



PLAY SMART. PLAY SAFE.

FOLLOW THESE SIMPLE GUIDELINES FOR SAFETY AND FITNESS.

ACL INJURY RISK REDUCTION EXERCISES

Warm-up

1. Place two cones 20-40 yards apart
2. Forward jog
3. 1 down and back
4. Lateral Shuffle between the same cones
5. 1 down and back
6. Back pedal between the same cones
7. 1 down and back
8. Carioca between the same cones
9. 1 down and back

Straight Leg March

1. 1 down and back
2. Make sure legs are straight
3. Only as high as you can without compromising technique

Plyometrics

1. All Landings should be as quiet as possible, to do this slightly bend your knees!
2. In addition to having a quiet landing, the feet should land shoulder width apart with knees being as wide as the feet and never pointing inward
3. Proper plyometric technique....Quick and Explosive jumps are Key!
4. No double jumps (little jumps between big jumps).... Land, Jump, Land, Jump

Tuck Jump

1. Stand straight
2. Jump trying to bring both knees to your chest
3. Do Not take chest to knee...this is cheating
3. 20 repetitions.
4. Absorb landing with bending knees.....land quietly

Squat Jump

1. Squat down, jump as high as you can and include the tuck portion of the tuck jump
2. Knees to Chest....not Chest to Knees
3. 20 repetitions
4. Land Quietly
5. Single leg jumps over barrier/cone...no more than 6" high.
6. Stand on one leg.
7. Jump/hop forward and backward over object no more than 6" high
8. Jump as fast as you can....this is for quickness.
9. 30 seconds each leg
10. Land Quietly!

Scissor Jumps

1. Start in a lunge position
2. Jump and switch to the opposite leg being forward
3. 20 repetitions
4. Land Quietly!

5. Front to back barrier/cone jumps
6. Similar to single leg jumps over the barrier, but with both feet
7. Start with a 6" high object and progress up to approx. 1'
8. This exercise is still for speed
9. 30 sec-1min...increase time as you progress and become more advanced
10. Land Quietly!
11. Side/side barrier jumps
12. Same as previous exercise, but now from side to side
13. Also for speed.
14. 30 sec-1min
15. Land Quietly!
16. About face jumps (180 degree jump)
17. Jump while turning your body 180°
18. Jump for power and Height
19. 20 repetitions

Strength Training

Athletes need a stable core and proper muscle strengthening of the lower extremity. If you are not already doing some of these exercises, incorporate them into your weight training routine with same sets and repetitions as your other exercises.

Hamstrings

- Lying leg curls • Seated leg curls
- Squats • Good Mornings • Lunges

Quadriceps

- Squats • Leg Press • Leg Extensions • Lunges

Calfs

- Calf Raises • Seated Calf Raises

Hips

- Squats • Good Mornings • Cable Adductions or Machine Adductions • Lunges • Hip Abductions • Cable kickbacks

Core Stabilizers & Back

- Crunches • Sit-ups • Pelvic Tilts • Bridging • Trunk Rotations • Back Extensions

Agility

- Sport Specific Agility exercises

Flexibility

- 4 repetitions of each stretch • Hold each individual stretch for 20-30 seconds • Hamstring Stretches • Hip Flexor Stretches • Quadricep Stretches • Calf Stretches

FOR ADDITIONAL INFORMATION ABOUT ACL PREVENTION THE FOLLOWING IS A GREAT WEBSITE FOR INFORMATION:

<http://www.sportsmetrics.net/>

* These measures do not guarantee injury prevention, however if done properly can reduce the risk of injury. Consult your physician for more information.

CONCUSSIONS

A concussion is a brain injury due to direct or indirect forces which cause altered cerebral functions. CT scans do not have to be positive for a concussion to be present. CT scans rule out more serious conditions such as subdural or subarachnoid hematomas.

Signs & Symptoms

Acute S&S

- Lightheadedness • Delayed motor (body movement) and or verbal responses • Memory or cognitive (ability to process information e.g. mathematics or months of the year) dysfunction
- Disorientation • Amnesia • Headache • Balance problems/ un-coordination • Vertigo / dizziness • Concentration difficulties • Loss of consciousness • Blurred Vision • Vacant stare (befuddled facial expression) • Photophobia (light sensitivity)
- Tinnitus (ringing in the ears) • Nausea • Vomiting
- Increased emotionality • Slurred or incoherent speech

Late (delayed) S&S

- Persistent low grade headache • Easy fatigability
- Sleep irregularities • Inability to perform daily activities
- Depression/anxiety • Lethargy • Memory dysfunction
- Lightheadedness • Personality changes • Low frustration tolerance/irritability • Intolerance to bright lights, loud sounds

Treatment

- Complete Rest is the best treatment for a concussion
- Complete Rest is no exercising, exertion, or strenuous mental tasks, consult a medical professional for advice.
- Athletes should not return to activity the same day of concussion....This is a AAA ruling in the state of Arkansas!

• All suspected concussions should be evaluated by a qualified medical professional, preferably a physician or certified athletic trainer.

• If no medical professional is present at time of injury, the athlete does need to be monitored for increasing signs & symptoms

Although concussions can happen in any sport, the most common sport in which they occur is football. Additionally, football is the main sport in which the risk of concussions can be reduced by proper helmet fitting. NO helmet on the market will completely prevent concussions! The sole purpose of a helmet is to prevent skull fracture.

