying out to the right in drive phase.
- Get power through the discus? Don't Split.
- Stay into the finish – “right side is the motor”
- Hold Head and direct energy!
- Foot alignment.
- Hips engaged – posture.
- Discus path – setting up finish path.
- Orbit alignment can give you clues to problems.

# WHAT TO LOOK FOR?

## Side View

- Left leg punch off back / no lunge step.
- Right leg action to middle / knee up.
- Right foot under knee with foot dorsa flexed.
- Land in middle of circle / no lower leg reach.
- Upper-body on back  $\frac{1}{2}$  of circle.
- Right leg turning / axis of rotation.
- Left leg block / line up through head.
- Right side through: hip rotation / shoulder to the front.
- Thrower sitting out or losing hips?
- Right foot contact through release.



## QUESTIONS?

<http://www.youtube.com/user/bdbedard/videos>

[brian.bedard@colostate.edu](mailto:brian.bedard@colostate.edu)

<https://vimeo.com/ondemand/discus>

<https://www.youtube.com/watch?v=btENJsZZ2nc>

