



The Female Athlete: “Get Quicker, Jump Higher, Get Better!”

What is an ACL (Anterior Cruciate Ligament)? It is the primary ligament in the knee that gives it “stability.” It is essential to run, jump, and change direction in many sports. Research shows that girls sustain knee injuries 5-10 times more often than boys. There are various reasons why this occurs...

What are the genetic reasons?

- Some females have wider pelvis bones, causing a greater “Q-angle”
- Studies show that the changes in levels of hormones (estrogen and progesterone) during the menstrual cycle can play a role in ACL integrity

What are the issues we can control?

- Females tend to land with improper form
- Females often have weaker hip muscles, which means the knees will “knock” inward, causing stress on the ligaments
- Females have slower muscle recruitment processes
- Females often have muscular imbalances
- Pronated (flat) feet can also cause knees to knock inwards putting stress in the ligament upon cutting or landing

What can we do to correct these problems?

- Learn proper landing, jumping, and squatting form
- Learn proper hip, knee, and core strengthening
- Perform sports-specific training to improve neuromuscular involvement
- Activate and strengthen weaker or “sleeping” muscles
- Orthotics can help correct the issues associated with pronated (flat) feet

Education for our coaches, athletes, and parents can make a big difference! Please contact one of our Athletic Performance Specialists @ 205 939-1557 to learn more about this valuable training program.

Female Athlete Training Tips

Champion Sports Medicine is committed to helping athletes stay healthy and get better. Here are some essentials for getting the most out of your conditioning programs for your female athletes. Follow these key points for athletic position, squatting, and landing (double or single leg). As always, perfect technique is essential to get the benefits of this program.

Proper Technique	Common Fault	Key Words
Feet Slightly Wider Than Shoulder	Feet Too Far Apart, Feet Too Close Together	“Feet Shoulder Width Apart”
Neutral Spine Angle	Rounded Shoulders	“Chest up” “Hips Back”
Trunk Tilt to 30 Degrees	Too Tall or Too Forward	“Athletic Position”
Knees Bent to 30 Degrees	Too Straight in Knees	“Low Athletic Position” “Push Hips Backward”
Weight in Balls of Feet and Squared Off	Splayed or Outwardly Rotated	“Toes Forward”
Knees in Line with Ankles	Knees Knock	“Knees Over Ankles”
Knees Behind Toes	Knees too Far Forward	“Keep Hips Back”

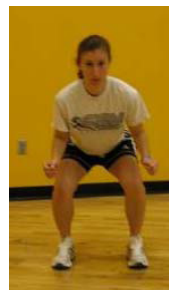
Female Athlete Strength and Plyometric Program

These exercises are based on current research to maximize performance and reduce the incidence of lower body injuries. Perfect technique is critical to make this program effective. During the first 6-10 sessions use controlled speed, especially on the landing and cutting aspects. Progressing too early is not recommended as it can be counter productive. Please call Champion Sports Medicine @ 205 969-1557 and speak to one of our Athletic Development Specialist with questions. Begin with a dynamic warm up x 10' (see our dynamic warm up program)

Day 1:

1) Squats (This is the most important exercise for your athletes. Perfect form should be emphasized in great detail each training session).

- Athletic Position
- Feet slightly wider than shoulders
- Push hips backward and “sit into heel”
- Bend until thighs parallel to floor (slightly deeper than this picture)
- _____ Sets of _____ Repetitions



2) Front Plank (essential for core strength)

- Resting on forearms and toes
- Maintain a flat back “belly-button” to “back bone”
- One line from shoulders to heels
- _____ Sets of _____ Seconds



3) Double Leg Jumping with “Stick and Hold” (the basic landing technique for athletes)

- Start in “athletic position”
- Swing arms and jump forward with both legs
- Landing
 - o “Ball of Feet into Heels”
 - o Knees over feet
 - o Land “Light as a Feather”
- _____ Sets of _____ Repetitions



4) Clamshell (this strengthens the hip muscles which help support the knees)

