

DISCUS COACHING GUIDE



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2 | DISCUS THROW - INTRODUCTION

- ▶ The discus throw requires efficient technical execution:
 - ▶ Stable axis maintained throughout the throw
 - ▶ Proper alignment of forces with intended direction
 - ▶ Separation for elastic energy storage and release
 - ▶ Smooth acceleration and consistent rhythm

Goal: Develop an efficient, repeatable movement that maximizes the athlete's physical attributes while minimizing technical variables.

03 | SAFETY PROTOCOLS

CRITICAL

Never throw without checking area

CORRECTION

Always verify landing area is clear

PROCEDURE

Unclear throwing/retrieval rules

CORRECTION

Establish clear procedures from day 1

EQUIPMENT

Wrong implement weight

CORRECTION

Use experience appropriate weights

Coaches: Create a culture of safety from day one. Athletes should never feel rushed or pressured to throw when conditions are unsafe.

04 | HOLDING THE DISCUS

THE GRIP

Place Discus Edge of first knuckles or even less

ALIGNMENT

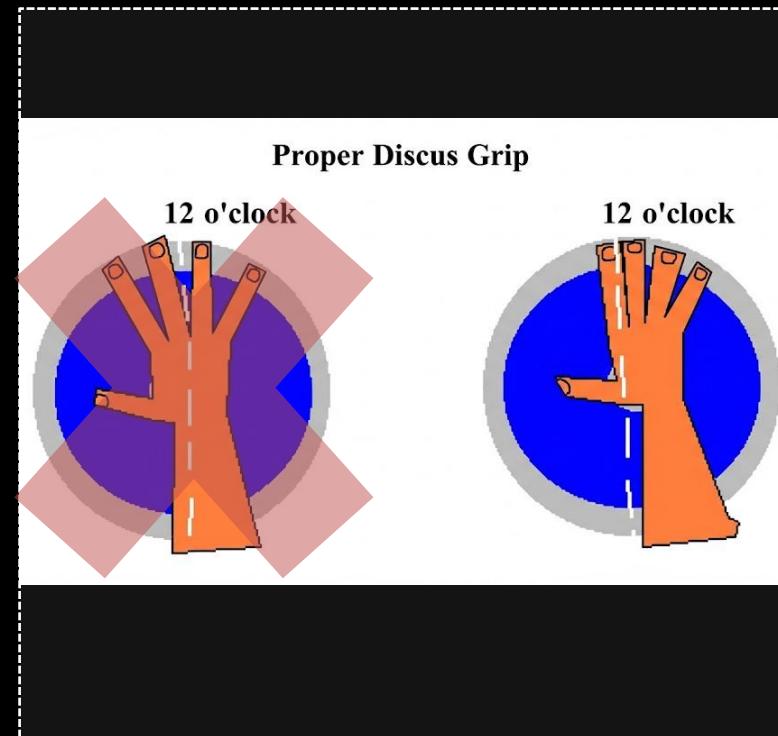
Find midline of Discus and place index finger there.

SUPPORT

Thumb and pinky provide balance and stability.

SPREAD

Fingers can be slightly spread for control.



05 | The Wind

POSITION

Arm sits 90 degrees off of ribcage

PRESSURE

Motion of the discus pushes the discus into your fingers.

ORIENTATION

Thumb points flat, can start “Pizza Style” to keep it in hand

Motion

Long, level movements often yield best results

ONLY ALLOW ONE WIND !



06 | RELEASE MECHANICS

THE ROLL

Roll the discus off of the fingertips, through the front of the hand

THUMB DOWN

Thumb and Palm stay flat

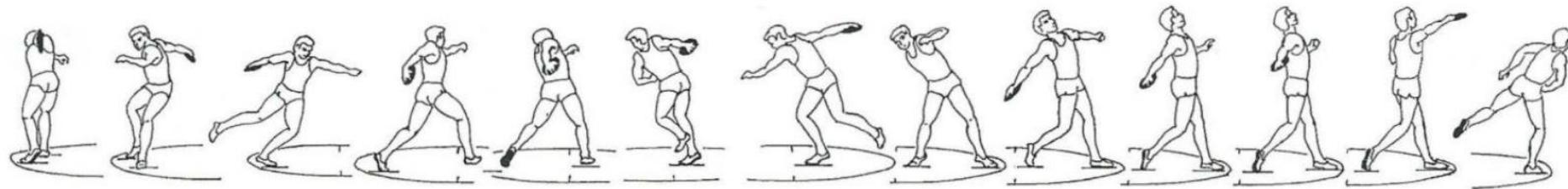
RELEASE ANGLE

Keep release angle flat, aerodynamics of the discus have a huge effect

BLOCK

'Block' the left side to transfer energy into the discus. Stay long through the movement





