DEVELOPING A HEALTHY TECHNICAL PERCEPTION

Evaluate your Technical Perception

>what stood out in your mind the most when you first started watching someone vault?
>what do you feel yourself doing when you are trying to clear higher heights?
>what did you think was the most important strength exercise when you first started?
-Some of your earliest concepts of the vault still determine how you vault today!

Common misperceptions

Inconrrect Perception	Correct Perception
work harder to run faster	relax more to run faster
use quicker strides to run faster	use a quick & complete stride to run faster
pull with arms and curl up to swing up	swing hips&extended rowing motion to swing up
swing up off ground to invert	push pole towards vertical then swing up to invert
pull hard with arms to clear higher bars	drop shoulders and closeoff hard to clear bar

Reprogram your Technical Perception

1. Develop an understanding of the important concepts of the pole vault.(study event)
2. Watch pole vault videos and internalize (imagine how it feels to execute it that way).
3. Drill to experience the feeling of specific parts or combinations of parts in the vault.
4. Visualize the feel of a perfectly executed vault
    a. Dub in feelings from drills and videos.
    b. Visualize progressively from the approach.
    c. Add parts until your finish the whole vault.

Develop a ritual for concentration

1. Observe- observe the surroundings and the situation at hand (general focus)
2. Strategy- verbalize or think of the correction (technical?) needed to clear the bar.
3. Visualize- imagine a perfectly executed vault (specific focus).
4. Cue- a word or phrase to set the tone of the vault. (relax, trust, go, etc.)

Sprint Speed Perception (power to speed - 1st gear first) and the basics:

1. Tuck the hips
2. Line the heels
3. Stride completion
4. Dorsiflexion (toes up)
5. Relax

Plant-Takeoff Perception (spring up & push pole to vertical) and basics:

1. Plant timing
2. Pole tip
3. Plant path/actions
4. Final position

Swing up & invert perception (swing hips, drop shoulders and extend into fly-away)

1. Swing hips (not just legs)
2. Attempt long arc with hands while swinging hips
3. Extend and close to launch the hips vertically (no pulling with arms)

Common problems of most High School Vaulters

Problem	Correction
Run harder to run faster	relax to run faster
Quicken your strides	Quick complete strides
Running flat-footed	Keep toes dorsiflexed
Round house plant	Plant path (phone call)
Leaning forward on the plant	Keep hips tucked
Long stride on take-off	Come over the top of the foot (skate board)
Swing off the ground to invert	Move the pole to vertical then row to invert
Pull hard to clear the bar	drop shoulders, close off hard (no pull)
Landing to the sides	Plant alignment

SPEED DEVELOPMENT

A. Two variables influencing speed
- -Stride length
- -Stride frequency

B. Sprinting at maximum speed is like shifting a car into 4th gear
- -Many athletes just don't realize they have a 4th gear.
- -Most athletes don't know how to get into 4th (stuck in 3rd).

C. Tapping into higher gears requires skill (technical, physical & mental).

D. Why can't an athlete hit maximum speed?
- -Speed perception (quick strider, overstrider, high effort strider)
- -Technically > the touchdown creates more deceleration than the drive phase can compensate for.

E. The ultimate skill is pawing (it minimizes deceleration at touchdown)
- -Pawing should <u>not</u> be taught (it is a dependent skill) trying to teach it may delay progress or create more problems.
- -As a dependent skill, pawing relies on 2 others skills;
  1. High Knees
  2. Sprinting tall

F. High knees is also a dependent skill and relies on 4 other skills;
1. Tucking the Hips
2. Lining the Heels
3. Stride Completion
4. Dorsiflexion

G. Sprinting tall is an <u>independent skill</u> (just do it).
- -It is a skill that doesn't rely on other skills for proper execution.

