

# Glide Shot Put

Technique, Teaching Progressions, and Drills  
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# The Glide Sequence

## Technical Progressions based upon:

1. Initial starting style position: “T” Start, Slant “T” Crouch/ Furbach
2. Lowering, or initiating the displacement of Center of Mass across the circle
3. Drive/ Support leg actions & recovery (“A” Position)
4. Extension/ Free leg actions
5. Non Support phase
6. Re-contact/ second single support
7. Power/ Throwing position
8. Delivery Sequence
9. Recovery/ Reverse actions

# Teaching Motor Skills

- ▶ Drills, and parallel movements should be primary in technical introduction, and instruction of Shot Put
  - Break down the movement into basic and learnable skills
  - Teaching Considerations
    - Seek to create specific learning periods with objective emphasis
  - Stages of skill based learning – Repetition is the Mother of Acquisition (skill, drill, instill)
    - Introduction – the movement/ skill are introduced in context
    - Learning – the movement/ skill are learned through repetitions, and cueing
    - Stabilization– developed through repetition of learned movements
    - Habituation – through repetition of stabilized movements

# Teaching Motor Skills

- Create general to specific motor learning
- Utilize visual aids early
- Still frame, or digitized figures offer a simpler input than video for beginners
- Video aids in creating spatial/ rhythmic awareness
- Advanced level training partners
- Control outside input during teaching, and introduction period
- Pick appropriate technical models for throwers
- Limit outside coaching (includes other athletes)
- Duration of Non-Support phase/ Second Single Support

# Glide Drill Emphasis Areas

## ▶ T position

- Glide Squats w bar, plate & ball
- Continuous Drive/ Support leg drill “Right to Right drill”
- Stop Drill

## ▶ A Position

- Stop Drill

## ▶ Delivery Sequence

- Right Side Kinetic Chain
- Plate Throws
- Stop Drill

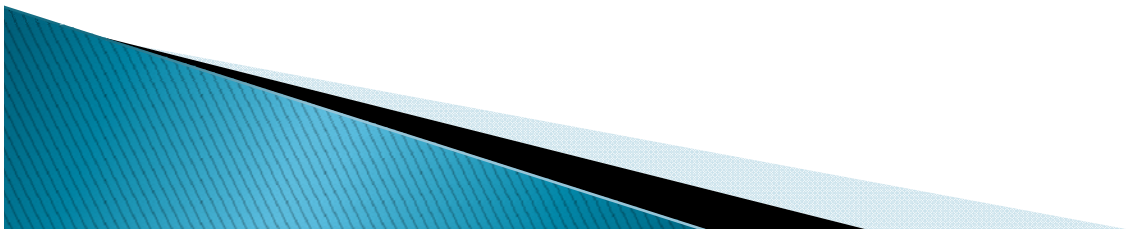
## ▶ Re-contact

- Continuous Drive/ Support leg drill
- Glide off Box Drill

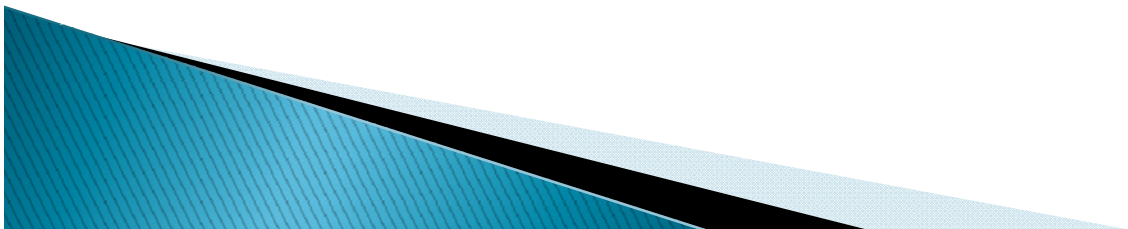
## ▶ Recovery

- Sequence/ Positions
- “Save It Game”