PREPARATION

MOMENTUM BUILDING

DELIVERY

RECOVERY

Start

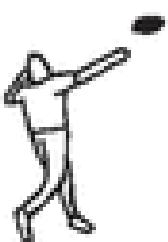
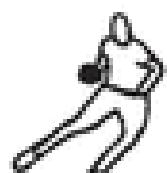
R_{off}

L_{off}

R_{on}

L_{on}

Rel



DSP1
1st Double support phase

SSP1
1st Single Support Phase

NSP
Non-support Phase

SSP2
2nd Support Phase

DSP2
2nd Double Support Phase



13 | ROTATIONAL TECHNIQUE - OVERVIEW

PREPARATION → MOMENTUM BUILDING → DELIVERY → RECOVERY

Key Phases:

- ▶ Double Support Start: Important for consistent setup
- ▶ First Single Support: Drive and swing leg action
- ▶ Flight Phase: Non-support rotation
- ▶ Second Single Support: Landing and pivot
- ▶ Delivery: Power position through release

14 | SYSTEM AXIS & POSTURE

FOUNDATION

Erect posture with hips tucked underneath.

STABILITY

Minimize lateral deviation (wobble) of axis.

MAINTENANCE

Maintain vertical posture throughout throw.

EXCEPTION

Axis tilt in power position for projection angle.



15 | ROTATION - STARTING POSITION

SETUP

Back of circle, facing away from throw direction.

WEIGHT

Weight shifts to create dynamic balance over single support.

AXES

Hip and shoulder axes remain horizontal.

WIND

Discus placed over the "Back Pocket"



16 | ROTATION - FIRST SINGLE SUPPORT

DRIVE LEG

Abbreviated but explosive drive phase.

PUSH-OFF

Longer push-off than Shot Put technique.

HEEL TUCK

Active 'heel tuck' and adduction as push completes. ("Kick The soccer ball down the sector line")

SWING LEG

Aggressive and dominant swing leg action.



17 | ROTATION - NON-SUPPORT PHASE

SWING LEG

Swing leg inverts at conclusion of kick-in.

FREE ARM

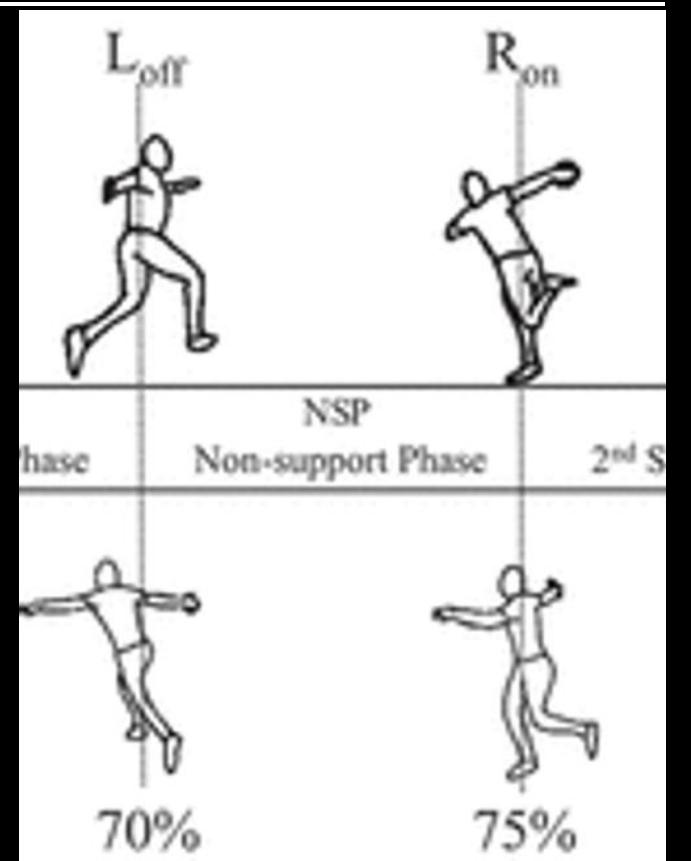
Hold Arm and chest back to maintain separation.

POSITION

Actively maintain position achieved in single support.

DRIVE LEG

Drive leg heel tucks underneath body.



18 | ROTATION – THROUGH TO FINISH

TIMING

Swing leg lands later than in shot put.

FOOT DIRECTION

Foot generally lands somewhere between 270–315 degrees.

CONTACT

Soft turning re-contact reduces friction.

SETUP

Sets up stretch reflex in swing leg for delivery.



19 | DELIVERY SEQUENCE

THE UNWIND

Turn in throw direction while maintaining separation.

TIMING

When hips through to middle/sector line, actively unwind.

POSITION

Keep position on axis during unwind.

ACTION

Active turning/pushing through the release into the targeted throwing location.



