

# Developing Core Strength in Track Athletes

Mike Erb, University of Illinois

## What is Core Strength?

- Upper thighs to lower chest
  - Abdominals
  - Obliques
  - Back
  - Hips – **these are often overlooked and under trained**
    - Chairs – Good for back, bad for hip strength/mobility
    - Last 100m of 400m race
    - Essential for good form
    - **Hurdle Drills** – great way to improve hip strength/mobility
- “Farmer Strength”
  - Non-Linear
  - Athletic
  - Dynamic
  - “bridges the gap”
  - Can easily be increased without weights or other equipment

## Hurdle Drills

### Technical Considerations

- Perform all movements slowly and under control
- Foot is always dorsiflexed – “toe up”!
  - “turns on” hip flexor muscles
  - properly begins isometric muscular contraction for stretch-shortening cycle (SSC)
  - lengthens Achilles tendon
- Learn rhythm and balance with proper posture
- Add proper arm movements

## Drills:

### **Walkovers**

- Step over each hurdle leading with the same leg and finish with legs together between hurdles
- Repeat, leading with other leg

### **Stepovers**

- Similar to walkovers, but alternate legs with each hurdle
- Both feet will not be on the ground between hurdles

### **Over and Backs**

- Similar to walkovers
- Walk over two hurdles, then take a backwards step over one hurdle
- Repeat, leading with each leg

### **Over and Unders**

- Walk over one hurdle, then step under next hurdle with trail leg
- Keep butt low and back straight
- Wide stance under hurdle

### **Middle "A's"**

- Start perpendicular to first hurdle
- Perform lateral "A" skips over each hurdle
- This can be done from the side, using hurdles as a guide if athlete is unable (too short) to properly execute (as seen in picture)
- Be sure knee stays close to butt

### **Side Straight Legs**

- Same rhythm as middle "A's", but with straight leg

### **"A" Skips**

- Hurdles are now ~3 meters apart
- Perform "A" skip with skip step in between hurdles

## **"B" Skips**

- Hurdles ~3 meters apart
- Perform "B" skip with skip step in between hurdles
- Lead leg is straightened when put down

## **Trail Leg**

- Hurdles ~3 meters apart
- Perform hurdle trail leg with skip between hurdles
- Foot placement will be closer to/equal with hurdle

## **Skip Overs**

- Hurdles ~3 meters apart
- Combine "A" skip and trail leg over middle of hurdle

# General Core Strength

Many high schools have little to no access to weight facilities or equipment such as medicine balls, swiss balls, etc. These are an excellent example of possible exercises that can be done with no equipment whatsoever.

## Bridge Series:

### **Prone Bridge**

- All body weight is supported by elbows and toes
- Face down
- Body should be kept as straight and rigid as possible
- Variations:
  - Leg Lifts – Static and Dynamic
  - Arm Lifts – Static
  - Arm/Leg Lift Combinations
  - Shoulder Rocks

### **Supine Bridge**

- All body weight supported by elbows and heels
- Face up
- Body should be kept as straight and rigid as possible
- Variations:
  - Same as Prone Bridge
  - Hip Arch

### **Side Bridge**

- All body weight supported by one elbow and feet
- Side faces ground
- Body should be kept as straight and rigid as possible
- Variations:
  - Low/Neutral/High Body Position
  - Upper Leg Lift – Static and Dynamic
  - Lower Leg Lift – Static and Dynamic

\*\*for further variation, all exercises can also be performed on hands in a push up position