

How to Start a Beginner Pole Vault

Gabriel Brown

Quick Introduction

- Recent graduate of UNM
 - Masters of Science in Mechanical Engineering
 - Ex-collegiate Pole Vaulter (2 yrs during grad school)
 - Ex-Sandia HS Pole Vaulter
- Currently working in the Field of Semiconductors
- Coaching experience
 - High School (Sandia High, Eldorado, Hope Christian, etc.)
 - Club (UNM Vault Club, True Sky)
 - Summer Camp (Kiss the Sky Pole Vault Camp – link at presentation end)
 - Unique Opportunities working with peers and other professionals
 - Matt & Greg Hull, Brad Winter, Todd Lehman, Kurt Henry, etc.



Topics

Safety

Further Considerations

Basics

Technique and Cues

First day(s) Examples

Further Knowledge/Resources

Safety

Tied into Pole Vault Coaching Philosophy

- Overall Goal of Pole Vault (moving a lever from one side to another)

Don't rush

- Athleticism is not an excuse to skip fundamentals

Poles

- Size is not as important for beginners
- Teaching an athlete to bend should wait until after they consistently move a straight pole into the pits AND they can control a fall
- More resources on understanding pole size to come later

The Lifeline (The Top Arm)

Sport is about fun and competition. It's hard to have either when an athlete is injured.

- Athletes (especially in this sport) need to be thoughtful to stay safe and perform
- Quality over quantity in practice



Further Considerations



Athlete's Current abilities (athleticism)

More athletic = more physically demanding drills
(mostly)

How to tell? A warmup, drills, or workout.



Relationship: A familiar topic in a unique setting.

Trust and mutual respect

Lay foundation and build intentionally



Time span with athlete

Factors such as age or involvement in other activities
will affect the amount of time you have to explain
such a complex event.

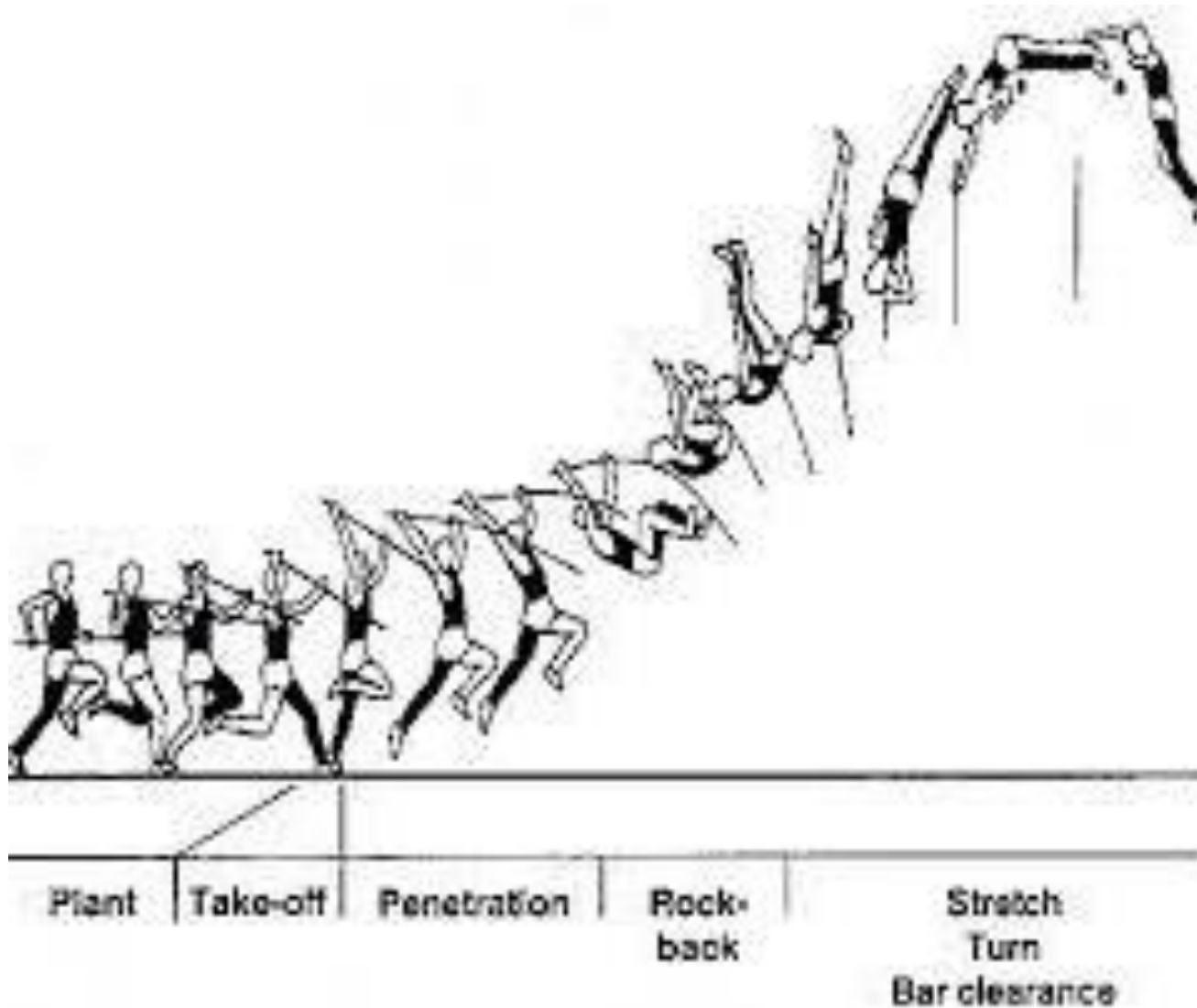
Don't get stuck on fixing a symptom.