- Lie on R/L side with knees slightly bent
- Theraband around both knees
- Keep feet together
- Keep lower leg still while raising top knee
- Slowly lower top leg back to bottom leg
- _____ Sets of _____ Repetitions



5) Jump Catch on Hurdles (focusing on controlled landing to promote stability)

- 3 Hurdles
- 3 quick jumps, hold the 3rd landing
 - “Ball of Feet into Heels”
 - Knees over feet
 - Land “**Light as a Feather**”
 - Good athletic position



- _____ Sets of _____ Repetitions

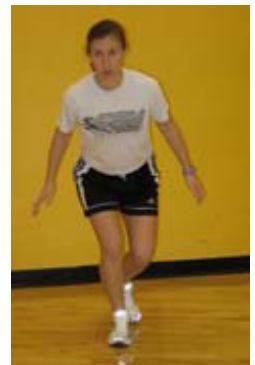
◦ Progression:

- Single leg hops (be sure to train single leg squatting as lead up to this progression)



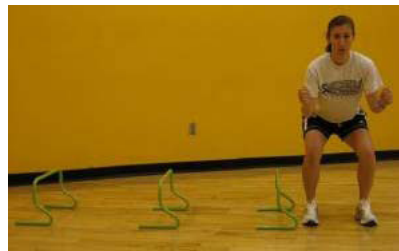
6) Bird Dip/Hip Hinge (single leg exercises are essential for balance, stability, and hip /foot muscle activation to take pressure off the knee)

- Very slight bend in stance leg
- Lean at hips
- Keep knee over foot (do not knock knee inward)
- Return to top
- _____ Sets of _____ Repetitions



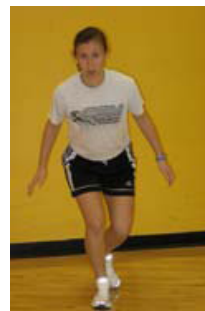
7) Side-to-Side Stick and Holds

- “Ball of Feet into Heels”
- Knees over feet
- Land “**Light as a Feather**”
- Good athletic position
- _____ Sets of _____ Repetitions



◦ Progressions:

- Rotate 90 degrees in air
- One foot
- One foot Rotate 90 degrees in air



8) Toe Touch

- squeeze abdominal muscles”
- “reach arms toward legs”
- “body should form a V”
- “perform one set slowly, then one fast”
- _____ Sets of _____ Repetitions



9) Lateral Box Jumps (6-12 inch box)

- Jump and land with both feet
- Landing on top of box in good athletic position
- Land “Light as a Feather” & “Stick and Hold”
- _____ Sets of _____ Repetitions
 - Progressions:
 - Rotate 90 degrees in air
 - One foot
 - One foot Rotate 90 degrees in air

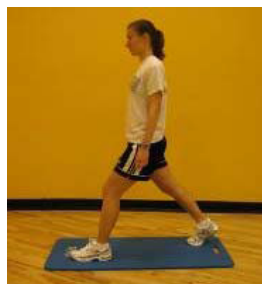


Begin with a dynamic warm up x 10' (see our dynamic warm up program)

Day 2:

1) Lunge (leg, core and upper body working together)

- Long Stride: front knee should not go past front foot
- Back knee straight to the ground
- Pushing up through front foot heel
- Upper body straight and over center of body
- _____ Sets of _____



- Progressions:
 - Hold Medicine ball straight in front
 - Hold a Medicine ball with an upper body twist
 - Walking lunges



2) Double Leg Sideways Jumps with “Stick and Hold” (the basic and important landing technique for athletes)

- Start in “athletic position”
- Swing arms and jump sideways with both legs
- Landing on both feet
 - “Ball of Feet into Heels”
 - Knees over feet
 - Land “Light as a Feather”
- _____ Jumps _____ Times



3) Side Plank (hip and core strengthening)

- Resting on L/R forearm and on side of feet
- Back is straight “belly-button to back-bone”
- Switch sides



