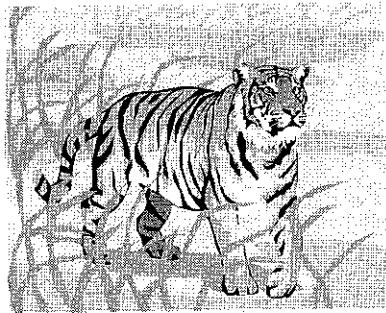


Wrightstown Tigers Basketball

Strength, Speed, Quickness, Agility, & Conditioning Guide



“Today I will do what others won't, so tomorrow I can accomplish what others can't.”

-Jerry Rice-

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Alan Stein, CCS, CSCS, The Stronger Team
"Off Season Strength & Conditioning: The Foundation of a Great Program"
Nike Championship Basketball Clinic, Chester, WV
Saturday, April 12, 2008, 9:15-10:30AM
Notes By: Michael Bayer (michaelbayer@gmail.com)

General Comments:

- Communicate, toughness, compete.
- Players should workout 40-45 weeks per year.
- Instill a work ethic, create environment, set tone.
- Days of static stretching warm-ups are over. Use dynamic flexibility.
- Standardized warm-up - work all movement patterns.
- Learn to plant with both feet.
- Hold players accountable for everything.
- Put players in groups that will push each other.
- Do basketball specific strength training. We are basketball players, not Olympic lifters.
- alan@strongteam.com

Warm-up:

- Go about 75%
- Full Court Angled Runs: Plant with inside foot (Diagram 7)
- 1 Step Verticals: Squat and jump straight up, land soft (Diagram 8)
- Ankle Line Series: Side-to-side and front-to-back. Start on baseline, on clap D-slide to half court and back. (Diagram 8)
- Four Corners: Each foot, jump in box motion (Diagram 1)

Dynamic Flexibility:

- Catcher to Hamstring: Start in catchers position with fingers on ground. Raise hips as high as possible with fingers staying on ground.
- Side Lunge to Crossover: Lunge to side then cross opposite foot over, reach down and touch floor.
- Inchworm to Touchdown: Start in push-up position. Inch feet forward then stand up and reach for sky.
- Low Lunges: Regular forward lunge. Stay low.
- Scorpion: Push-up position. Cross leg across body underneath other leg.

Reaction Drills (Tennis Ball Drills):

- Full Court Running & Sliding: See attached sheet for progression. He added behind the back with outside hand. Forward runs and Defensive slides. (Diagram 15)
- Find & Get: Player with ball on sideline. Other player directly in front of him facing away. Player throws ball out, other player has to find and get on one bounce. Then, progress to 2 balls. (Diagram 4)
- Sideline Series: Drills start with player in pushup position facing away from tosser. When ball is rolled by partner, get up and get it as quick as possible. Get low to pick ball up. (Diagram 16)
 1. Roll one ball, get it then pivot towards tosser. Tosser throws second ball. Catch.
 2. Roll first ball right. Run and get it. Roll second ball left. D-Slide and get it.
 3. Roll one ball, do 3 quick foot circles around ball then pick it up.
- Sideline Drops: Drop ball from shoulder height. Get ball before it bounces twice. Start facing tosser first time, then start facing away from tosser. Tosser calls "ball" when he drops ball. Find and get. (Diagram 5)
- Sideline Suicides: 3 players, 3 balls. One player rolls balls, one runs and gets then brings them back to third player. Rotate after getting all 3. (Diagram 6)
- 2-Ball Dance: Tosser starts with 2 balls. Throws first one out. As soon as partner throws it back, throw second ball out. Try to make it difficult to get on one bounce. Players start a few feet apart. (Diagram 2)
- Ball Drops: One player holds ball straight out. Other player places hand on top of players hand with ball. When first player drops the ball, second player tries to catch before it hits ground.
- Toss & Catch: Start in middle of lane. Throw ball off backboard and go get as high as possible. (Diagram 3)

On Court Strength & Power Training:

- Basketball Push-ups:
 1. One-Ball: Start in push-up position with basketball under right hand. Do one push-up. When to up position roll ball across to left hand. Do push-up with ball under left hand. Repeat.
 2. Two-Ball: Do push-ups with basketball under both hands.
- Manual Towel Rows: Two players. One standing holding towel. One seated. Seated player grabs towel and does rows. Drill works back, fingers, arms and forearms.
- Manual Lateral Raise: Two players. One player stands directly behind other. Player in back places hands on top of other players. Player in front raises hands to shoulder height and back to sides. Repeat. There should be resistance both on the way up and down.
- Planks: With hands on ball and then feet on ball. Hold in up push-up position for 1 minute.
- Bicycles: With hands on ball in push-up position. Knees to chest.
- Disc Series (Use paper plates or round sliding device as disc):
 1. Front & Side Lunges: One foot on disc. Weight on other foot.
 2. Hip Circles: Start in push-up position. One foot on disc. Do quarter circle motion with foot on disc.
 3. Hip Flexor: Start in push-up position. One foot on disc. Bring foot on disc towards chest and then out to side as far as possible.
 4. Push-Pull: Start in push-up position. One foot on disc. Other foot off ground. Bring foot on disc towards chest then back to starting position.
 5. Hamstring Curl: Start laying flat on back with hands under butt. Raise one leg straight up. Heel of other foot on disc. In and out motion with foot on disc.

Conditioning:

- Suicide Square: Up to eight players. Sprint/retreat mini-suicides on coaches command. Then move to next spot. (Diagram 14)
- 5 Spot Contest: 2 Players. Offense and Defense. Imaginary shot from offense. Defense closes out, contests and boxes out. Offense sprints to half court then to next spot. Defense sprints under basket then closes out to next spot. Continue. (Diagram 10)
- Lane Slide w/ Crossover Step: 2-1/2 Defensive slides across lane. One crossover step on way back. (Diagram 11)
- 3 Cone: Yellow, Red and Green Cone setup inside 3-point line. Player starts under basket. Coach has 4 color coded visual cues. Player reacts to cue coach holds up. (i.e. Yellow & Red – Help side defense at that color cone, Green – Close out to green cone, Blue – Touch Rim) (Diagram 12)
- Get Backs: 5 Cones. 5 Players. Player at each cone. Defensive slide away from cone, sprint back to cone on verbal command. (Diagram 18)
- Sprint-Retreat-Break: Start on baseline. Change direction on verbal command. (Diagram 8)
- 1-2-3 Drill: 2 Players. Start at half court. Perform a specific task based on number called by coach. Then, get back to starting position. (i.e. 1 – Sprint to corner, 2 – Touch backboard, 3 – Slide to sideline) (Diagram 13)

Finishers:

- 100 Push-ups in 4 Minutes: Do as many push-ups as possible. Ten second break, then start push-ups again.
- Get-Ups: Start in sit-up position with basketball in hands. Try to stand up without letting arms touch ground.
- Clean The Square: One player in paint with tennis balls. Other players spread out around 3-point line and baseline. Player tries to clear all balls out of paint with other players try to roll them back in. (Diagram 9)
- Car Wash: Player starts at top of key with medicine ball. Coaches start on both elbows. Player tries to score while being fouled by coaches. He recommended using coaches to foul instead of players to prevent fights. (Diagram 17)

CLINIC Alan Stein

DATE Off Season Strength & Conditioning

Fig. 1

Notes: Chaminade Clinic-Hackman

5415 Woodlawn Drive

Salem, OR 97303

Clinic Hotline: 503-571-3041

www.chaminadebasketball.com

NOTE: 9 corners /

each end

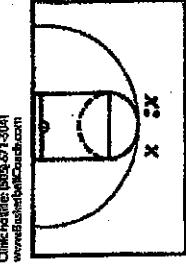


Diagram 1

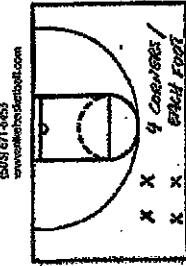


Diagram 2

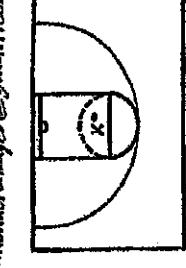
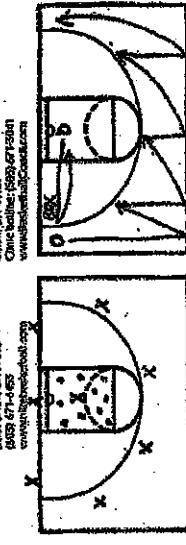


Diagram 3



Notes: Diagram 4

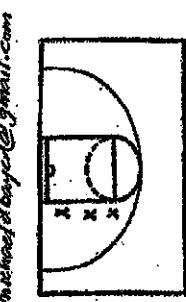


Diagram 5

CLINIC Alan Stein

DATE Off Season Strength & Conditioning

Fig. 2

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 5

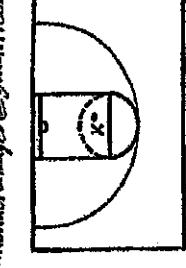
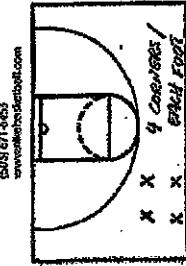


Diagram 6



Notes: Diagram 7

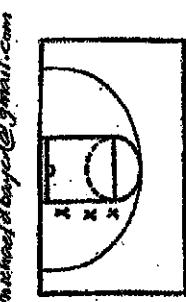


Diagram 8

CLINIC Alan Stein

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Fig. 3

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NOTE: Diagram 8

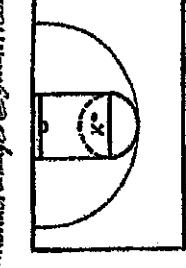
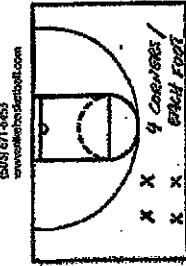


Diagram 9



Notes: Diagram 10

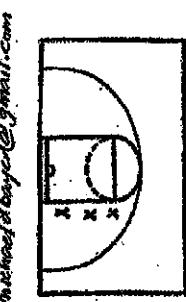


Diagram 11

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Fig. 4

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 11

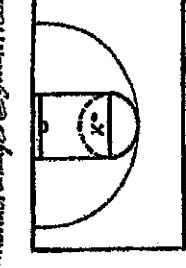
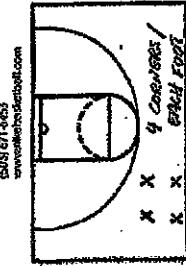


Diagram 12



Notes: Diagram 13

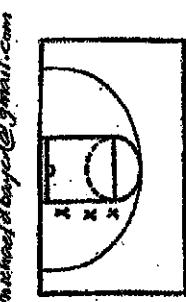


Diagram 14

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Fig. 5

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NOTE: Diagram 14

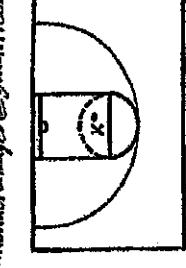
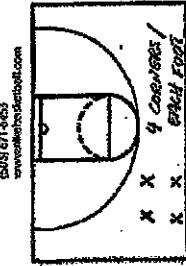


Diagram 15



Notes: Diagram 16

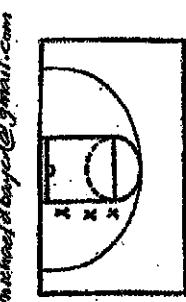


Diagram 17

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Fig. 6

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NOTE: Diagram 17

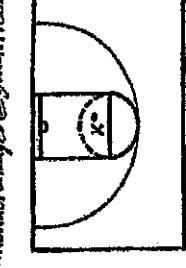
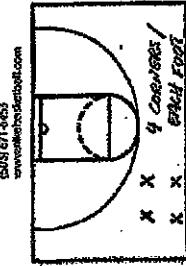


Diagram 18



Notes: Diagram 19

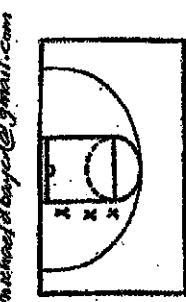


Diagram 20

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Fig. 7

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NOTE: Diagram 20

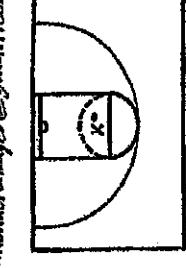
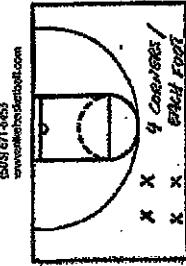


Diagram 21



Notes: Diagram 22

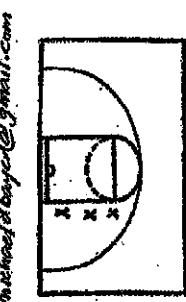


Diagram 23

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Fig. 8

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 23

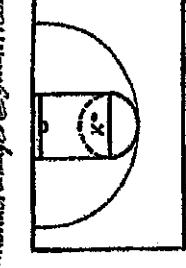
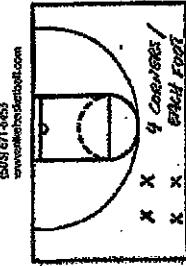


Diagram 24



Notes: Diagram 25

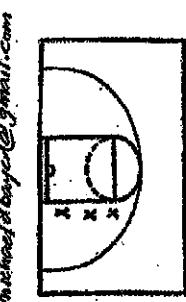


Diagram 26

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Fig. 9

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 26

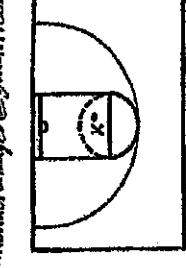
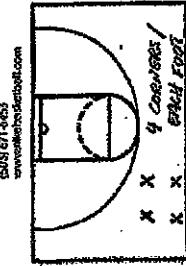


Diagram 27



Notes: Diagram 28

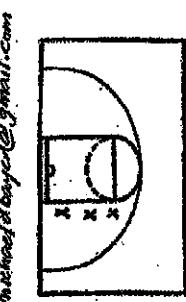


Diagram 29

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Fig. 10

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 29

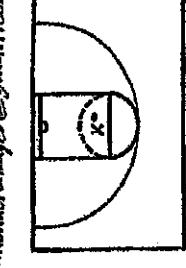
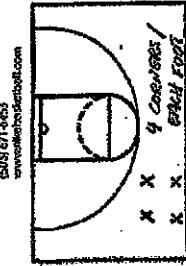


Diagram 30



Notes: Diagram 31

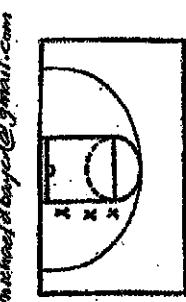


Diagram 32

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Fig. 11

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 32

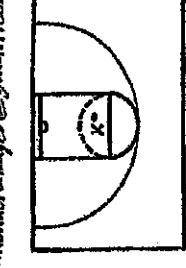
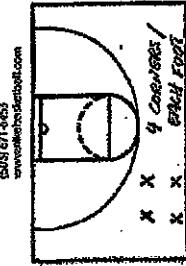


Diagram 33



Notes: Diagram 34

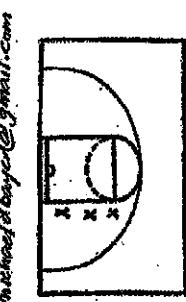


Diagram 35

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Fig. 12

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 35

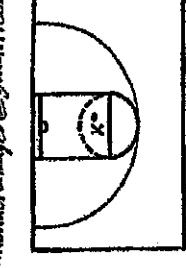
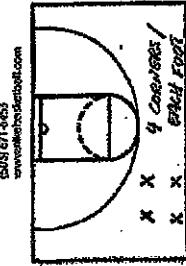


Diagram 36



Notes: Diagram 37

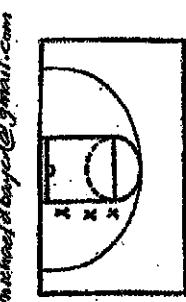


Diagram 38

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DATE Off Season Strength & Conditioning

Fig. 13

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 38

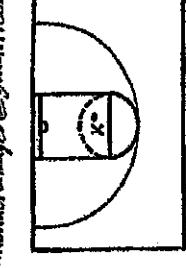
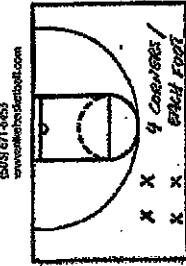


Diagram 39



Notes: Diagram 40

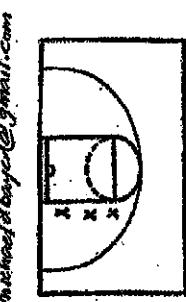


Diagram 41

CLINIC Alan Stein

DATE Off Season Strength & Conditioning

Fig. 14

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 41

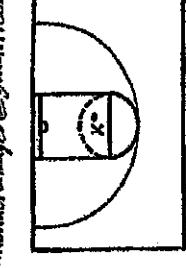
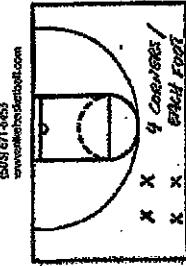


Diagram 42



Notes: Diagram 43

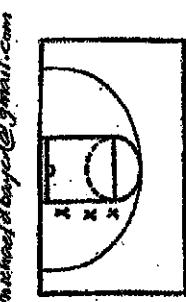


Diagram 44

CLINIC Alan Stein

DATE Off Season Strength & Conditioning

Fig. 15

Notes: Chaminade Clinic-Hackman

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NOTE: Diagram 44

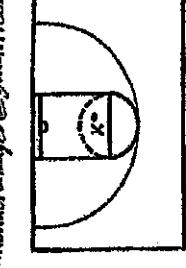
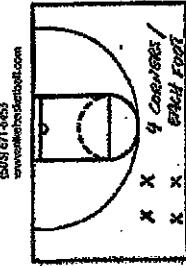


Diagram 45



Notes: Diagram 46

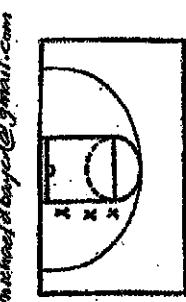


Diagram 47

CLINIC Alan Stein

DATE Off Season Strength & Conditioning

Fig. 16

Notes: Chaminade Clinic-Hackman

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nike Championship Basketball Clinics



Off Season Strength & Conditioning: The Foundation of a Great Program

*Alan Stein is one of the nation's leading experts on productive training for basketball players. He is the founder of **StrongerTeam.com** and is the head strength & conditioning coach for the **Montrose Christian Mustangs**, as well as the annual **McDonald's All-American game**, the **Jordan Brand All-American Classic**, and the **Nike Summer Skill's Academies**. He has been featured in **Winning Hoops**, **Time Out**, **Dime**, **Stack** and **Men's Health** magazines.*

For more information please visit www.StrongerTeam.com.

Components to emphasize during off-season workouts: progression, toughness, & competitiveness

Warm-up (Raise core temperature, make muscles more elastic and lubricate joints)

- Full court angled runs (45, 90, 135, 180 degree turns)
- 1 step vertical (work on "landing", chest over knees over feet)
- Ankle line series (side to side, front to back, four corners, up the lane)

Dynamic Flexibility (Increase active range of motion; prepare mind and body for workout)

- Catcher to hamstring, side lunge to crossover, inchworm to touchdown, low lunge, scorpion

Reaction Drills (Improve ability to react utilizing hand/eye coordination & basketball specific movements)

- Full court running & sliding (inside hand, outside hand, lead hand, trail hand, 2 balls)
- Sideline series (ball pick-up, 1st step, quick foot circles, suicide)
- Ball dance & ball drop (catch and toss back with close hand, stay in defensive position)
- Toss and catch (self pass off backboard, catch at highest point)

On Court Strength & Power Training (Reduce potential of injury and improve performance)

- Upper body: Basketball push-up (1 ball, 2 ball), manual towel row, manual lateral raise
- Lower body: "Disc" series: rear/lateral lunge, hip circles/push-through, hamstring curl, hip flexor
- Core: Plank/knee touch/feet on ball, woodchoppers, over & under, twists, knee to chest

Conditioning (Get in and stay in "basketball shape")

- Backboard snake (keep the heavy ball high on the glass and run the floor)
- Suicide square (run short distance suicide and rotate to next group)
- 5 spot contest (contest imaginary shot from 5 spots around the 3-point line)
- Lane slide w/crossover step (2 ½ slides across the lane, return with 1 crossover step)
- 3 cone (help side defense, contest shot, and rim touch on visual cue)
- Get backs (defensive slide away from cone and sprint back on verbal command)
- Sprint – retreat – break (change direction on verbal command)
- 1-2-3 drill (perform a specific movement to a specific spot upon a verbal cue)

Finishers (Get players to leave their comfort zone)

- 100 push-ups in 4:00 (:20 on, :10 off x 8)
- Get-ups (get to your feet without using your upper body or letting the ball touch the ground)
- Clean the square (get tennis balls out of the land as fast as possible)
- Car wash (score the heavy ball while being fouled by two teammates)

To contact Alan or to purchase any of his DVD's, please visit:

www.StrongerTeam.com



Joe Stolzer

The Ten Commandments of Physical Development

Clinic To End All Clinics I

Manhattan College

9/19/08

- The heavier the sneaker, the weaker the foot/ankle

Exercises to Strengthen Feet and Ankles

1. Walk on toes to build toe muscles -- walk forwards and backwards
2. Walk on heels forwards and backwards
3. Side ankle lifts
 - Lie on side feet together
 - Partner provides resistance to ankle
 - Lift ankle up
 - Do 30 on each side
4. Jog in place barefoot for 5 to 15 minutes to strengthen feet and ankles
5. Do exercises unilaterally (1 leg) instead of bilaterally (2 legs)
 - Body weight squats on 1 leg – sit down on bench and get up with the same leg
 - Jump on 1 leg, land and hold for 4 seconds, jump again
 - Jump side to side on 1 leg, hold for 4 seconds between jumps
- Basketball Back – the taller the player, the longer the spine, the greater the need to develop core muscles

Core Exercises

1. Planks
 - Start with 30 seconds and build up to 2 minutes
 - Works shoulders, core, and hips
 - Helps prevent lower back injuries
2. Bridge
 - Start with 30 seconds
 - Build up to 5 minutes
3. V Figure 8's
 - Start with 30 seconds and build up to 2 minutes
 - Sitting on ground, make a V with your body
 - Do figure 8's with the basketball
4. Bicycle
 - Start with 30 seconds and build up to 2 minutes
 - Sit on ground
 - Bicycle your legs
 - Do lateral raises with 5 pound weights

5. Basketball Pushups
 - Use 1 basketball
 - Do pushup with 1 hand on the ball
 - Roll ball side to side to alternate hands for each rep
6. Step Ups
 - 1 leg on bench
 - Lift knee high
 - Pump elbows hard
 - Feet must move quickly, pretend the floor is on fire
7. Gluteus Medius Stretch
 - Lie on side on a bench
 - Drop top leg
 - 30 seconds on each side
 - This will help defensive stance and post play
8. Knee Outlets
 - Kneel on ground
 - Throw 10 outlet passes overhead
 - Have partner step back after each one
 - This will strengthen the upper back

Defensive Speed – Train laterally

1. 30 in 30
 - 30 line touches in 30 seconds
 - Down low
 - Back straight
 - Touch the line with feet
2. Ball Volley
 - Lane slides
 - Partner leads defender by tossing a tennis ball
 - Defender catches it with 1 hand and tosses it back
3. Lateral Hurdle
 - 3 boxes
 - Side to side over boxes
 - Keep hands moving
 - Feet move quickly, don't stop
4. Boxing
 - Scissor feet
 - Throw punches side to side

Hands

1. Ball Slap
 - Hold ball out
 - Partner tries to slap ball out
2. Sweep Drill
 - Same set up as ball slap, but sweep through low
 - Switch after losing ball 3 times

Speed

1. First Step
 - Push up position with 1 knee forward
 - Switch knees on count of 2
 - Sprint on 3
2. D Wade Ball Drop
 - Coach stands in front of player with a ball
 - Player is on the baseline
 - Coach tosses ball and player must get it before it bounces a 2nd time
 - Coach gradually moves down the sideline
 - Vary by having player start on back, stomach, or knees
3. Speed Dribble
 - Start on baseline with a ball
 - Get to top of key in 1.8 seconds
 - Get to half court in 3 seconds
 - Get to opposite foul line in 3.5 seconds
4. Weighted Jump Rope
 - Run/jump to half court
 - Drop rope
 - Catch pass
 - Drive to hoop strong
5. Resistance
 - Partner up
 - Partner puts resistance on shoulders as player runs from baseline to foul line
 - Take away resistance and sprint to opposite baseline
 - Switch and come back
6. L Sprint
 - Start in corner
 - Dribble to half-court
 - Switch direction and to opposite sideline
 - Reverse and go back to start
7. X Sprint
 - Start in corner and dribble on a diagonal to sideline at half-court
 - Switch directions dribble to opposite sideline
 - Switch directions and dribble to opposite corner
 - Reverse and dribble back to start
8. Change of Speeds
 - Walk dribble to foul line
 - Jog dribble to half-court
 - Sprint dribble to baseline

Vertical

1. Achilles
 - 20 short jumps on toes
 - 20 high jumps on toes
 - Makes achilles more elastic and more explosive, helps prevent injuries
 2. Broad Jump
 - Bend down
 - Propel body with strong arm swing
 - Goal is 100 inches
 - Do sets of 3
 3. Backboard Touches
 - Start at half-court
 - Sprint to baseline
 - Jump stop
 - Explode up and touch backboard
 4. Split Lunge Jump
 - Lunge position
 - Jump
 - Split legs at top of jump
 5. Jumping In Place
 - Jump and bring knees to chest
 - Do 25 and rest
 - Repeat until you have done 200
 6. Jump Squats
 - Touch floor
 - Jump up touch ceiling
 - Do 3 sets of 10
-
- Nutrition
 - Golden Hour – replenish nutrients within one hour of practice or game
 - Good mix of good carbs and protein
 - Hydration
 - Hydration is 28% of conditioning
 - Drink water and electrolyte drinks

Effective Exercises to Improve Your First Step

So you weren't born quick. Here are exercises and workouts to help you become faster, quicker, and more explosive.