Coachability

Can they listen?

Basics



- The Goal of Pole Vault
 - Move a lever from one side to another
 - How do we do this? We PUSH the pole!
 - Run Faster – Jump Higher – Reach Higher
 - Don't Pull – Don't sink – Don't Reach
 - Jump high
 - Achieved by; holding higher, improving technique, and getting in shape.
 - Be safe
- Slow is smooth and smooth is fast
- Start – Curl – Press
- The Approach
 - Athletes need to keep track of their approaches!!!
- The Takeoff
 - Being on (out and under)
- Slow – Fast – Slow

Technique and Cues: The Approach



- Cues: less plop and more plap!
 - Understanding and expressing the strange language of pole vault
 - Push (out of the back), get your feet down, punch the ground with your feet, be tall
- Posture: running but with a very large stick
 - We don't start in blocks, we built momentum
 - Higher high knees
- Rhythm: Speed at the takeoff
 - Good rhythm begets speed, posture, pole drop
- Mechanics: running efficiently
 - No reaching (displacing), dorsiflexion, Midfoot (ball of foot) landing, heel recovery
- Steps: Pole Vault Math
 - Have athletes keep track of their approach distances!
 - Quick math for stride length: $\frac{\text{Approach Distance} - \text{Takeoff Distance}}{\text{Number of Strides}}$

Technique and Cues: The Takeoff

- Cues: See “it”
 - Be tall, stretch, punch up, rip back on the track, push
- Posture: stretch
 - Top arm directly above the head (bicep by the ear)
 - Bottom arm height no lower than height of the forehead
 - No reaching
 - Drive knee
 - Pole loading occurs when the vaulters full weight is upon the pole
 - Pole Vault is a visual sport
- Penetration: Energy Transfer
 - Pole loading
 - Being “on time” – and the effects of “being late”
 - Leading with the knee and hips
 - Moving your hands – what this means
 - Trail leg
- Steps: Being “on”
 - Making a right angle with the athlete’s body and the ground
 - +/- 3”
- DON’T PULL





Technique and Cues: The Swing

- Cues: Keep Seeing “It”
 - See your feet, Fold the taco
- Action: Row
 - DON'T PULL (kind of)
 - Keep the pole moving. Pressure is kept through the top arm!
 - Keep the pole out in front and keep a neutral chest
 - The Rowing Motion
 - Pole Vault is a visual sport
- Penetration: Using the swing to move the pole
 - Pole loading
 - Being “on time” – and the effects of “being late”
 - Moving your hands during the swing
 - Trail leg – swing for the box
- Timing: Act Fast and Catch the Unbend
 - The pole will try to unbend during the jump. Good timing in catching this will allow for a better push off.



