

# High Jump Technique For High School Athletes

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Pre-Season training—Train with long jumpers and sprinters. Warm up before all sessions; jog, dynamic warm up and stretch.

## I. **First Day of High Jump Practice**

Two to four weeks after the first day of practice and depending on the date of the first meet. Hopefully two to four weeks before the first meet. If there are many jumpers, utilize the experienced jumpers to demonstrate and help with the new jumpers. The numbers will thin down over time.

A. **Find the take off foot**—If the athlete hurdles, long jumps, or plays basketball ask what leg they take off from or do a lay up with. This is their take off leg. If not, have them stand still, go behind them and push. The foot they put forward is their take off foot/leg. Another option is have them run and jump off one foot on the ground. The leg they take off of will be their take off leg.

B. **Tell the athletes about the high jump**—Teach only the basics! Keep it simple.

1. **Approach**: Very important. The goal is to be consistent. Repetition is key.

- a. **Number of steps**—Use a ten step approach. If an athlete is very tall, fast, strong, older, and experienced they can do twelve steps.
- b. **“J” curve (1)**—Five steps on the straight and five steps on the curve.
- c. **Stay tall**—Stand tall and on the balls of the feet.
- d. **Run slow to fast** like a bowling ball going down hill; smooth, building speed with each step.
- e. **The last step**—The last step is the fastest step.

2. **Take off**

- a. **Take off on one leg**—If take off leg is the left then approach from the right side. If take off leg is the right then approach from the left side.
- b. **Plant foot location**—This will vary depending on the jumpers height, speed and jump style. Stand arms length from the inside of the near standard (if they come from the right, the right standard). Put the wrist up to the bar and arm out straight.
- c. **Plant foot direction (2)**—Not parallel with the bar but pointing towards the opposite standard.
- d. **Drive knee up (8)**—Drive the opposite knee of the take off leg up.

3. **Over the bar (3)**

Head goes back, arch your back and close completing the jump.

## C. **Drills**

1. **Bridges or Arches**—Lie on back, press up on arms and legs, head back, press hips into the air, and arch back. Hold for three seconds. Do before all jump sessions and meets.

2. **Walking drills**—Stand tall, on the balls of the feet, lift knee up, whip lower leg out and down like riding a bicycle. Don't pound the ground. Do these before each jump session until they get the hang of it. It might take three to

four weeks. This is not easy! Incorporate arms after a session or two. Arms should be at a right angle and swing freely. Go 15-20 yards x 4 reps.

3. **Three step pop-ups**—First teach them going in a straight line then progress to going in a circle. Stand tall, take a couple of jogging steps then do the last three steps of the approach. The last three steps are on the heels; light, quick, and use the arms (keep at a right angle), popping up off the ground. Don't pound the ground or force it; it's at fifty to seventy-five percent effort. When doing the drill in a circle, lean in slightly. The sound is ba, BA, BAA (each step is quicker). Work rhythm, take off up, and light. Do three sets of five pop-ups. Switch directions and do two sets off the other leg.
4. **Box drills(4)**—Use an 18" plyometric box. This drill is about timing, mental toughness, and focus. Place the box in the center of the bar, a few to several inches away from the bar. Have them stand in the center of the box with their back to the bar, bend knees and drive arms up. Then jump up, and at the top of the height the head goes back, and the back arches; hold arch, and close. If they have trouble arching try different cue phrases: "squeeze your butt cheeks together, squeeze your shoulder blades to the pit, press hips to the sky, and pinch a quarter with your bottom." To close the jump, bring chin to the chest. Make sure the athletes don't fall back into the bar. They should concentrate on going up, pushing up with their feet and toes. Once they're proficient at this drill, have contests seeing who can jump the highest or the most over their height.