# Glide Squats



# Stop Drill



# Starting Positions

## 1. T & Slant T Start

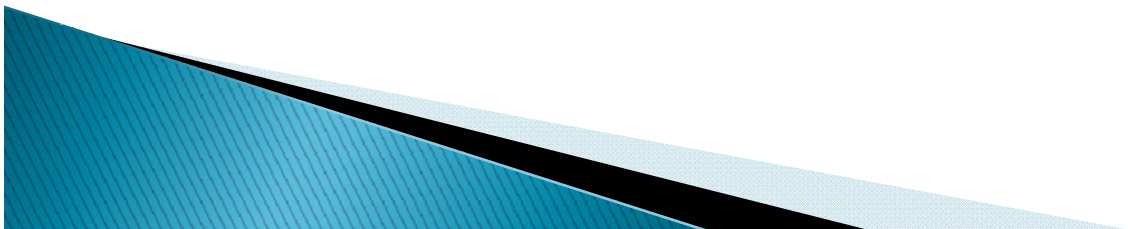
- a. Offers an greater opportunity to convert the velocity of the mechanical potential, that exists via vertical displacement of CMT, into horizontal velocity across the ring
- b. Requires a greater level of timing and skill to gain technical consistency

## 2. Crouch Start

- a. Offers greater stability and consistency of performance
- b. Requires a greater level of leg strength

