



**Northern Virginia's
Premiere Gymnastics
Rehab Center**

**Insider's Guide to Managing the
Top 5 Gymnastics Injuries**



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What is a Concussion?

A traumatic brain injury typically caused by a bump, blow or jolt to the head that causes changes in how the brain functions. This can result in loss of consciousness, problems with concentration, memory, as well as balance and coordination. The effects are usually temporary but require rest and time to properly heal.

Signs and Symptoms



Signs and symptoms can appear immediately or after a few days or even weeks.

⇒ Loss of consciousness	⇒ Worsening headaches
⇒ Repeated vomiting	⇒ Balance problems or dizziness
⇒ Slurred Speech	⇒ Increasing irritability or confusion
⇒ Doesn't recognize people or places	⇒ Unusual behavior changes
⇒ Weakness/numbness in arms or legs	⇒ Sensitivity to light or noise
⇒ Seizures	⇒ Slower reaction times
	⇒ Difficulty sleeping

Call 911

Seek Concussion Management

What should you do?

If you are experiencing signs and symptoms of a concussion, STOP all gymnastics and other physical activity, and TELL your coach, parent, or medical staff. And, **follow the four G's.**

- ⇒ **Get checked out.** Only a healthcare professional experienced in concussion management can tell if a concussion occurred and when it is OK to return to sport.
- ⇒ **Get plenty of rest.** Rest is really important in concussion recovery. This means sticking to a regular sleep routine, and avoiding activities that stimulate your brain or require a lot of concentration (so no cell phone, TV or computers).
- ⇒ **Give time to heal.** It is really important to let your brain heal. A second concussion while your brain is still recovering from a first one can result in long-term brain injury. Returning to sports will require medical clearance from a concussion specialist.
- ⇒ **Go slow.** Once you get clearance to return to sport, don't expect to jump in all at once. Your concussion specialist should work with you to develop a progressive return to sport plan and address any lingering concerns.

Take advantage of our walk-in program, OrthoTriage™. Low cost, easy access to industry experts.

No appointment needed.

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What is it?



Ankle sprains occur when there is a tear in the ligament that supports the ankle joint. Ankle sprains are graded on severity and range from grade 1 (mild; no significant structural injury) to grade 3 (severe; complete rupture of the ligamentous structures).

Signs and Symptoms

- ⇒ Pain at site of injury
- ⇒ Warmth, redness and swelling
- ⇒ Usually individual can walk
- ⇒ Able to identify an event or mechanism of injury: i.e. Landing a dismount incorrectly

What should you do?

- ⇒ Rest: Modify gymnastics to pain-free activities; if not possible, total rest may be necessary.
- ⇒ Ice: ice pack 20 mins every 2-3 hours or ice massage 10 min. every 2-3 hours
- ⇒ Compress: use j- or u-shaped pressure pad around affected ligament and hold in place with a compression wrap to decrease swelling
- ⇒ Elevate: bring leg above heart level frequently to decrease swelling in ankle.
- ⇒ Over the counter anti-inflammatory medication such as Advil, Aleve, and ibuprofen
- ⇒ Calf stretching and self-massage 2-3 times per day
- ⇒ Appropriate warm up and self-care exercises before impact activity
- ⇒ Imaging generally not necessary, but may need prescription strength anti-inflammatory.
- ⇒ Wear ankle brace for support during gymnastics activities until ligament is fully healed.
- ⇒ Will benefit from a short course of physical therapy



PERFORMING ARTS

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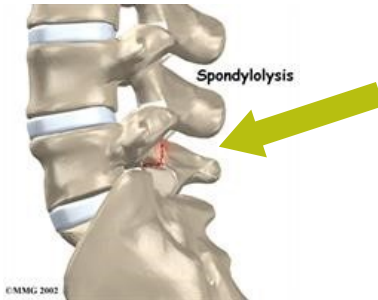
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Exercises for Ankle Sprains