Proper Helmet Fitting

- All helmets must have NOCSAE certification
- Wet hair before fitting to simulate sweat during activity
- Helmet should fit snugly around all parts of the player's head
- Allowing gaps will let the helmet move...we do not want this!
- Ear/Cheek pads should be snug enough a credit card should be difficult to slide between the pad and the skin
- Helmet padding must be snug but not to the point of discomfort or pain
- Back of helmet should cover the base of the skull
- Helmet should not come down over the player's eyes
- Helmet should sit 3/4 inch above the player's eyebrows
- Approx. 2 finger widths above eyebrows
- The ear holes should line up with the ear canals on both sides of the head.
- Helmet should not shift when manual pressure is applied

Concussion Grade	Consciousness	Signs & Symptoms	Headache
1 MILD	No Loss of Consciousness	Post-Concussion symptoms for less than 24 hours. Post-traumatic amnesia for less than 30 min.	Probable (10 minutes-1 day)
2 MODERATE	Loss of Consciousness < 1 min	Post-Concussion symptoms for more than 24 hours, but less than 7 days. Post-traumatic amnesia for more than 30 min, but less than 24 hours.	Probable (24 hours-7 days)
3 SEVERE	Loss of Consciousness > 1 min	Post-concussion symptoms for more than 7 days. Post-traumatic amnesia for more than 24 hours.	Likely (Greater than 7 days)

Concussion Grade	Number of Concussions Suffered	Guideline
1	FIRST	May not return to activity that day. May Return to activity if asymptomatic for 7 days OR Athletic Trainer's and/or Physician's discretion
1	SECOND	May not return to play that day. May return to activity after asymptomatic for 7 days
1	THIRD	May not return to activity that day. End of Season, return to activity next season if asymptomatic
2	FIRST	May not return to activity that day. May return to activity after asymptomatic for 7 days. OR Athletic Trainer's and/or Physician's discretion
2	SECOND	May not return to activity that day. Minimum 1 month rest, with being asymptomatic for at least 1 week. Physician may consider End of Season.
2	THIRD	End of Season. May return next season if asymptomatic.
3	FIRST	May not return to activity that day. Minimum 1 month rest, with being asymptomatic for at least 1 week. Physician may consider End of Season.
3	SECOND	End of Season. May return next season if asymptomatic.

- Helmet should not recoil on impact...test by pushing down on crown of helmet
- The chin strap should be an equal distance from the center of the helmet
- Straps must keep the helmet from moving up and down
- Straps must keep the helmet from moving side to side
- The Cheek pads should fit snugly against the sides of the face

- A credit card should be difficult to get between the skin and padding
- The face mask should be attached securely to the helmet
- Allows complete field of vision
- Should be positioned 3 finger widths from the nose
- * These measures do not guarantee injury prevention, however if done properly can reduce the risk of injury. Consult your physician for more information.

HEAT ILLNESS PREVENTION CHECKLIST

Acclimatization

- Seven to 14 days of exercise in a hot outdoor environment is required for the body to adapt and become prepared for conditions that will be encountered during outdoor sports activities in the hot, humid summer months in Arkansas. Maximum acclimatization may not occur for 2 months.
- Exercise should not last longer than 3 hours and for no more than 6 consecutive days.
- Exercises are done with no pads or helmet for the first 3 days.
- During acclimatization there should be no more than 3 consecutive days free of outdoor activity. Heat acclimatization can diminish in as little as 6 days.

Hydration

- Drink 17-20oz of water or sports drink 2 hours before activity.
- Drink 7-10oz of water or sports drink 10 to 20 minutes before activity.
- Drink 7-10oz of water or sports drink during every 10-20 minutes of activity.
- Drink 25-50% more fluid than estimated sweat loss (Sweat Rate) during activity.
- Determine Sweat Rate. Sweat losses can exceed 1.5 liters per hour or one gallon per 2.5 hours when working in very hot environmental conditions. • Individual Sweat Rates vary considerably and can be calculated as follows:

Method A: Sweat Rate= Pre-exercise body weight (Kg) - Post-exercise body weight (Kg) X 1000 (to convert to grams) + fluid intake during exercise (ml) - urine volume / duration of exercise in hours

Method B: A means of simplifying the sweat rate formula is to have an established 1 hour exercise session without allowing rehydration or urination. In this instance Sweat Rate= Pre-exercise body weight (Kg) - Post-exercise body weight (Kg) X 1000 (to convert to grams).

- Recommended replacement fluid temperature is between 50°F and 59°F.
- Consuming 50% water and 50% sports drink can aid in restoring carbohydrates used during exercise as well as helping maintain electrolyte levels.

Nutrition/Electrolytes

- Eat well balanced meals in accordance with www.mypyramidtracker.gov
- Make sure you are eating enough calories to replace what you are expending during practice/exercise.
- Not sure if you are eating properly? Ask a parent, coach, trainer, doctor or nutritionist for help.
- During the first 35 days of acclimatization use salt liberally on all of your food as this will aid in the acclimatization process.
- Supplement electrolytes via MediLyte tablets if needed.

Rest/Sleep

- Very simple and straight forward, 6-8 hours of sleep/night, no exceptions!



DRINK 7-10 OUNCES OF WATER OR SPORTS DRINK DURING EVERY 10-20 MINUTES OF ACTIVITY.

THE BEST SURGEONS. THE BEST TREATMENT.
ALL FOCUSED ON YOU.



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* Checklist developed by: Todd Ross, ATC with William Hefley, M.D. in accordance with the National Athletic Trainers' Association position statements on "Heat Illnesses" and "Fluid Replacement".