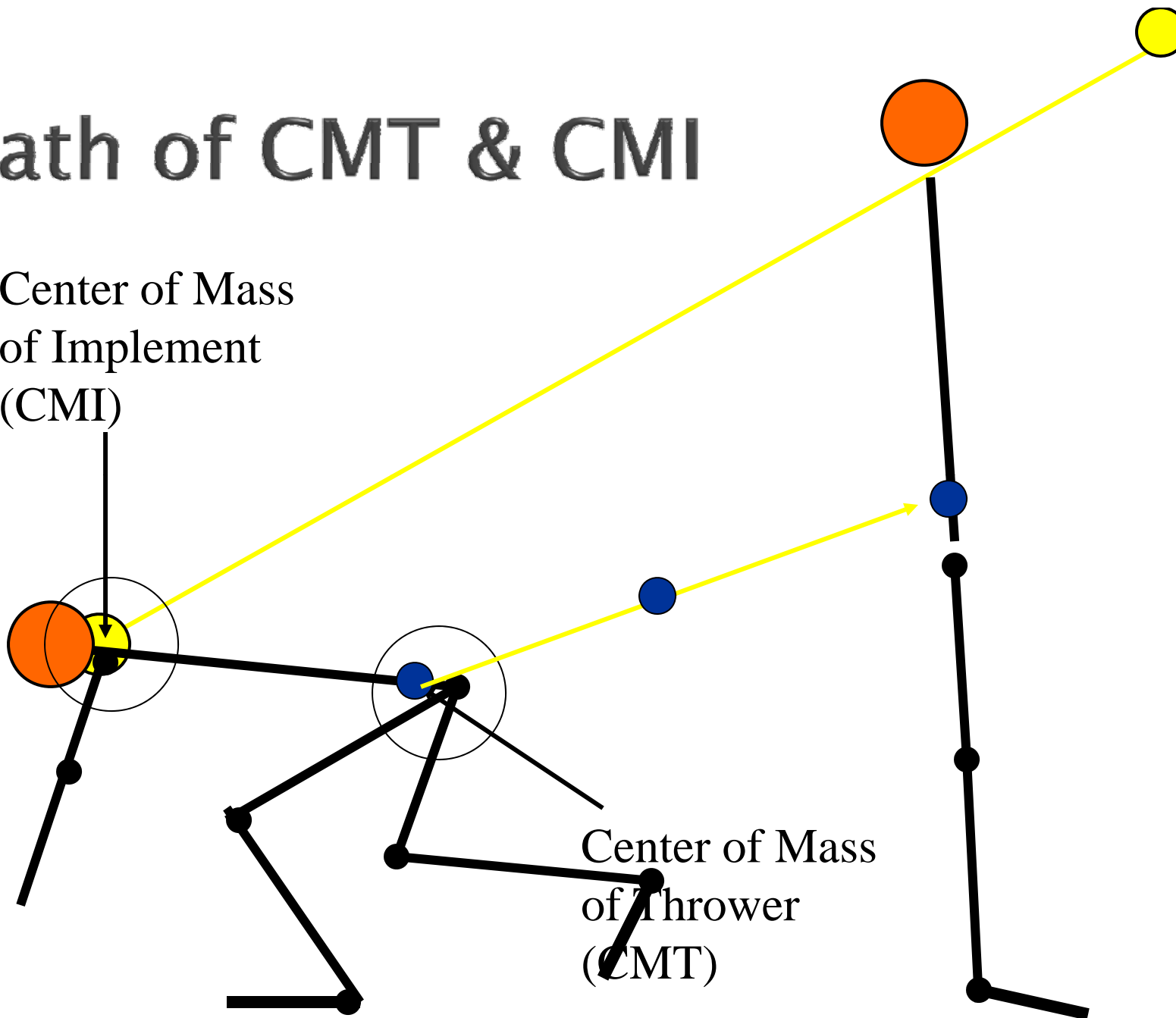
# “T” Position

- ▶ Entering the “T” position with stability while controlling the drop of the CM is an important skill.
- ▶ The roller coaster as a conceptual metaphor for the glide in teaching (a long steep free drop = a fast cart)
- ▶ A steeper & deeper the drop of CM, allows a rise of the CMT to the middle of the circle