Quickness, explosiveness, reaction-ability. All of these refer to how fast your first step is. But is it really possible to improve the quickness and explosiveness of your first step? The simple answer is yes, but before laying out your "Get Quick Now" routine, let's define some basic misconceptions about quickness training. While doing plyometric drills will increase your explosiveness, doing them over and over again will increase your strength and not your quickness. In order to train your fast twitch fibers (the ones that are responsible for your explosiveness) you should only do sets of 1 rep with substantial rest in between (think 10-15 seconds) for a period no longer than 10 minutes.

Right now you're seeing, thinking, and then doing. You need to be seeing and doing without that hesitation in the middle. To get rid of that delay, you'll need to improve your forward knee action, dictated by hip flexor flexibility. What follows is a stretching and speed routine that will remove your internal hurdle.

My Get Quick Now Routine:

1. Static hip flexor stretches will improve forward knee action, which will improve your first step.

- a. Sit on a couch with one leg hanging off. Slowly bring the opposite knee to your chest while keeping that knee that's off the couch in the same position it started in. You should feel a stretch in your hip flexor of the leg that's off the couch. This will increase hip flexibility when done routinely.
- b. Complete 2 sets of 30 for each side.

2. Tennis ball drops, with you standing at first, then later with you on your back, and then finally with you on your stomach.

- a. With a partner standing in front of you, have them drop a tennis ball while you try to get to it before the ball's second bounce. Getting there with ease? Have your partner move back. This should be done not in reps, but with lots of rest in-between to emphasize the speed work, and not the cardiovascular, aspect.
- b. Do these for ten minutes total.

3. Hop-hop-explodes, which is exactly what they sound like.

- a. Hop sideways, hop sideways again (perhaps over a hurdle or even dots on the ground), and the moment you land after that second hop, take off in a lateral slide (similar to playing defense in basketball). When you land for each hop, imagine the floor is on fire. This is the application of the hot stove neuro-muscular theory. You can also hop forward, hop forward, and then sprint straight ahead to provide some variety to this training technique. Again, these should be done not in reps, but instead with lots of rest in-between to emphasize the speed work, and not the cardiovascular, aspect.

- b. Do these for ten minutes total.

Becoming faster, quicker, and more explosive requires not just hard work, but smart work. Consistently work the three exercises above into your workout routine, and enjoy as your first step becomes Derrick Rose-esque!

3 Drills for an Explosive First Step

When you have the ball, you control the game. The defense is at your mercy. You know exactly where you want to go and when you want to go there. This alone gives you a decided advantage over the defense. But adding an explosive first step to your arsenal can give you an even bigger advantage. Quickness is one of the top three traits for a basketball player. The quicker you are with the ball, the more of a threat you are as an offensive player. In order to be quicker with the ball you need to utilize game speed ball handling drills and quickness/reaction drills in your training program. The ability to read and react to visual and audible cues is important in the game of basketball.

The following three drills will improve your quickness, agility and reaction time. Perform two to three of these drills twice a week during the offseason. The time each drill is performed and the rest time between sets can transform each drill from a quickness drill to a conditioning drill. Because there's a time and place for conditioning, make sure to stick to the prescribed times to keep these drills improving your quickness so you can achieve the most benefit for your first-step and scoring ability.

Block & Block

Benefits: Footwork, hand quickness, eye-hand coordination

Reps: 30 seconds

Sets: 4-6

Rest: 60-90 seconds

Instructions:

- Stand arms length away from partner in defensive stance
- Partner holds tennis ball in each hand
- Sprint to ball after partner's throw
- Catch ball before second bounce
- Toss back to partner and sprint back to starting position
- React and sprint to next throw from partner
- Partner should vary distance, direction and speed of throws

Coaching Point: Your partner should vary the hand he uses on throws and constantly change-up the pattern. For example, throw left hand, left hand and then right hand because it's much more unpredictable than throwing left hand, right hand, left hand. This forces you to react faster and improve your first-step.



Make sure you're in a defensive stance.

Block & Roll

Benefits: Lateral quickness and agility

Reps: 12-15 seconds

Sets: 4-6

Rest: 60-90 seconds

Instructions:

- Stand in lane in athletic position between the blocks
- Partners kneels at top of key behind three point line with two tennis balls
 - Partner rolls one ball to either block
 - Defensive slide to block, tap ball back to partner, slide back to starting position
 - React to next roll and repeat

Coaching Point: Don't ever cross your feet and make sure to stay low with your chest up and your hands up and active. You have to stay low to the ground so you can reach the ball and tap it back to your partner. Your hands should be in front and active like they are in a game so you can catch a pass or grab a rebound. If your hands are in by your sides you can't do these things in a game and you can't perform this drill. And most importantly, work hard. Your intensity of effort during this drill is crucial.

Cone Drill

Benefits: Reaction and short burst quickness

Reps: 15 seconds

Sets: 4-6

Rest: 60-90 seconds

Instructions:

- Place five cones around three point line
- Perform athletic movement such as backboard taps, or defensive slides from block to block
- When partner calls number of cone, sprint to cone, challenge an imaginary shot, and back pedal back to starting spot
- Continue performing original movement
- React to partner's next call and sprint to and from cone
- Repeat

Coaching Point: Adjust the drill by sprinting to the cone as if you are closing out on a shooter. Chop your feet as you get close to the cone, get low and keep a hand up to put a hand in the imaginary shooter's face. Then sprint back to the start. You can also change the movement pattern used such as sprinting to the cone and then backpedaling back to the start. Each different movement helps work another part of your game.

AIR ALERT III: THE COMPLETE VERTICAL JUMP PROGRAM

Introduction

For the past 11 years TMT Sports has sold the most popular jump training program on the market, Air Alert II: The Complete Vertical Jump Program - Revised. Although Air Alert II has become a favorite around the world, we have worked to improve it. The Air Alert III upgrade is the improved Air Alert. We changed the number of sets and reps, and, most importantly, we changed the number of days per week that the program will be completed which will help with overall muscle recovery and strength development. We also added one new exercise, Squat Hops™ to greatly benefit your vertical. Any topic that you see on the Air Alert III upgrade MUST BE READ and followed as written. When you see a word "CHANGE" beside of a heading, this means that a change has been made from Air Alert II to Air Alert III.

Air Alert II verses Air Alert III

The exercises for Air Alert III are exactly the same with the exception of one. The technique of each exercise will not change for Air Alert III.

Frequency (changed)

Air Alert III is designed to be done 3 days per week with the exception of week 15 which is designed to be done 4 days. The 3 days workout schedule alternates from week to week which allows for ample muscle and strength recovery for your legs. This is extremely important in building the strength required for giving you the lift you need.

WORKOUT CHART (CHANGE)

The Air Alert III workout chart will provide you with 2 charts. You will notice that the odd numbered weeks and the even numbered weeks instruct the same order sequence for each exercise, but that the actual days of the week are different. Do the workout exactly as prescribed on the days designed for the respective week. The odd weeks are to be done on Monday-Wednesday-Friday and the even weeks are to be done on Tuesday-Wednesday-Thursday. Week 13 is designed as a complete muscle recovery week. Air Alert III should not be completed at all during week 13. Week 15, the final week, is designed to completely break down the muscles, shock them and prepare them for the final recovery. This last week will help to add an additional 1-2 inches on your jumping ability. You are required to

do week 15 four (4) days that week. You will do Air Alert III on Monday-Tuesday-Thursday-Friday of the week.

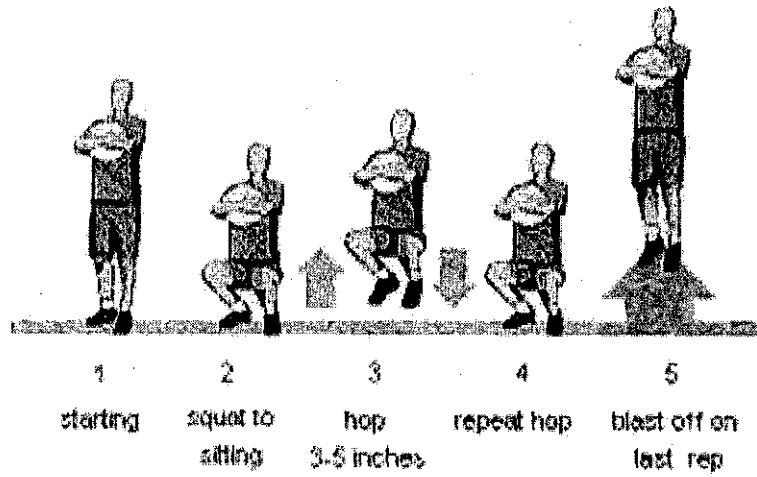
RESTING BETWEEN SETS (CHANGE)

The Air Alert III workout consists of multiple sets and repetitions for each exercise. After completing 1st set of an exercise, do not rest anymore than 2 minutes before completing the second or third set for the respective exercise. During the 2 minute resting period, it is important to massage the muscle that you are currently working on. If you are doing Leap ups, be sure to massage your thighs while resting. When moving from 1 exercise to a new exercise (for example, from Leap ups to Calf raises), do not rest at all. Move immediately to the next exercise.

AIR ALERT III EXERCISES

The Air Alert III exercises are identical to the Air Alert II exercises with the exception of a new exercise, Squat Hops™ (see below). See Air Alert II for instructions regarding the first 5 exercises. Be sure to follow all warm up and cool down instructions identified in the Air Alert II.

SQUAT HOPS - NEW EXERCISE



Step 1 - For balance, hold a basketball or volleyball at chest level. You can hold the ball with your hands at each side of the ball or hug the ball.

Step 2 - Squat down into a sitting position while holding the ball. Make sure that you are looking straight ahead, with your back straight and that you are elevated on the balls of your feet (half tiptoed). And most importantly, make sure that your thighs are parallel to the ground.

Step 3 - Hop or bounce in the seated position between 3-5 inches per hop. Keep your

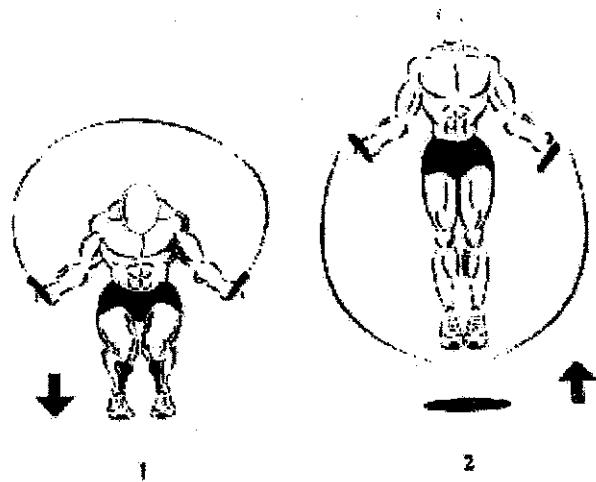
thighs parallel. When you land, that completes 1 repetition.

Step 4 - After you complete each repetition (each landing), you land back in the original, seated position. Jump up again for the next repetition.

Step 5 - At the completion (the last rep) of the required set, blast off as high as you possibly can. For example, if you are required to do 1 set of 15 repetitions, you will do 14 Squat Hops (3-5 inches per jump) and on the 15th Squat Hop, you will blast off as high as you possibly can.

Leapups (with/without rope)

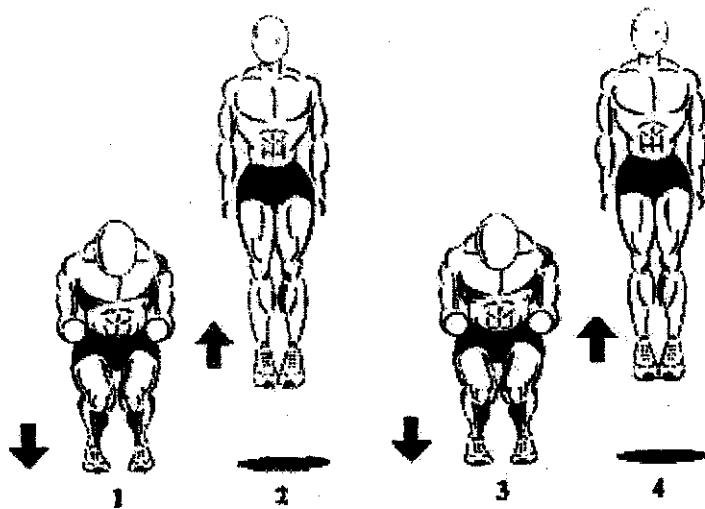
This exercise can be done without the use of a jump rope if you desire. When jumping, keep your hands by your side or in front of you for assistance in jumping and follow the same procedures just described.



Step1: When beginning, bend down to a 1/4 squat position

Step2: Turn the rope and jump back into the air to a minimum of 8 to 10 inches. (You may jump 10 to 12 inches if this is too easy). When you land this completes 1 repetition.

Step3: Continue repeating this motion for each repetition.



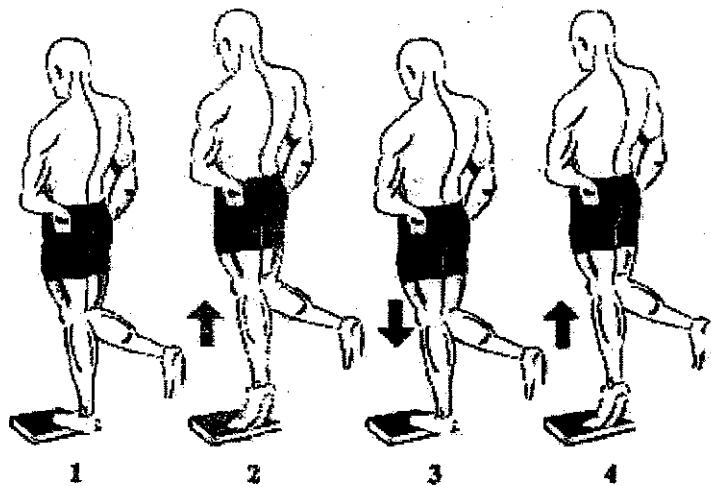
Step1: When beginning, bend down to a 1/4 squat position with your hands out in front of you and jump up

Step2: Jump up into the air to a minimum of 8 to 10 inches. (You may jump 10 to 12 inches if this is too easy) When in the air, your hands should be back by your side. When you land, this completes 1 repetition.

Step3: Same as step 1. Step 3 begins repetition 2

Step4: Same as step 2

Calf raises

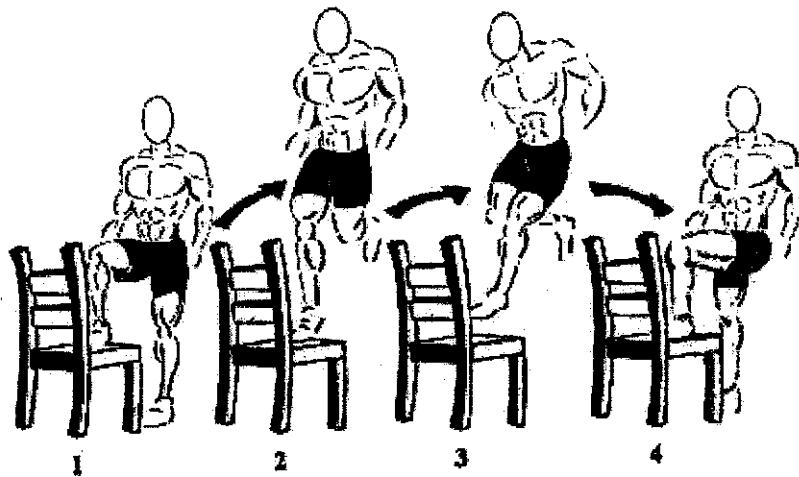


Step1: Your starting position will be with the heel below the book or stair step rested on by your entire body.

Step2: Raise yourself as high up as you can with only the one calf

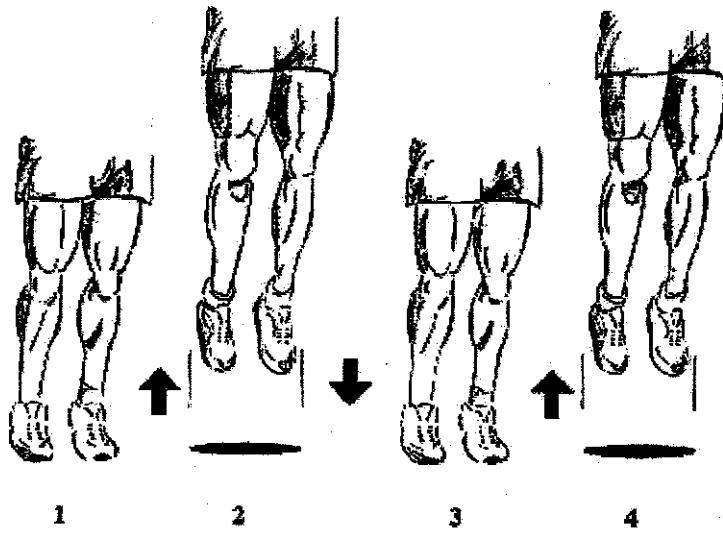
Step3: Lower your body back to the original, starting position. This completes 1 repetition.
Step4: begin second repetition.

Stepups



Step1: Begin with one thigh on the chair parallel to the ground.
Step2: With all of your strength, push off of the elevated leg and leap off of the chair as high as you can.
Step3: Crisscross or switch your legs in the air.
Step4: Land with the opposite leg elevated in the chair as in step 1. Repeat the procedure until you are back to step 1. This completes 1 repetition.

Thrust ups

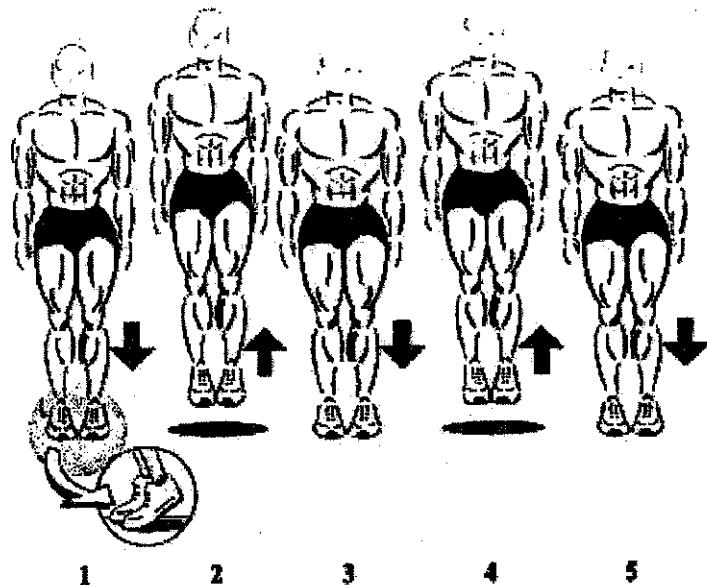


Step1: Begin with your legs straight.

Step2: Thrust (or bounce) yourself up as high as you possibly can.

Step3: The split second and you hit the ground, thrust back up as high as you can trying not to bend your legs. It is helpful to use your arms to throw yourself back up into the air.

Burnouts



Step1: Elevated as high as you possible can on your tiptoes to assure that you work the high end of your calves.

Step2: As quickly as you possibly can, jump repeatedly no more than 1/2 to 1 inch off of the ground making sure to keep yourself elevated as high on your tiptoes as possible ensuring that you are working the upper calf muscles.

Rest 1-2 minutes between sets.

GET OUT AND PLAY AND WORK THOSE LEGS

During the days that you are not doing Air Alert III, it is important that you help your legs get used to normal jumping situations. Air Alert III will increase your vertical, but you will need to train your legs to actual jumping situations. On your days off from Air Alert III, go out and play. And, practice jumping aggressively when you play. This helps to develop muscle memory.

AIR ALERT III PROGRESS CHART

WEEK 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

DATE

HEIGHT

AIR ALERT III WORKOUT CHART (ODD WEEKS)

ODD NUMBERED WEEKS ARE TO BE DONE ON MONDAY-WEDNESDAY-FRIDAY ONLY

Week	Leap Ups		Calf Raises		Step Ups		Thrust Ups		Burnouts		Squat Hops (wed)	
	sets	reps	sets	reps	sets	reps	sets	reps	sets	reps	sets	reps
1	2	20	2	10	2	10	2	15	1	100	4	15
3	3	25	2	20	2	15	2	25	1	300	4	20
5	4	25	2	30	2	20	2	35	2	250	4	25
7	4	30	2	40	2	25	2	50	2	350	5	25
9	4	50	2	50	2	30	2	70	3	300	5	30
11	6	50	4	30	2	35	2	90	4	275	5	30
13	DO NOT DO AIR ALERT 3 IT IS IMPORTANT THAT YOU REST YOUR LEGS DURING WEEK 13!!!!!!											
15	4	100	4	50	2	50	2	100	4	500	5	50

AIR ALERT III WORKOUT CHART (EVEN WEEKS)

EVEN NUMBERED WEEKS ARE TO BE DONE ON TUESDAY-WEDNESDAY-THURSDAY ONLY

Week	Leap Ups		Calf Raises		Step Ups		Thrust Ups		Burnouts		Squat Hops (wed)	
	sets	reps	sets	reps	sets	reps	sets	reps	sets	reps	sets	reps
2	3	20	2	15	2	15	2	20	1	200	4	20
4	3	30	2	25	2	20	2	30	2	200	4	20
6	2	50	2	35	2	25	2	40	2	300	4	30
8	3	50	2	45	2	30	2	60	4	200	5	25
10	5	40	2	55	2	35	2	80	4	250	5	30
12	4	75	4	35	2	40	2	100	4	300	6	30

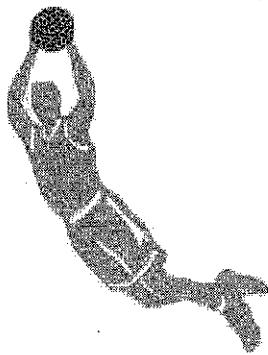
14	3	30	2	30	2	20	2	30	1	250	4	20
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* Week 14 is designed to prepare your legs for the final week. The repetitions have been reduced for this reason. Do not exceed what is prescribed.

* Week 15 must be completed on Monday-Tuesday-Thursday-Friday.

The final week is designed to completely exhaust and breakdown the jumping muscles and prepare them for final recovery. That is the reason the repetitions are higher and 4 days required instead of 3. You will notice that your jumping ability will be the highest 4-7 days after completion of the program. MAINTENANCE At the completion of Air Alert III, you can maintain your new vertical simply by aggressively playing a jumping sport 2-3 times per week. You may also repeat week 8 on the alternating, 3 day per week routine. If you wish to redo the program entirely for additional gains, you should wait at least 1 full month before restarting. It is important to rest your legs from this type of workout if you wish to add additional inches. Your gains will not be as significant each time that you do the program.

The HoopsU.com Vertical Jump Workout



Tony Alfonso

www.HoopsU.com

Introduction

This vertical jump training program is designed to help you increase leg strength and explosiveness, as well as to help in the reduction of knee and ankle injuries. If performed with proper technique, and by utilizing a good work ethic, you will develop the necessary muscular strength and balance to help in the prevention of knee and ankle injuries. It will also help significantly improve vertical jump and explosiveness. Proper technique, as mentioned above, is VITAL for each exercise. Jumping is not the only movement involved here...you will also be landing. Pay close attention to the mechanics of landing after each jump.

The Hoops U. Vertical Jump Training Program is a workout utilizing plyometrics. Plyometrics, by definition, are exercises or drills aimed at linking strength with speed of movement to produce power. Enabling the muscle to reach maximum strength in as short a time as possible is the goal. Plyometrics are probably the single most effective method of increasing power.

With that said, plyometrics are very rigorous and intense in nature. Because of this high-intensity, plyometrics should only be performed at limited times throughout the year (usually during the offseason). These exercises should also be done only 1-2 times per week, as I have explained below. Also, due to the high stress on muscles, tendons, and joints, I recommend at least 6 months or more of basic weight training prior to incorporating any plyometric exercises. If you would like a strength training workout to follow prior to beginning this vertical jump training workout, check out *The Complete Basketball Strength and Speed Program* from Hoops U at www.HoopsU.com/basketballstrengthspeed.html. This program has easy-to-follow workouts for year-round strength and speed training for basketball. It includes a beginner's program as well as all the necessary drills and exercises to improve strength, speed, agility, explosiveness, conditioning and much more! Plyometrics are included as you progress through the program so this workout can be incorporated with it or performed during the year...generally the spring/early summer is a good time.

Now, to the workout...

First of all, you will need to print or copy the Workout Log Sheet found at the end of this eBook. Begin with workout 1 and progress slowly. Perform this workout 1-2 times weekly. More is NOT better. This amount of time will be effective and not put over-stress on your legs.

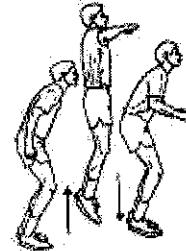
Below are the descriptions of each exercise to be performed. You may want to print these descriptions as an easy reference guide. As stated above, you will also want to print out the workout sheet which details how many sets and reps and/or how long to do each exercise.

Vertical Jump Training Exercise Descriptions

Exercise: Ankle Hops

Starting Position: Stand straight with arms extended straight over head.

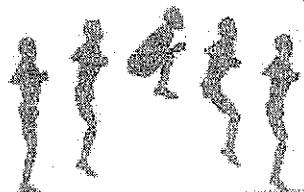
Movement: With your knees slightly bent and arms raised over head, bounce up and down off of your toes. You should not be bending significantly at the knees; the focus is on the ankles and calf muscles. Concentrate on performing quick and precise jumps, keeping yourself in the same spot on the ground for the designated amount of time.



Exercise Two: Tuck Jumps

Starting Position: Stand in a half-squat position with your hips back, knees over toes, and shoulders over your knees. Keep your hands out in front of you for balance.

