


Mechanics of the Pole Vault

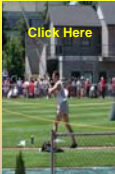
And Drills to Master these Techniques




Pat Licari
University of Washington
Track and Field

Pole Carry


- Shoulder wide grip (varies w/ height of grip)
- Top holds pole, Bottom hand stays under pole-elbow low
- Top hand starts on hip
- Shoulders stay square
- Relaxed carry, no pumping
- Pole tip drops 3-4 feet out (depends on runway speed)
- Carry balanced, back arm stays 90 degrees
- Click on pictures to watch videos



Click Here



Click Here





Drills for Pole Carry

Daily Drills:

- [Standing pole drop](#)
- [Marching pole carry](#)
- [Half speed pole runs](#)
- [Full speed Pole runs](#) (Relaxed, balanced pole carry)

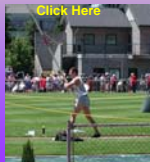
Extras:

- [Narrow grip pole runs](#) (Pole stays weightless)
- [Over speed pole runs](#) (Let pole drop and quicken)

Running Mechanics

- Big step back with take off foot forward, rock onto heel
- Sweep back foot- hips forward
- Body is set in a straight line position
- Powerful but slow rhythm to start (pushing)
- Stepping over opposite knee w/ dorsa flexion in feet
- Keep hips tilted forward (backside tucked)
- Run tall w/ a slight forward lean
- Rhythm quickens throughout
- Click on pictures to watch videos



Drills for Running Mechanics

All drills are done tall w/ slight forward lean-

Daily Warm Up Drill:

- [Warm Up Strides](#) (easy form running)
- [Stretch](#) (5-10 minutes)
- [Hip Tilt Exercises](#) (10 sec holds, 10 lifts)
- [Bracing](#) (toes up, bounce)
- [Butt Kickers](#) (cycling through)
- [A Skips](#) (step over opp. knee, toe up)
- [Alternate Fast Leg](#) (quick, but full range)
- [Continuous Fast Leg](#) (let off leg drag)
- [Double Fast Leg](#) (stay forward)
- [High Skip](#) (hips forward)
- [Speed Bound](#) (upright, no cycle)

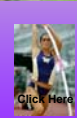
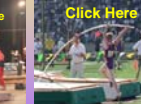
Extras:

- [Mini Hurdle Runs w/ Pole](#) (once no pole is mastered)
- [Mini Hurdle Vaults](#) (to transfer to the runway)
- [Hill Runs](#) (30-60 meters)
- [Hill Speed Bounds](#) (hips forward)
- [Sled Pulls w/ Pole](#) (Minimize pole movement)
- [Over Speed](#) (start w/ small pull and increase slow)
- [Activator Belt](#) (fast leg series and sprints)



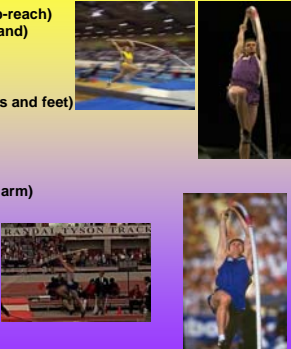
Plant & Take Off

- Plant starts w/ tip at eye level
- Top hand lifts w/ step to second to last take off foot
- Top hand wrist is flipped on contact of second to last take off foot, step is kept short
- Keep bottom hand under pole and let pole turn in hand
- Keep top hand close to body, along bodyline
- Top hand reaches up while stepping from penultimate to take off foot
- Lift-Flip- & Reach (Left-Right-Left, or RLR)
- Hips are driven over take off foot (punch knee)
- Vaulter is almost off the ground and top hand as high as possible when pole hits back of box
- Click on pictures to watch videos




Drills for Plant & Take Off

- Standing Plants (to eye level, lift-flip-reach)
- **Hurdle Plant** (pole rotates in front hand)
- **Back and Forths**
- **3 Stage Plants**
- **3 Stage Plants (no pause)**
- **Marching Plants** (Slow motion hands and feet)
- Half Speed Pole Runs w/ plant
- Full Speed Pole Runs w/ plant
- Mini Hurdle Plants
- Two mat drill w/Pole (lift/flip/reach)
- **Sliding Box** (avoid blocking bottom arm)
- **Bat Long Jumps**
- **Take Off foot placement drill**
- **Over The Tip**
- **One Hander** (reach, chest forward)
- **Bending one hander** (arm back)
- **Cone Drill** (lift to the cone)
- **High reach drill** (shoulder in ear)




Chest Drive and Swing

- Right arm high then back
- Keep left arm high with bicep in ear
- Drive chest as far forward as possible (C position)
- Trail leg stays straight and back far as possible
- After full C position is reached push left arm out (separation)
- Both arms then push out and down the pole
- At the same time the arms are working the trail leg is swinging
- The trail leg keeps swinging until feet are over the top of the pole
- Keep hands far away from body
- Click on pictures to watch videos



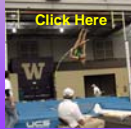
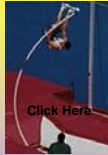
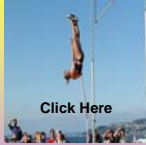
Drills for Chest Drive & Swing

- **One arm Elastic Bands**
- **Elastic Band Rows**
- **Pole Vault Swing** (2 quick steps, chest forward)
- **Flex Pole Drill**
- **High Bar swing** (push chest forward, push w/ hands and swing trail leg)
- **High Bar w/ weight** (once 10 is done)
- **Jump to High Bar**
- **Rings**
- **Wall Plants** (take off foot close to ground)
- **Push Plants** (spot under armpits)
- **Trail Leg Kick Back** (keep leg straight)
- **Trail Leg Kick Forward** (kick and continue)
- **Horizontal Vaulting Step 1** (finish w/ top hand on drive knee)
- **Baton Drill** (kick w/ trail leg foot)
- **Straight Pole Swings** (all the way behind pole)



Pull/Turn and Push Off

- Drop Shoulders and Pull- ¼ Turn
(Top arm stays straight & along leg)
(Bottom arm collapses & stays along side of body)
- Keep pole between body and the crossbar
- Drive Heels back
- Top arm bends and pulls finish turn, keep right hand close to body- second ¼ turn
- Finish push off with top hand
- Click on pictures to watch videos



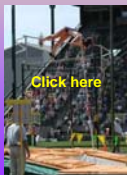
Drills for Pull/Turn and Push Off

- [First Half Pulley](#) (start w/ back flat, keep arm straight)
- [Full Pulley](#) (keep hands close to body, full ½ turn)
- [Horizontal Vaulting Step 2](#) (drop shoulders land on side, w/ top arm straight)
- [Horizontal Vaulting Step 3](#) (follow through to stomach, stay in straight line)



Bar Clearance

- Keep feet going vertical as long as possible
- Stay Hollow
- Elbows out, thumbs in
- Be Patient and Rotate
- Click on Pictures to watch videos



Drills for Bar Clearance

- [Bungee Crossbar](#)
- [Real Crossbar](#)



Good Luck This Season!