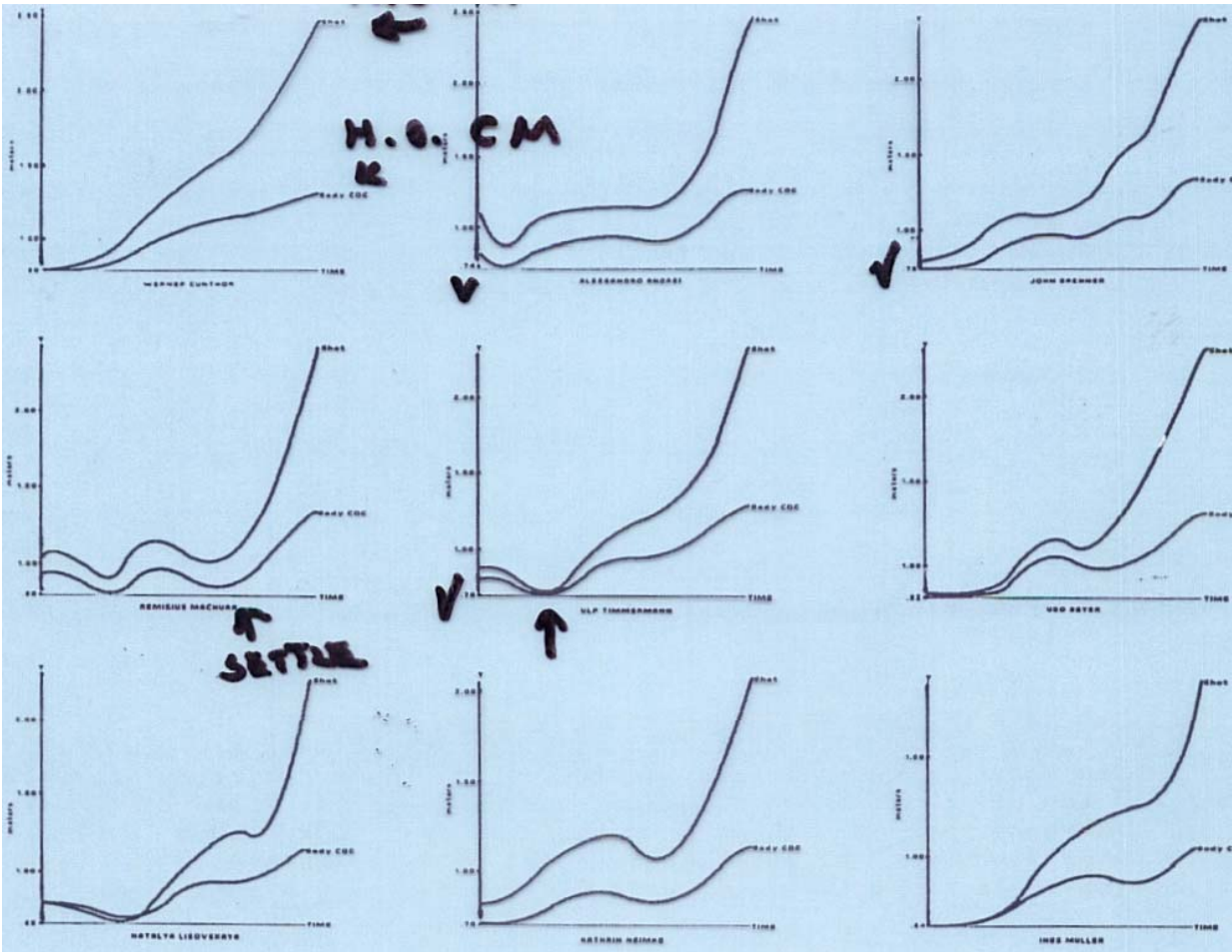
# Path of CMT & CMI

Center of Mass  
of Implement  
(CMI)



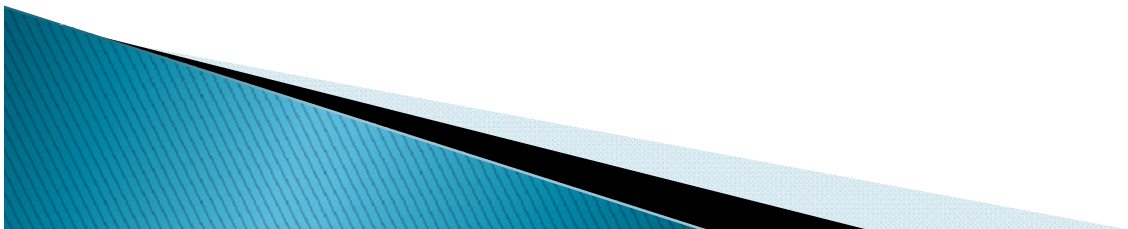
Center of Mass  
of Thrower  
(CMT)

# Shot: Path of CMI/ CMT



# Extension/ Free leg

- a. The free leg should be used to balance the preliminary movements, and positions, of the thrower, during the initial single support phase.
- b. The free leg should be drawn into nearly an identical position of flexion relative to the support leg.
- c. Following the initial displacement of the CMT prior to the explosive extension of the support leg, and almost simultaneously, a full and rapid extension of free leg towards toe-board target must occur to aid in the shift of thrower across the circle.
- d. Following the explosive extension of the support leg, the hip axis should be actively opened in the direction of the throw.
  - i. This action establishes the initial torsion between the hip and shoulder axis, to be increased upon re-contact at the center of the circle.
  - ii. The height of CMT at the back of the circle, preceding the extension of



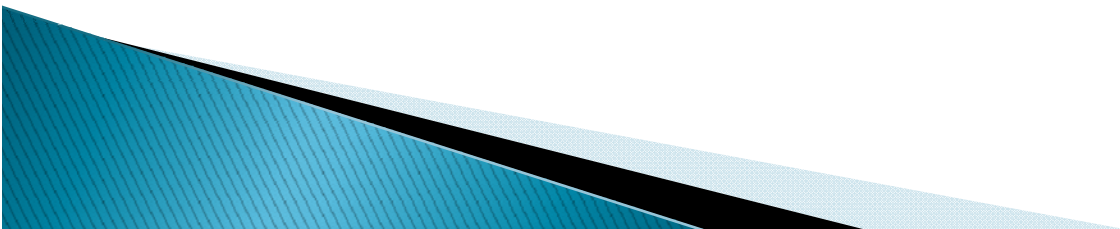
# “A” Position

- ▶ Staying over the drive leg maximizes the push out of the back of the circle.
- ▶ The lower abdomen should be kept in contact with the thigh throughout the drive phase.
- ▶ Full extension of the free leg towards toe board.
- ▶ Stretch reflex of the groin adductors, hamstring & glute aid in the recovery of the drive leg (right side) to the middle.