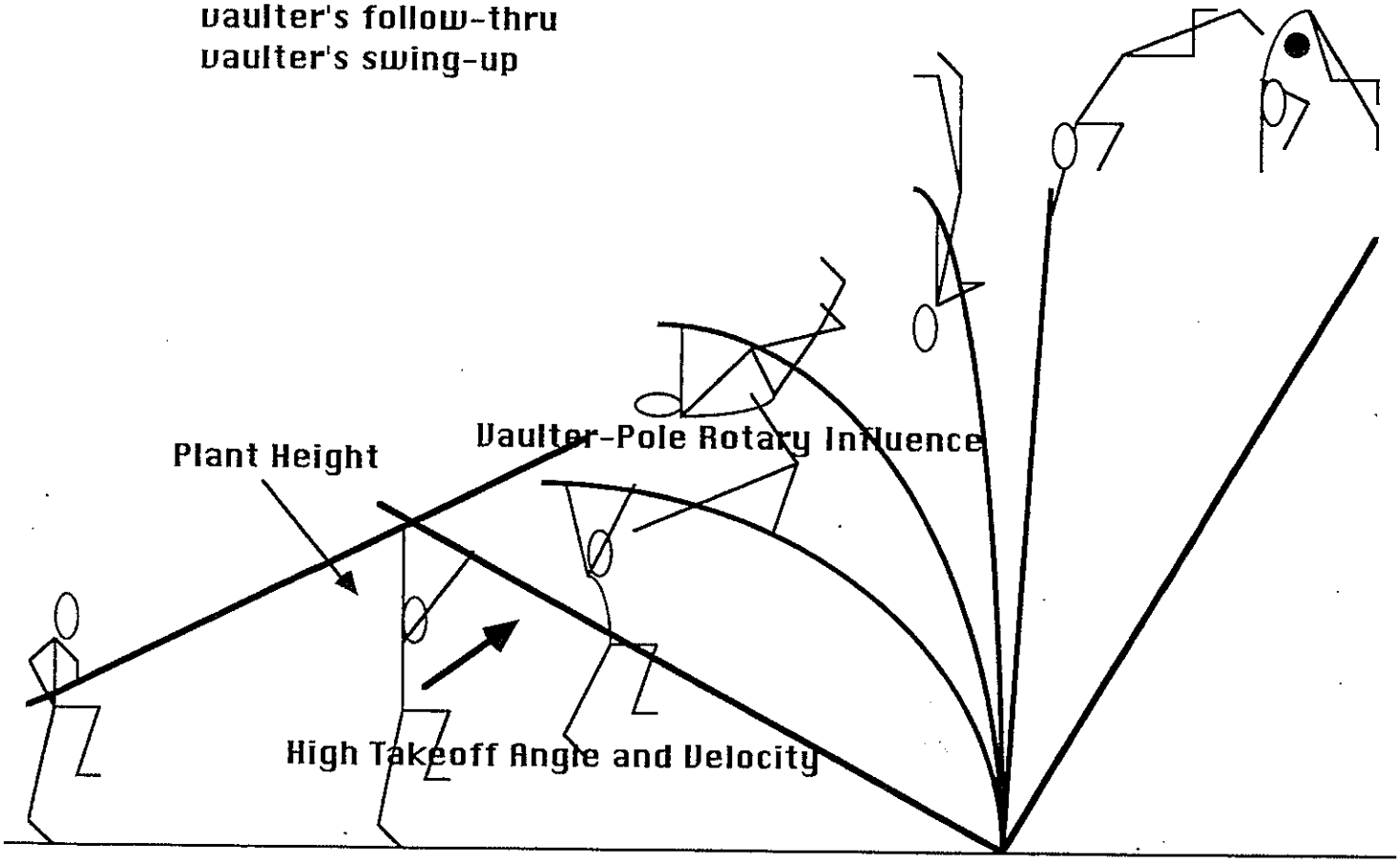
H. How can an athlete tap into his/her 4th gear?
- -Create the proper sprint model.
- -Practice it correctly at high speeds often.
- -Develop good speed endurance.