20 | SEPARATION AND ORBIT

SEPARATION

- ▶ Hip vs. Discus
- ▶ Maximizes throwing arm range of motion
- ▶ Stores elastic energy in arm/shoulder

AND

ORBIT

- ▶ Flow of the Discus
- ▶ Helps set up release
- ▶ Helps or Hinders significantly

21 | ESSENTIAL ROTATIONAL DRILLS

01

STANDING THROW

- ▶ Master power position
- ▶ Delivery focus
- ▶ No reverse

TARGET REPS

4-10

02

HALF TURN/PIVOT

- ▶ Rhythm and balance
- ▶ Chest and Eyes back

TARGET REPS

2-8

03

SOUTH AFRICAN

- ▶ Develop separation
- ▶ Arm path work
- ▶ Build torsion

TARGET REPS

4-8

04

WALL DRILL

- ▶ Balance into the middle
- ▶ Ensure air time

TARGET REPS

4-10

05

SINGLE SUPPORT HOLD

- ▶ Balance over left leg
- ▶ Push off right
- ▶ Beach Ball between legs

TARGET REPS

2-8

06

FULL THROW

- ▶ Complete movement
- ▶ Controlled finish
- ▶ Reverse and Non

TARGET REPS

0-8

23 | COMMON ROTATIONAL ERRORS

TIMING ERROR

Over-rotating in back

CORRECTION

Control turn on left leg

RECOVERY ERROR

Poor heel tuck

CORRECTION

Active drive leg recovery

BALANCE ERROR

Loss of axis/wobbling

CORRECTION

Maintain vertical alignment

LANDING ERROR

Landing too early

CORRECTION

Stay in air longer, quick feet

SEPARATION ERROR

Discus leads thrower/no separation

CORRECTION

Keep Discus back, check orbit

24 | SAMPLE PRACTICE STRUCTURE

- ▶ Warm-up/Mobility: Individualized to athlete needs
- ▶ Bowling: Wrist and finger release work (as needed)
- ▶ Standing Throws: Power position emphasis (4-10 throws)
- ▶ Half/Step-backs: Build toward full movement (2-8 throws)
- ▶ Full Throws (no reverse): Technical focus (8-12 throws)
- ▶ Full Throws (with reverse): Competition simulation (4-8 throws)

Note: Numbers vary based on season phase and athlete needs.

25 | EARLY VS END SEASON FOCUS

EARLY SEASON

- ▶ Higher volume of drills & low-level throws
- ▶ Technical refinement focus
- ▶ Strength training emphasis
- ▶ More standing/partial throws

VS

LATE SEASON

- ▶ Lower volume, higher intensity
- ▶ More full throws
- ▶ Competition preparation
- ▶ Maintain strength gains
- ▶ Competition weight implements, possible light implements
- ▶ Full throws with quality focus

26 | DEVELOPING YOUNG THROWERS

Coaching Philosophy:

- ▶ Break complex movements into simple segments
- ▶ Master each component before combining
- ▶ Use progression with lighter implements
- ▶ Emphasize controlled execution over distance goals
- ▶ Build confidence through successful repetitions
- ▶ Celebrate technical improvements, not just distance

Patient, systematic development creates technically sound throwers who avoid injury and reach higher performance levels.

27 | COMMON COACHING MISTAKES

BAD CUE

Saying 'go faster'

CORRECTION

Focus on technical execution

TRAINING GAP

Lack of strength training

CORRECTION

Power is essential - lift weights

VOLUME ERROR

Too much throwing (practice and meet)

CORRECTION

Quality over quantity always

GOAL ERROR

Outcome related goals

CORRECTION

Focus on process - it's controllable

PRACTICE ERROR

Fouling in practice / Too many cues

CORRECTION

0 fouls allowed / Keep it simple

28 | SLEEP, HYDRATION, NUTRITION

SLEEP

8-10 hours for high school athletes
- non-negotiable.

HYDRATION

Constant throughout day, not just
at practice.

NUTRITION

Adequate calories and protein for
power athletes.

REALITY

Perfect training + poor habits =
underperformance.

"An athlete who trains perfectly but sleeps 5 hours and eats poorly will underperform an athlete with good habits. These fundamentals are force multipliers for all training."

29 | TRANSFER OF TRAINING PRINCIPLE

'Only do things that make you throw farther'

Ask Yourself:

- ▶ Does this exercise improve power output?
- ▶ Does this drill improve technical execution?
- ▶ Does this activity help specific bio-motor abilities needed?
- ▶ Is there a direct connection to throwing performance?

If you can't clearly explain how an activity makes the athlete throw farther, don't waste time on it.

30 | SKILL ACQUISITION PROCESS

The Learning Continuum:

INTRODUCE → DRILL → INSTILL

- ▶ Introduction: Present the skill, explain the 'why'
- ▶ Stabilization: Occurs through repetition of movements
- ▶ Habituation: Through repetition of stabilized movements

Goal: Move skills from conscious execution → automatic execution through systematic practice.