## Extension Cont.

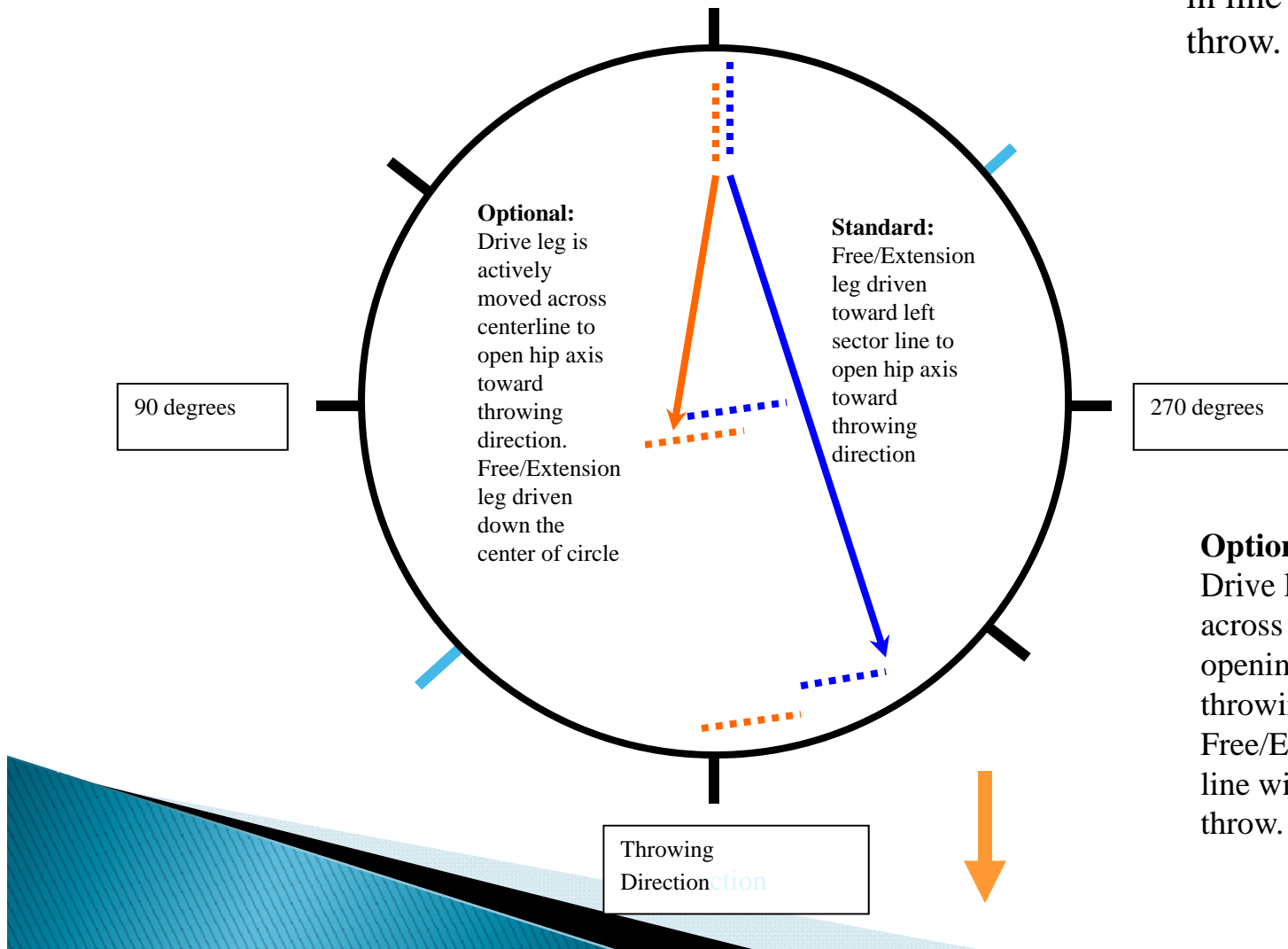
The direction of extension leg determines throwing line of direction.