1. Plant Height
   - pole grip and carry
   - plant timing and action
   - plant position
   - takeoff angle and point

2. High Velocity Takeoff
   - approach velocity
   - takeoff point and action
   - plant extension

3. High Angle Takeoff
   - takeoff preparation
   - takeoff point and action

4. Vaulter-Pole Rotary Influence
   - size of bend
   - vaulter's follow-thru
   - vaulter's swing-up

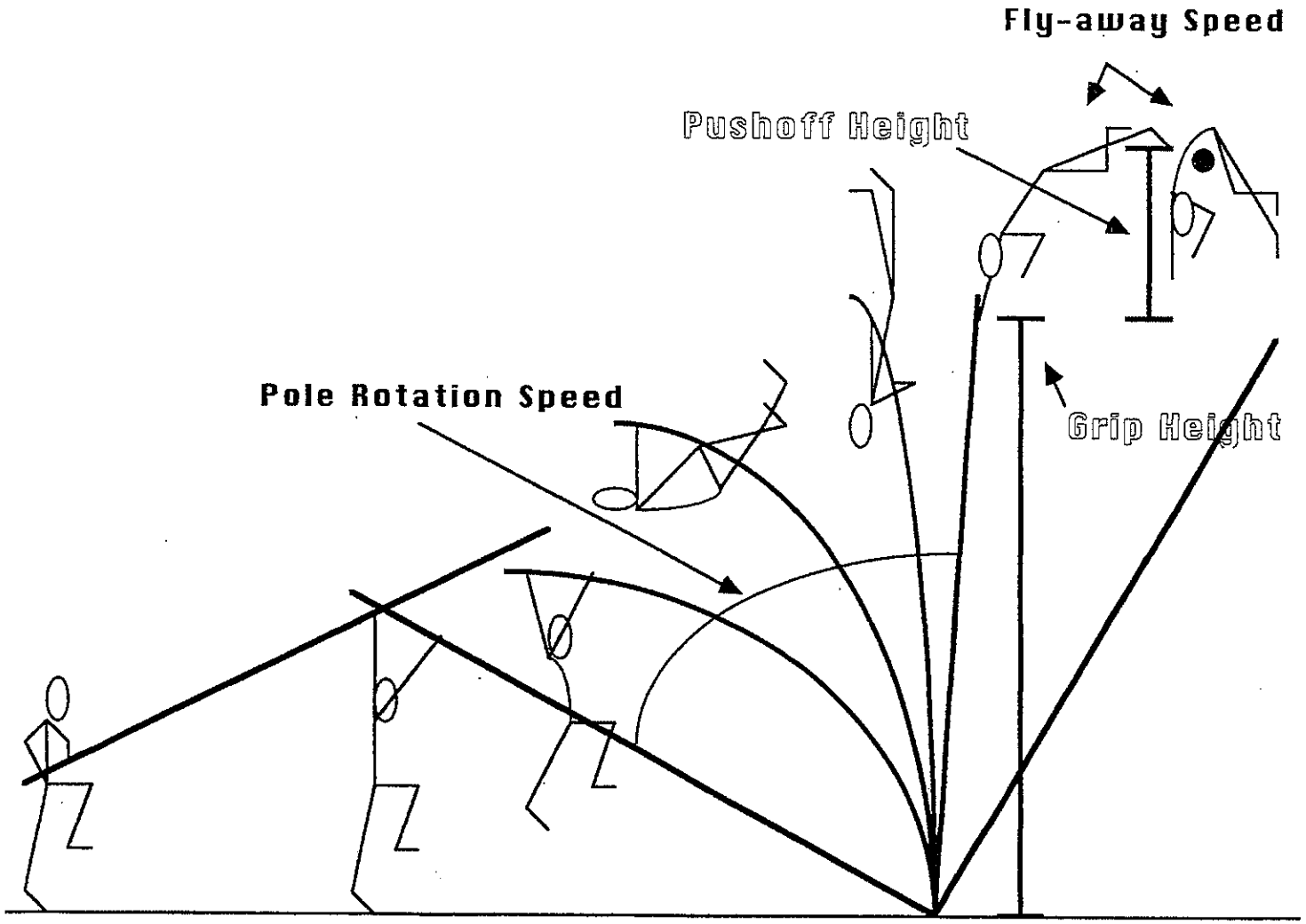


GRIP HEIGHT FACTORS

Vaulter's primary goal- to develop optimal grip height and pushoff height in an effort to gain maximum total height.