32 | WHAT DETERMINES DISTANCE

RELEASE HEIGHT

- ▶ Limited by athlete's height
- ▶ Improved by proper posture

RELEASE ANGLE

- ▶ Optimal: 38-42 degrees
- ▶ Affected by technique

AND

RELEASE VELOCITY

MOST IMPORTANT FACTOR

- ▶ Determined by power output
- ▶ Where coaching has biggest impact

33 | RHYTHM AND TEMPO

RHYTHM

The pattern of movement - stays constant.

TEMPO

The speed of movement - can vary.

ANALOGY

Like music: rhythm stays same whether you play fast or slow.

GOAL

Consistent rhythmic patterns reduce breakdown under pressure.

Athletes should establish consistent rhythmic patterns that remain constant regardless of throw intensity. This reduces technical breakdown under competition stress.

34 | BALANCE AND POSTURE

'Posture precedes balance'

Foundation of All Throwing:

- ▶ Proper alignment of body's lever system
- ▶ Center of mass controlled relative to base
- ▶ Static balance: Stationary positions
- ▶ Dynamic balance: During movement
- ▶ Loss of balance inhibits force application and rhythm

35 | EFFECTIVE COACHING CUES

Examples of Good Cues:

- ▶ 'Throw with thumb down' - proper release
- ▶ 'Hips before shoulders' - maintains separation
- ▶ 'See your target' - helps direct energy

Simple, action-oriented cues often work better than technical explanations during practice. Competitions need to require even less coaching/tasks.

36 | USING VIDEO ANALYSIS

BEGINNERS

- ▶ Still frames or diagrams
- ▶ Less overwhelming
- ▶ Simple position checks
- ▶ One cue at a time

VS

ADVANCED

- ▶ Detailed video analysis
- ▶ Specific position focus
- ▶ Rhythm and timing checks
- ▶ Multiple data points

Remember: Video is a tool, not a teaching method. Use it to support your coaching, not replace it.

- ▶ Always pair video with specific, actionable feedback
- ▶ Don't overload athletes with too much information at once
- ▶ Limit video review at practice

37 | STRENGTH TRAINING FOR SHOT PUT

Essential Components:

- ▶ Lower Body Power: Squats, deadlifts, Olympic lifts
- ▶ Core Stability: Rotational strength, anti-rotation work
- ▶ Upper Body: Overhead pressing, rowing movements
- ▶ Plyometrics: Medicine ball throws, box jumps, bounds
- ▶ Explosive Work: Power cleans, snatches, Jerks/Push Press

Throwing is a power sport. Without a solid strength & athletic base, technical excellence has a ceiling.

38 | COMPETITION DAY STRATEGY

DAY BEFORE

- ▶ Minimal throwing - light technique work only
- ▶ 2 stands, 2 pivots, 4-6 throws, possibly w/ light ball
- ▶ Visualization and mental rehearsal
- ▶ Early bedtime, good meal, hydration

AND

COMPETITION DAY

- ▶ Standard warm-up routine (don't change it!)
- ▶ Limited warm-up throws - save energy
- ▶ Focus on execution, not distance in warm-ups
- ▶ Have a plan for each throw (first throw safe, build from there)

39 | MENTAL GAME

Building Mental Toughness:

- ▶ Visualization: See and feel successful throws
- ▶ Process Focus: Control what you can control (technique)
- ▶ Routine Development: Same pre-throw routine every time
- ▶ Confidence Building: Celebrate small victories in practice
- ▶ Pressure Training: Simulate competition scenarios

Throwing is as much mental as it is physical.

40 | QUICK TROUBLESHOOTING GUIDE

TRAJECTORY

Discus flying like a duck

CORRECTION

Don't lift discus, throw forward

DISTANCE

No distance despite good technique

CORRECTION

Likely strength deficit- lift

CONSISTENCY

Inconsistent throws

CORRECTION

Rhythm issues - slow it down

PAIN

Elbow/Shoulder pain

CORRECTION

Check elbow/Thumb position on release

FOUL

Fouling in meets

CORRECTION

0 fouls allowed at practice

41 | CONTINUED DEVELOPMENT

Keep Learning:

- ▶ Attend coaching clinics and certifications
- ▶ Study video of elite throwers
- ▶ Network with experienced throws coaches
- ▶ Document what works with YOUR athletes
- ▶ Don't be afraid to ask questions

Great coaches are lifelong learners.

COACHING PHILOSOPHY

'Introduce, Drill, Instill'

Focus on the process. Trust the progression.
The results will follow.

Visit us at **superthrower.com** for more
coaching/athlete resources and
eliteathleteinc.com for equipment