- i. Standard treatment of the extension/ free leg includes an extension in line with the left sector line (*left as the thrower faces the throwing impact area*).
- ii. An optional treatment of the extension/ free leg includes driving the free leg straight across the circle, while moving the support/ drive leg foot across the centerline of the circle toward the right side of the circle (*right as the thrower faces the throwing impact area*).
- iii. Hip axis alignment, relative to the shoulder axis, and foot axis, remains identical although the foot placement is slightly different in the circle for each of the techniques.
- iv. In the standard technique the heel of the extension leg foot is aligned with left sector line (*for standard alignment*)
- v. In the modified technique the toe of the extension leg foot is aligned with centerline of circle (*for non-standard alignment*).



# Free / Extension Leg Treatment

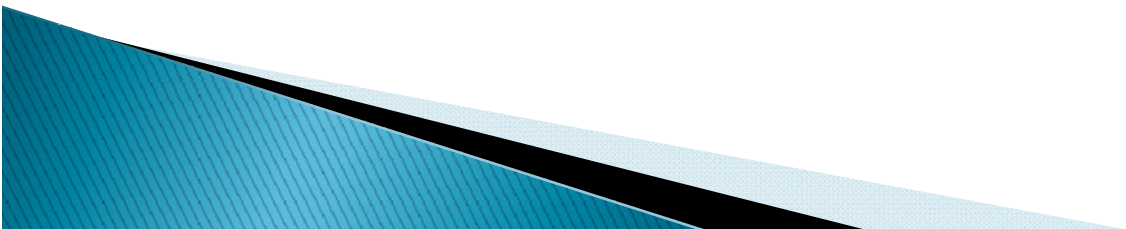
**Standard:** Free/Extension leg driven in line with left sector line to open hip axis toward throwing direction. Drive leg push & recovery in line with direction of the throw.



**Optional:** Drive leg is actively moved across centerline to aid in opening the hip axis toward throwing direction. Free/Extension leg driven in line with the direction of the throw.

# Non Support & Re-contact Phase

- ▶ Assuming that the proper actions and positions have been achieved during the preliminary phase of the glide, the non support requires only that the athlete maintain the “A” position.
- ▶ Upon re-contact of single support the left side hip can be opened in the direction of the throw.
- ▶ This action should be performed while holding the shoulder axis stable.
- ▶ The result of this action is an increase in torsion (elastic energy) for use in delivery sequence.