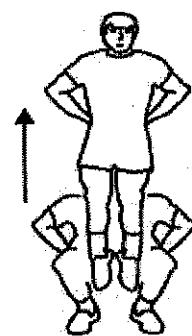
Movement: Jump up as high as you can, bringing your knees to your chest at the top of the jump. Land in a soft and controlled manner with hips back and shoulders over your knees. Hold this position for 1-2 seconds and repeat the jump. Continue this movement for the duration of the prescribed time.



Exercise Three: Squat Jumps

Starting Position: Begin with your feet shoulder-width apart in a squat position with hands touching the ground in front of your toes. Your knees should be directly over your toes with hips sitting back. Your knees should be bent approximately 90 degrees. Your chest should be directly over the middle of your thighs.

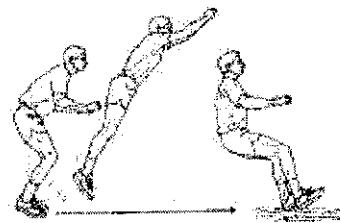
Movement: Explode up and jump as high as you can into the air reaching for the sky. Land soft and under control with your hips back, knees over your toes in the starting position. Immediately repeat the jump for the designated amount of time.



Exercise Four: Standing Long Jumps

Starting Position: Stand with your toes on a line, feet shoulder-width apart. Keep your hands in front of you for balance.

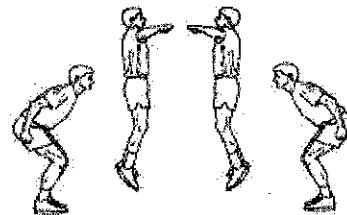
Movement: Using your knees, you will be bending down, keeping feet stationary. Rock back and then jump forward as far as you can under control; (under control means landing on both feet and being able to hold the landing in one spot; falling forwards or backwards is not being under control) Land softly and hold for a second. Also, swing your arms to help further your distance. Perform for sets and reps as directed.



Exercise Five: 180-degree Jumps

Starting Position: Stand in a half-squat position with your hips back, knees over your toes, and shoulders over your knees.

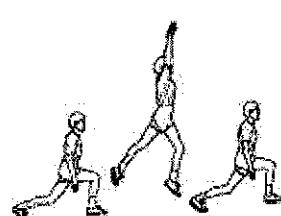
Movement: Jump up as high as you can and, while in the air, spin 180 degrees, so that you land facing the opposite direction. Land softly and under control. Repeat, jumping in the opposite direction. Perform for designated time.



Exercise Six: Split-Squat Jumps

Starting Position: Start in a semi-lunge position with one foot in front of the other.

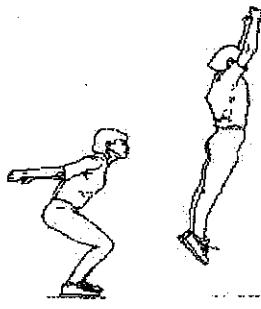
Movement: Jump up as high as you can, alternating foot positions in mid-air. (If you begin this exercise with your left foot forward, your left foot should be in the back of the right foot at the completion of one repetition.) Use your hands for balance, land softly and under control. Repeat the action for prescribed time.



Exercise Seven: Single Leg Jumps

Starting Position: On one leg, lean forward so your shoulders are over your knee and hips are back. (*The picture to the right shows on two legs, but you need to do this on one leg only*)

Movement: Jump from one leg to the other straight up and down. Bend at the knee as much as you can while



still performing a controlled jump. Land softly and under control and hold the landing for 1-2 seconds. Increase the rhythm and knee height as you progress. Continue for the designated time.

Exercise Eight: Box Jumps

Starting Position: Stand 1-1.5 feet away from a box that is 12"-36" high. Be sure that the box is stable, will not skid, and will support your body weight. Use a shorter box if you are beginning and progress to a taller box as you are able to.

Movement: Using your arms to gather momentum, jump up as high as you can and land softly on top of the box. Focus on a soft and controlled landing by bending at the knees with hips back. Step (DO NOT JUMP) down off the box and repeat for the duration of prescribed time.



Exercise Nine: Box Jumps (Advanced Only)

Starting Position: Holding a medicine ball (5-20 lbs) behind your head, stand 1-1.5 feet away from a box that is 12" - 36" high. Be sure that the box is stable, will not skid, and will support your body weight.

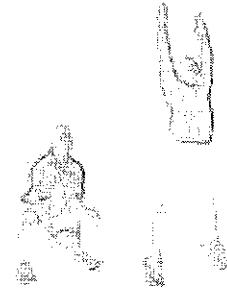
Movement: Holding the medicine ball behind your head, use your hips and knees for momentum and jump as high as you can and land softly on top of the box. Focus on a soft and controlled landing by bending at the knees with hips back. Step (DO NOT JUMP) down off the box and repeat for the duration of prescribed time.

(This drill is the same as the Box Jumps picture above, except that you are holding a medicine ball.)

Exercise Ten: Medicine Ball Catapult

Starting Position: Stand in a half-squat position with feet slightly wider than shoulder-width apart. Hold a medicine ball (10-25 lbs) between your legs, keeping your back straight and eyes forward.

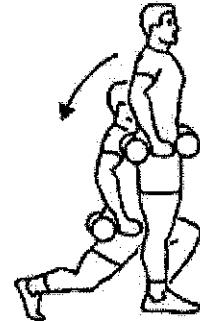
Movement: Throw the medicine ball as high as you can. Press your legs through the ground and drive your knees, hips, and ankles upward. Extend your arms as high as possible as you release the medicine ball from your hands. Let the medicine ball drop to the ground, pick up and repeat for the duration.



Exercise Eleven: Reverse Lunges

Starting Position: Stand upright holding a bar across the back of your shoulders; you could also hold dumbbells at your side. For beginners, just use your body weight for resistance by placing your hands on your hips.

Movement: Step backward directly behind you. As you reach back, allow your shoulders to come forward slightly. As you drop down DO NOT allow your front knee to go out in front of your toes. This places undue stress on the knee. Your front leg should be perpendicular to the floor (90 degrees) at the bottom position. Hold this position for a moment and then slowly and under control pull yourself upright with your forward leg. Do not spring off your back leg. Allow your forward leg to perform the entire movement.



Exercise Twelve: Plate Squats

Starting Position: Stand with feet shoulder-width apart, knees slightly bent, hips back. Hold a weight plate with both hands at chest level, elbows bent.

Movement: Lower yourself until knees and hips are fully bent. Be certain to keep the knees directly over the toes. If you lean forward out in front of the toes, you can place undue pressure on the knees. Extend knees and hips until legs are straight. Return and repeat. Also, be sure to keep your head forward, back straight and feet flat on the floor, do not raise your heels. As you extend up, think of driving your heels into the floor.



Exercise Thirteen: Single Leg Squats

Starting Position: Stand on one leg and lean forward so that your chest is almost perpendicular to the ground. Place arms out to the side and other leg back on a bench for balance. For added difficulty, you can hold dumbbells at your side.

Movement: Making sure you are balanced, bend your knee to approximately to a half-squat position. Push back up slowly and repeat. Perform 10 repetitions on each leg.

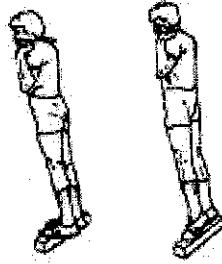
ADVANCED: Perform the single leg squat on the floor or standing on a bench and do not rest your back leg on a bench for support. This will place more focus on the one leg to improve strength and balance, but will increase difficulty.



Exercise Fourteen: Calf Raises

Starting Position: Stand with the balls of your feet on the block of a standing calf raise machine. Your hips should extend out behind you. Hook your shoulders under the pads of the machine and straighten your legs bringing the weights of the machine up. DO NOT lower heels as far as possible toward the floor as this puts tremendous stress on your calf muscles and tendons. Keep your feet parallel to the floor or slightly below. If you do not have access to the machine, you can stand on a step or box and perform this exercise; dumbbells or a weighted bar across the shoulders may also be used.

Movement: Come up on your toes as far as possible (1-2 seconds). Pause for a good second or longer, get a good squeeze at the top of the movement. Slowly lower back down (3-4 seconds) to the starting position.



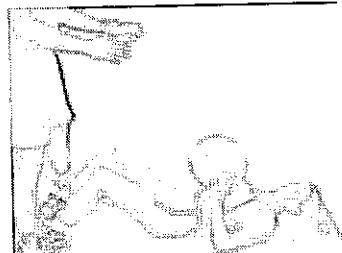
Exercise Fifteen: Medicine Ball Sit-ups

Starting Position: For this exercise, you will need a medicine ball (5-20 lbs) and a partner. Begin by lying on your back with your feet on the floor and knees bent at 90 degrees. Hold the medicine ball directly over your head. Your partner is standing on your feet for stability during this exercise.

Movement: Throw the medicine ball to your partner while simultaneously performing a full sit-up. Your partner will catch the medicine ball and hand it back to you over your head. Slowly return to the ground keeping the ball over your head. Perform 25 reps.

If you have no medicine ball or do not have a partner, try to do either incline sit-ups on a sit-up board and/or hold a weight on your chest as you perform the sit-ups.

ADVANCED: Perform on a decline sit-up board or stability ball. Instead of simply performing a sit-up and handing the ball to your partner, throw the ball to your partner as far as you can comfortably throw it. The partner will receive the ball and toss it back to your overhead position.



Vertical Jump Training Workout Log Sheet

	Workout 1 & 2		Workout 3 & 4		Workout 5 & 6		Workout 7 & 8		Workout 9 & 10		Workout 11 & 12	
Exercise	Sets	Time	Sets	Time	Sets	Time	Sets	Time	Sets	Time	Sets	Time
Ankle Hops	1 15 sec	1 :20 sec	1 :25 sec		1 :25 sec		1 :30 sec		1 :30 sec		1 :30 sec	
Tuck Jumps	1 15 sec	1 :20 sec	1 :25 sec		1 :25 sec		1 :30 sec		1 :30 sec		1 :30 sec	
Squat Jumps	1 10 sec	1 :15 sec	1 :20 sec		1 :20 sec		1 :25 sec		1 :25 sec		1 :25 sec	
Standing Long Jumps	1 5 reps	2 5 reps	2 5 reps		2 5 reps		2 5 reps		3 5 reps		3 5 reps	
180-degree Jumps	1 15 sec	1 :20 sec	1 :25 sec		1 :25 sec		1 :30 sec		1 :30 sec		1 :30 sec	
Split-Squat Jumps (each)	1 10 sec	1 :15 sec	1 :20 sec		1 :20 sec		1 :25 sec		1 :25 sec		1 :25 sec	
Single Leg Jumps (each)	1 15 sec	1 :20 sec	1 :25 sec		1 :25 sec		1 :30 sec		1 :30 sec		1 :30 sec	
Box Jumps	1 10 jumps	2 10 jumps	2 10 jumps		2 10 jumps		3 10 jumps		3 10 jumps		3 10 jumps	
Box Jumps (Advanced)	1 10 jumps	2 10 jumps	2 10 jumps		2 10 jumps		3 10 jumps		3 10 jumps		3 10 jumps	
Medicine Ball Catapault	1 10 throws	2 10 throws	2 10 throws		2 10 throws		3 10 throws		3 10 throws		3 10 throws	
Reverse Lunges (each)	1 :30 sec	1 :30 sec	1 :45 sec		1 :45 sec		1 :60 sec		1 :60 sec		1 :60 sec	
Plate Squats	1 20 reps	2 20 reps	2 20 reps		3 20 reps		3 20 reps		3 20 reps		3 20 reps	
Single Leg Squats (each)	1 10 reps	2 10 reps	2 10 reps		3 10 reps		3 10 reps		3 10 reps		3 10 reps	
Calf Raises (each)	1 20 reps	2 20 reps	2 20 reps		3 20 reps		3 20 reps		3 20 reps		3 20 reps	
Medicine Ball Sit-ups	1 25 reps	2 25 reps	2 25 reps		3 25 reps		3 25 reps		3 25 reps		3 25 reps	

PLYOMETRICS

Workout

Double Leg Jumps

	SETS	REPS
1. Double Leg Forward Jumps for Distance	2 sets	5 Jumps
2. Double Leg Jumps for Height	2 Sets	5 Jumps
3. Double Leg Lateral Jumps for Height (Jump over an object)	2 Sets	5 Jumps

Single Leg Jumps

4. Stationary Split Lunge Jumps for Height (Switch legs at top of jump)	1 Set	6 Jumps
5. Single Leg Power Skip for Height (Alternate Legs)	2 Sets	6 Jumps
6. Single leg Forward Bounding for Distance and Height (Alternate Legs)	2 Sets	6 Jumps

Speed Jumps

7. Double Leg forward hop for speed (Hop over 8 small objects (example: cones))	2 Sets	8 hops
8. Double Leg Lateral hop for speed (Hop over one small object)	2 Sets	8 hops

Box Jumps

9. Double Leg Jump for <u>height</u> onto a tall box or platform (Jump for Power – end jump with heels on box or platform)	2 Sets	5 Jumps
10. Double Leg Jump for <u>Speed</u> onto a tall box or platform (Jump for Speed – toes on box or platform)	2 Sets	5 Jumps

EXAMPLE OF PLYOMETRIC JUMPS

1. DOUBLE LEG FORWARD JUMPS FOR DISTANCE



2. DOUBLE LEG JUMPS FOR HEIGHT



5. SINGLE LEG POWER SKIP

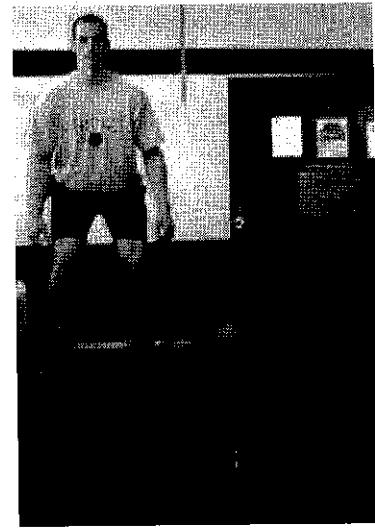


7. DOUBLE LEG FORWARD HOP FOR SPEED



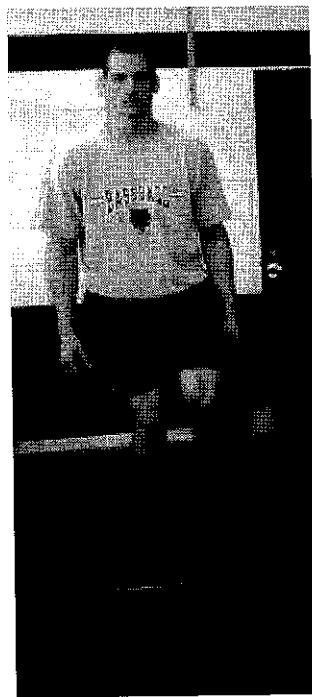
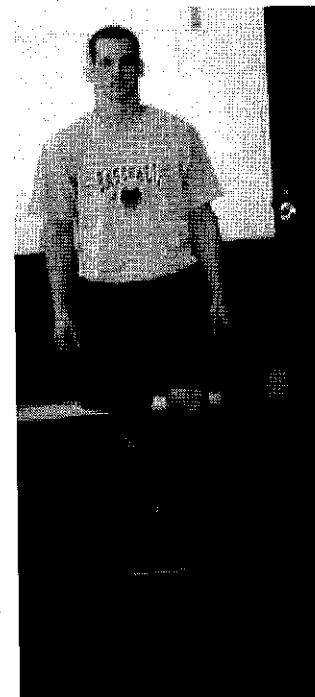
PLYOMETRIC EXERCISES

Box Jumps: Use a box that is 12 to 30 inches high. Set your feet about shoulder width apart about 2 feet away from the box. Jump straight up and land on the box softly. Step down onto a lower box to your side, get back to your starting position, and jump again. The key to this exercise is landing as soft as you can on the box. Make sure you start with the smallest box and move up to a higher box when you feel comfortable.

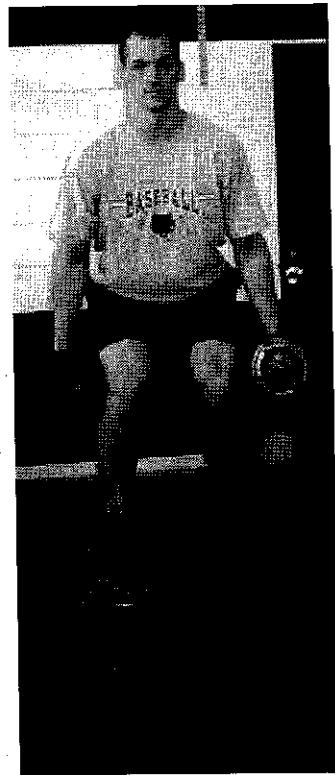
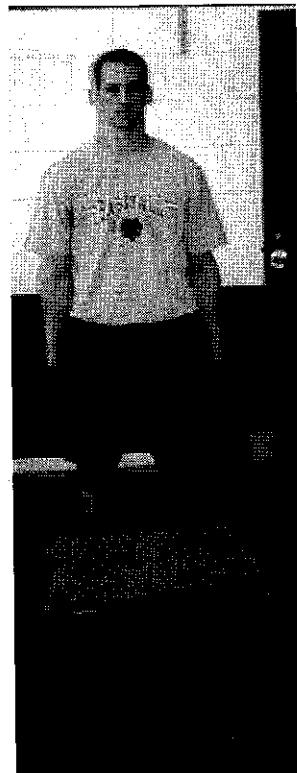


Single leg box Jumps: This exercise will be done both forward and laterally. Use a box that is 4 to 14 inches high. To jump forward, stand on one leg with the box in front of you. Jump off this leg and land on the same leg on top of the box landing as soft as you can. Step down with your opposite leg. Perform the prescribed number of reps for each leg.

To jump laterally, stand on one leg with the box beside you. Jump off this leg and land on the same leg on top of the box. Perform this exercise on both legs with your inside and outside foot. The key to this exercise is to land soft on top of the box, and to stick your landing creating stability.



Weighted Box Jumps: Use a box that is 14 to 16 inches high. Hold dumbbells that are 10 to 40 pounds in each hand about 2 feet away from the box. Jump straight up and land softly on top of the box. Step down, set your feet, and then jump again.



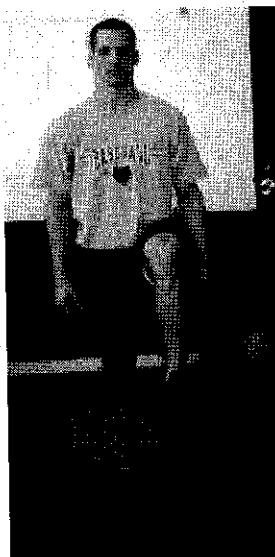
Lateral Bounds: Moving in the lateral plane without moving forward, push off of one leg as far as you can to your side landing on your other foot. As soon as you land, stabilize yourself, and then push back the other way to the foot you originally started with. Repeat this sequence back and fourth for the prescribe number of repetitions.



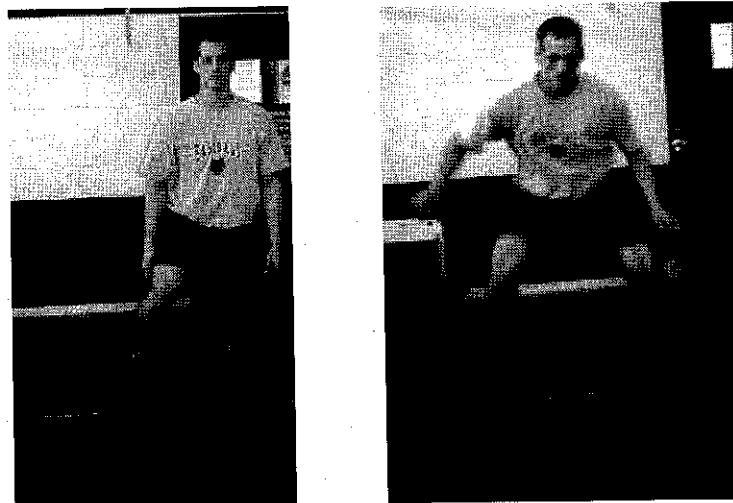
Skater Bounds: This exercise will be performed the same way as a lateral bound, but you will now move forward. Push off one leg at a 45-degree angle and land on the other foot. As soon as you land, stabilize yourself, and then push back to the foot you started with at a 45-degree angle. Move forward going back and forth for about 20 yards.



Forward Shuffle Jumps: Use an 18-inch box or a flat bench. Start with your left foot on top of the box, and your right foot on the floor. Push off your left leg as high as you can straight up in the air. When coming back down land with your right foot on the box and your left foot on the floor. Repeat this movement with your right leg, and continue the cycle back and fourth for the prescribed number of repetitions.



Lateral Skip Overs: Use a 12 to 14 inch box. Start with your right foot on top of the box, and your left foot on the floor to the left side of the box. Push off your left foot laterally, so that your left foot will land on top of the box, and your right foot will land on the floor to the right side of the box. Repeat this sequence back and fourth as quick as you can for the prescribed amount of time.

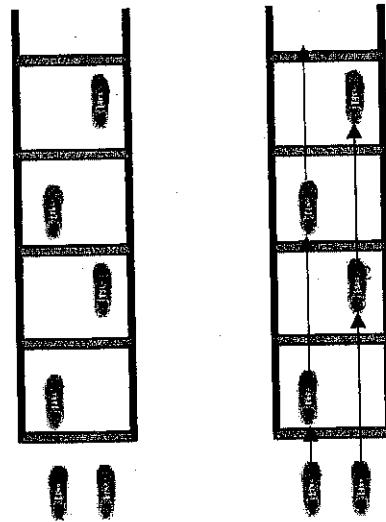


University of Washington Sports Performance

Speed Ladder and Foot Speed Drills

FOOT-SPEED DRILLS

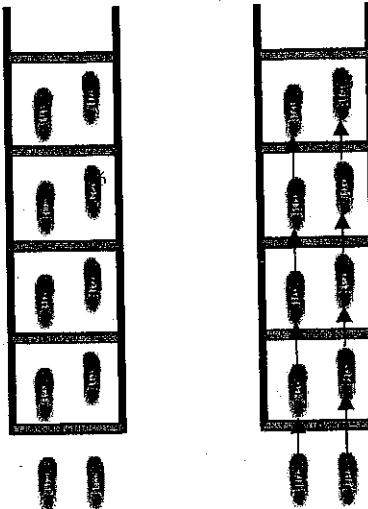
SPEED LADDER DRILLS



STRAIGHT RUN (1 foot in hole)

Facing the front of the ladder:

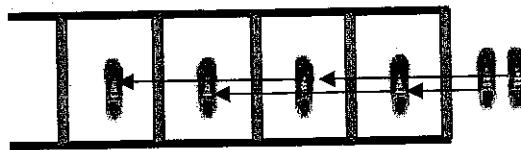
- Run through the ladder, placing the LEFT (1) foot in first hole, followed by the RIGHT (2) foot in the second hole
- Follow this pattern through the ladder



STRAIGHT RUN (2 feet in hole)

Facing the front of the ladder:

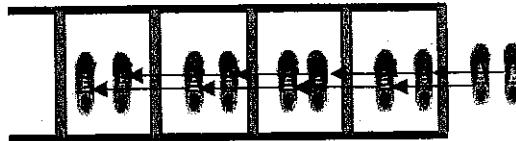
- Run through the ladder, placing the LEFT (1) foot in first hole, followed by the RIGHT (2) foot in the same hole
- Follow this pattern through the ladder



LATERAL RUN (1 foot in hole)

Facing laterally to the front of the ladder:

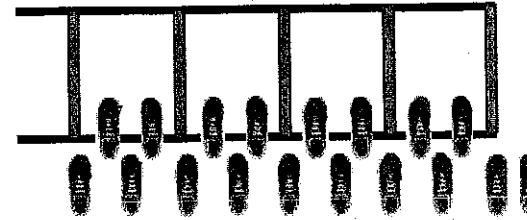
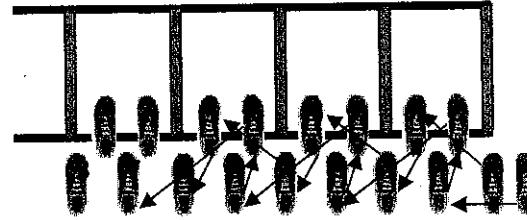
- Run laterally through the ladder, placing the LEFT (1) foot in first hole, followed by the RIGHT (2) foot crossing-over in front of the left and into the second hole
- Follow this pattern through the ladder



LATERAL RUN (2 feet in hole)

Facing laterally to the front of the ladder:

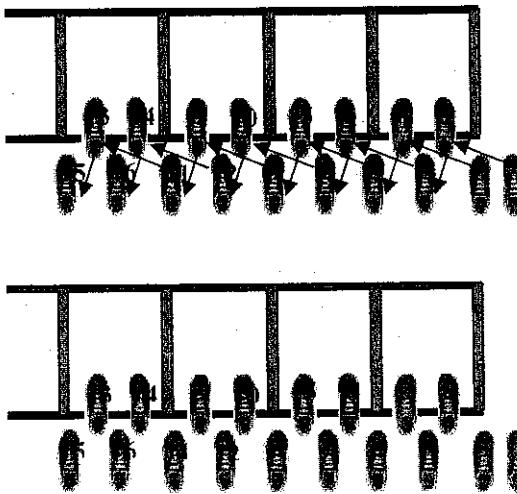
- Run laterally through the ladder, placing the LEFT (1) foot in first hole, followed by the RIGHT (2) foot in the same hole
- Follow this pattern through the ladder



LATERAL IN-OUT (Ali Shuffle)

Beginning in front of the right side of the ladder:

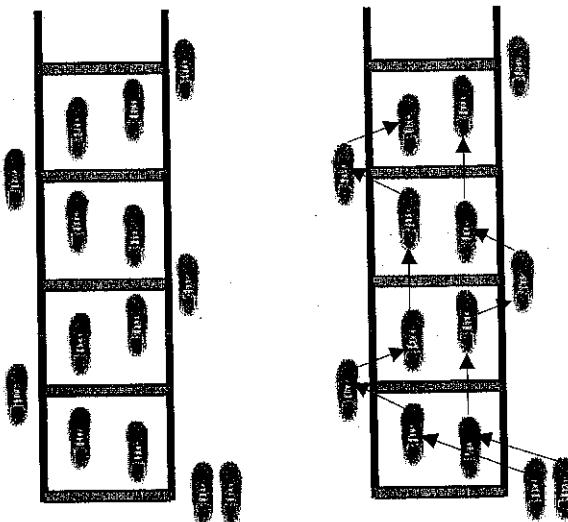
- Step with LEFT (1) and RIGHT (1) foot at the same time - Left in the hole, right outside the ladder
- Step with RIGHT (2) and LEFT (2) foot at the same time - Right in the first hole, left outside the ladder
- Continue with pattern through end of ladder

**LATERAL FORWARD-BACK**

**Variation - Take another step forward out of the ladder*

Beginning in front of the right side of the ladder:

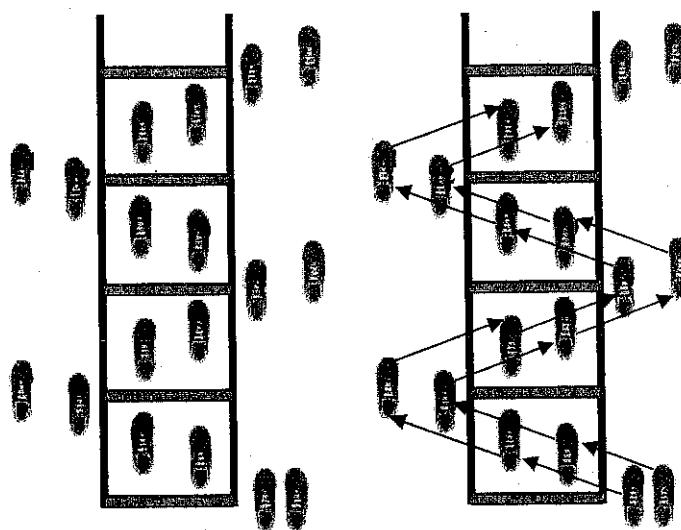
- Step with LEFT (1) foot, followed by the RIGHT (2) - Both in first hole
- Step with LEFT (3) foot, followed by the RIGHT (4) - Both outside the ladder
- Continue with pattern through end of ladder



ICKEY SHUFFLE (1 foot out)
**Variation - Backwards Ickey Shuffle*

Beginning at the right side of the ladder:

- Step with LEFT (1) foot, followed by the RIGHT (2)
- Step out with LEFT (3) foot
- Step forward with RIGHT (4) foot, follow with LEFT (5)
- Step out with RIGHT (6) foot
- Step forward with LEFT (7) foot, follow with RIGHT (8)
- Continue with pattern through end of ladder



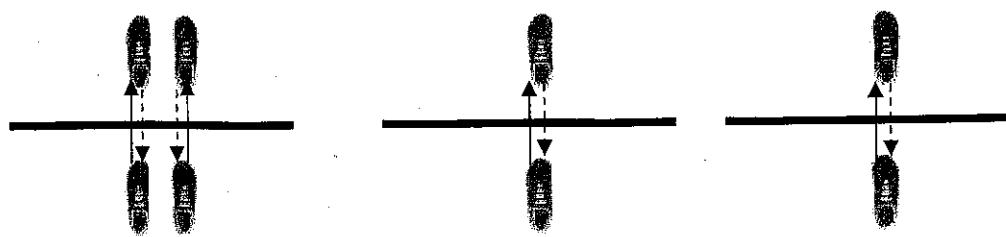
ICKEY SHUFFLE (2 feet out)
**Variation - Backwards Ickey Shuffle*

Beginning at the right side of the ladder:

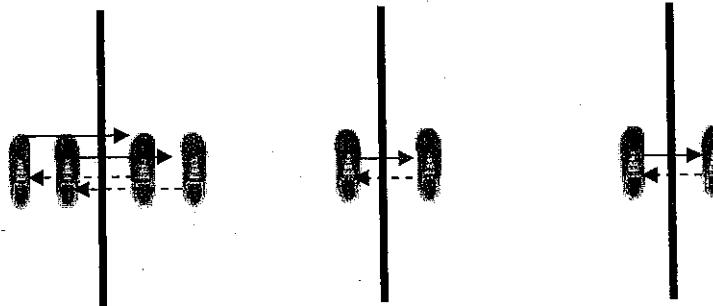
- Step with LEFT (1) foot, followed by the RIGHT (2)
- Step out with LEFT (3) foot, followed by the RIGHT (4)
- Step forward with RIGHT (5) foot, follow with LEFT (6)
- Step out with RIGHT (7) foot, followed by the LEFT (8)
- Step forward with LEFT (9) foot, follow with RIGHT (10)
- Continue with pattern through end of ladder

LINE DRILLS / DOT DRILLS

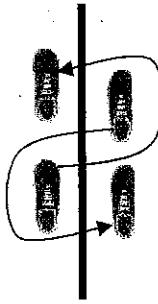
Select 3-4 drills, do each of them 2x for 5-10 seconds. Focus on quality foot contacts, not conditioning. All drills are identical for both the Line Drills and the Dot Drills - Choose whether to use lines or dots (These same drills can be used for jump roping also).

**FORWARD-BACKWARD****Variation - Two feet, Right foot, Left foot***Beginning behind the line (1):**

- Hop forward (2) and backward (beginning position 1) over the line, repeat pattern

**SIDE-SIDE (2 Foot)****Variation - Two feet, Right foot, Left foot***Beginning on the left side of the line (1):**

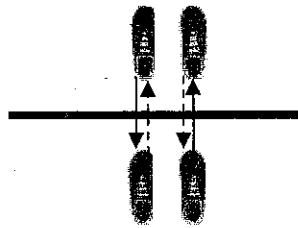
- Hop side (2) to side (beginning position 1) over the line, repeat pattern



CROSS-OVER

Beginning with feet crossed over the line (1)

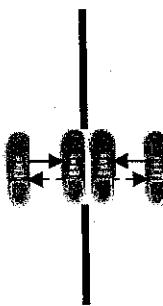
- Cross **RIGHT** foot (2) in front of **LEFT** foot (2) over the line, repeat pattern



ALI SHUFFLE

Beginning with feet split across the line (1)

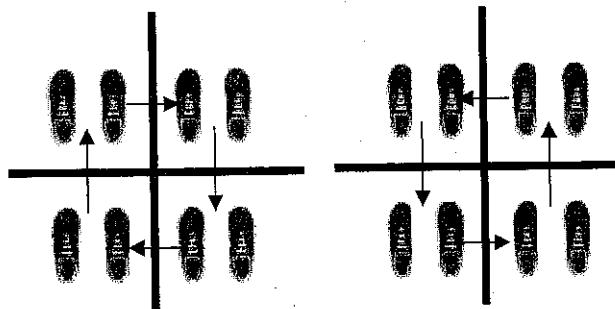
- Simultaneously step with both feet forward and backward (2) across the line, repeat pattern



LINE TOUCH

Beginning with feet straddling the line (1)

- Simultaneously touch the line with both feet (2)
- Hop back to straddling the line (Beginning position 1), repeat pattern



SQUARE (2 Foot)

*Variations - Clockwise & Counter-clockwise

Beginning at the lower right corner

- Hop laterally to lower left corner (2)
- Hop forward to upper left corner (3), then hop laterally to the top right corner (4)
- Hop backward to bottom right corner (Beginning position 1), repeat pattern

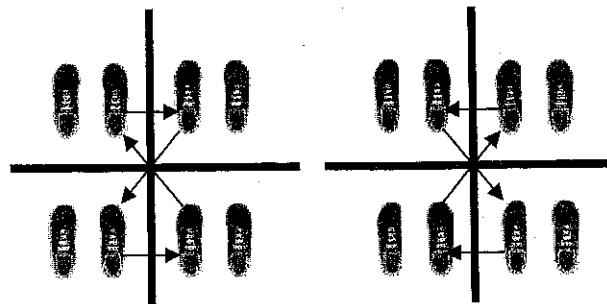
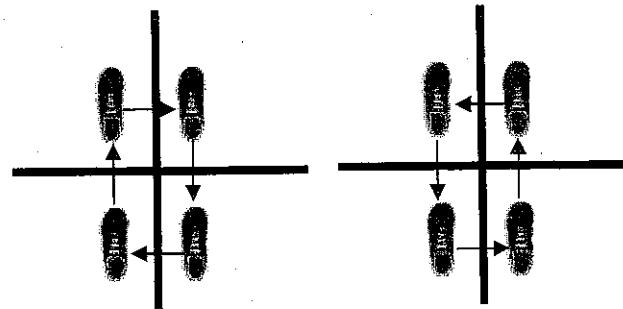


FIGURE 8 (2 Foot)

*Variations - Clockwise & Counter-clockwise

Beginning at the lower right corner

- Hop laterally and forward to upper left corner (2)
- Hop laterally to the top right corner (3)
- Hop laterally and backward to bottom left corner (4)
- Hop laterally to the bottom right corner (Beginning position 1), repeat pattern



SQUARE (1 Foot)

*Variations - Clockwise & Counter-clockwise, Right foot & Left foot

Beginning at the lower right corner

- Using the left foot (1), Hop laterally to lower left corner (2)
- Hop forward to upper left corner (3), then hop laterally to the top right corner (4)
- Hop backward to bottom right corner (Beginning position 1), repeat

pattern

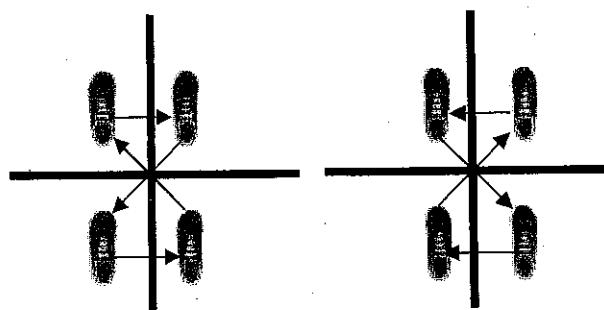
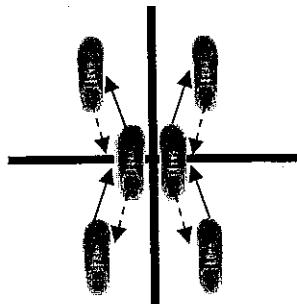


FIGURE 8 (1 Foot)
**Variations - Clockwise & Counter-clockwise, Right foot & Left foot*

Beginning at the lower right corner

- Using the left foot (1), Hop laterally and forward to upper left corner (2)
- Hop laterally to the top right corner (3)
- Hop laterally and backward to bottom left corner (4)
- Hop laterally to the bottom right corner (Beginning position 1), repeat pattern

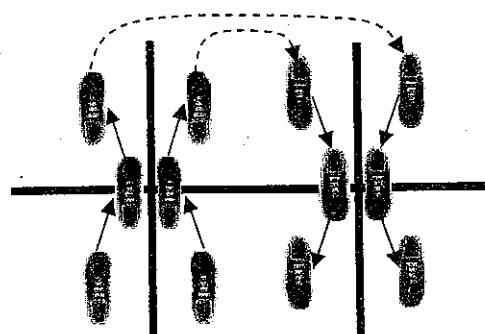


X - (Forward-Backward)

Begin straddling the line in the lower half:

- Hop forward and onto the midline (2)

- Hop forward into a straddle position over the line (3)
- Hop backward and onto the midline (4)
- Hop backward into a straddle position over the line (Beginning position 1), repeat pattern

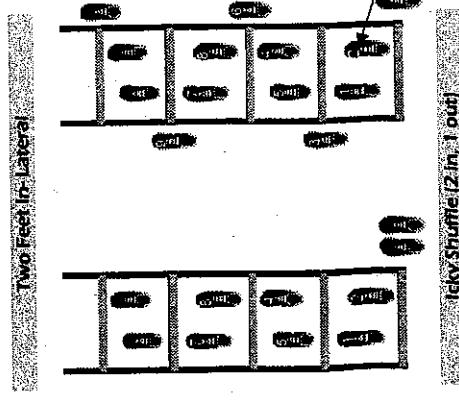
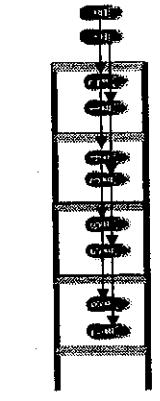
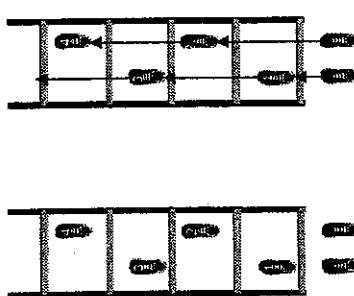
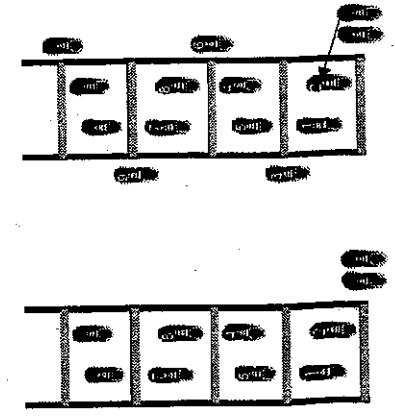
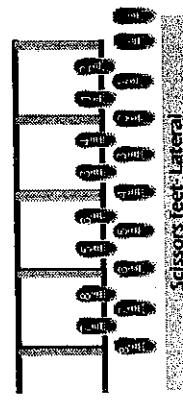
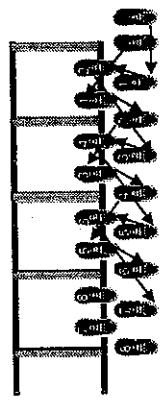
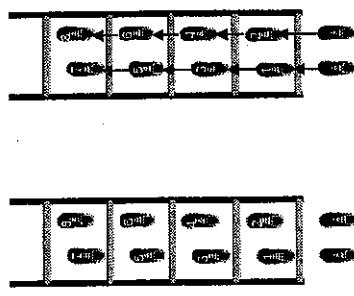
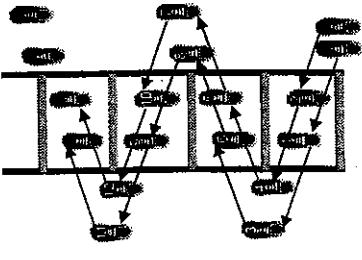
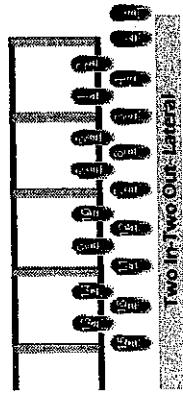
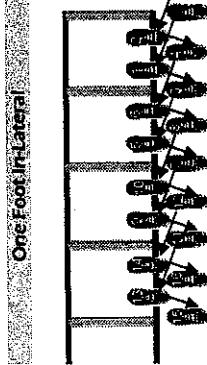
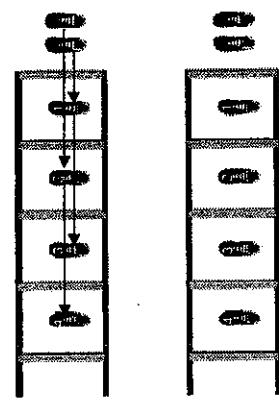


X - (Forward-Flip)

Begin straddling the line in the lower half:

- Hop forward and onto the midline (2)
- Hop forward straddling over the line (3)
- Flip 180°, staying straddled over the line (4)
- Hop forward and onto the midline (5)
- Hop forward straddling the line (6), Flip 180° and repeat pattern

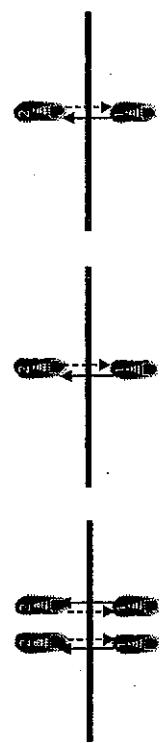
Footwork Drills-SPEED LADDER



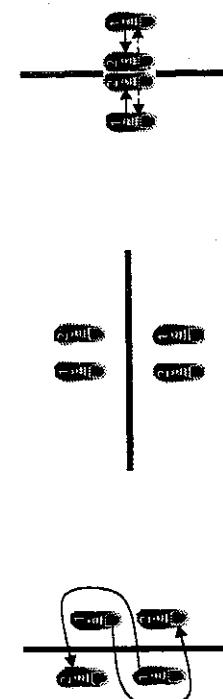
Scissors Feet (2 in 1 out)

Double Leg Zig-Zag

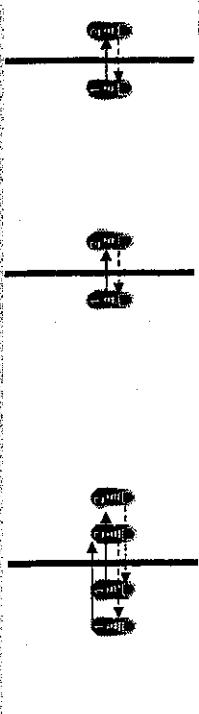
Footwork Drills-LINE DRILLS/DO IT DRILLS



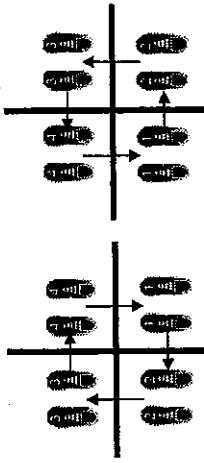
Fast feet-double front to back



Front to back single



Fast feet-double side to side



Side to side-single

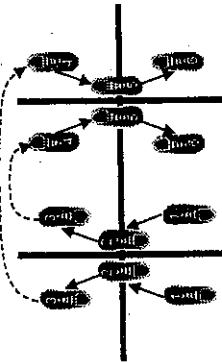
Cross over	Scissors	Line touch
(cross right in front of left, then left in front of right, repeat. Both feet take off/land at same time)	(start with one foot in front of line, other behind. Switch feet	(start with feet apart, then bring feet together on top of line. Repeat.)

Cross over

Scissors

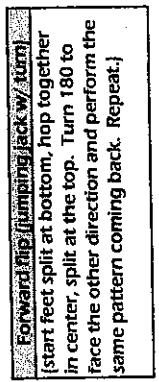
Line touch

Side to side-single
[feet are split on bottom, together in the center, split at the top. Hit the center in between each time.]



Square double leg

[hopping on both legs, go in a square continuously. Do sets going both directions]



Forward jumping jack w/ turn

[start feet split at bottom, hop together in center, split at the top. Turn 180 to face the other direction and perform the same pattern coming back. Repeat.]

SPEED LADDER DRILLS

Perform all drills as fast as possible in an athletic position (knees bent and on the balls of your feet)

DOUBLE LEG LATERAL HOPS - FORWARD

FACING →



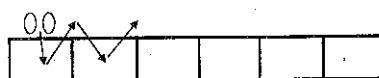
DOUBLE LEG LATERAL HOPS - BACKWARD

FACING ←



DOUBLE LEG FRONT/BACK HOPS

FACING ↓



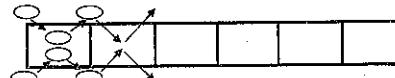
HOP SCOTCH - FORWARD

FACING →



HOP SCOTCH - BACKWARD

FACING ←

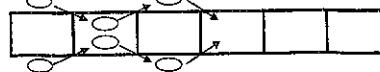


SPEED LADDER DRILLS

Perform all drills as fast as possible in an athletic position (knees bent and on the balls of your feet)

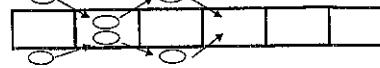
HOP SCOTCH - FORWARD SKIP A HOLE

FACING →



HOP SCOTCH - BACKWARD SKIP A HOLE

FACING ←



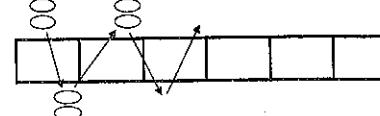
DOUBLE LEG SKI HOPS

FACING →



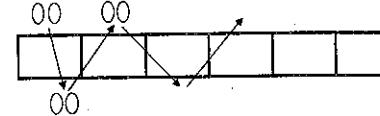
DOUBLE LEG LATERAL HOP OVERS

FACING →



DOUBLE LEG FRONT/BACK HOP OVERS

FACING ↓



SPEED LADDER DRILLS

Perform all drills as fast as possible in an athletic position (knees bent and on the balls of your feet)

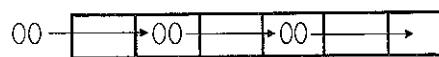
FORWARD HOP THROUGH - SKIP A HOLE

FACING →



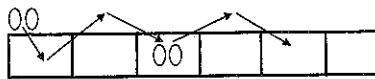
LATERAL HOP THROUGH - SKIP A HOLE

FACING ↓



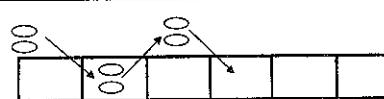
FRONT/BACK HOPS - SKIP A HOLE

FACING ↓



LATERAL HOPS - SKIP A HOLE

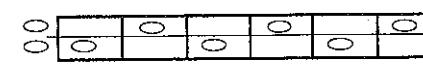
FACING →



HIGH KNEES - 1 FOOT PER HOLE

*Perform a high knee drill with one foot landing in each square - as fast as possible

FACING →



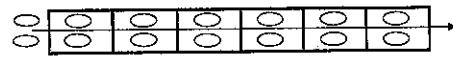
SPEED LADDER DRILLS

Perform all drills as fast as possible in an athletic position (knees bent and on the balls of your feet)

HIGH KNEES - 2 FEET PER HOLE

*Perform a high knee drill with BOTH feet landing in each square - as fast as possible

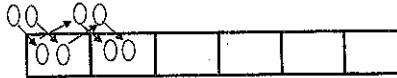
FACING →



STEP IN / STEP OUT

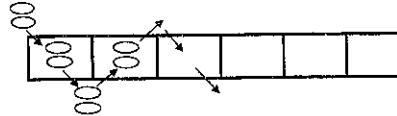
*Step in and out of each hole with both feet as fast as possible

FACING ↓



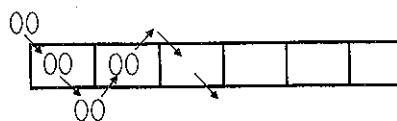
DOUBLE LEG LATERAL CROSSOVERS

FACING →



DOUBLE LEG FRONT/BACK CROSSOVERS

FACING ↓



LATERAL HIGH KNEES - 2 FEET PER HOLE

*Perform a high knee drill moving laterally down the ladder w/ BOTH feet landing in each square

FACING →



SINGLE LEG SPEED LADDER DRILLS

(Perform all single-leg drills with each leg as fast as possible)

SINGLE LEG LATERAL HOPS

FACING →



SINGLE LEG FRONT/BACK HOPS

FACING ↓



SINGLE LEG FORWARD HOPS - EVERY HOLE

FACING →



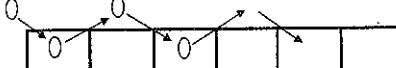
SINGLE LEG LATERAL HOPS - SKIP A HOLE

FACING →



SINGLE LEG FRONT/BACK HOPS - SKIP A HOLE

FACING ↓



SINGLE LEG FORWARD HOPS - SKIP A HOLE

FACING →

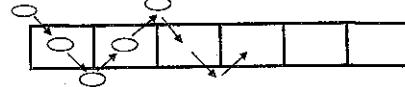


SINGLE LEG SPEED LADDER DRILLS

(Perform all single-leg drills with each leg as fast as possible)

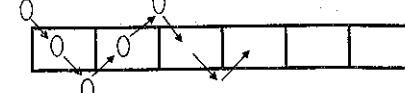
SINGLE LEG LATERAL CROSSOVERS

FACING →



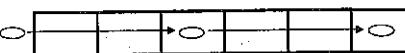
SINGLE LEG FRONT/BACK CROSSOVERS

FACING ↓



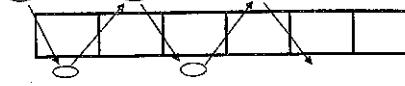
SINGLE LEG FORWARD HOPS - EVERY 3RD HOLE

FACING →



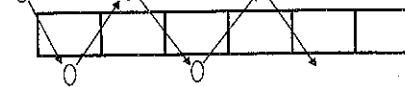
SINGLE LEG LATERAL HOP OVERS

FACING →



SINGLE LEG FRONT/BACK HOP OVERS

FACING ↓



Wrightstown Basketball Footwork and Balance Workout

11) Jump rope for 30 seconds jumping only on the left foot.

12) Do lunges for 30 seconds. Do not go too fast and maintain good balance. You can do forward, reverse, or forward-to-reverse lunges.

13) Jump rope for 30 seconds jumping only on the right foot.

14) Do crunches/sit-ups for 30 seconds. Any kind of crunches/sit-ups is fine.

15) Jump rope for 30 seconds; jumping twice off the left foot and then twice off the right foot. "2 & 2."

16) Do bodyweight squats for 30 seconds. Maintain good form and technique.

17) Jump rope for 30 seconds jumping twice off the left foot and then once of the right foot. call this "2 Left & 1 Right."

18) Do push-ups for 30 seconds. Do regular push-ups, marine push-ups, decline push-ups or any other type of push-ups. Just use good form and technique.

19) Jump rope for 30 seconds, jumping twice off the right foot and then once off the left foot "2 Right & 1 Left."

20) Do a plank exercises for 30 seconds. This is great for the core. You can use the front plank, which some people call the "front bridge." Or you can use side plank exercises as well. You have spent 10 minutes in completing one set of the Footwork and Balance Workout. Start with one minute with each exercise. Try variations as well, like have each of the 30-second rope-skipping sessions followed by 30 seconds of push-ups, or follow each rope-skipping session with 30 seconds of crunches. As you become more proficient at rope skipping, add double and triple jumps, as well as jumping with the rope going back-and-forth.

