

**The High Hurdles**  
**Barry Sartz**  
**Newport High School**  
**Newport, Washington**

Hurdling is one of the most demanding events in track and field. A good hurdler must have flexibility, strength, great technical ability, mental toughness, and the speed of a sprinter. As coaches we must teach all our athletes correct and proper hurdle technique. Remember that practice makes perfect, only if practiced perfectly. Athletes who practice and learn skills incorrectly are rehearsing skills perfectly wrong....and getting very good at it. You can only hurdle as fast as your technique allows.

Biomechanics are important to know and having a keen eye for proper technique is very important for a hurdle coach. Remember you must be able to communicate back to your athlete so be clear and concise.

#### HURDLE FACTORS

- Stride Length
- Stride Rate
- Stride Pattern
- Horizontal Velocity
- Ground Contact Time
- Air Time Over Hurdle
- Hurdle Rhythm
- Technique

FLEXIBILITY- Many flaws of hurdlers can be traced back to the lack of their flexibility. An athlete's flexibility can be increased through hard work, but if they are not flexible in the hips they will have a difficult time hurdling. Have them try another event.

- Can your athlete hurdle stretch on the ground?
- Can hips reach maximum height?
- Can your athlete lift their trail leg higher than hurdle height?
- Is there a wide split between the thighs when hurdling?

#### START

- You commonly take 8 strides to the first hurdle and the lead leg is in the back block.
- Efficient start and acceleration to the first hurdle is the key to correct and consistent hurdle rhythm.

- Start is different than running an open 100m.
- Athlete will be upright in a sprint position after 4-5 strides
- The “drive phase is not emphasized in the hurdles.

## START TO FIRST HURDLE

### ENTRY STRIDE PREPARATION

- Actively place the foot beneath the center of mass. Push off the ball of the foot rather than the heel.
- Maintain a long body axis (head-to-toe) and a high center of gravity.
- Drive into the hurdle

### TAKE OFF

- Vertical velocity at take off should be sufficient to effectively clear the hurdle with minimal loss in horizontal velocity.
- Perform take off movements quickly and actively.
- Do not over-extend the lead arm across the midline of the body.
- Athlete should be parallel and low to the hurdle.
- Attempt to lift the thigh toward the trunk rather than flexing the trunk downward. Never teach an athlete to lean into the hurdle, the body will hinge naturally as they begin to clear the hurdle and at touchdown. The hurdler is to stay tall in the hips for a powerful drive into the hurdle.
- Hurdle entry determines hurdle exit.

### HURDLE CLEARANCE

- Slight flexion in lead leg, toe is up.
- With thumb pointing downward, use the palm of the lead hand to go down and around the trail leg and cut off the trail knee.
- Keep both hands in the front side of the body.
- Do not “pull” the lead leg to the ground, but attempt to push the heel downward using knee and hip extension.
- Trail leg stays tucked over the hurdle so it can be brought back to sprint position (heel up, toe up, knee up).

### TOUCH DOWN

- Actively sprint off the hurdle.
- Rapid touch down on the ball of the foot with a locked lead leg as the foot is contacting the ground.
- Maintain tall posture at touchdown.
- Trail leg recovery points the knee toe toward the next hurdle.

## BETWEEN HURDLES

- Maintain basic sprint mechanics.
- Maintain consistent stride pattern.
- Concentrate on personal performance, not the competition.

## STRUGGLING WITH THREE STEPS

- Speed and strength is a factor.
- Develop their core strength and flexibility
- Start with hurdles lower and closer together.
- As they develop skills and strength move them out.

## HURDLE DRILLS (THREE STEP)

- Three step trail leg drill (high knee marching). Set 6 low hurdles up, have athletes march trail leg over side in flats (both legs).
- Three step marching over middle of hurdle.
- Three step trail leg drill over lower and closer (both legs, flats then spikes)
- Five-eight mini 24" hurdles at correct spacing. Sprint using basic form. Use flats, then spikes. I CAN HURDLE!
- Lower hurdles one notch and move them in 2-3 feet. 5-8 hurdles (both legs, flats then spikes)
- "Quick drill" for strength and speed endurance. (three hurdles side by side facing different directions, lower and closer) The hurdler runs down and back 2-3 times for each interval. This drill is for more advanced hurdlers.
- Keep reminding your hurdlers of that three step rhythm.
- As a confidence builder, run a time trial race before your first meet.

## 12 WEEK PROGRESSION

- First 3-4 weeks emphasize basic condition, rhythm workouts, core strength, and flexibility.
- Lead leg wall attack.
- Walkovers, side of hurdle, both legs. Lower hurdles.
- Walkover center hurdle, both legs. Proper arm placement, lead with the knee not foot.
- Rhythm drill over mini hurdles. Let's see who can 3 step.
- Watch videos of pros.
- 3<sup>rd</sup> week start going over the hurdles. 3 step drills, introduce starting blocks. Time trial if ready.
- Meet week, work blocks to first hurdle x3 hurdles
- 5-8 weeks. Introduce one step trail leg drill, lower hurdles. 5step all ten hurdles, trail leg and center.
- 9-10 weeks. Increase intervals with hurdles.

- 10-12 weeks. Fine tune. Prepare for regional and state.

## OVERVIEW

- Hurdling requires speed; they might be your fastest sprinter.
- Learning hurdles requires repetition for proper technique
- Keep hurdles lower and closer when training rhythm.
- DRILL, DRILL, DRILL

Barry Sartz  
Newport HS  
sartz@newport.wednet.edu