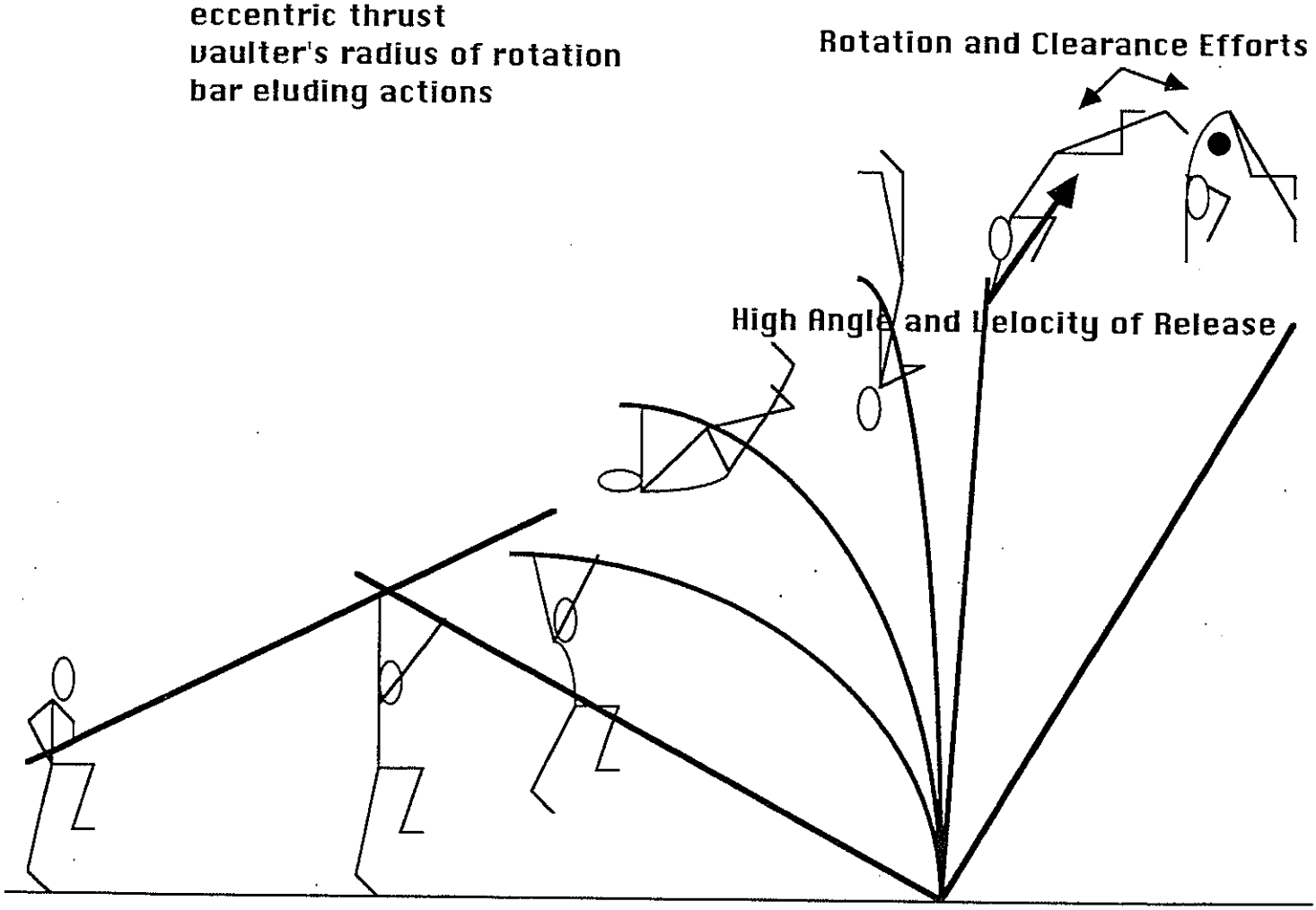
Grip height- is influenced by the athlete's ability to maximize the pole's rotation speed.

Pushoff height- is influenced by the athlete's ability to produce fly-away speed and clearance.