You are working on footwork, developing rhythm and timing, building cardiovascular endurance and improving coordination. You will develop a sense of confidence as you improve both rope-skipping expertise and physical strength.

Now is the time of the year when basketball players make themselves better by working on skill development, becoming a stronger athlete, improving their physical condition, and hopefully working hard to improve their foot work. In my opinion, footwork and balance are of prime importance to any basketball player who wants to reach his full potential.

Here is a workout that only requires a jump rope and motivation to improve. The workout combines rope skipping and body weight exercises. It is done with intensity and completed every other day, as the rope skipping can be tough on the legs. This workout is versatile enough to be done in the gym, at home, in a field or even while traveling.

You should start by jumping the rope for 30 seconds and then doing a bodyweight exercise for 30 seconds. **Do not rest between each exercise, but wait until the entire circuit is completed.** After becoming accustomed to the workout, a player may want to increase the time of each exercise, or even go through the entire circuit again, have a rest period, and then repeat a second entire circuit of each exercise again. The workout is as follows:

1) Jump rope for 30 seconds jumping off both feet. Work on "touch - go" where the feet touch the floor and immediately go up off the floor again. Do not bound between jumps. While jumping, the person only needs to clear the rope, not jump high. As a person improves his rope-skipping ability, the next goal is to get the rope moving at a faster tempo.

2) Do lunges for 30 seconds. Do not go too fast and maintain good balance. You can do forward, reverse, or forward-to-reverse lunges.

3) Jump rope for 30 seconds, alternating feet. Do left foot touches and then the right foot touches.

4) Do crunches/sit-ups for 30 seconds. Any kind of crunches/sit-ups is fine.

5) Jump rope for 30 seconds jumping off both feet, but going from side to side. Some people call this the "slalom."

6) Do bodyweight squats for 30 seconds. Maintain good form and technique.

7) Jump rope for 30 seconds, jumping off both feet but going forward and backward with the feet. Think of this as jumping over a line from front to back.

8) Do push-ups for 30 seconds. Do regular push-ups, marine push-ups, decline push-ups or any other type of push-ups. Just use good form and technique.

9) Jump rope for 30 seconds using a scissors action with the feet. The left foot goes forward and the right back, then on the next rope revolution the right goes forward and the left foot goes back.

10) Do a plank exercises for 30 seconds. This is great for the core. You can use the front plank, some people call this a "front bridge." Or you can use side plank exercises as well.

"You can't get much done in life if you only work on the days that you feel good."

-Jerry West-

Footwork Drills- LINE DRILLS/DOT DRILLS

 Fast feet-double front to back	 Front to back-single	 Side to side-double side to side	 Side to side-single
 Line touch	 Scissors	 Crossover	 Center/split (jumping jack)
 4-square-double leg	 Forward flip (jumping jack w/ turn)		
<p>(hop on both legs, go in a square continuously. Do sets going both directions)</p>	<p>(start with feet apart, then bring feet together on top of line. Repeat.)</p>		
<p>(cross right in front of left, then left in front of right, repeat. Both feet take off/land at same time)</p>	<p>(start feet split in center, split at the top. Turn 180 to face the other direction and perform the same pattern coming back. Repeat.)</p>		

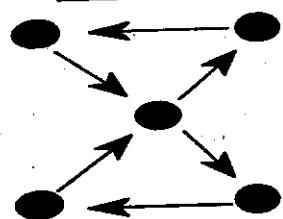
2. Line hops (with partner) (2 or 3 sets)

- a. side to side (15,30 sec) alternate hop and rest
- b. front to back (15,30 sec) alternate hop and rest
- c. figure "8" 1 ft (15,30 sec) alternate hop and rest
- d. figure "8" 2 ft (15,30 sec) alternate hop and rest

SETS: Do all 12 Dot Mat Drills once
REPS: Each Dot Matt Drill will last 30 seconds

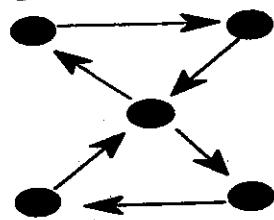
Dot Mat Drills:

FIGURE 8



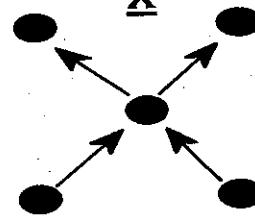
Start at low left, use both feet and face the same direction

HOUR GLASS



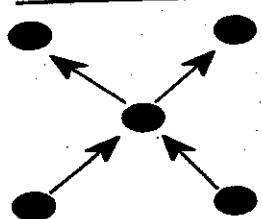
Start at low left, use both feet and face the same direction

X



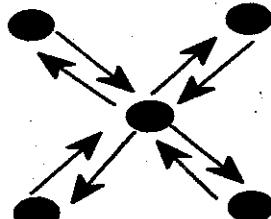
Start on both low dots, use both feet and face the same

HOP SCOTCH



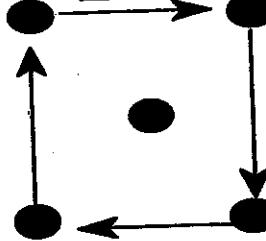
Same as "X", but land one foot in middle, continue, and then land opposite foot in middle

DOUBLE X



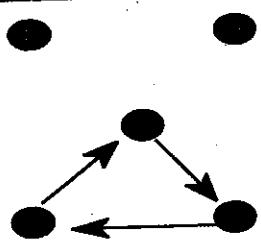
Start on low left, use both feet and face the same direction

Box



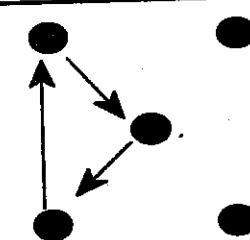
Start on low left, use both feet and face the same direction

TRIANGLE NARROW



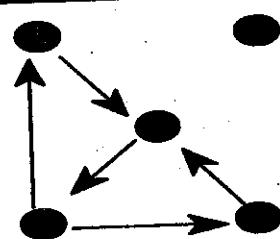
Start on low left, use both feet and face the same direction

TRIANGLE WIDE



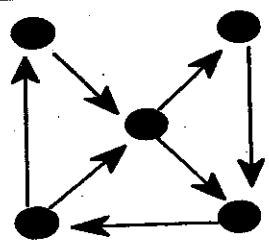
Start on low left, use both feet and face the same direction

TRIANGLE CIRCUIT



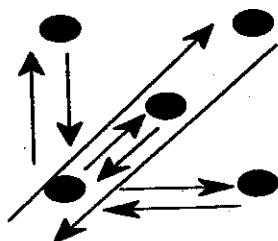
Perform a wide triangle followed by a narrow triangle

RIGHT ANGLES



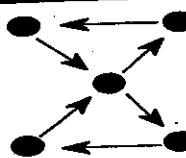
Start at low left, use both feet, face the same direction

ARROWS



Start at low left, use both feet, jump top left, jump middle, jump bottom right, jump top right, then repeat

RUNNING FIGURE 8



Start on left leg at low left, land in mid on right, top right on left, qtr turn, top left on right, mid on left, bottom right on right, qtr turn, low left on left, then repeat

Jump Rope Routine

Week #	1 & 2	3	4 & 5	6	7 & 8	9 & 10
--------	-------	---	-------	---	-------	--------

Jumping Style	3 min station	3 1/2 min	4 min station	5 min station	5 1/2 min	6 1/2 min
Regular Jumps	30 sec	30 sec	30 sec	30 sec	35 sec	40 sec
Side to Side	15 sec	20 sec	25 sec	30 sec	35 sec	40 sec
Alternate feet forward a	15 sec	20 sec	25 sec	30 sec	35 sec	40 sec
Left leg only	15 sec	20 sec	25 sec	30 sec	30 sec	35 sec
Right leg only	15 sec	20 sec	25 sec	30 sec	30 sec	35 sec
2 jumps right foot						
2 jumps left foot	15 sec	20 sec	25 sec	30 sec	35 sec	40 sec
Left leg only	15 sec	20 sec	25 sec	30 sec	30 sec	35 sec
Right leg only	15 sec	20 sec	25 sec	30 sec	30 sec	35 sec
Speed jump-go as fast as possible	45 sec	40 sec	35 sec	60 sec	75 sec	90 sec

** Concentrate on jumping on the ball of the foot and using quick rope action.

JUMP ROPES

SETS: Do Each Jump 2 Times

REPS: Each Jump will last 30 seconds, If you miss you will go for 45 seconds.

- | | |
|------------------|---|
| 1. Hot Pepper | Regular Fast double foot Jumping |
| 2. Side to Side | Double foot jumping side to side over a line. |
| 3. Front to Back | Double foot jumping front to back over a line. |
| 4. Race Horse | Single leg jump – Fast Running Motion. |
| 5. Double Jump | Double foot for height – Rope will travel twice under feet. |
| 6. Right Leg | Single Leg Jump with Right foot |
| 7. Left Leg | Single Leg Jump with Left foot |
| 8. Boxer Shuffle | two jumps on right leg, two jumps on left leg. |

Jump Rope Workouts

An unparalleled all-around workout, rope jumping strengthens the heart, muscles and bones, promotes leanness and improves agility, coordination, timing, rhythm and explosive power on both sides of the body.

Style #1 (2-3 times per week)

Week 1

- Feet together for 30 seconds, pause for 30 seconds
- Right foot for 30, pause for 30
- Left foot for 30, pause for 30
- Alternate feet for 30, pause for 30
- Feet together for 30, pause for 30

Week 2

- Feet together for 45 seconds, pause for 30 seconds
- Right foot for 45, pause for 30
- Left foot for 45, pause for 30
- Alternate feet for 45, pause for 30
- Feet together for 45, pause for 30

Week 3 – 45 seconds on, 15 second pause

Week 4 – 1 minute on, 30 second pause

Week 5 – 1 minute on, 15 second pause

Style #2 (2-3 times per week, 1 minute break between each set)

- Feet together for 50 jumps, 10 push-up and 10 crunches
- 100 jumps, 10 push-ups, 10 crunches
- 150 jumps, 10 push-ups, 10 crunches
- 200 jumps, 10 push-ups, 10 crunches
- 250 jumps, 10 push-ups, 10 crunches
- 300 jumps, 10 push-ups, 10 crunches

If you want to make this more challenging, add 5 push-ups and 5 crunches every week to your totals. Example: 100 jumps, 15 push-ups, 15 crunches

Style #3 Boxer Style (2-3 times per week)

Week 1

- Jump for 2 minutes, 1 minute rest
- Continue for a total of 4 cycles

Week 2 – 5 cycles

Week 3

- Jump for 3 minutes, 1 minute rest
- Continue for 5 cycles

Week 4 – 6 cycles

Week 5 – 7 cycles

1. Jump Rope (with partner) (2 or 3 sets)

- a. two footed hops (30,45,60 sec) alternate jump and rest
- b. high knees run (30,45,60 sec) alternate run and rest
- c. alternate one ft. (30,45,60 sec) alternate jump and rest
- d. hop,hop,cannonball (30,45,60) alternate jump and rest

JUMP ROPE ROUTINE - In Place

1	2
4	3

- THE FOLLOWING PROGRESSION SERVES AS A GUIDELINE. USE ANY ORDER YOU WISH.
- GRADUALLY INCREASE THE NUMBER OF JUMPS OR TIME FOR EACH DRILL.
- 1. REGULAR 2 FOOT JUMP X50
- 2. SIDE TO SIDE (1 TO 2) X50
- 3. UP & BACK (1 TO 4) X50
- 4. BOXER SHUFFLE X50
- 5. UP & BACK 1 FOOT (1 TO 4) X25 EACH
- 6. SIDE TO SIDE 1 FOOT (1 TO 2) X25 EACH
- 7. TRIANGLE (1-2-4, 2-1-3) X50
- 8. FOUR SQUARE (1-2-3-4) X50
- 9. DOUBLE JUMP W/BOUNCE
ROPE UNDER FEET TWICE X50
- 10. DOUBLE JUMP NO BOUNCE
ROPE UNDER FEET TWICE X50
- 11. SPEED JUMP (AS MANY JUMPS IN 30 SEC.)

JUMP ROPE ROUTINE - Down-a-line

Do these drills running down a line, not standing in place, 2 x 20yds - concentrate on quality foot-contacts and proper technique. Pick 6-8 of the drills each time or add your own.

Bunny Hop

Hop forward down the line

Single-leg Bunny Hop

Hop forward down the line on one leg

Side-Side Bunny Hop

Hop forward down the line, while crossing back and forth over the line

Side-Side Single-leg Bunny Hop

Hop forward down the line on one leg, while crossing back and forth over the line

Lateral Bunny Hop

Moving laterally down the line, hop forward and backwards across the line

Lateral Single-leg Bunny Hop

Moving laterally down the line, hop forward and backwards across the line on one leg (outside leg)

Lateral Hop

Hop sideways down the line

Lateral Single-leg Hop

Hop sideways down the line on one leg (outside leg)

Ali Shuffle

Moving laterally down the line, alternate your feet forwards-backwards - Right in front, Left in front, etc.

Scissors Step

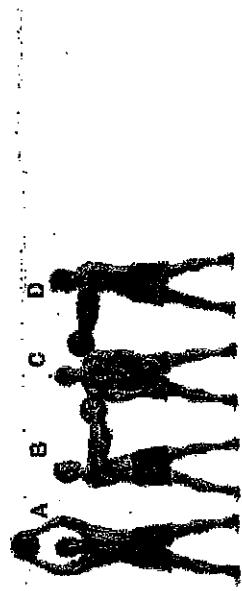
Moving forward down the line, cross your feet in front of each other so that your feet cross over to the opposite side of the line in a "scissoring" motion

The Medicine Ball 200

The old-school way to get your body in game shape

Perform this routine at the end of your regular workout or as a stand-alone workout, 3 days a week. (Use a 6-, 8-, or 10-pound medicine ball, which you can purchase at.) Do 20 repetitions of each exercise in the order shown. Complete the routine as a circuit, doing 1 set of each movement in succession and without resting. Too easy? Rest 60 to 90 seconds and do the circuit again.

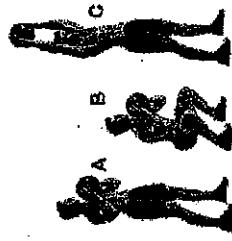
1. **Big Circles** Standing with your feet shoulder-width apart and knees slightly bent, hold a medicine ball with your arms extended directly above your head [A]. Without bending your elbows, rotate your arms counterclockwise [B], using the ball to draw large imaginary circles in front your body [C, D]. Do 10 circles, and then reverse direction to clockwise and do 10 more.



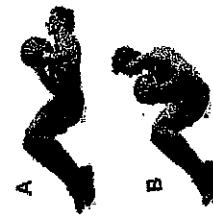
2. **Woodchopper** Stand with your feet just beyond shoulder-width apart. With your arms nearly straight, hold a medicine ball above your head [A]. Now bend forward at your waist and mimic throwing the ball backward between your legs—but hold onto the ball the entire time [B]. Quickly reverse the movement with the same intensity, and return to the starting position. That's 1 repetition.



3. **Squat to Press** Stand holding a medicine ball close to your chest with both hands, your feet just beyond shoulder-width apart [A]. Push your hips back, bend your knees, and lower your body until the tops of your thighs are at least parallel to the floor [B]. Then simultaneously drive your heels into the floor and push your body back to the starting position as you press the ball over your head [C]. Lower the ball back to the start. That's 1 repetition.



4. **Squat to Press** Stand holding a medicine ball close to your chest with both hands, your feet just beyond shoulder-width apart [A]. Push your hips back, bend your knees, and lower your body until the tops of your thighs are at least parallel to the floor [B]. Then simultaneously drive your heels into the floor and push your body back to the starting position as you press the ball over your head [C]. Lower the ball back to the start. That's 1 repetition.



5. **Medicine-Ball Situp** Grab a medicine ball with both hands and lie on your back on the floor. Bend your knees 90 degrees, place your feet flat on the floor, and hold the medicine ball against your chest [A]. Now perform a classic situp by raising your torso into a sitting position [B]. Lower it back to the start. That's 1 repetition.



3. **Standing Russian Twist** Hold a medicine ball with both hands in front of your chest and your arms straight [A]. Without dropping your arms, pivot on your right foot and rotate the ball and your torso as far as you can to the left [B]. Then reverse direction: Pivot on your left foot and rotate all the way to the right. That's 1 repetition.

6. Rocky Solo Sit on the floor with your legs straight, and hold a medicine ball with both hands just above your lap [A]. Twist your torso to the right and place the ball behind you [B]. Then twist all the way to your left and pick the ball up and bring it back to the starting position [C]. That's 1 repetition. Do 10 repetitions. Immediately do another 10 repetitions, but this time start by twisting with the ball to your left.



7. Toe Touch Grab a medicine ball, lie on your back, and raise your legs so they're straight and perpendicular to the floor. Hold the ball above the top of your head with your arms straight [A]. Without moving your legs or bending your elbows, simultaneously lift your arms and torso until the ball touches your toes [B]. Lower yourself back to the starting position. That's 1 repetition.



9. Suitcase Crunch Lie on your back with your legs straight. Use both hands to hold a medicine ball above your head and barely off the floor [A]. Simultaneously raise your torso and bend your right knee toward your chest as you bring the ball over your knee and toward your foot. Reverse the movement and repeat, this time bending your left knee [B]. That's 1 repetition.



10. Diagonal Crunch Grab a medicine ball and lie on the floor with your legs straight and spread wide. Roll onto your right hip and hold the ball with your arms straight at 10 o'clock above the top of your head [A]. To perform the movement, raise your arms and torso and then touch the ball to the floor between your legs [B]. Lower your body, but instead of rolling back onto your right hip, roll onto your left and hold the ball at 2 o'clock above your head [C] before you repeat the movement. That's 1 repetition. Repeat, alternating back and forth in this manner.



8. 45-Degree Twist Grab a medicine ball and sit on the floor. Lean back at a 45-degree angle, raise your legs and feet off the floor, and hold the ball with both hands in front of your chest, your arms straight [A]. Without dropping your legs or arms, rotate the ball and your torso as far as you can to the right [B]. Then reverse direction, rotating all the way to the left. That's 1 repetition.



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STABILITY BALL PROGRESSIONS

By

JC Santana, MEd, CSCS

The Stability Ball has become a very popular tool within the clinical rehab setting. Their versatility allows their use with any population. Recently, Stability Balls have become popular outside the rehab settings. Their effectiveness in developing balance and core strength has earned them a spot in the world of athletic and functional conditioning. Various strength and conditioning experts have designed a multitude of exercises covering the entire body. The following exercise progressions are some of the exercises and progressions I have developed over the last four years. Omitted from this list are many rudimentary rehab exercises, as well as combination training where other pieces of equipment are used in conjunction with the Stability Ball. Your imagination is the only limitation encountered when using this great conditioning tool.

Ball selection and Notes

- 1) Selecting a ball is simple. A properly sized ball will allow you to sit on it with your knees and hip at 90 degrees. However, using different size balls will allow you more flexibility and variation with your Stability Ball training
- 2) General teaching cues and exercise mechanics that will increase the safety and fun of working with the Stability Ball.
- 3) Always exercise with a shirt – and sweaty body will slide off the ball which could cause an injury, especially if one falls while holding weight overhead.
- 4) I do not use any type of support or anchors for supporting limbs when training with the Stability Ball. The whole idea is to train in an unstable environment.
- 5) When using external resistance, you must handle lighter loads than you would when training on a standard bench. I do not recommend using high loads to failure with this type of training.
- 6) Spotters are recommended when using external resistance equipment. However, if you are using appropriate loads and form, minimal supervision is needed.
- 7) Now, let's talk about the body alignment in some of the fundamental exercise positions:

Body Alignment

Unless otherwise specified, a neutral alignment of the spine should be maintained when exercising.

1) Head (ball under hips) -

The cervical spine, or neck, should not be hyper-flexed. Try to maintain it in the position used when you are standing - in a neutral position. Likewise, do not hyper extend the neck when exercising.

2) Core (ball under hips, knees and feet progression)

When performing exercises where the body is suspended in the prone position between two distal support-points, it is imperative that the core be strong enough to maintain a posterior pelvic tilt. This protects the lumbar spine from hyperextension and requires exceptional abdominal and hip flexor strength. Notice the straight body alignment from head to toe.

**PERFORM
BETTER!**

3) Abdominal strength and tests

A simple method of assessing abdominal strength is to check if a person can maintain their lower back flat to the ground when lifting one knee. This test can then be advanced to two knees and eventually to an extended leg. If an individual cannot maintain a flat lower back during this test, they should not perform exercises that risk lumbar hyperextension.

4) Prone Lever system (hip→ knees→ Feet→ 2 Leg→ 1Leg)

The lever system inherent to Stability Ball training can take into account not only the core stability of an individual; it can also adjust the resistance applied to the extremities.

Push-up: As the ball support goes further away from the arms, the demand for core stability is increased as well as the weight the arms must support. The longer the distance between the support points, in this instant the ball and arms, the harder the exercises will be.

5) Increased neural demand (reducing contact area of support)

Reducing the contact surface of any supporting limb can increase the neural demand of any exercise, especially where the legs contact the ball.

2 Leg support on the shins or insteps is the easiest, then proceed to 2 legs on ball of the foot, then 1leg on ball of foot, and finally 1 leg on toes.

6) Leg position for stabilization progression (2 Legs vs 1 leg, wide vs narrow)

The width of the support at the legs can also provide adjustments in the demand of an exercise. A wide leg position offers more support than a narrow position making the exercise easier. As the legs get closer to each other, there is less of a support base making the exercise harder. Ultimately 1 leg supported exercises are the hardest due to the additional support demands. Careful attention should be paid to stabilizing the hips in a stable and leveled position, preventing lumbar hyperextension and core or hip ration.

7) Protraction/Retraction

Finally, exercises requiring the arms to support the weight of the body demand optimal integrity of the shoulder complex. The key element to look for is proper stabilization of the scapulas. An individual should be able to prevent scapular collapse to a retracted position. Ideally, a neutral scapula is desired during isometric support, however, protraction can be incorporated at the end of the chest pressing movements.

8) Exercise during standing

When exercising in a standing position there are a few teaching cues, which will help make the learning and training process flow smoothly.

- a) During wall slides the middle of the stability ball should be at about the belt line. This ball position will provide adequate support when in the bottom position of a squat. Always master 2 leg exercises before progressing to single leg exercises
- b) During one-leg exercises where the free leg is being supported by a ball, smaller balls require less flexibility from the adductors and hip flexors. Choose the smallest ball available to start. Then progress to larger balls, which require the greatest amount of flexibility.
- c) Consistent with the lever system previously discussed for prone and supine exercises, the closer the ball is to the mainline of the body the less flexibility and stabilizing requirement. The closer the ball is to the foot the greater the requirement for stabilization and flexibility.
- d) During one-leg exercises, start with “stationary”- free leg support. This requires less balance than the dynamic movement you will progress to.

Once you have advanced to the dynamic, one-leg exercises, a “foot to mid-lower-leg role” adds a bit of stability in terms of ball position. However, the action and speed of the exercise dominate the stability requirements. If you do not have perfect execution during this dynamic exercise the ball will roll the “free leg” off.

STABILITY BALL PROGRESSIONS

Volume I

Chest, Shoulders, Balance

Chest

1) Push-up progression

- a) 2 Legs on Ball - hip → instep → Toe stability progression



- b) Push-ups 1 Leg on Ball - hip → instep → Toe stability progression

2) Push-ups (Hands on Ball)

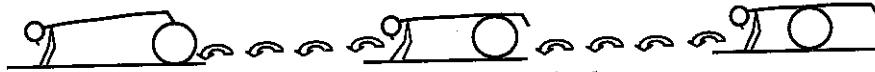
- a) 2 Hands on ball, 2 Feet on ground



Push-up and follow progression

- b) 1 Hand on ball, 2 Feet on ground

3) Hops

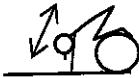


Explosive take small jumps – forwards then back.

Shoulders

One of the earlier weakness of Stability Ball Training was working the shoulder area. No Stability Ball weight exercises had been developed which simulated overhead pressing with less than body weight. Until now!

4) Knee tuck press



Push-up from this position

- a) Pike Press



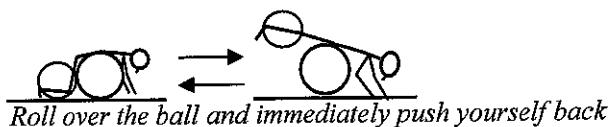
Push-up from this position

- b) 1 Leg Pike Press



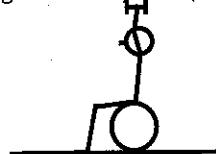
Push-up from this position

5) Roller coaster (two-balls)

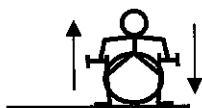


Shoulders - EXTERNAL RESISTANCE

6) DB Sitting overhead press (two arm, alternating, 1 arm)



7) DB Sitting Upright rows



Back

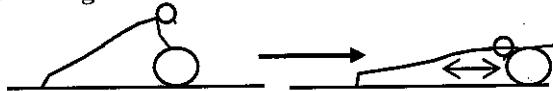
Stability Ball training can effectively target the various muscles of the back. Both, the small stabilizers, as well as the large prime movers.

8) Shoulder Roll outs,

a) Straight arm Shoulder rollouts, from knees (hands apart)



b) Straight arm Shoulder rollouts, from knees (hands apart)



Back - EXTERNAL RESISTANCE

The Stability ball can be used to provide an unstable environment for more traditional back exercises using external resistance.

9) Seated rowing (follow same progression as pressing)

10) 1 Arm DB Row (Staggered, parallel → feet further back)



Balance Strength and Stability

Balancing and stability work is inherent to all work involving the Stability ball. However, one can easily emphasize these components by making them the primary or limiting factor in an exercise. The following are just some examples.