- One line from neck to heels

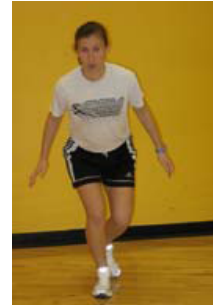
- _____ Sets of _____ Seconds

o Progression:

- Arm Straight up “pointing to ceiling”
- Top leg up straight

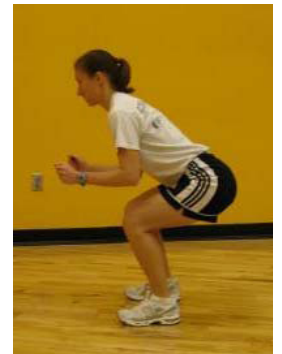
4) Single Leg Squats (This is an extremely important component for your athletes. All athletes must be able to perform properly to progress to the jump portion of this program.)

- Athletic Position
- Foot facing forward
- Push hips backward and “sit into heel”
- Bend at hip and knee with perfect posture
 - o (do not substitute depth for form)
- _____ Sets of _____



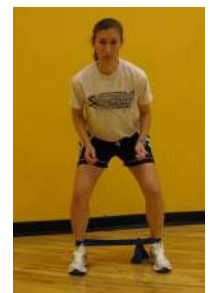
5) Double Leg ¼ Eagle Jumps with “Stick and Hold” (the basic and important landing technique for athletes)

- *Use very controlled speed with this exercise*
- Start in “athletic position”
- Swing arms and jump turning 45 degree with both legs
- Landing on both feet
 - o “Ball of Feet into Heels”
 - o Knees over feet
 - o Land “**Light as a Feather**”
- _____ Jumps _____ Times



6) Monster Walks (this strengthens the very important hip muscles which help support the knee)

- Theraband around both knees
- Stay in “athletic position”
- Keep legs wide and resistance on bands
- Knees over heels
- _____ Sets of _____
 - o Progressions:
 - Theraband around ankles
 - Add speed



7) Forward Box Jumps (6-12 inch box)

- Jump and land with both feet
- Landing on top of box in good athletic position
- Land “Light as a Feather” & “Stick and Hold”
- _____ **Sets of** _____
 - **Progressions:**
 - Rotate 90 degrees in air
 - One foot
 - One foot Rotate 90 degrees in air



8) Push Ups (critical for linking upper and lower body strength through the core)

- Keep back flat (do not let back arch)
- Bend elbows to 90 degrees
- Keep head looking @ 45 degree angle forward
- _____ **Sets of** _____



9) Hamstring Back Bridge (hamstrings are important to give stability to knee)

- Lie on back with knees bent
- “Belly-button to back-bone”
- Arms at your side
- Squeeze gluteus and hamstrings
- Raise hips to plank position
- _____ **Sets of** _____
 - **Progressions:**
 - Use Stability ball
 - Heels on ball
 - Bridge up, curl legs and slowly (1:3 ratio)
 - Extend knees to plank position
 - Bring knees back to neutral and lower hips



Agility Training Day 3

Begin with a dynamic warm up x 10' (see our dynamic warm up program)

Lead Up Jump Drills

- Front and back jump overs x 20
- Side-to-side jump overs x 20
- Tuck jumps x 10
- Squat jumps x 10
- 180 degree jump x 10
- Single leg hop, hop, stick x 10
- Power skips x 10
- Bounding x 10

Speed Ladder

- One foot running
- One foot high knee running
- Sideways running
- Icky shuffle forward
- Icky shuffle backward
- Scissors

Cone Drills

- 5-10-5 (running, shuffles, and forward/backward) 2 x's each
- "M" Drill: 4 x's
- 4 Corners: 4 x's

Core Exercises:

- Push Ups: 2 x 10
- Back Lying Lower Abdominal Bicycles" 2 x 10
- Stomach Lying Superhero: 2 x 5 x 5" hold
- Front Plank: 2 x 15-45" hold

About the Author:



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