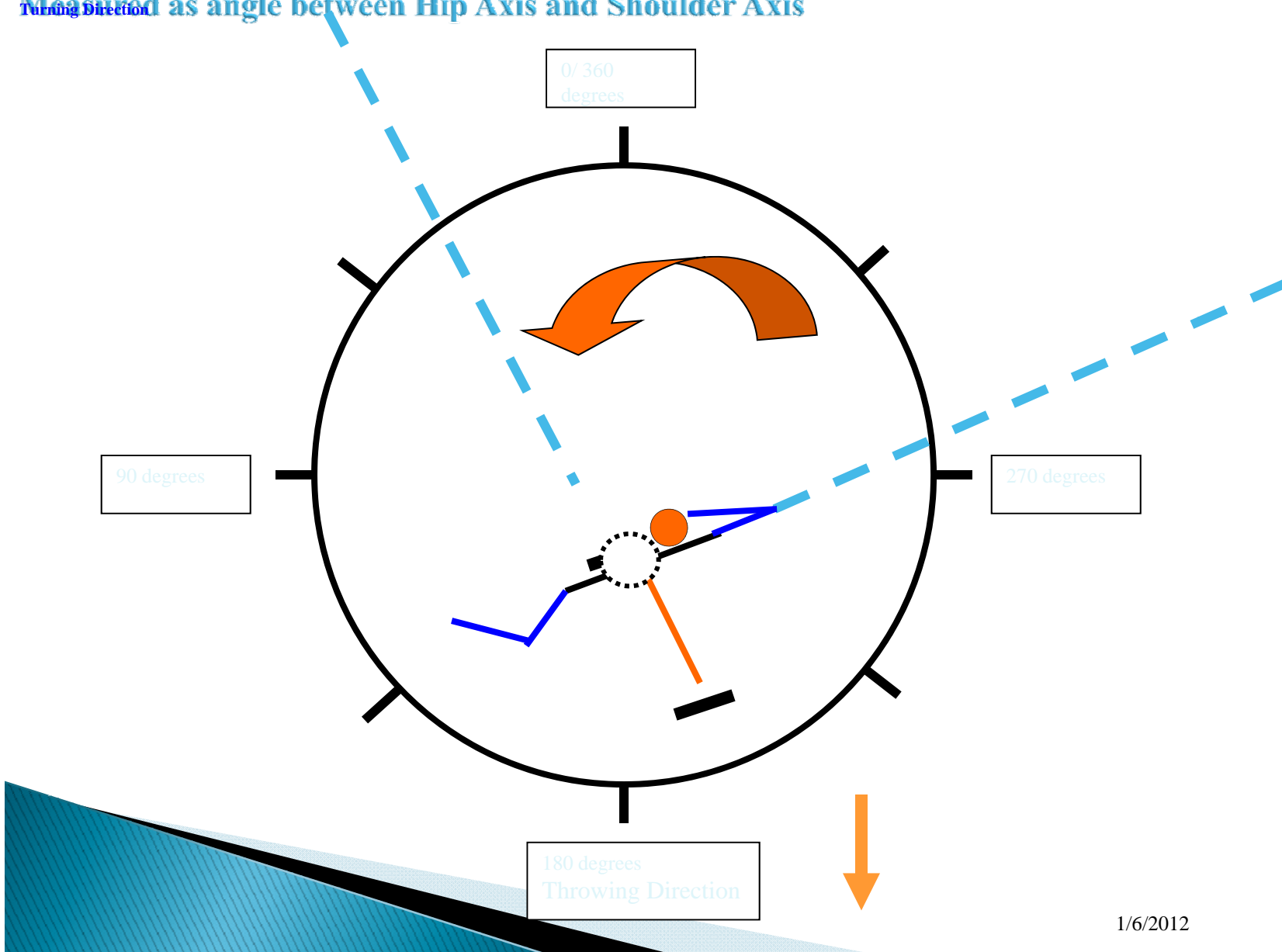


# Delivery Sequence

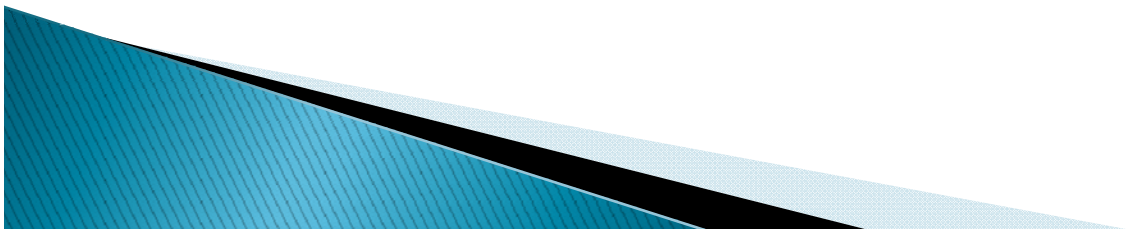
- In order to maintain torsion through delivery sequence, the initial action upon double support should be the free arm, and right side chain. This action should be performed without moving the free side/ left shoulder.
- Thrower should turn in the direction of throw while maintaining torsion between the hip and shoulder axis
- When the hip axis is near perpendicular with the throwing direction the thrower should actively unwind the torsion, while still maintaining the position on the implement.
- The final movement is an active turning/ jumping from the legs, followed by the slapping action once the ball has been lifted to above the head from this action of the legs.
- Keep the hand moving behind the shot, and try to maintain pressure/ contact as long as possible