11) Four Point Balance progression



12) Two point balance (Knees on Ball)



13) One point balance on knee

14) Sitting balance



15) Impact Training

➤ Shock lockouts



16) Acyclic Impact Training (shoulder, push-up lockouts, standing core –all versions)



➤ Moving

STABILITY BALL PROGRESSIONS

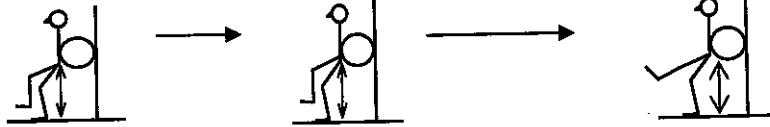
Volume II

Legs, Hips, Core

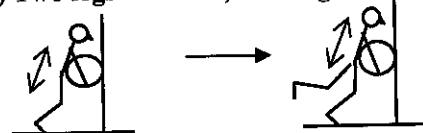
Legs and hips

The wall-slide series is an excellent way to rehabilitate, prepare for more intense leg-work, or strengthen the lower body. Wall Slides can be used by any population to functionally and progressively strengthen the legs.

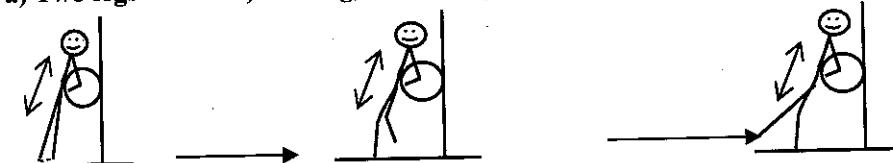
- 1) Back wall slide
 a) Two legs b) One leg c) One leg -Free leg extended



- 2) Front Wall Slide
 a) Two legs b) One leg



- 3) Side Wall-Slide
 a) Two legs b) One leg, outside leg c) One leg, inside leg



- 4) One leg squat (ball supported leg back) → w/mobility (instep to toes)



- 5) Lateral one leg squat (ball supported leg to side → mobility – circles and Fig 8s)

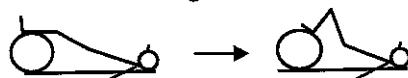


- 6) Prone knee extension/elbow supported (progress from two legs → to one leg → toe)



- 7) Supine leg curls (progress from two legs → to one leg → heel → w/mobility)

Curl Legs



Mobility notes: free leg straight stationary → strt leg/hip flex → free leg run mech.

Legs -EXTERNAL RESISTANCE

(Refer to body weight exercises and add resistance)

- 8) DB Resisted Wall slides (all versions)
 9) DB Resisted SB One leg squat (all versions)

Hips (Lumbar)

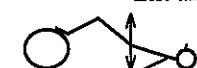
- 1) Bridges (Progress to one leg → heel → mobility)

Lift and lower hips



- 2) Hip lifts supported on ball of foot (Progress to one leg → mobility)

Lift and lower hips



- 3) Kneeling prone hypers

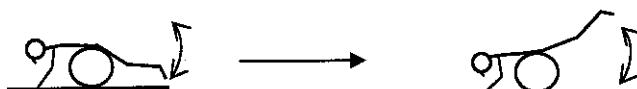


- 4) 3 point prone hypers (feet on floor)

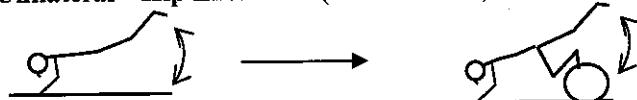


- 5) Contralateral supermans (ball supporting trunk – 6 point position)

- 6) Reverse Hypers



- 7) Unilateral – Hip Extension (Stabilization; Knee → Shin → Toe)



Hips (Abdominals/Obliques)

- 1) Side lying ball lift



- 2) Leg scissors rotations with ball



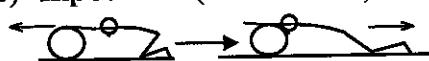
- 3) Prone knee tucks (2 legs → 1leg)



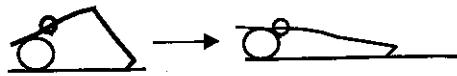
- 4) Pike Tucks (2leg → 1leg → Toe)



5) Hip roll-outs (Knees → Feet)



Progress to →



6) Hip twisters (scissoring log rolls)



7) Prone Skiers (Progress two leg → one leg → mobility-Js)



Abdominals/Obliques

1) Crunches – feet elevated (progress to ABCs)



2) Abdominal crunch



3) Reverse crunches (Progress to ABCs →)



4) Full crunch ABCs



5) Lateral crunch (Hips on ball)



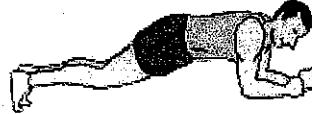
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Core Strength Training Exercises

Prone Bridge

In a face down position, balance on the tips of your toes and elbows while attempting to maintain a straight line from heels to head. This exercise focuses on both the anterior and posterior muscle groups of the trunk and pelvis.

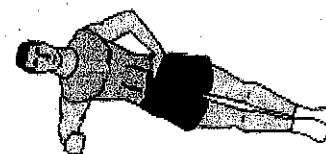
2 Sets - 30 Seconds



Lateral Bridge

Start on your side and press up with your right arm. Form a bridge maintaining a straight line from your hand to your foot. Rest on your elbow to increase the difficulty. This exercise focuses on the abdominal obliques and transversus abdominus

2 Sets - 30 Seconds



Supine Bridge

Lying on your back, raise your hips so that only your head, shoulders, and feet are touching the floor. The supine bridge focuses on the gluteal muscles. Stronger gluteals help maintain pelvic control

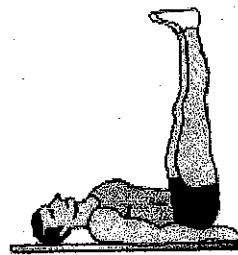
2 Sets - 30 Seconds



Pelvic Thrusts

Lie on your back with your legs bent 90 degrees at the hip. Slowly lift your hips off the floor and towards the ceiling. Lower your hips to the floor and repeat for the prescribed number of repetitions.

25 Thrusts



SUPERMANS

25 Supermans



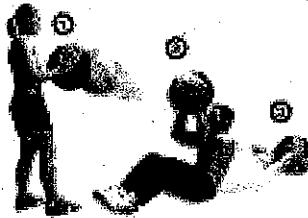
Rectus Abdominus
(Inner Abs)
(Crunching Action)



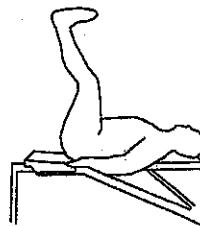
OBLIQUES

RECTUS ABDOMINUS

**Partner Medicine Ball Sit up –
behind head throw**



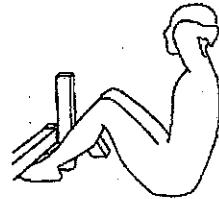
**Weighted Leg Raises
Medicine Ball between feet**



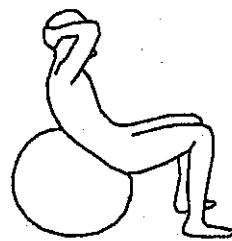
Kneeling Cable Crunch



**Sit Ups
(weighted)**



**PB Weighted Sit Up
(10 lb wt behind head)**



Note: There are many other
Rectus Abdominus exercises.

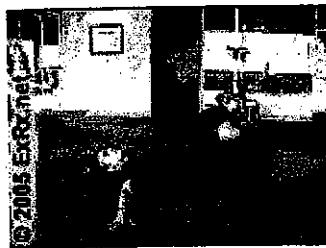
Be creative and mix it up!

OBLIQUES - Outer Abs (twisting action)

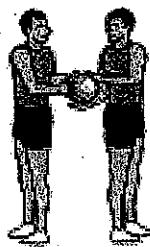
PB Oblique Crunch
(add weight)



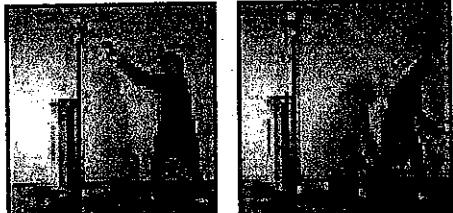
Lying Twists
(PB between feet)



Partner Seated/Standing Medicine ball twists



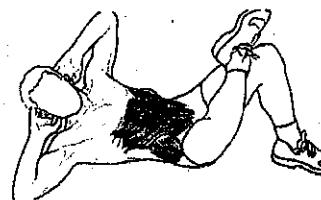
Weighted Cable Chops



Russian Twists



Oblique Crunch



Standing Oblique Crunch



Note: There are many other
Oblique exercises.

Be creative and mix it up!

THE ULTIMATE AGILITY LADDER GUIDE

Ladder Drills

I also like to do the traditional ladder drills using hand walks. I have included a few basic ladder drills that you could incorporate into your program.

1 Hand In Each



Start behind the ladder facing down it. Lead with either hand stepping 1 hand per square.

2 Hands In Each



Start behind the ladder facing down it. Stop with either hand into the first square, followed by the second hand into the same square. Repeat the drill leading with the other hand.

1 In Lateral



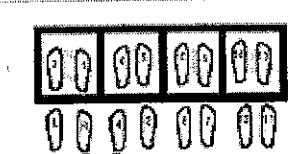
Start by facing to the side with one hand in and one hand out. Lead with the hand that is in the ladder and step into the next square. Follow with the trail leg by placing that hand into the first square. Repeat the exercise leading with the other hand.

2 In Lateral



Start by facing to the side with both hands outside the ladder. Step into the first square with the closest hand, followed by the second hand. Repeat the exercise leading with the other hand.

In In Out Out



Start by facing the ladder from the side. Step with the inside hand (hand on the long side of the ladder) into the first square followed by the second hand. Step back out with the inside hand to the side of the second square followed by the other hand. Repeat the exercise leading with the other hand.

X-Over Lateral



Start at the end of the ladder facing to the side. Begin with the outside hand slightly in front of the inside hand. Cross the outside hand over in front and into the first square. Next step the inside hand into the first square. Repeat the exercise leading with the other hand.

Carioca In Each



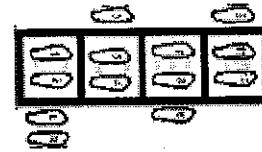
Start at the end of the ladder facing to the side. Begin with the outside hand slightly in front of the inside hand. Step across the front into the first square with your outside hand. Trail with your inside hand into the same square. Step behind into the next square with your lead hand followed by your right hand.

Carioca Every Other



Start by facing to the side with one hand in and one hand out. Begin with the outside hand slightly in front of the inside hand. Step across the front into the first square with your outside hand. Trail with your inside hand into the second square. Step behind into the next square with your lead hand followed by your right hand into the next square.

Ickey Shuffle



Start by facing down ladder and to the side. Using a 1-2-2 rhythm, step into the first square with the inside hand, followed by the outside hand. Next, step to the outside of the second square with the lead hand. Now step into the second square with the trail hand. Step with the lead hand into square two. Repeat the exercise leading with the other hand.

Advanced Drills

I have given you several basic ways to incorporate hand walk drills into your daily routines, and now I would like to give you a few ways to increase their difficulty. You can add these modifications to any of the above drills.

1. Band Around Wrists-You can wrap a tight loop of elastic tubing around to increase muscular recruitment in shoulder.
2. Band Around Back-Wrap a band around your back and put a hand in each end. This will increase the triceps activity considerably.
3. Band To Belt- Feed a band through a weight lifting belt that is around the athlete's waist. Hold both ends of the band into the air and adjust so both halves are the same length. Now Place a hand inside each half. This will cause the band to pull your arms back toward the waist.

THE ULTIMATE AGILITY LADDER GUIDE

4. Stairs-You can utilize stairs or bleachers as another variation. Any of the previous drills (other than the ladder) or modifications can be used on the stairs.
5. Stair Climber and Treadmill-Have the athlete stair step or walk on a treadmill or treadmill.
6. Modified Arm Ergometer-If you have an older bike, you can take the seat apparatus off, and have the athlete pedal the bike in a push-up position. Make the athlete just push or just pull, or both.

Be creative and think outside of the box. There are many variations I didn't cover here, so use your creative juices and see what you can come up with.



RUBBER BANDITZ

Elite Fitness Kit

General Tips

- Maintain tight midsection throughout all exercises.
- Maintain constant tension on band throughout entire repetition to maximize your Time Under Tension (TUT).
- Enjoy your workout... or at least act like you are.**

Variations

Setup variations to help customize each exercise:

- Two bands Squat, Thruster, Push Press
- Loop and wrap one band under feet; Deadlift
- Wrap one band under feet; Deadlift
- Two band loop (red) or one band stabilize (orange); Squat, Thruster, Push Press
- One hand on (red) or stabilize under each foot (orange); Sumo Deadlift, Swing

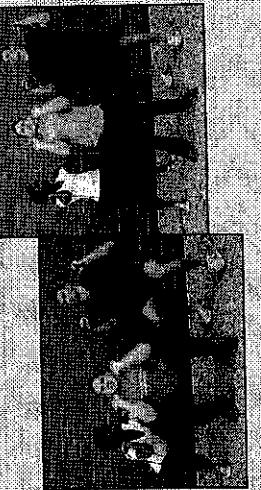
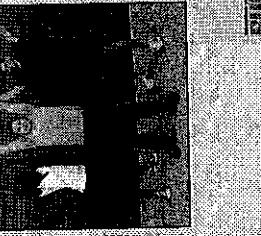
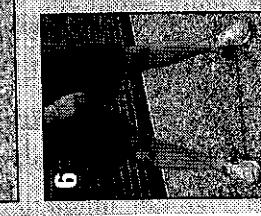
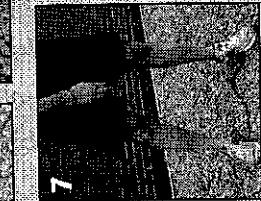
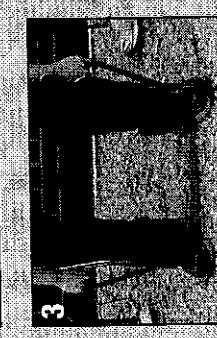
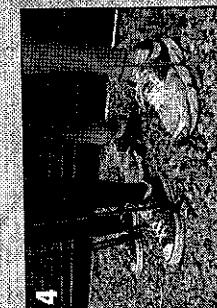
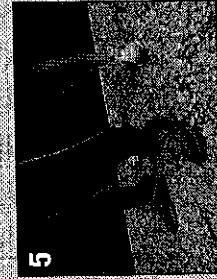


FRONT SQUAT/THRUSTER

Setup

- Shoulder width stance
- Lumbar curve maintained with chest up
- Butt travels back and down
- Knees stay parallel to feet but should not extend past toes
- Head position is neutral
- Return to full extension at the hips and knees to complete rep

- Variation**
- Use one hand around body or two hands crossed from shoulder to top
- Extend arms out to engage upper body



BACK SQUAT

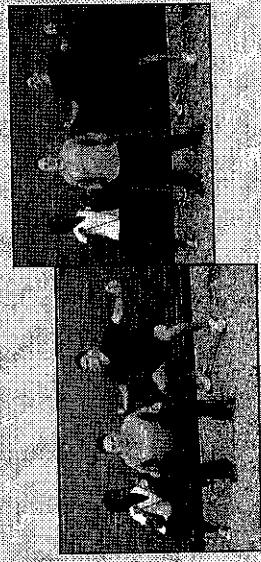
Setup

- Shoulder width stance
- Full extension at hips and knees
- Hold the band(s) in each hand outside the shoulders

Execution

- Weight on heels
- Lumbar curve maintained with chest up
- Butt travels back and down
- Knees stay parallel to feet but should not extend past toes
- Head position is neutral
- Return to full extension at the hips and knees to complete rep

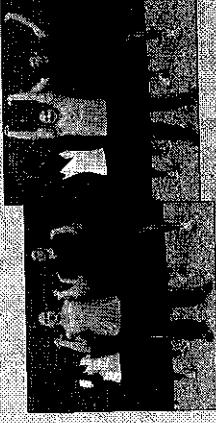
- Variation**
- Use one hand around body or two hands crossed from shoulder to top
- Extend arms out to engage upper body



- Increase overall resistance by leaving more slack on band between feet and decrease resistance by leaving less slack.

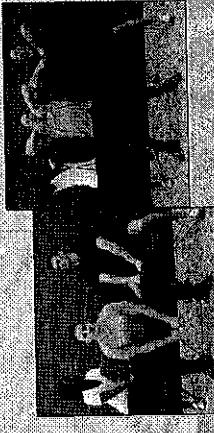
SHOULDER PUSH/PUSH PRESS

- Setup**
- Hip width stance
 - Hands just outside the shoulders with elbows down
 - Drive through heels; keep the whole body rigid
 - Hands travel straight up to overhead extension
 - Shoulders stay active
- Execution**
- Drive through heels, keep the whole body rigid
 - Hands travel straight up to overhead extension
 - Shoulders stay active
- Push Press Variation**
- Dip perform a shallow dip of the hips, push knees forward slightly, but goes back, chest stays upright
 - Drive extend the hip rapidly and fully, press hands up to complete overhead extension
 - Press arms up and off at 45° angle for additional challenge



SUMO DEADLIFT HIGH PULL

- Setup**
- Slightly wider than shoulder width stance with weight in heels
 - Back arched with lumbar curve locked
 - Symmetrical grip inside the knees with arms straight
- Execution**
- Accelerate through the hips from the ground to full extension of the hips and legs
 - Arms follow through by pulling band to the chin
 - Leading with elbows
 - Return band down fluidly in the reverse sequence



LAT PULL DOWN/PULLUP

- Setup**
- Attach band to door strap or overhead post
 - Kneeling or seated position
 - Arms locked straight
- Execution**
- Pull arms downward leading with elbows
 - Attempt to touch shoulder blades together
- Pullup Variation**
- Attach band to pull-up bar and insert feet for assistance
 - No Post: Grasp band overhead and pull arms down intensely in front or behind head



DEADLIFT

- Setup**
- Shoulder width stance with weight in heels
 - Back arched with lumbar curve locked
 - Symmetrical grip inside the knees
 - Chest up, high and head neutral
- Execution**
- Accelerate through the hips to full extension of the hips and legs
 - Arms stay straight and follow through by pulling band overhead
 - Return the band down fluidly in the reverse sequence



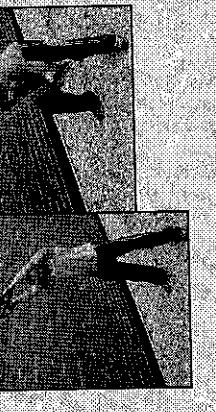
KETTLEBAND SWING

- Setup**
- Shoulder width stance with weight in heels
 - Back arched with lumbar curve locked
 - Symmetrical grip inside the knees
 - Chest up, high and head neutral
- Execution**
- Accelerate through the hips to full extension of the hips and legs
 - Arms stay straight and follow through by pulling band overhead
 - Return the band down fluidly in the reverse sequence



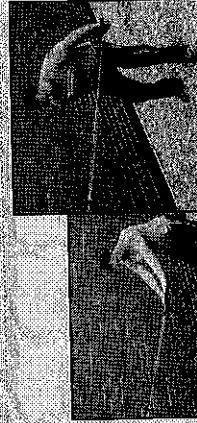
BAND SLAM/KICKBACK

- Setup**
- Shoulder width stance with weight in heels
 - Back arched with lumbar curve locked
 - Arms in an overhead position
- Execution**
- Keep arms straight
 - Build travel back and down
 - Accelerate far out from bringing the knee
- Kickback Variation**
- Lower anchor point and draw arms back near the body



PULLUP CHAINOUT

- PULLUP VARIATION**
- Attach band to pull-up bar and insert feet for assistance
 - No Post: Grasp band overhead and pull arms down intensely in front or behind head



PULLUP CHAINOUT

SPEED DEVELOPMENT WORKOUTS

The workout

There are several parts to this workout. Each part serves a different purpose in the build up to getting more endurance and speed when you are working out. We will start with the shorter parts of the workout working up to the longer parts, which you will likely be doing when you are exhausted.

SPRINT TRAINING

NAME	DISTANCE	REPS	REST
Get-Offs <i>(30 Second Rest)</i>	5 yards	6 x	5-10 Seconds
Bursts <i>(1 minute Rest)</i>	10 yards	8 x	5-10 Seconds
Short Sprint <i>(1 minute Rest)</i>	20 yards	10 x	20-25 Seconds
Full Sprint	40 yards	10 x	20-25 Seconds

At the end of this section, take about a 5-minute break and hydrate your body. If you are workout out in extreme heat, be particularly mindful of your bodies' hydration, making sure to get plenty of water. You can even drink a quick sip of water during a sprint set if you feel your body so requires it.

CHANGE OF DIRECTION - SHUTTLE

NAME	DISTANCE	REPS	REST	SETS
Shuttle Run	10,15,20 yds	1 x	1 minute	3

This is another very fast sprinting type of exercise. You run this with 10,15, and 20 yard increments. Each leg of the shuttle run is done at full speed. You will be starting and stopping a lot in this exercise, which will help you with restarting during a play, should the direction of the play change such as during an interception or if the ball carrier changes direction during the play.

Start standing - run 10 yards touching the ground - run back - touch the start line with your hand - run 15, etc.

This exercise will be done in three sets. Take 1 minute rest between sets. Take 5 minutes rest after all three sets and hydrate.

STAIRS or HILLS

* NOTE: If you do not have stairs, find a Hill and do 10-15 Reps, with 1 minute rests.

NAME	DISTANCE	REPS	REST	SETS
Hit all Sprint	Stadium Stairs		15 seconds	4
Every Other Sprint <i>(1 minute Rest)</i>			15 seconds	4
Side Shuffle	Stadium Stairs		15 seconds	1 Right/ 1 Left
Single Leg Hops <i>(1 minute Rest)</i>	Stadium Stairs		15 Seconds	1 Right / 1 Left
Hit all Sprint	Stadium Stairs		15 seconds	4
Every Other Sprint			15 seconds	4

This is one of the toughest parts of the workout. Doing stairs requires a lot of stamina and fortitude and it also requires a place with a lot of steps in succession with a decent gait between steps.

Your objective will be to find at least 30 yards of stairs or approximately 60-70 stairs in succession. As you perform each set of stairs upward, focusing on the lifting of your knees and the speed with which you do the stairs.

When you are going down, do the stairs on your toes, quickly touching each stair. This will be up and down in a very rapid succession. Take 15 seconds rest between each set.
Take 5 minutes rest after this exercise and hydrate.

Ins and Outs

NAME	DISTANCE	REPS	REST	SETS
Ins and Outs	100,50,100,50		1-2 minutes	4 laps

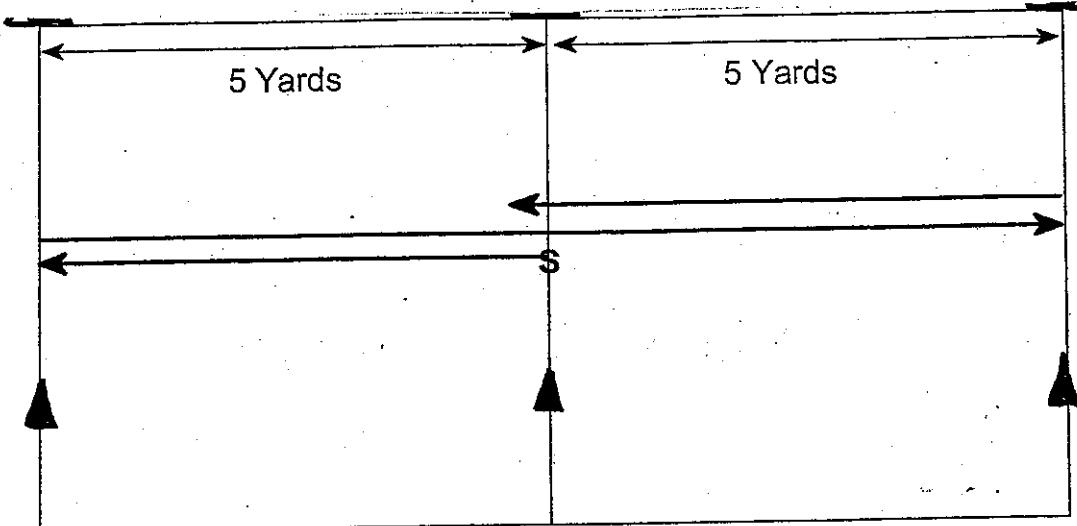
This run is also known as a basic Fartlek Training which involves alternating fast and slow running. This will develop both aerobic and anaerobic capacities.

On a football field, start at the Goal line. The length of the field is the Sprint Zone and the Width of the field is the Jog Zone. Sprint 100 yards, then Jog across the field, Sprint 100 yards, then Jog across the field, etc. Concentrate on staying on your toes. If the surface allows, run with your shoes off. This will force you to stay on your toes.
Take 5 minutes rest after this exercise and hydrate.

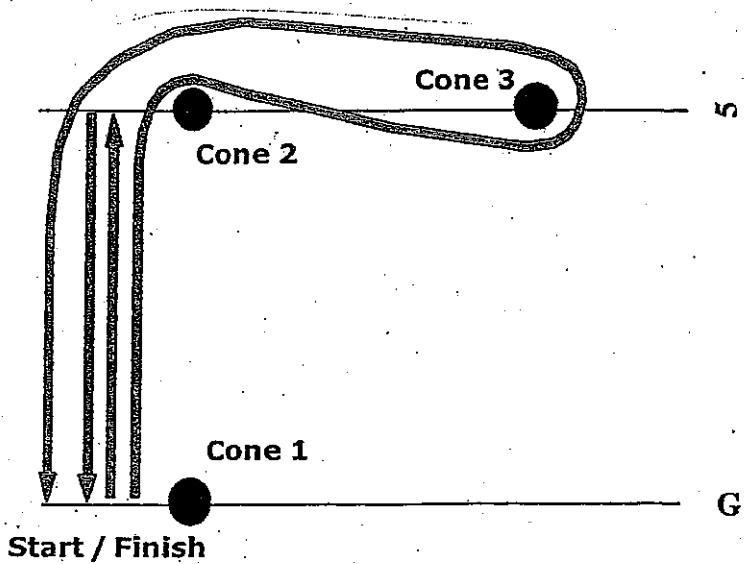
AGILITY Workout

PRO AGILITY

1. Straddle the middle line and start in a three point stance with your right hand touching the line.
2. Run 5 yards to your left and touch line with your left hand.
3. Plant and run back 10 yards and touch far line with your right hand.
4. Plant and sprint back through the middle.