#### D. Finding marks

1. **Placement of checkmark(5)**—Typically this should be ten to fifteen feet to the side extending from the nearest standard. The distance depends on the athlete's age, height, speed, strength, and sex. Girls max out at about twelve feet in high school. The taller, faster and stronger they are the further out the checkmark will be. Put a piece of tape to mark spot.
2. **Distance to the start of the approach(6)**—To get an idea where to start, have them start from the take off point (arms length from the nearest standard), and do a reverse approach. Mark the tenth step. Double check to make sure they didn't go too wide, and make adjustments within 10'-15' from the nearest standard. Put a piece of tape to mark the start position.
3. **Adjust Steps**—Adjusting steps will be necessary in the beginning.
4. **Measure steps(7)**—After a few jump sessions measure their steps with one long tape measure-approximately 150'. Measure from the near standard, inside edge of the post holding the bar. It's important to hold the tape measure at the same place each time. Measure in a triangle starting from the post on the standard, to the side check mark, to the starting point and back to the post. It'll take three people to do this. This will insure a consistent mark each time. Keep a record of the mark and give the athlete a copy. I have them store the marks into their phone; they're never without their phones!

#### E. Run approaches

1. Consistency, repetition, speed, consistency, repetition, speed.
2. Six to twelve approaches for every jump session, and five to six at a meet.
3. Do not take off of the ground.
4. Continue the approach running away from the bar and not into the pit.

5. Focus on good rhythm, slow to fast, building speed on every step, and every step progressively faster; don't slow down on the last step.

## II. Future Jump Sessions

- A. **Warm up**—Jog, dynamic drills, stretch, 5-6 strides, jump drills and 8-12 approaches.
- B. **Short approach jumps**—Five steps. Depending on when the first meet is it's best to stay on short approach jumps for several sessions but time often doesn't permit this. I prefer quality to quantity. Focus on one specific area per jump session; quick take off, punching arms up, knee drive, etc. If doing strictly short approach jumps do 12-15 repetitions. One session can be 4-6 short approach jumps and 6-8 full approach jumps, and another can be two short approach jumps and 10-12 full approach jumps.
- C. **Full approach jumps**—The goal is to run as fast as they can, in control, having proper body position and the strength to convert the speed into upward momentum. Begin after a few short approach sessions. Start with 6-8 jumps, then work up to 10-12 full approach jumps.
- D. **Advanced technique information is in italics.**
  1. **Approach**—Very important. The goal is to be consistent with lots of repetition.
    - a. **Number of steps**—Use a ten step approach. If an athlete is very tall, fast, strong, older, and experienced they can do twelve steps.
    - b. **“J” curve(1)**—Five steps on the straight and five steps on the curve. *Where to look: for the first five steps look ahead at the tape check mark 10-15' to the side, at the start of the curve, look at the top of the far standard.*
    - c. **Stay tall**—Stand tall and on the balls of the feet. *The last three steps are on the heels of the foot.*
    - d. **Speed**—Slow to fast like a bowling ball going down hill; smooth, building speed with each step. The key is to have maximum velocity at the point of take off.
    - e. **The last step**—The last step is the fastest step.
  2. **Take off**
    - a. **Take off on one leg**—If they approach from the right side their take off leg is the left. If they approach from the left side, their take off leg is the right.
    - b. **Plant foot location(2)**—This will vary depending on the jumpers height, speed and jump style. Stand arms length from the inside of the standard (on the side of their approach-if they come from the right, the right standard). Put the wrist up to the bar and arm out straight.
    - c. **Plant foot direction**—Not parallel with the bar but pointing towards the opposite standard. *The foot rolls heel to toe, not pounding or blocking into the ground.*
    - d. **Drive knee up(8)**—Drive the opposite knee of the take off leg up. *Drive knee slightly across the body. Try holding the knee up.*
    - e. **Arms(9)**—Both arms come up in a block position, at a right angle and punch up. *The arm closest to the standard punches slightly across the body. They stop at a right angle and gently fall to the side.*
  3. **Over the bar (3)**