Technique and Cues: Shoulder Drop & Turn

- Cues: Again...Keep Seeing “It”
 - Stay tight, Keep pressure through the top arm, “Finish the jump,” Throw your hip into it
- Action: Take your time...beginner vaulters love to cut this part short
 - Okay, now you can pull (kind of)
 - Keep the pole tight (close to hips)
 - Throw your hip into it! < to turn
 - Pole Vault is a visual sport
- Penetration: Being Patient
 - Pole loading – pressure through the top arm
 - Letting the pole role past vertical
 - Being “on time” – and the effects of “being late”
 - Harder to catch the unbend
- Timing: Being Patient pt. 2
 - Patience in this phase will result in better hip height and higher grip

Technique and Cues: Push off

- Cues: Thumbs down and hollow out
- Action: Not much to say for beginners





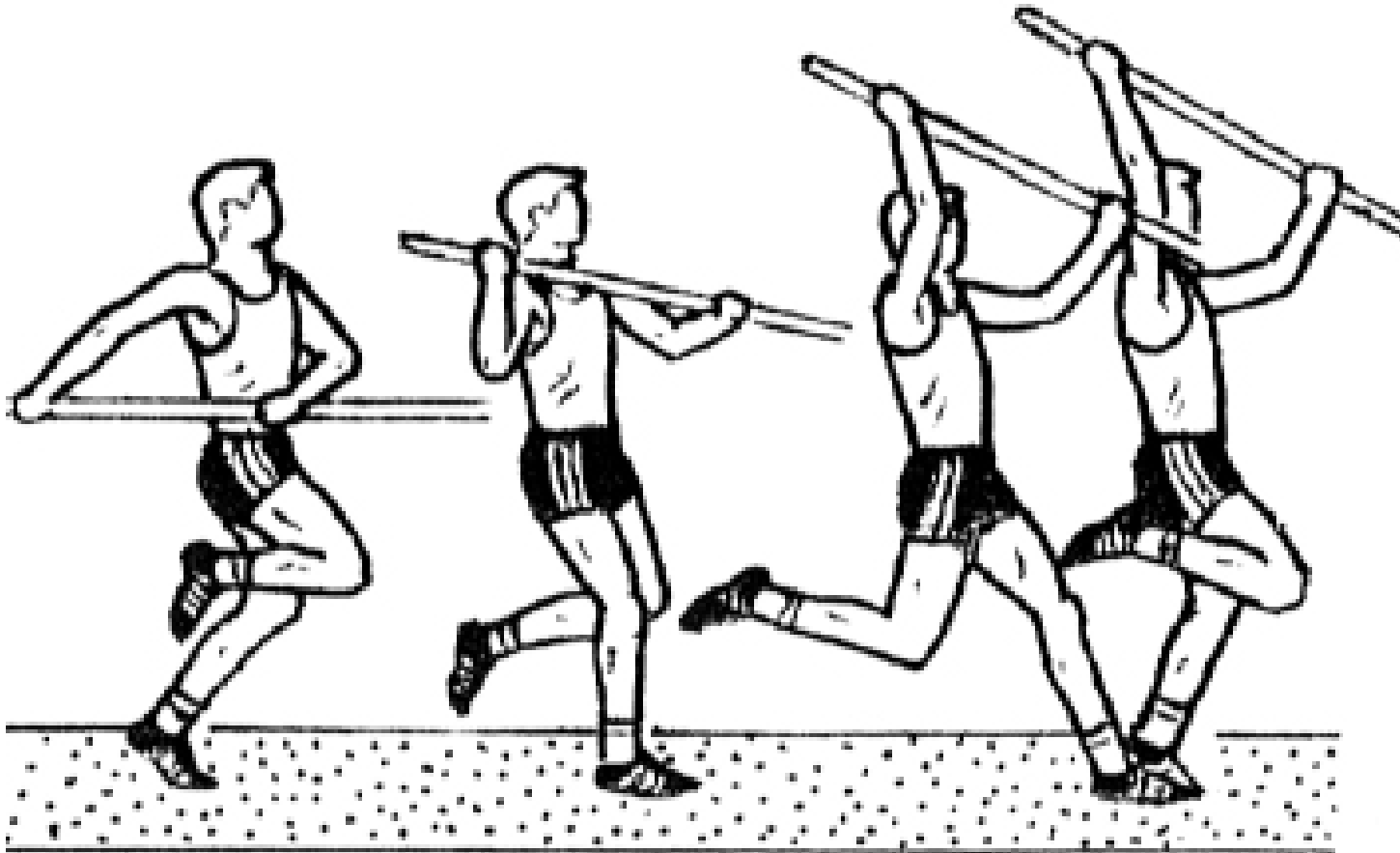
First Day(s) Examples: Drills

How to hold the pole



First Day(s) Examples: Drills

One arm drill on grass:
emphasis on feeling the
body's weight on the top arm
and stretching upwards



First Day(s) Examples: Drills

Start – Curl – Press

Match each word to a step!

Left – Right – Left

Right – Left – Right (if left
handed)

Drill intended to teach muscle
memory



First Day(s) Examples: Drills

Sand pit jumping

A nice way to introduce the sport of pole vault.

