

Fitness Circuit Project

By Shalini Asokkumar, Aarushi Buddhavarapu, Elaine Feng, Aditi Poddar, Amelia Purse and Erin Su



Goal Summary

Athlete Type: Track and Field Hurdler

Goals:

- 1) Skill and Performance: Improve the power in their jumps
- 2) Fitness: Increase muscular strength and endurance in the legs and core

Key Terms

Muscular Strength: How much force a muscle can produce at one time

Muscular Endurance: How much force a muscle can produce over a long time

Agility: Ability to move quickly and easily

Goal #1: Skill and Performance - Powerful Jumps

Key Muscle Groups: Hamstrings, Quadriceps, Glutes

Equipment Needed: 8 Dumbbells, 8 Kettlebells

Exercises:

Jump Lunges

Jump Squats

Goal #2: Fitness - Muscular Strength and Endurance in Legs And Core

Key Muscle Groups: Calves, Hamstrings, Abdominals

Equipment Needed: Small Hurdles (20 of them), 8 5lb, 2.5 lb. and 10lb. weights

Exercises:

Agility Hurdles

Star Abs

Russian Twists

Why This Workout?

This workout builds strength in all the muscle groups needed for successful hurdling. It enables the athlete to have powerful jumps and have muscular strength in both the legs and the core. Core is important for hurdlers because core strengthening stabilizes the spine which in turn aids the explosive energy needed to get over the hurdles.

Furthermore, this workout includes exercises that helps with agility and power.

How This Workout Works

For this circuit you will be working through the (number of stations) stations in partners.

This workout is formatted as a TABATA workout which means that you will exercise at a high intensity (whatever you feel that may be) for 20 seconds, then rest for 10. Each set of 20/10 exercise is an interval.

You will stay/workout at each station for 2 intervals before rotating to the next station.

Dynamic Warm-Up Exercises

Do each exercise for 10 reps and do 2 rounds

High Knees: every 3 is a rep (count 1, 2, 3 then rep number)

Plank Jacks: every 3 is a rep (count 1, 2, 3 then rep number)

Pulsing jumping lunges: pulse 3 times before each jump, every one is a rep

Push Jacks: Every 3 is a rep (count 1, 2, 3 then rep number)

Plank Shoulder Taps: every three is a rep (count 1, 2, 3 then rep number)

Exercise #1: Jump Lunges

Muscle Groups: Hamstrings, Glutes

Fitness Components: Cardiovascular Fitness, Muscular Strength, Muscular Endurance

Skill Components: Balance, Power, Coordination

Progression: Add dumbbells

Modification: Remove the jump



Exercise #1: What It Looks Like

1. Do a lunge stepping forward with the right foot.
2. Jump so that the left foot is lunging forward.
3. Repeat step 2 until 20 seconds is up.

https://www.youtube.com/watch?v=4_wqeNtjtUw

Exercise #2: Star Abs

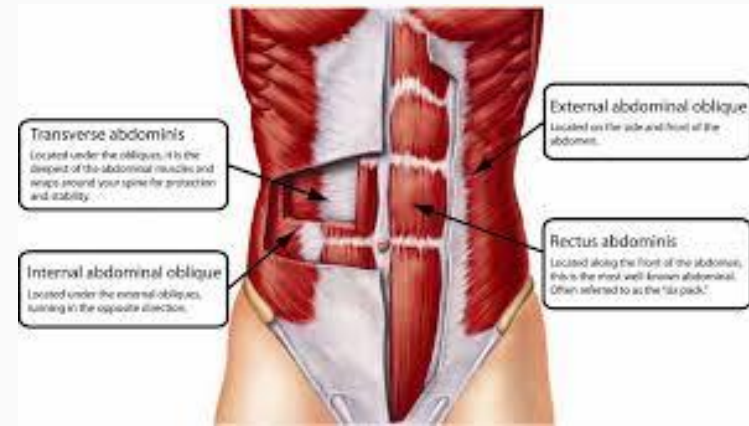
Muscle Groups: Abdominals

Fitness Components: Muscular Endurance, Muscular Strength, Cardiovascular Fitness

Skill Components: Power

Progression: Go slower and stretch farther

Modification: Do regular heel touch curls



Exercise #2: What It Looks Like

1. Lie down on your back with your hands and legs spread like a star
2. Use your core to pick up your legs which are bent at the knee
3. Bring your knees and hands together into the fetal position
4. Repeat step 1-4 again until the 20 seconds are up