Head goes back, *hips come up*, arch your back, *hold the arch* and then bring

*the chin to the chest in order to finish or close the jump. Landing is on the shoulders and the upper middle of the back. The goal is to jump over the bar at the center point.*

### III. Typical Technique Troubles

#### A. Leaning into the bar

1. Do a three step walking approach drill. Focus on movement up and away from the bar. The knee comes across the body and stays up, arms in a right angle punch up, lean your body slightly away from the bar, roll feet from heel and extend up on the toes, and away from the bar.
2. Do short approach jumps while placing something in the opposite hand of the take off leg, make sure it's light with no sharp edges. This makes the athlete naturally work their arms more. Practice punching arm up and across the body at take off. Arms don't go higher than a right angle and only slightly above the head.
3. Make sure the approach is not too fast.

#### B. Inconsistent approach

1. Determine the following: are they practicing their approaches? Are they incorrectly taking bouncy steps at the beginning of the approach? Is their first step consistent? Is the first step too fast or slow? Are they leaning too far forward in the beginning? Are they incorrectly going from fast too slow?
2. Listen for the sound of their steps. Have them count their steps: 1,2,3...8, BA, **BAA** (faster steps). Make sure they increase their counting speed for each step.

C. **No arch**—Incorporate box drills and more box drills. Try cue phrases: “squeeze your butt cheeks together, squeeze your shoulder blades to the pit, press hips to the sky, pinch a quarter with your bottom.”

D. **Cutting off the curve**—Put tape down for each step on the curve and make sure they stay on the outside of the tape. Have them look at the opposite standard, eye level, on the curve.

E. **Too slow**—Practice approaches focusing on increasing speed with each step. Make sure they're not starting too fast and slowing down. Have them count their steps: 1,2,3...8, BA, **BAA** (faster steps). Make sure they increase their counting speed for each step. Have them listen to their steps.

F. **Blocking, pounding into the ground**—Pounding the ground at takeoff is wasted energy into the ground. Do short approach jumps focusing on being light, quick, rolling feet heel to toe, and running off the ground.

### IV. Workouts

A. **Warm ups**—Jog, dynamic drills (ABC drills walking and jogging, crossovers, high knees, etc.), stretch, and strides.

B. **Running**—Pre-season is the time to get in shape and allows for a greater range and longer distances. The distance shortens the closer to competition season. More sprints at 70-85% effort, keep sprints under 300 meters, more 30-80 meters, 100-150 meters, and 200 meters. The closer to the most important meets the shorter the

sprints; ie. 30-60 meters, effort increases up to 95%, lower repetitions, and rest increases.

- C. **Plyometrics**—Pre-season: Three days per week. During season: Two days per week, decreasing repetitions as the season progresses, eliminating all together before the most important meets. Can be done after jump sessions.
- D. **Weight Training**—Three days per week during pre-season. Incorporate a total body workout, including abdominals, back, and hamstrings which are often neglected. As meets increase in importance reduce lifting to two days per week and delete lifting completely seven to ten days prior to most important meets. Continue working abdominal muscles.
- E. **Jump drills**—As discussed previously.
- F. **Jumping**—Two to three days per week during pre-season, two days during the season, and reduce to one day per week before the most important meets. The last four to six weeks of competition season, and after they know how to jump, move to full approach jump sessions at the beginning of the week and short approach jump sessions in the middle of the week.

## V. **Competing**

- A. **Be prepared**—Arrive at least one hour before scheduled competition time, bring tape measure, tape, water, sweats and jump shoes.
- B. **Warm up**—Perform a proper warm up, get marks, do bridges, three step pop ups (3 sets of 3 reps), five to six approaches, one short approach jump if desired and a couple of practice jumps.
- C. **Peaking for meet performance**—Depends on the athlete. Discover what works best for each athlete during the season; rest the day before the meet or two days before with a light workout (warm up, stretch, pop up drills and light sprints) the day before. Before your biggest meets; decrease practice jump sessions to once in the beginning of the week, increase rest, higher quality practices with lower repetitions and shorter running distances.
- D. **Be aware**—Make sure position of the pit is not breaking the plane of the bar or sitting on the standards. Point this out to the meet official gently.