# Torsion

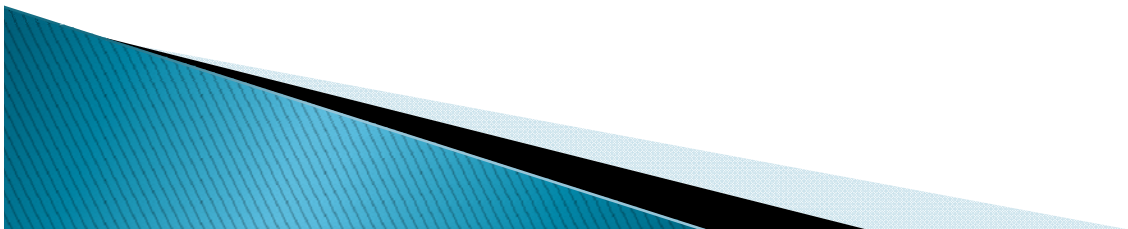
Measured as angle between Hip Axis and Shoulder Axis



# Plate Glides



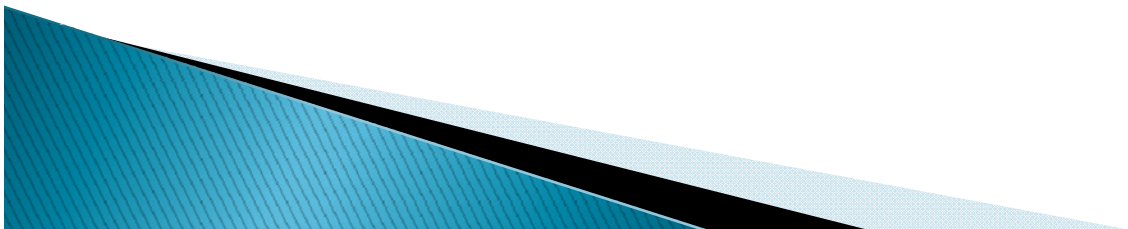
# Modified Plate Glides



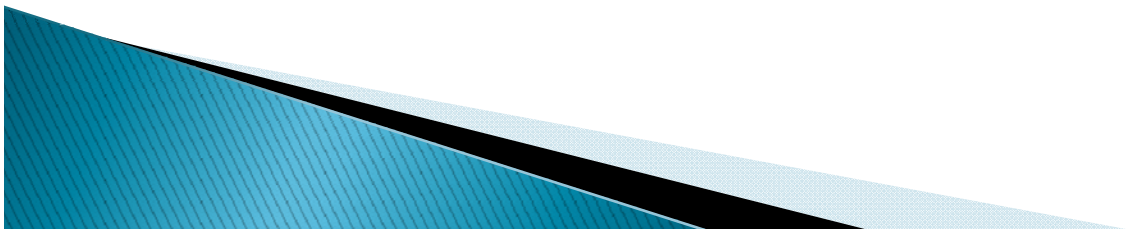
# Stop Drill Progression

- ▶ Entering the “T” Position from a standing start.
- ▶ “T” Position/ Slant “T”, and gaining stability.
- ▶ Lowering the CM to “Crouch” position (path of CM).
- ▶ Drive leg actions (toe/ heel), full extension & staying over the drive leg.
- ▶ Drive leg recovery
- ▶ Power Position
- ▶ Delivery Sequence

# Full Movement Drills



Delivery Sequence: standing throwing side kinetic chain, and glide w jerk





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