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

Exercise #3: Jump Squats

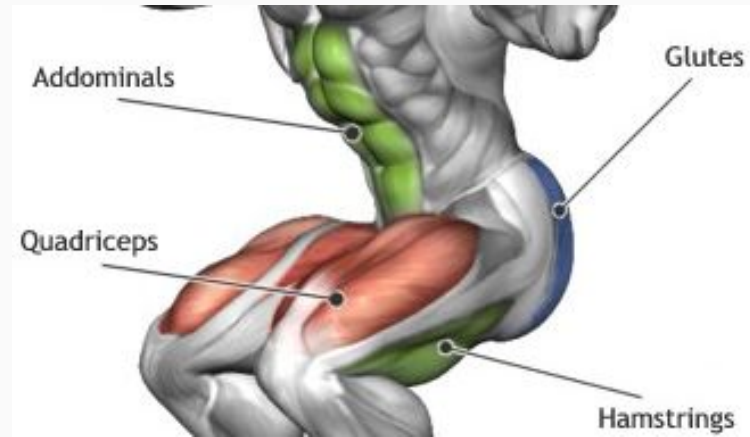
Muscle Groups: Hamstrings, Glutes, Quadriceps, Abdominals

Fitness Components: Cardiovascular Fitness, Muscular Strength, Muscular Endurance

Skill Components: Power

Progression: Jump higher, squat down lower

Modification: Remove the jump



Exercise #3 Jump Squats

1. Do a 90 degree squat
2. Swing your hands to gather momentum
3. Jump
4. Repeat Steps 1-3 until the 20 seconds are up

<https://www.youtube.com/watch?v=XQuppTHxeH8>

Exercise #4: Agility Hurdles



Muscle Groups: Calves, Hamstrings, Quadriceps, Glutes

Fitness Components: Cardiovascular Fitness, Muscular Strength, Muscular Endurance

Skill Components: Agility, Coordination, Speed

Progression: Hopping over the hurdles with two legs

Modification: Jumping sideways

Exercise #4: What It Looks Like

- 1.) Stand sideways to the hurdles.
- 2.) Jump over one with the foot closest allowing the other foot to trail behind.
- 3.) Land the foot used to jump over the hurdle then land the other one directly after.
- 4.) Repeat steps 2 and 3 for each hurdle and after reaching the end of one row use a snake pattern to go down the next in the opposite direction of the first row of hurdles, repeat for 4 rows.
- 5.) Repeat steps 2-4 until time is up.

<https://www.youtube.com/watch?v=iCFr2NI-36U>

Exercise #5: Russian Twists with Weights

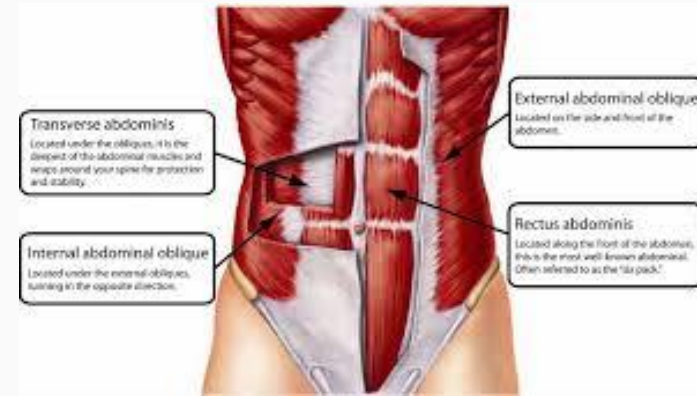
Muscle Groups: Abdominals

Fitness Components: Muscular Endurance, Muscular Strength, Cardiovascular Fitness

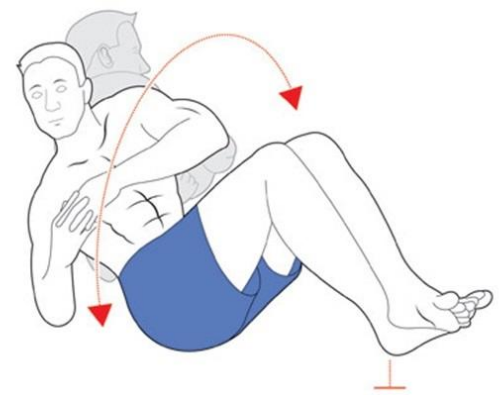
Skill Components: Power

Progression: Increase weight plate

Modification: Decrease weight plate



Exercise #5: What It Looks Like



- 1.) Sit in a V-sit position with arms and legs raised from the floor the angle at the hips forming a 90 degree and, the angle of the knees at a 90 degree angle as well.
- 2.) Twist to the right touching your hands/weight lightly to the ground.
- 3.) Twist to the left touching your hands/weight lightly on the ground.
- 4.) Repeats steps 2-3 until time is up.

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

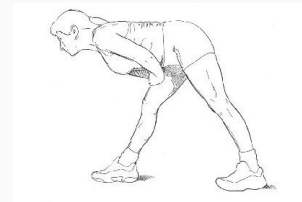
Cool-Down Static Stretches

Reach for toes while sitting down

Model stretch

Triangle stretch with lifted front toe

Runner's stretch



Bibliography

<http://www.active.com/fitness/articles/what-is-tabata-training>

<http://www.livestrong.com/article/386760-workouts-for-hurdler-strength/>

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Thanks!