## VI. **Dealing with typical high jump injuries**

- A. **Jumpers knee**—Pain in the middle, inside of the knee. Do leg extensions, but only the last 10%-15% to straight leg position, low weight, two sets and work up to fifteen repetitions, two times per week. Immediately do hamstring curls, but only the first 10%-15%, heavier weight, three sets of ten to twelve repetitions. These exercises are excellent for preventing jumpers knee.
- B. **Ankle**—Three way tube strengthening drills. Hook a therapy tube to a post; do inside rotation, flexion and extension. Do both ankles two to three times per week, ten to fifteen repetitions each.
- C. **Shin splints**—Walk on heels for prevention or if they already have shin splints. Tape feet: Put tape on the top of the foot, directly above the middle of the arch. Bring the tape to the outside of the foot, wrap under the foot, and pull up on the inside. Bring the tape back to top of the foot, tight but not too tight, and tear the tape. Do this again. Tape can be done over the socks or on the bare feet.
- D. **Hamstring**—I strongly recommend for athletes to see a chiropractor. I find this helps more than anything. Make sure if they're weight lifting they're doing hamstring curls. Ice and massage can help. Warm the hamstring before workout.

## VII. Additional information

- A. **Become a technician**—Develop an eye and an ear for high jumping. Watch tapes and other jumpers with excellent form.
- B. **Maximize speed**—Jumping is a balance of speed while having the strength and proper body position to be able to convert momentum upward. If athlete is too fast they'll go into the bar.
- C. **Rules**—Make sure the jumpers know the rules before the first meet: check in before the competition, don't break the plane of the bar with any part of their body, know there is a one minute time limit from when their name is called, and if they run an approach but don't jump they still can attempt another jump but they must do it within the one minute time limit.
- D. **Response to instruction**—Every athlete responds differently to instruction. Find the athletes most effective way to be cued; sight, sound or feel/touch. If they're not responding to your corrections, try changing your coaching approach utilizing the different senses. Film occasional practices and meets then review tapes with the athletes so they can see what they're doing. Change your cue words and ask if they can hear or feel what they're doing.
- E. **Goals**—Have the athletes set goals for the season, high school career, height, and placing in city and/or state.
- F. **Another event**—Be aware a jumper may be better suited for another event! If a jumper is very fast, strong, bigger in stature and struggling in the high jump maybe he/she would be better suited for the triple jump.
- G. **Recruit**—Recruit from basketball! I'll repeat; recruit from basketball! Develop a strong relationship with the basketball coach and try to show him/her how the high jump can complement and help his/her players. Basketball players typically come to track in shape and with hops. Use basketball terminology when coaching: The approach is like a "breakaway dunk."
- H. **Multiple heights**—If athletes are jumping a wide range of heights, buy an attachment for the standard that velcro's on and allows different levels of athletes to workout at one time without moving the standards up and down. This saves a lot of time.
- I. **Jump shoes**—I recommend high jump shoes if the athlete can afford them, is jumping 5' plus for girls, 5'6" plus for boys.
- J. **Visualization**—Visualization is an important part of success for any jumper. An athlete must see him/herself running the approach, being quick on the take-off, jumping up, having proper form in the air, and clearing the bar. Visualize a successful jump when preparing to jump at the beginning of the approach. At home put a piece of tape on the wall higher than their goal height and picture themselves clearing the bar. Even touching the tops of doorways practices the up motion.
- K. **Remember the basics**—Teach primarily the basics.



(Numbers)—See High Jump Illustration

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May God bless you and may you be a dream encourager to all your athletes.