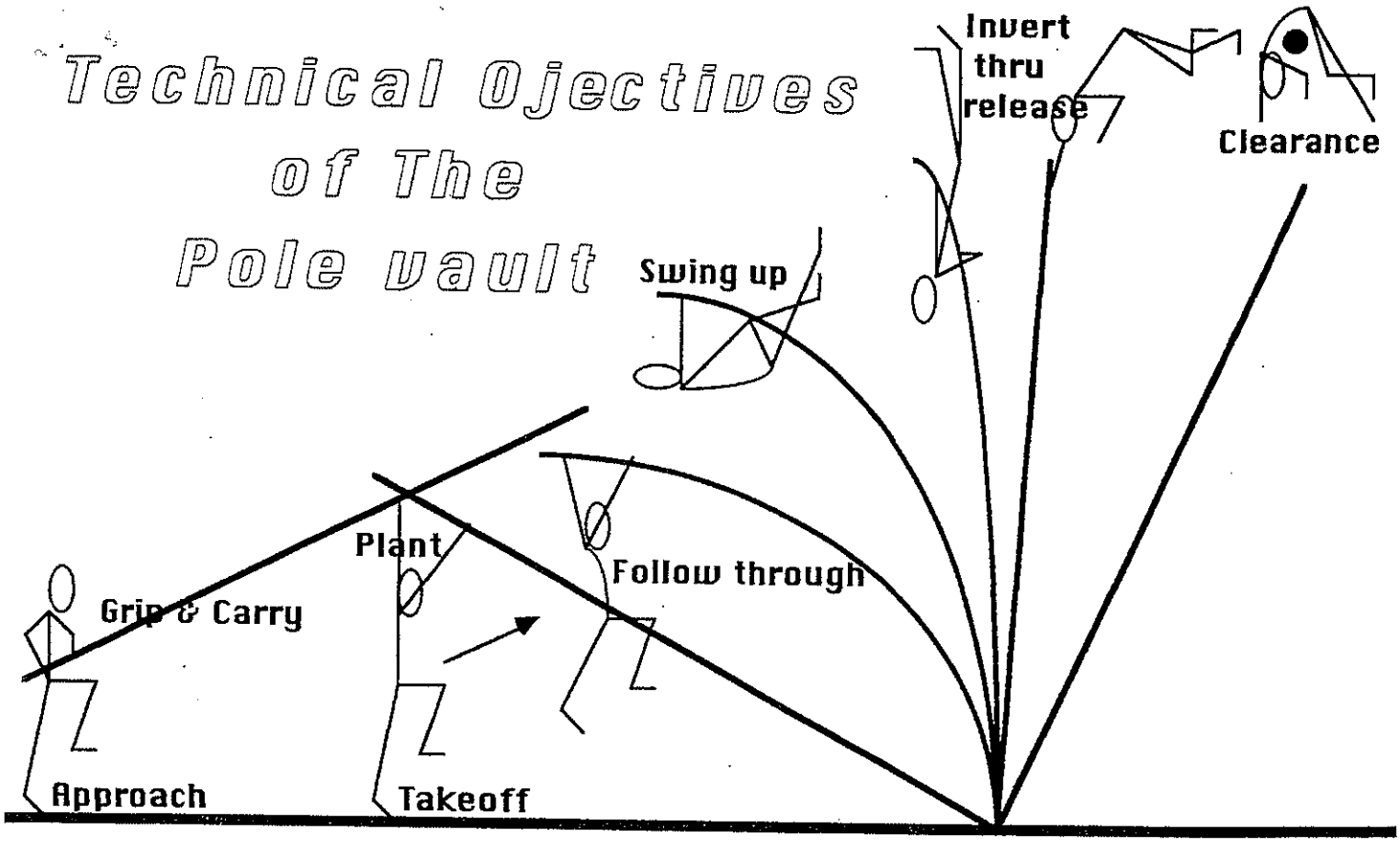
Grip Height and Pushoff Height

1. High Angle Release
   - swing up
   - invert action/position
   - closeoff thru release
2. High Velocity Release
   - swing momentum
   - pole thrust (P-V differential)
   - invert-thrust timing
   - thrust-pull timing
   - pull-push timing
3. Rotation and Clearance
   - eccentric thrust
   - vaulter's radius of rotation
   - bar eluding actions



PUSHOFF FACTORS

Technical Ojectives of The Pole vault



GRIP & CARRY
1. Handspread shoulder width apart
2. Front hand thumb under pole (knuckles up)
3. Back hand at hip level (position elbow out)
4. Keep shoulders square to direction of run
5. Lower tip gradually
6. Pole tip head to chest level 2 strides out

APPROACH
1. Hips tucked and back straight
2. Strong, driving, slow rhythm start (forward lean)
3. Gradual increase in rhythm and speed into T.O.
4. Line heels to a point under the buttocks
5. Toes up with each stride (dorsiflexion)
6. Upright posture at top speed prior to T.O

PLANT
1. 2 stride plant timing
2. Lift both hands in straight line to final position
3. Keep top hand close to the body during the plant
4. Both arms extended prior to impact
5. Top hand directly above front half of the head
6. Bottom hand above head level

TAKEOFF
1. Keep hips tucked and trunk upright into T.O.
2. Sprint tall and increase rhythm into takeoff
3. Pre takeoff foot and takeoff foot planted flat
4. Spring upward through extended arms and pole

FOLLOW THROUGH
1. Follow through with the upward reach of the plant
2. Allow the arms to drag behind the head
3. Follow through with the takeoff position
4. Delay the swinging the trail leg upward
5. Follow through with the angle. created at T.O.

SWING UP
1. Transfer swing up effort through the shoulders
2. Focus on swinging the hips (not the legs)
3. Create an extended rowing motion with arms
4. Swing a bent lead leg
5. Keep an extended trail leg (break at the hips)

INVERT THROUGH RELEASE
1. Continue rowing motion with top arm (closeoff)
2. Drop shoulders and extend legs & trunk upward
3. Allow the bottom arm to flex-in (give in to pole)
4. Keep the top arm straight
5. Wrap lead knee around top hand while inverting.

CLEARANCE
1. Finish full turn over bar
2. keep legs together
3. Position the body at 90 degrees to bar
4. Hollow out trunk & arms when clearing the bar
5. Point thumbs toward body
6. Swing arms in a wide circle around the bar
7. Throw head & shoulders back after abs clear bar