There is the benefit of making it much less difficult for an athlete to feel “out” or “under.”

This allows them to focus on technique.

Practice reaching up high and looking up at bottom hand.



First Day(s)

Examples: Drills

Pop up or Straight Pole Drills

As with the sand pit drill, this can be done with one arm as a warmup or to drill an athlete to emphasize top arm pressure.

The foam pads allow the athlete to add more components of the vault (swing, shoulder drop, turn)

Great drill for analyzing issues in an athlete's overall jump.

First Day(s)

Examples: Drills

Wickets

Experiment with distance between wickets.

Add pole carry and pole drop to complicate. Focus on rhythm and posture. Slow – Smooth – Fast

There are tables on distances online too!



First Day(s) Examples: Drills

Pole Drop Drill

Have the athlete practice allowing the pole to drop on its own while they try to time a plant (takeoff).

Allowing gravity to do the work of dropping the pole will help the athlete speed up their approach.



First Day(s)

Examples: Drills

Pole Plant Drill

Have the athlete use a small pole or crossbar to practice takeoff posture.

Emphasize eye posture and stretch upwards.

No need to leave the ground.

Just find a wall.



First Day(s) Examples: A Group of New Athletes

- Day 1: Warmup together – Learn how to hold the pole together – One arm drill on the ground – Start/Curl/Press – One arm into Sand pit (add steps and grip to advance) – Add start/curl/press to Sand pit jumps
 - Continue jumping like this until the athletes can fully trust their top arms and stop reaching for the ground with their legs
 - If the athletes reach this level within practice time, add one arm drill into pole vault pits
- Day 2: Warmup together – Review how to hold the pole together – One arm drill on the ground – Review Start/Curl/Press – Review Sand pit jumps – one arm drill into pole vault pits (add steps and grip to advance)
 - We're looking for the same thing as with the sand pit jumps here. Did it transfer over?
 - If the athletes reach this level within practice time, add start/curl/press to vault pit jumps
- Day 3: Warmup together – Review Start/Curl/Press – Review Sand pit jumps – one arm drill into pole vault pits (athletes need to start remembering grip as well as approach) – start/curl/press jumps into pits – add swing (land on butt)
 - If the swing looks consistent and the athletes are touching hands to feet, add shoulder drop (land on back)

Over time there will be less review on start/curl/press and sand pit jumps and more on running mechanics and more advanced drills. However, these should be reviewed from time to time.

First Day(s) Examples: A Group of New Athletes

- Day 4: Warmup together – one arm drill into pole vault pits – start/curl/press jumps into pits – add swing and shoulder drop (pop up) – Continue to adjust grip and step, helping athlete to proper pop-up technique.
 - If athletes show promising technique, add quarter, half or full turn. No bungee = land on stomach. Bungee = land on back.
- Day 5: Warmup together – one arm drill into pole vault pits – pop up drill – Continue to adjust grip and step, helping athlete to proper pop-up technique – Add bungee for a target
- The “days” offer a general progression to follow. This progression can be slow, but I have noticed fewer bad habits with careful effort to solidify the fundamentals. I recommend a slower progression with a focus on ensuring fundamental technique is solid.

First Day(s) Examples: New Individuals

Athletes often come to pole vault once there is already an established group of vaulters at various levels. Generally, I try to have them follow the progression I have just shown, but it can be difficult given the circumstance.

- If it is preseason or early season, I usually have the whole group review the basics anyway.
- If it is midseason, I will teach new athletes while the others complete a warmup or workout.



First Day(s) Examples: Clarification

On clearing a bar/bungee.

Turning is preferred! The timing of this is hard to figure out as a beginner vaulter.

Try a turn before a bungee/bar is given. Encourage the athlete to land on their side or stomach.

Once the bungee/bar is up, they will realize the entire movement is done over a shorter period than they thought.

Allow for ample time to practice clearing bungees/bars belly down. If they want to clear the bar with their stomach facing the sky, lower the bar or take it down. Avoid practicing a bad habit if you can.

Further Knowledge/Resources

Pole Vault Coaching Series (YouTube channel)

- <https://www.youtube.com/channel/UCFgcRzxxJqOIBBQ5UkvKOyA>

Team Hoot Pole Vault (YouTube channel)

- <https://www.youtube.com/c/TeamHootPoleVault>

Pole Vault Toolbox (literature)

- <https://team-hoot.com/products/pre-order-the-pole-vault-toolbox-book>

Pole Vault Pole Flex Numbers (YouTube video)

- <https://www.youtube.com/watch?v=i8zVchIzWzw>

How to do a pop up

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