SPRINT AGILITY

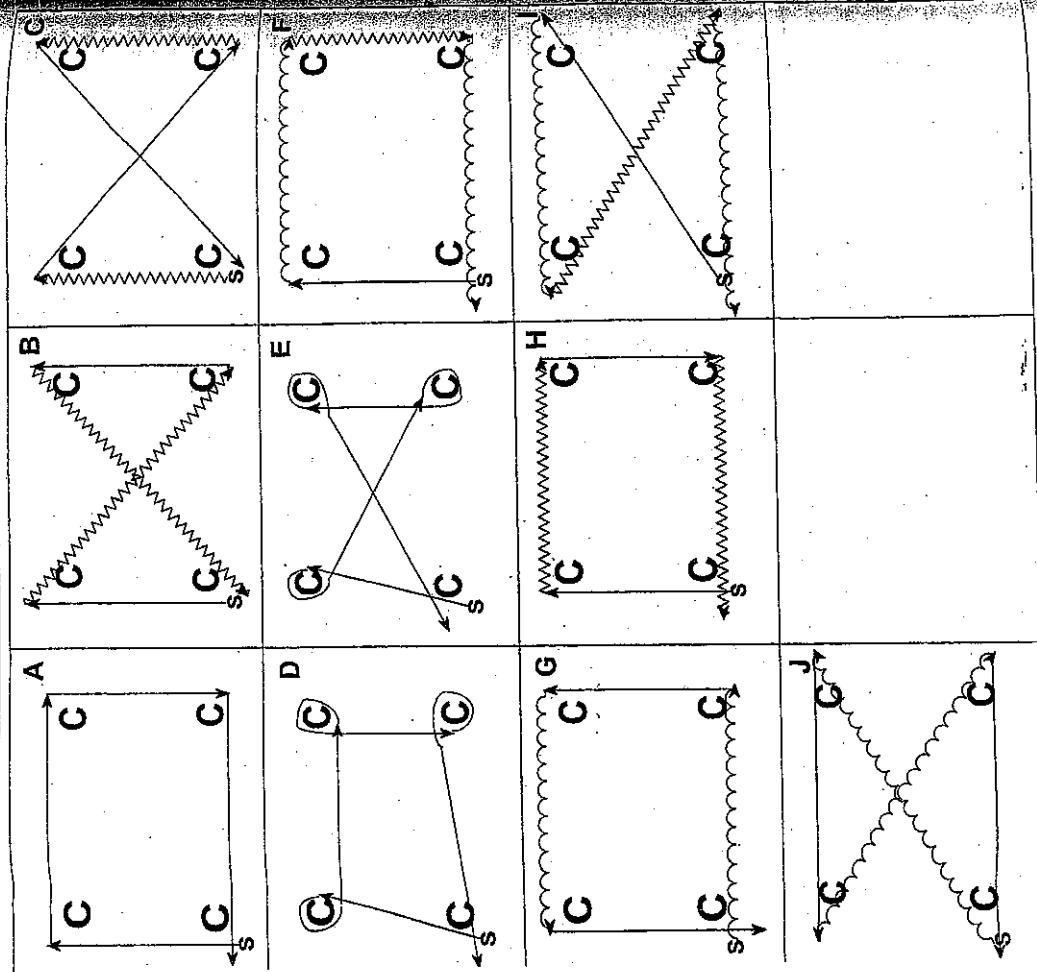


- Start in three point stance at first cone and run 5 yards to second cone and touch line with right hand.
 - Plant and run back 5 yards to original start line and touch that line with your right hand.
 - Plant and run back to second cone again this time run around the cone and towards the third cone set to the right.
 - Weave to the inside of the third cone and run around it.
 - Continue running all the way back and through the original start line.
- Note: Positional Variations could be back pedal, shuffle or any other movement that makes sense.

Cone Drills (4 Cones)

Cone Drills (4 Cones):

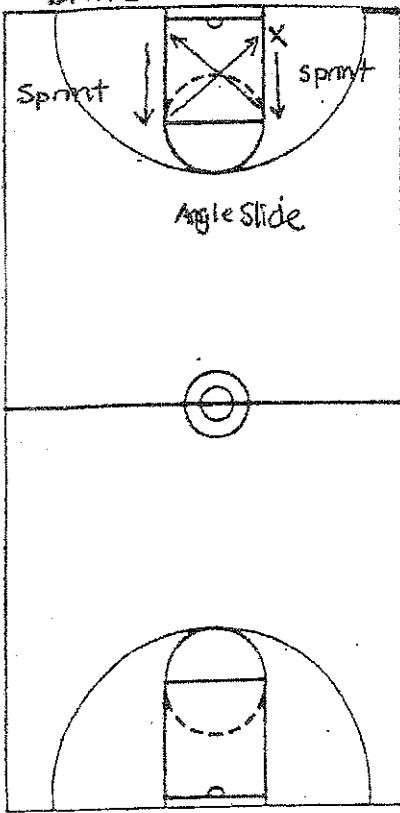
- A. Sprint, Sprint, Sprint
- B. Sprint, Diagonal Backward Run, Sprint, Diagonal Backward Run
- C. Backward Run, Diagonal Sprint, Backward Run, Diagonal Sprint
- D. Sprint, Around, Sprint, Around, Sprint, Around, Sprint
- E. Sprint, Around, Diagonal Sprint, Around, Sprint, Around, Sprint
- F. Sprint, Shuffle, Backward Run, Shuffle Around, Diagonal Sprint
- G. Shuffle, Sprint, Shuffle, Sprint
- H. Sprint, Backward Run, Sprint, Backward Run
- I. Diagonal Sprint, Shuffle, Diagonal Backward Run, Shuffle
- J. Diagonal Shuffle, Sprint, Diagonal Shuffle, Sprint



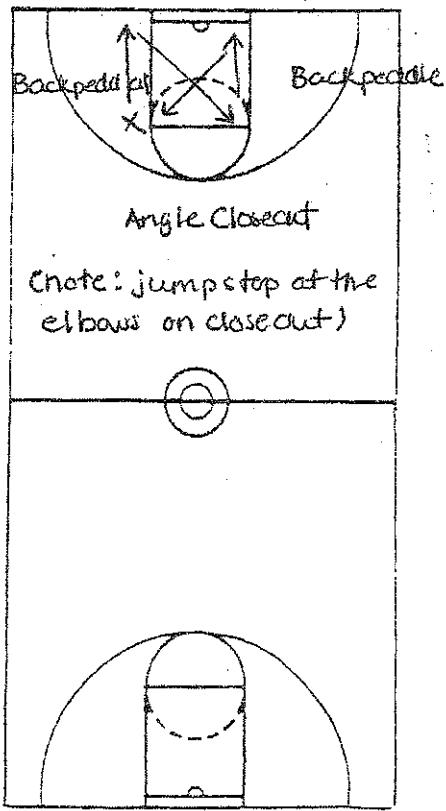
A duty dodged is like a debt unpaid; it is only deferred,
and we must come back and settle the account at last.
~Joseph Fort Newton

"Change of Direction Drills"

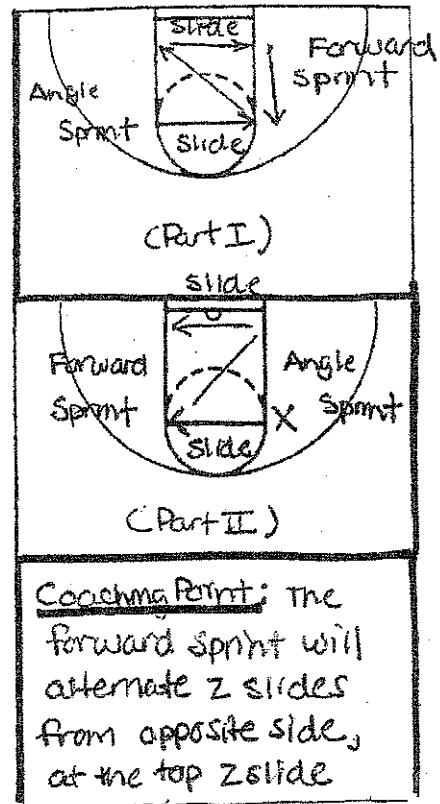
Drill #1: Forward X



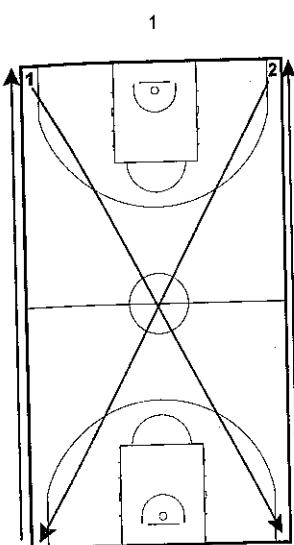
Drill #2: Backward X



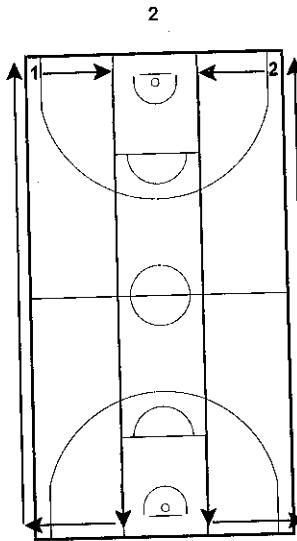
Drill #3: Z X Drill



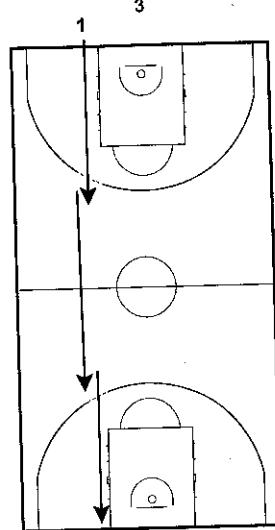
Conditioning Drills



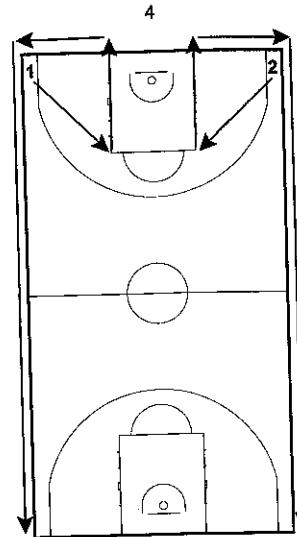
- Sprint opposite
- Back pedal back



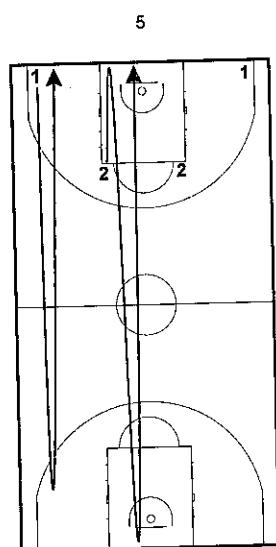
Slide - Sprint - Slide - Back Pedal



Sprint to spot, two defensive slides back, and repeat..

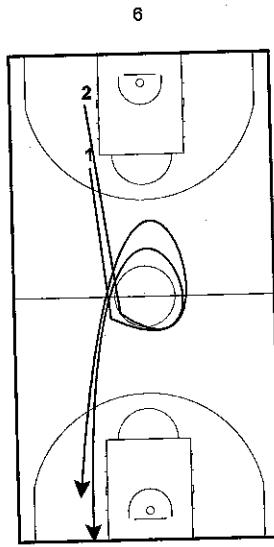


Close out - Back Pedal - Slide - Sprint Variation - Back Pedal or Sprint back after reaching baseline

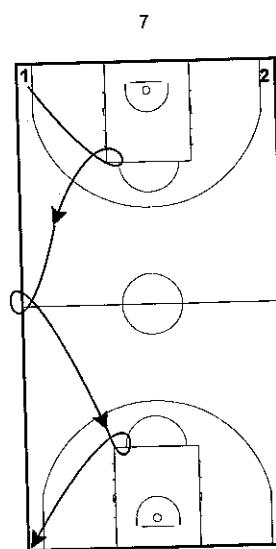


1s v 2s

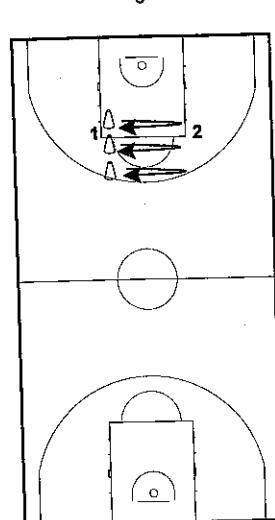
1 - back pedal to baseline and sprint back
2 - sprint to baseline, sprint to baseline and sprint back



Sprint around centre circle and to baseline
2 is trying to tag 1
Run around right of centre



Sprint - Around the spot - Repeat



Defensive slides, transfer the 3 cones across to your partner and they repeat coming back.

Wrightstown Basketball Weight Training Program

Weight Training Principles

- ♂ Weight train **3 times per week** on non-consecutive days.
- ♂ Perform each repetition with **proper technique**.
- ♂ Rest one minute between each set.
- ♂ Attempt to increase the resistance performed every workout.
- ♂ Keep a **workout card** to monitor progress and to make workouts more meaningful.
- ♂ Train **explosively** and maintain a **high level of intensity** in the weight room.
- ♂ Players should be in and out of the weight room within **sixty minutes**.

3-Day Total Body Basketball Strength Training Workout Program

Mon-Wed-Fri

● Monday and Friday Basketball Strength Training Exercises

- ♂ **Abs workout** (200) Twisting Sit-Ups, Hanging Leg Raise.
- ♂ **Bench Press** (10-8-6-4) - Shoulders, chest, triceps.
- ♂ **Lat Pull Down** (3 x 10) - Latissimus dorsi, biceps, and brachioradialis.
- ♂ **Shoulder Shrugs** (3 x 10) – shoulders, neck, and forearms.
- ♂ **Dips** (3 x max) - Chest, shoulders, and arms.
- ♂ **Squats** (12-10-8-6) - Hips, hamstrings, quadriceps, groin, and lower back.
- ♂ **Hang Cleans** (10-8-6) - legs, hips, lower back, upper back, and shoulders.
- ♂ **Calf Raises** (3 x 30) - Ankles, and calves.
- ♂ **Jammer** (10-8-6) - Legs, hips, lower back, upper back, and shoulders

● Wednesday Basketball Strength Training Exercises

- ♂ **Abs workout** (200) Legs-in-the-Air Sit-Ups, Bench Crunch, Side Sit-Ups.
- ♂ **Incline Bench Press** (10-8-6) - Shoulders, chest, triceps, and upper back.
- ♂ **Seated Lat Row** (3 x 10) - Latissimus dorsi, biceps, and brachioradialis.
- ♂ **Lateral DB Raises** (10-8-6) - Deltoid and trapezius.
- ♂ **Tricep Press Downs** (3 x 10) - Triceps.
- ♂ **Dumbbell Curls** (3 x 10) - Biceps, and forearms.
- ♂ **Leg Press** (12-10-8-6) - Hips, hamstrings, quadriceps, groin, and lower back.
- ♂ **Wrist Curls** (3 x 25) - Forearm flexors..
- ♂ **Jump Machine** (3 x 5) – Legs, hips, lower back, upper back, and shoulders

**“There are only two options regarding commitment. You’re either IN or OUT.
There’s no such thing as life in-between.”**

-Pat Riley-

A Dynamic Basketball Warm-up

This is an example of a dynamic warm-up to increase core temperature, increase the heart rate and engage the muscles specific to basketball. Complete each exercise by going across and back the width of a basketball court. This is just over 500 yards and should take close to 5 minutes.

1. Quarter-speed jog/Back pedal
2. Toe walk/Heel walk - a toe walk is when the athlete completing extends onto their toes and a heel walk is when the athlete pulls the toes back to the shins
3. Skip forward/Skip Backward
4. Forward Lunge/Backward Lunge – in the forward lunge the athlete should ensure the knee does not extend beyond the toes and the knee of the back leg should be inches above the floor
5. Half-speed defensive slides – the athlete should attempt to stay low and slow to warm-up the groin area, ensure the legs are apart and do not bob up and down
6. Half-speed jog/Back pedal – the athlete should attempt to reach slightly back with the legs when doing the back pedal
7. Carioca – the athlete starts perpendicular to the sideline. If the athlete begins with their right foot – the right foot crosses over in front of the body and then the next step with the right foot goes behind the body
8. Crossover step – the athlete starts perpendicular to the sideline. If the athlete begins with their right foot on every step with the right foot the right knee comes up and across the body then the athlete completes several short steps and again the right knee comes up and across the body
9. Front step-over/Reverse step-over – the athlete moves forward bringing the right leg across the left leg and then the left crosses over the right
10. Three quarter sprint/Back pedal – the athlete should attempt to reach back more aggressively with the legs when doing the back pedal
11. Three quarter speed defensive slides – again the athlete should attempt to stay low on these defensive slides to warm-up the groin area
12. High knees/Butt kicks – the athlete runs across the floor bringing the knees up and the heels to the butt as quickly as possible and then on the way back the athlete points the knees down and brings the heels to the butt as quickly as possible
13. Frankenstein walk – this is a walk to increase the dynamic flexibility of the hamstring muscles; the athlete extends the arms straight in front and kick a straight leg up to meet the hands
14. Straight leg bound – the athlete pushes hard off the ball of the foot and extends straight legs forward moving quickly across the floor
15. Full speed sprint/Back pedal – the athlete should attempt to reach back with the legs, as far as possible, when doing the back pedal

Static Stretching Exercises & Flexibility Program

Stretching exercises should form an integral part of any conditioning program. Performed consistently, the stretching exercises below can help to do the following...

- Increase the **range of motion** about a joint reducing the risk of muscle and tendon tears during competitive activity.
- Relieve muscle tightness and stiffness.
- Improve postural imbalances and help to reduce chronic back pain.
- Increase localized blood flow to the muscles being stretched.
- Possibly relieve muscle soreness after intense physical activity and help to reduce the severity of DOMS (Delayed Onset Muscle Soreness).

Often seen as secondary to strength and endurance, flexibility training is neglected by many athletes. Yet stretching, both through shorter term performance enhancement and longer term injury prevention, is well worth the small amount of effort it requires.

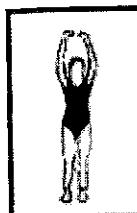
Stretching exercises can easily be integrated into a cool down following a training session. It saves the athlete time and range of motion is increased more readily when the body is warm.

Key Points For Effective Stretching

The stretching exercise below are classed as static stretches. Evidence suggests that static stretching should be avoided immediately before competition in favor of a general warm up and dynamic stretching.

1. To increase flexibility and range of motion, perform stretching exercises when the body is warm. This can be at the end of a training session or following 10 minutes of light aerobic exercise.
2. Complete a range of stretching exercises for different muscle groups. Pay particular attention to the muscle groups that are involved most in your sport.
3. Hold each stretch for 10-20 seconds. Initial tightness should gradually diminish as you hold the stretch.
4. Repeat each of the stretching exercises 2-3 times in succession.
5. Perform stretching exercises at least 3 times a week and ideally 5 times per week.
6. Ease slowly in and out of the stretch. Do not bounce! Breathe out as you stretch and continue to breathe as you hold it.
7. If you feel any pain, release the stretch immediately.

Upper And Lower Body Stretching Exercises



Shoulder Stretch

Interlock your fingers and reach above your head. Your lower back should be flat or slightly arched inwards. You can perform this exercise sitting or standing.



Triceps Stretch



Place your left hand behind your head and reach as far down your back as possible. With your right hand grasp your left elbow and gently pull it behind the back of your head. You can perform this exercise sitting or standing.

Repeat for the other arm.

Chest Stretch

Clasp your hands behind your back. Gently straighten your elbows and raise your arms as high as comfortably possible. You can perform this exercise sitting or standing.

Lower Back Stretch

Lying flat on your back place the sole of your right foot on your left thigh. Grasp your right knee with your left hand and gently roll it to the left. Try to get your knee as close to the floor as possible **without** your right shoulder leaving the floor.

Groin Stretch

Stand with your feet about 2 meters apart, toes pointing forward. Gradually shift all your weight to your right leg by bending your right knee. Your left leg stays straight. Place both your hands on your right knee for support. You can increase the starting distance between your feet for a greater stretch.



Groin Stretch

Sit down and place the soles of your feet together. Clasp your ankles with your hands so that your elbows rest on your knees. Gently push your knees down with your elbows until you feel the stretch.



Quadriceps Stretch

Standing upright hold onto a support with one hand (i.e. a chair) for balance. With your other hand clasp your ankle and pull your heel into your butt. Repeat for the other leg.



Hamstring Stretch



Calf Stretch

Stand arms length away from a wall and with feet shoulder width apart. Place your right foot about 2 feet in front of your left. Keeping both heels flat on the ground lean towards the wall by bending your right knee. Your left leg should stay straight. Push gently against the wall for a deeper stretch. Repeat for the left leg.

Achilles Stretch

This is exactly the same procedure as above except as you lean towards the wall let both knees bend. Rather than leaning forward you should feel like you are lowering yourself straight down. Remember to keep both heels flat on the floor. Repeat for the other leg.

DEVELOPING FLEXIBILITY

“The more you stretch, the more YOU stretch”

DAILY STRETCH Routine

1. Dynamic Stretching Routine – 20 yards (2x)

- a. High Knees
- b. Kick Butt
- c. Lunge Walk
- d. Frankenstein's – (Punter kicks)
- e. Carioca both ways
- f. Build up sprints

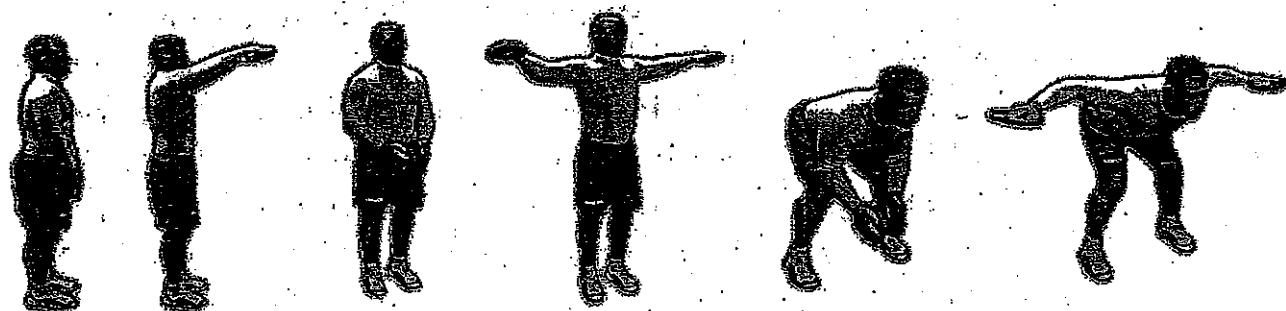
2. Leg Swings

3. Static Stretch – Stretch and Hold for 10 to 15 seconds

4. Overhead Deep Squats (Explained on next page)

5. Shoulder Activation

- a. With a 10 pound weight in each hand, perform the following:
 - i. Frontal Raises 10 times (Front Delt)
 - ii. Lateral Raises 10 times (Lateral Delt)
 - iii. Bent over Reverse Flies 10 times (Rear Delt)



Want to learn more about stretching? Google: Stretching or Flexibility

Flexibility

Static Stretches

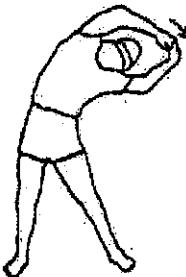
1. Tricep



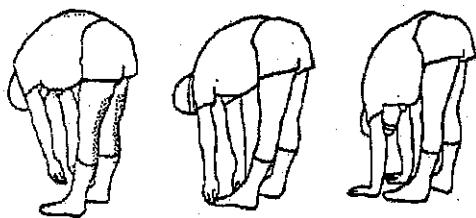
2. Shoulders / Chest



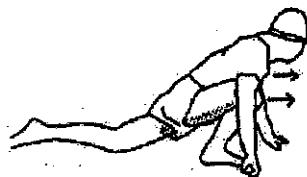
3. Lat Stretch



4. Hamstrings / Lower Back



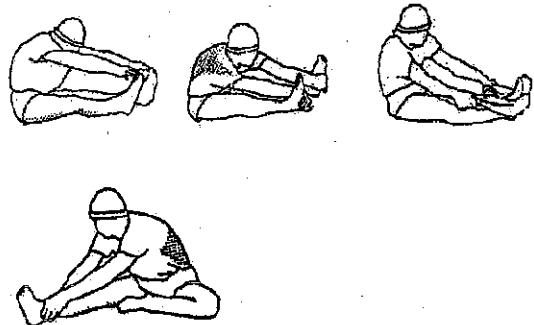
5. Lunge



6. Saigon Squats



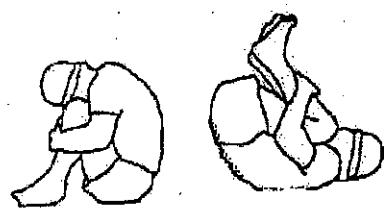
7. Sit and Reach – Hamstrings / Lower Back



8. Hollywood = Spinal Twist



13. Back



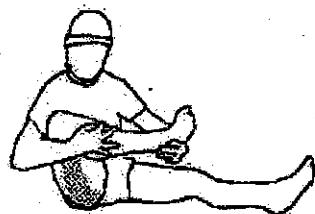
9. Groin Stretch:



14. Hip Flexor / Lower Back



10. Ham – Glute Stretch



15. The Stretchy



11. Hamstring



12. Quad Stretch



**DO ALL STRETCHES IN A
CONTROLLED FASHION - DON'T
BOUNCE!**

**CONCENTRATE ON RELAXING THE
MUSCLE GROUPS BEING
STRETCHED**

Static Stretches for Improving Flexibility and Range of Motion (ROM)

- Maximize Range of Motion for optimal learning, practice, & performance of skilled movements.
- Increase mental & physical relaxation
- Develop body awareness
- Reduce risk of joint sprain & muscular strain
- Reduce muscle soreness & tension

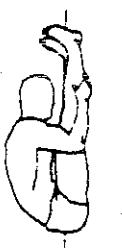
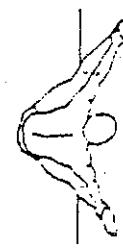
Benefits:

- Stretch when muscles are warm (After warm-up or activity)
- Stretch all primary and secondary muscle groups
- Stretch to a point of mild discomfort (not to the point of pain)
- Hold each stretch for 20 to 30 seconds
- Be consistent... "Use it or lose it"
- RELAX

- Guidelines:**
- Stretch when muscles are warm (After warm-up or activity)
 - Stretch all primary and secondary muscle groups
 - Stretch to a point of mild discomfort (not to the point of pain)
 - Hold each stretch for 20 to 30 seconds
 - Be consistent... "Use it or lose it"
 - RELAX

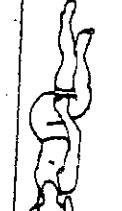
LOWER BODY STRETCHES

Hamstrings



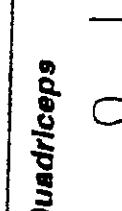
UPPER BODY STRETCHES

Calf & Achilles



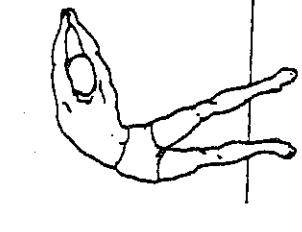
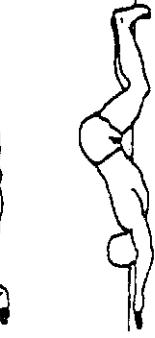
UPPER BODY STRETCHES

Adductor/Groin



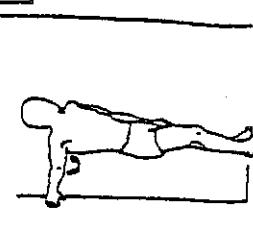
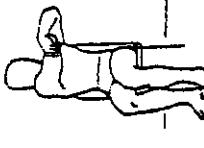
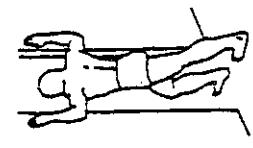
UPPER BODY STRETCHES

Abdominals, Back & Trunk



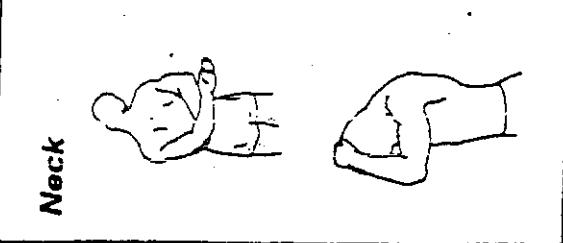
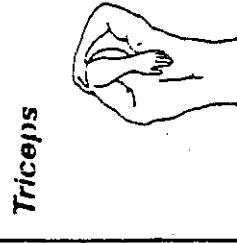
UPPER BODY STRETCHES

Shoulders & Chest



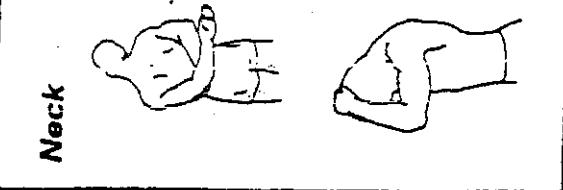
UPPER BODY STRETCHES

Triceps



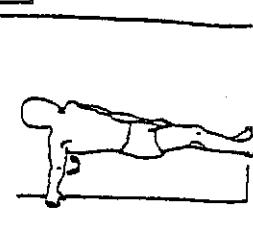
UPPER BODY STRETCHES

Neck



UPPER BODY STRETCHES

Biceps



THE MOST IMPORTANT CHAPTER

NUTRITION

WITHOUT READING THIS
CHAPTER, YOU HAVE LIMITED
YOUR ATHLETIC PERFORMANCE.

Many times the lack of progress during training can be related to poor nutritional lifestyle and NOT your training. For some solid, up-to-date food information, keep reading!

Nutrition is all about:

1. Being ORGANIZATION, and
2. Having some basic knowledge!

Many athletes don't eat breakfast because they say "I don't have time Coach." Nutrition is about being organized! Being organized means that you plan ahead! If you know that you will be busy tomorrow, pack a breakfast, lunch and snack the night before to take with you when you leave the house in the morning. There should be NO excuses for missing a meal. Food is our Fuel! Don't forget to fill up your tank or you're not going to get too far!

NUTRITION

High intensity training programs geared towards maximizing your strength, power, endurance and stamina make special demands on you as an athlete. Rigorous training sessions and competitive events serve to challenge you and develop your capacity for maximum physical performance.

Optimal nutrition is an integral part of peak performance and can enhance your potential just as an inadequate diet can limit your potential for maximum performance. What is optimal nutrition and how can you achieve it? It starts by sorting out sound advice from the many "fads" on the market today. Athletes have tried a multitude of ways to supplement their diets, including such things as bee pollen, liver extract, megadoses of vitamins and many other gimmicks in an effort to maximize performance. However, it is proper nutrition that will influence the performance capabilities of the athlete.

THE BOTTOM LINE

Although several points will be covered during this section of your manual there is one in particular that you should pay close attention to. That is the relationship between carbohydrate, protein and fat to the total amount of calories consumed daily. The average American diet consists of:

30% Carbohydrate
30% Protein
40% Fat

Your diet should be composed of:

60% Carbohydrate (40% or greater complex)
20% Protein
20% Fat

Unfortunately, most athletes fall into the first category. Whether you are trying to gain or lose weight, this ratio is fitting for either. The only thing that changes is the total amount of calories you take in. Nutrition is not that complicated but is usually presented in a confusing manner. The food you consume falls into one of the three categories previously discussed - carbohydrate, proteins and fats.

Their caloric breakdown is as follows:

Each gram of carbohydrate	= 4 calories
Each gram of protein	= 4 calories
Each gram of fat	= 9 calories

It doesn't take a genius to figure out why people whose diet consists of 40% fat are fat.

CALORIES

Athletes often overlook the stringent energy demands of daily training sessions. Total calories required are considerably increased for the training and competing athlete versus the average person, but remember, it should be done in the proper % to the total daily intake.

If sufficient calories are not included in the diet, you will lose too much weight, become fatigued more quickly and performance will diminish. These same symptoms will occur if a person tries too quickly to qualify for a certain weight class. If weight loss is desired, it should begin far in advance of the sport season, and be accomplished gradually.

CARBOHYDRATES

Athletes specifically need more carbohydrates in their diet than the average person. They provide the primary source for fuel for exercising muscles. When a person eats carbohydrate in the form of sugars and starches, it is digested and circulates through the blood stream as glucose-a simple sugar. If the glucose is not used immediately for energy, it will go into storage as glycogen in the liver and muscles. When these glycogen stores are filled, the excess glucose is stored as fat. As exercise continues, and more energy is needed, glycogen breaks down to release the glucose as fuel for the muscles.

After a few hours of exercise, whether in training or competition, the glycogen stores become low or depleted and exhaustion can quickly occur.

The best way to avoid this effect is to eat the right type of carbohydrate, in its complex state. This will allow you to build up your glycogen stores rather than convert glucose. Not only in the form of carbohydrate loading before competition, but as a way of life every day. Only carbohydrates can build up glycogen stores, not protein, fat, vitamins or minerals.

Samples of complex carbohydrate:

Bagels, Banana Bread, Beans, Bread,
Cereal (hot/cold), Corn Bread, Cous-cous, Crackers,
French Toast, Fruit, Juice
Noodles, Macaroni, Millet, Muffins,
Pancakes, Pasta, Peas, Popcorn, Potato, Pretzels,
Ramen Noodles, Rice, Rolls,
Sweet Potato, Stuffing, Spaghetti,
Waffles, & Yams.

Samples of simple carbohydrate (avoid these):

Soft drinks, lemonade, Kool-aid, Candy, etc.

PROTEIN

The primary function of protein in the body is to build and repair tissue. It is easy to see why athletes once thought that more protein would mean greater muscle gain. We now know this is clearly not the case. Our bodies can only utilize a certain amount. Since we have little capacity to store protein, any excess may be converted to fat if it is not burned.

The amount of protein you need is mainly determined by your body weight. Individual differences in metabolic rate must also be taken into account. Some nutritionists feel that high activity levels could also be a determinant. The jury is still out, so to speak, on the latter mentioned. Therefore, this may simply mean that you do not need more protein, but must ingest more calories.

Average protein requirement:

0.8 - 1.2 grams per kilo of body weight.

One kilogram equals 2.2 pounds. If we figure a *250 lb.* lineman's protein requirement to be at 1.1 gm/kilo, his daily intake would be 125 gm's per day.

250 lbs.	= 125 grams protein.
1 can of tuna	= 45 grams protein.
2 chicken breasts	= 80 grams protein.
<u>Total</u>	= 125 grams protein.

As you can see it is not difficult to consume more than the necessary amount of protein each day. Therefore, as previously stated, it is vital to intake plenty of carbohydrates.

FAT

In addition to adequate amounts of carbohydrate and protein, you must also consume fat to complete a well balanced, nutritionally adequate diet. Dietary fat is a concentrated source of calories in our diet. Some fat is necessary to provide essential fatty acids and to transport certain vitamins. Stored fat is used as an energy source during activities lasting at least 20-30 min. in duration. However, large amounts (as in the average diet) can prove to be very detrimental, not only to one's appearance and health but to athletic performance as well.

One thing to keep in mind about fat is that FAT IS FAT! No matter how you look at it, it will always be metabolized in the body the same way. Sure, there are good fats (HDL) and bad fats (LDL) that can have a positive or negative effect to our longevity, but they both equal 9 calories per gram. This means that margarine has the same caloric expenditure rate as butter! Don't be fooled by clever television ads that try to tell you different.

Some interesting fat stats:

<u>ITEM</u>	<u>SERVING</u>	<u>FAT in GRAMS</u>
Apple	5 oz.	0.1
Baked Potato	1 med. w/skin	0.1
Carrot	2 oz.	0.1
Banana	4 oz.	0.2
Orange	5 oz.	0.2
Raisin Bran	½ cup	0.5
Rice (brown)	½ cup	0.6
Cantaloupe	½ melon	0.7
Bagel	1 medium	1.0
Macaroni (elbows, shells)	1 cup	1.0
Tuna in Water	1 can	1.7
Spaghetti w/sauce	1 cup pasta with ½ cup of sauce	2.5
Pancake	1 medium	3.2
Snickers	1 bar	3.2
Milk 2%	1 cup	5.0
Coffee Cake	1 piece	7.0
Cheese Pizza (no toppings)	1 medium slice	9.0
Cheddar Cheese	1 oz.	9.4
Nature Valley Granola	½ cup	10.2
T-Bell Bean Burrito	1	10.8
Croissant	1 medium	12.0
Butter	1 tablespoon	12.0
Margarine	1 tablespoon	12.0
Cooking Oil (any)	1 tablespoon	14.0
Chocolate Shake	20 oz.	22.0
Avocado	1 medium	30.0
Qtr Pndr w/ Cheese	1	30.7
Whopper w/ Cheese	1	45.0
Wendy's Triple	1	68.8

WATER

Water replacement is often neglected by athletes. Just because you're not thirsty does not mean you're not dehydrated. Fluid loss is more rapid than most athletes realize and must be replaced ASAP! For competition it is wise to be completely hydrated the day before an event as well as immediately before, during and after. One pint of water lost in the body = one pound of body weight lost. As much as a 2% water loss in the body can result in a 19% decrease in performance.

Managing your Hydration

Don't rely on thirst to drink.

Drink on schedule.

Monitor body weight and watch urine color.

Avoid all caffeine-based products.

Key in on meals as an opportunity to increase fluids.

Before exercise

*2-3 hours before exercise drink at least 20 oz of water or a sports drink

*10-20 minutes before exercise drink another 10-12 oz of water or a sports drink

During exercise

*Drink early and often

*Every 10-20 minutes drink 10 –12 oz of water.

**Remember to drink beyond thirst.*

After exercise

Immediately after training is the key time to replace fluids.

Weigh and check wt loss from before exercise.

Drink 20 oz of fluid for every one lb of wt lost.

Avoid and do not drink anything with caffeine in it.

QUESTIONS REGARDING NUTRITION AND THE ATHLETE

1. Are large amounts of protein essential to an athlete who is involved in vigorous training?

For athletes who want to gain muscle mass there is no evidence that protein supplementation of the diet is necessary. When the diet is balanced, there is enough energy for intense training and protein for growth and repair. The National Research Council on Nutrition has stated that 1 gm/day of protein per 2.2 lbs. of body weight is sufficient for athletes. High levels of dietary protein will accumulate body fat, increase urinary water loss causing water imbalance and muscle cramping.

2. Are vitamin and mineral supplements necessary?

Increased food consumption ensures adequate intake of those vitamins and minerals that are depleted during strenuous exercise. Again, food intake is the important factor. If the food intake is not adequate, energy storage in the muscle will not be 100%. Regardless of excess vitamins, there first must be fuel to start the process of energy release for exercise.

3. What is the best way to gain body weight?

First of all; you do not need Weight Gainers 2000, or Cybergentics to gain weight. The only nutrition store you should go to is Hugo's on Columbia. The key to weight gain is eating. Realistically, you should only gain 1 lb. per week. For you to only gain one pound per week, you need to take in 500 calories per day over what it takes you to maintain your present weight. Some times it hard to add 500 calories a day to your diet. There are many things you can do, I know half of you do not eat breakfast. So for half of you, eat breakfast, that will be more extra calories than you need. If you eat breakfast and still have a hard time, then do food adding. Food adding is putting extras on the food you already eat (e.g. putting bananas on your cereal, spreading peanut butter on your toast), there are many things you can do.

4. What is the best way to reduce body weight?

The opposite applies here in reducing body weight. You want to decrease your caloric intake by 500 calories per day. This will enable you to lose 1 lb. per week, which is no more or no less than you should. The first key to loosing weight is eating regular. Make sure you are eating breakfast, lunch and dinner. You can lose weight by eating more at appropriate times. Eat good meals at the right time. If you eat regular and still have a problem losing that 1 lbs per week taking away calories is easier than adding calories. By simple cutting back on dairy products, such as milk, cream, butter, and margarine.

Estimated Daily Caloric Intake in Relation to Current Body Weight

Weight (lbs.)	Reduce	Maintain	Increase
160	2,290	3,040	3,790
170	2,480	3,230	3,980
180	2,670	3,420	4,170
190	2,860	3,610	4,360
200	3,050	3,800	4,550
210	3,240	3,990	4,740
220	3,430	4,180	4,930
230	3,620	4,370	5,120
240	3,810	4,560	5,310
250	4,000	4,750	5,500
260	4,190	4,940	5,690
270	4,380	5,130	5,880
280	4,570	5,320	6,070
290	4,760	5,510	6,260
300	4,950	5,700	6,450

Estimated Daily Energy Intake in Relation to Caloric Intake

Caloric Intake	Daily Fat Intake (gm's)	Daily Carbo Intake (gm's)	Daily Protein Intake (gm's)
6,000	133 - 167	900 - 975	215 - 225
5,500	122 - 152	825 - 894	200 - 215
5,000	111 - 140	750 - 812	185 - 200
4,500	100 - 125	675 - 731	165 - 185
4,000	90 - 111	600 - 650	150 - 165
3,500	78 - 97	525 - 570	135 - 150
3,000	67 - 83	450 - 488	120 - 135
2,500	56 - 70	375 - 406	105 - 120
2,000	44 - 55	300 - 325	90 - 105

Four Keys to Healthful Eating

When choosing your meals and snacks, base your nutrition game plan on these four important keys to healthful eating:

1. Variety.

Key Points

- As variety decreases, the chance for missing nutrients increases dramatically.
- Variety reduces boredom and helps assure all vitamins, minerals, and nutrient groups are represented.

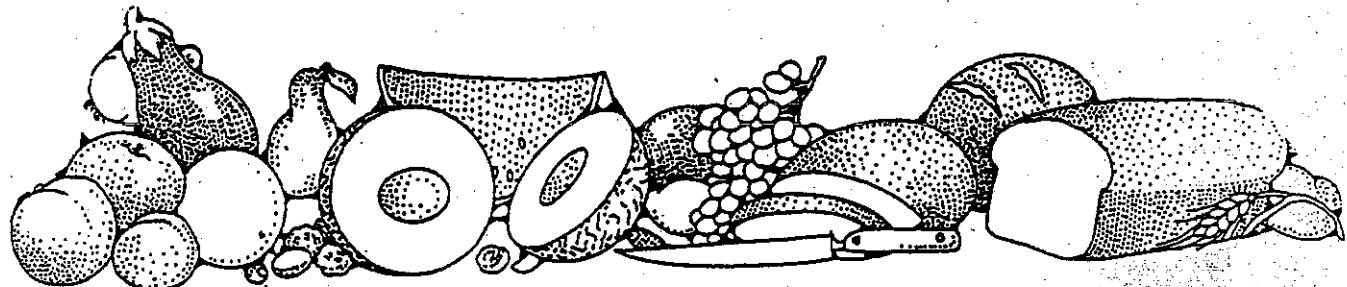
There is no one magic food. Each food offers special nutrients. For example, oranges provide Vitamin C and carbohydrates but not iron or protein. Beef offers iron and protein but not Vitamin C or carbohydrates. You'll thrive best by eating a variety of foods.

I know of athletes who choose spicy fried chicken, dirty rice, French fries, and large sodas while traveling to an event. Beside lacking vegetables and fruit, their menu is lacking Vitamin C, D, A, E, potassium and is equal to 5 tablespoons of Crisco!

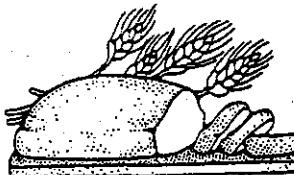
Each type of food provides different vitamins and minerals. You store these nutrients in your body-- some in stockpiles, such as the vitamin A made from beta-carotene found in carrots, tomato sauce, and broccoli; some in smaller amounts, such as the Vitamin C from orange juice, green peppers, and cantaloupe.

2. Balance.

Even soda pop and chips, in moderation, can fit into a well-balanced diet. Simply balance out sugars and fats with nutrient-wise choices at your next meal. For example, compensate for a greasy sausage and biscuit breakfast by selecting a low-fat turkey sub sandwich lunch. Although no one food is a junk food, too many nutrient-poor selections can add up to a junk-food diet.



3. Wholesomeness.



Key Points

- The less processed the food item, the higher the nutritional value.
- In many cases, fresh, whole foods are less expensive.

Choose natural or lightly processed foods as often as possible: for instance, whole wheat rather than white bread, apples rather than apple juice, and baked potatoes rather than potato chips. Natural foods generally have more nutritional value and fewer questionable additives.

4. Timing.

Key Points

- Helps to maintain muscle tissue
- Promotes body fat reduction
- Reduces sluggishness and the onset of fatigue
- Can maximize glycogen reloading of muscles for next day's workout.

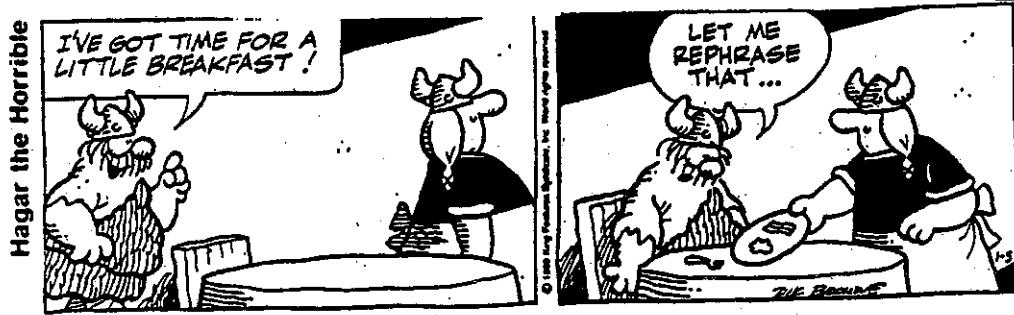
Eat at least three times per day plus one or two snacks. It is important to keep food intake at a constant level throughout the day. Skipping meals will not replace all the energy stores in the muscle. At the same time, there may be less muscle growth. Secondly, an evenly distributed caloric intake throughout the day keeps the body's ability to burn calories elevated (metabolic rate). *Skipping meals to lose weight is counter productive and will not allow for progress in the training program.*

MANY TIMES THE LACK OF
PROGRESS DURING TRAINING
CAN BE RELATED TO POOR
NUTRITIONAL LIFESTYLE AND
NOT YOUR TRAINING
PROGRAM.

Breakfast -- Breaking Your Fast

Overnight you have been without food for 6-8 hours, this is considered a period of "fasting" compared to eating every 2-6 hours while you are awake. Upon rising your body requires a fuel source to "kick start the engine".

Breakfast has an extremely important role in contributing nutrients as well as calories to the diet at a time when your body's supply is very low. A morning meal that includes complex carbohydrates is best to maintain your blood sugar levels above the fasting level. The tissues and cells in your body, especially in the brain, rely on a constant energy supply to work at their best. A blood sugar level that stays above the fasting level ensures that enough energy is being supplied to your body tissues.



Getting a good breakfast is a problem solved with a little self-discipline and planning. Don't feel bound by tradition and feel you need to have a time-consuming, sit-down affair. Time is usually the problem with most athletes but you can eat well if you've chosen well from the supermarket and have prepared ahead of time. The following are some suggestions for stocking your kitchen:

- Yogurt: Buy with fruit or add your own. Sprinkle in some cereal for crunch and carbos.
- Cereals: Preferably high fiber, low fat. Can be hot or cold varieties.
- Fresh fruit
- Milk, low fat or skim
- Dried fruit or nuts: High nutrition in a portable form.
- Muffins, any kind
- Bagels, any kind
- Crackers, low fat (see "Snack List")
- Bread or toast, any kind
- Juice, any kind
- Applesauce
- Poptarts, any kind.

All of these can be part of a quick-fix, on-the-run meal. Prepared and packaged the night before, they'll provide you with a no-excuse alternative to skipping breakfast or stopping for less healthy fare.

Smart Snacking Ideas

Snacking is a fact of life for most athletes. In order to consume the calories required each day and replenish the glycogen used during exercise, snacks can be an important part of your training routine. Here is a partial list of suggestions for high carbohydrate snack foods and drinks to keep on hand.



Animal crackers

Applesauce, plain or cinnamon (Snak Pak's are handy)

Bagels, any flavor

Banana bread

Blueberry muffins

Breads -- many overlook this simple item, whether enriched white, multigrain, or pumpernickel, all convenience stores sell bread, much better choice than chips, donuts, or candy bars

Cereals, less than 2 grams of fat per serving

Chex Mix

Corn tortillas (not fried chips or tostadas)

Cottage cheese, lowfat

Crackers -- saltines, melba toast, SnackWells

Fig Newtons, all fruit flavors

Fruits -- fresh, canned, or dried

Frozen yogurt, plain or fruit flavored



Fruit cocktail (Snak Pak's are handy)

Fruit juices

Gelatin (Jello), diet or regular

Graham crackers, cinnamon or chocolate are great; Nabisco is lowest fat

Ice milk, all flavors

Milk, 1% or skim

Oatmeal raisin cookies

Peaches (Del Monte Snak Pak's are handy)

Popcorn, air popped without butter or fat

Poptarts, lowfat or regular

Pretzels

Ramen, Campbell's lowfat only

Toast

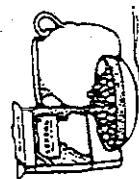
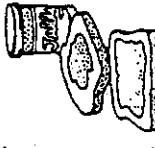
Tortilla Chips, baked

Vanilla wafers

Vegetable soup (homemade is less salty than dried or canned)

Vegetables, raw

Yogurt -- 6 or 8 oz lowfat with fruit



FOOD AS FUEL

Before Competition/Training: 1-2 hours before

-Liquid, semi-solid foods like juice or yogurt

-Easily digested, low in fiber & protein

Fruit/ vegetable juices such as orange or tomato juices

Fresh fruit such as bananas, raisins, grapes, oranges, peaches, or watermelon

Pre-competition/Training Meals: 3-4 hours before

-High in complex carbohydrate like bread, vegetables and fruit

-Low in simple sugars; soda, candy and chocolate should be avoided

- Moderate in protein & Low in fat

-Adequate in fluid

Sandwich with 2 slices of bread and 2 ounces of lean meat

Fresh vegetables, fruit juices and fresh fruit

Breads, bagels or muffins and a light spread of peanut butter

Slice of cheese or light spread of cream cheese

Cereal and Milk

Oatmeal Cookies or Fig Newtons

Crackers or Pretzels

DON'T FORGET WATER-Try to stay away from soda or carbonated beverages

Training Time =

Less than 60 minutes: drink WATER, no food

1 to 3 Hours: drink SPORTS DRINK & add small amounts of solid food, fruit or energy bars

Recovery: Nutrition and Sleep

Within 30 minutes to 2 hours – Carbohydrate AND Protein (3:1 or 4:1 ratio optimal)

Chocolate Milk

Banana and Peanut Butter

Pasta and Chicken