

# Javelin - Training the Basics

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## Grip

Firm but relaxed enough that the forearm doesn't tense up

Tight muscles negatively affect flexibility, and mobility, leading to improper form

Comfort is key to allowing for loose but powerful grip

### THE AMERICAN GRIP

The thumb and the first two joints of the index finger are behind the cord.



### THE FINNISH GRIP

The thumb and the first two joints of the index finger are behind the cord, while the index finger supports the shaft. The extended finger assists the rotation of the javelin during delivery.



### THE "V"-GRIP

The javelin is held between the index and middle fingers behind the cord. The position of the fingers assists the throwing arm in staying at shoulder height during the approach.



Stander, 2006

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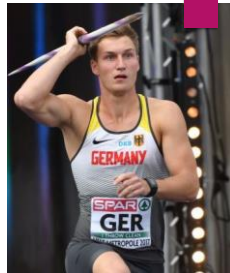
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## Carry

- ▶ Palm up
- ▶ Javelin parallel to the ground
- ▶ Arm at 90 degrees
- ▶ Javelin held at top of ear to top of head
- ▶ Javelin lined up in direction of throw
- ▶ Relaxed/comfortable grip
- ▶ Javelin held still



3

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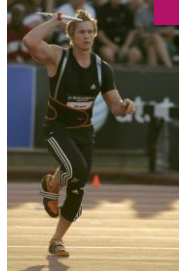
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## Approach

- ▶ Consistent build up/acceleration
  - ▶ Think of jumps approach
- ▶ Regular running mechanics
  - ▶ Hips and shoulders square
- ▶ Optimal speed
  - ▶ Maximum versus optimum
  - ▶ Best controllable speed
- ▶ Start short and gradually build
  - ▶ Repeatability is key
- ▶ It's all about setting up the throw



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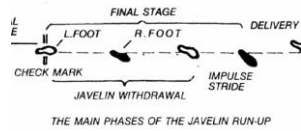
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## Drawback

- ✗ Keep palm up
  - ↳ Carrying a tray
- ✗ Pull javelin back while keeping it pointed ahead
  - ↳ Don't wrap it around behind
  - ↳ Think of it as running past the javelin
- ✗ Keep javelin parallel to shoulders
- ✗ Head and hips stay square
  - ↳ Left arm might start to extend as counter balance



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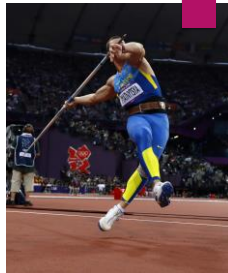
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## Crossovers

- ▶ Trunk and shoulders rotate to 90 degrees
- ▶ Hips rotate to about 45 degrees
- ▶ Slightly higher knee drive of throwing arm
  - ▶ Similar to karate drill
- ▶ Stay upright and centered
- ▶ Throwing arm foot turns slightly to drive knee



6

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## Penultimate

- ✦ Shortened step coming in to it
  - ✦ Think of jumps penultimate
- ✦ Strong knee drive of throwing arm
  - ✦ Flight phase of around javelin length is eventual goal
- ✦ Hips drive out front of shoulders creating backwards angle
  - ✦ Don't arch back to create false lean
- ✦ Javelin maintains parallel to shoulders position



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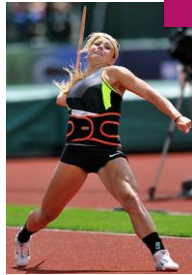
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## Plant

- ▶ Soft landing on leg of throwing arm allowing hips to drive over it
- ▶ Opposite foot plants as a brake
- ▶ Opposite arm blocks to hip
  - ▶ Think of opposite side like pole vault pole gathering energy
- ▶ Throwing arm stays back as long as possible in a relaxed state
- ▶ Throwing arm whips through fast and high



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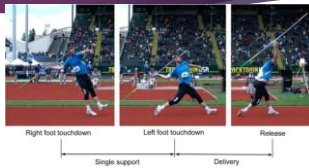
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## Release

- ✦ Utilizes the stretch reflex of the body
- ✦ Launch angle of around 35 degrees +/- 5
- ✦ Throwing arm hand rotates thumb down
- ✦ Follow through to the recovery phase



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## Teaching/Training Points

- ✘ Release speed is primary determinant of distance
- ✘ Start from the end and work back
- ✘ Rhythm, rhythm, rhythm
- ✘ Repeatable proper technique is key
  - ✘ Short approaches until its automatic
- ✘ Throw goes legs > hips > trunk > shoulder > arm > forearm
  - ✘ Like a trebuchet
- ✘ Throw through the hip
  - ✘ Practice makes permanent
- ✘ Drill, drill, drill
- ✘ Develop athleticism
  - ✘ Jumping event
- ✘ Mobility is key
  - ✘ Hurdle mobility and Shoulder ROM
- ✘ Med balls are fantastic
  - ✘ 2 hand over head
  - ✘ Single arm throws
  - ✘ Throw with hips and feel the stretch reflex
- ✘ Wickets for approach and penultimate
- ✘ Therabands for warm up and strengthening

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## Setting Up Training - Season

### Preseason

- ✘ Mobility - tough to add in season
- ✘ Strength - see above
- ✘ Coordination - speed ladder, dot drills, etc
- ✘ Med balls

### Early season

- ✘ Technique over short approaches at most
- ✘ Approaches without throwing
- ✘ Optimal number of throws varies considerably

### Midseason

- ✘ Put approaches and throws together
- ✘ Develop consistent approach and get marks
- ✘ Solid workload of throws

### Championship season

- ✘ Cut back on volume of throws
- ✘ Comfort and rhythm at increasing speeds
- ✘ Clean it up
- ✘ Confidence

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11

## Setting Up Training - Week

- ✘ Think of the athlete like a pitcher
- ✘ Don't throw hard often
  - ✘ only a couple of days per week
- ✘ Technique/easy throw days are like bullpen sessions
- ✘ Don't neglect the mobility work, the proprioception, the med balls, the weight room
- ✘ Let their body be the guide
  - ✘ Everyone is different so training is written in pencil

### Our typical week for the Javelin

- ✘ Monday: hurdle mobility, speed ladder, med ball/weight room
- ✘ Tuesday: heavy throw day, myofascial release
- ✘ Wednesday: approach work, hurdle mobility, proprioception, plyos
- ✘ Thursday: technique/easy throw day, med ball/weight room
- ✘ Friday: approach work, hurdle mobility, speed ladder
- ✘ Saturday: Compete
- ✘ Sunday: weight room, myofascial release

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## Finding Javelin Throwers

- ▶ Javelin throwers can be all shapes and sizes
- ▶ Speed, strength, coordination, and long levers tend to help
- ▶ Baseball/softball, volleyball, football, basketball, and tennis have positions that can lend themselves to javelin
- ▶ Softball throw early season to see who might have some undiscovered talent
- ▶ Talk to PE teachers too



13

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## Questions?

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