EXERCISE	INSTRUCTIONS
<p>Press outs</p> 	<p>Start in neutral then press out with the foot; make sure to keep the leg still and only move the foot; as the exercise becomes easier, increase resistance by pulling band. Perform 30 repetitions 3-4x/week</p>
<p>Press Ins</p> 	<p>Start in neutral then press in; make sure to keep the leg still and only move the foot; as the exercise becomes easier, increase resistance by pulling band tighter. Perform 30 repetitions 3-4x/week</p>
<p>Calf Stretches</p> 	<p><u>Gastrocnemius Stretch</u>: Stand on a slant board or incline foam with straight legs. Allow the heel to drop towards the ground.</p> <p><u>Soleus Stretch</u>: Stand on a slant board or incline foam with bent knees. Allow the heel to drop towards the ground.</p> <p><i>Before Gymnastics</i>: (dynamic) Hold for 8 second, repeat 10 times. Alternate sides</p> <p><i>After Gymnastics</i>: (static) Hold 1 minute, repeat 3 times.</p>
<p>Dynamic Balance</p> 	<p>Start with standing on single leg with arms crossed over chest. Next, rotate upper trunk right and left keeping hips and pelvis squared to the front, continue rotating trunk side to side until 60 secs are complete.</p> <p>Complete 3 repetitions; Hold for 60 seconds rotating both directions while maintaining a controlled continuous pace. 3-4x/week</p>
<p>Self Massage Techniques</p> 	<ol style="list-style-type: none"> <u>Calf foam rolling</u>- position foam roller under calf. Using arms move roller up and down muscle belly focusing on areas of tightness. <u>Arch rolling</u>: position lacrosse ball or golf ball on arch and roll areas where tightness is felt. <p>Perform 2-3 minutes daily</p>

What is it?



Gymnastics-related low back pain is usually a result of repetitive hyperextension (bending backward) movements such as back walkovers with poor core control. This can cause injury to muscle, joint, ligament, and bones of the spine. These injuries can progress to stress fractures (shown to the right) and more if not appropriately managed.

Signs and Symptoms

- ⇒ Pain localized to the spine and worsens with repetitive backward bending
- ⇒ Pain that persists after practice consistently
- ⇒ Pain that does not resolve with rest or modified activity
- ⇒ Pain resumes with return to training despite period of rest
- ⇒ Numbness and/or tingling into one or both legs

What should you do?

- ⇒ Rest: Modify gymnastics to pain-free activities; if not possible, total rest may be necessary.
- ⇒ Ice: ice pack 20 mins every 2-3 hours or ice massage 10 min. every 2-3 hours
- ⇒ Over the counter anti-inflammatory medication such as Advil, Aleve, and ibuprofen
- ⇒ Appropriate warm up and self-care exercises before impact activity,
- ⇒ Imaging generally not necessary, but may need prescription strength anti-inflammatory.
- ⇒ Bracing and physical therapy are often necessary to resolve symptoms, identify causes, and prevent future episodes. Some causes of low back extension injuries include
 - ◇ Poor core control (requires stabilization and strengthening of deep spine muscles, especially in rotation)
 - ◇ Stiff upper back and shoulders (requires exercises to improve joint mobility and muscle flexibility)
 - ◇ Imbalances in muscle activation (requires muscle-specific strength training and skill-specific movement re-education)



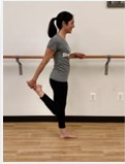






PERFORMING ARTS

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Exercises for Low Back Pain

EXERCISE	INSTRUCTIONS
<p>Thigh Stretch 1</p> 	<p>While in a standing, bend your knee back behind and hold your ankle/foot. Next, gently pull your ankle toward you until a moderate pain free stretch is felt on your front thigh. Keep thighs in line with each other and torso up straight. Squeeze the butt muscle to increase the stretch at the front of the hip.</p> <p><i>Before Gymnastics:</i> Hold for 8 second repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> Hold 1 minute, repeat 3 times.</p>
<p>Thigh Stretch 2</p> 	<p>Lying on your back with foam roller positioned under your pelvis with single thigh up towards your chest and the opposite leg resting in a straight out position. Keep core activated to prevent arching in the low back. To intensify the stretch, actively push the heel of the lowered leg into the ground pushing knee straight.</p> <p><i>Before Gymnastics:</i> (dynamic) Hold for 8 second repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> (static) Hold 1 minute, repeat 3 times.</p>
<p>Hamstring Stretches</p> 	<p>While lying on your back, raise up your leg and hold the back of your knee. Straighten the knee until a stretch is felt in the back of your thigh.</p> <p><i>Before Gymnastics:</i> (dynamic) Hold for 8 second repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> (static) Hold 1 minute, repeat 3 times.</p>
<p>Upper Back Rotation</p> 	<p>Start in child's pose with buttock back toward your heels. Next, with a hand behind your head, rotate your body and your head to the side, then return to starting position.</p> <p><i>Before gymnastics to warm up the joints:</i> Complete 10 repetitions, hold each 2-3 seconds</p> <p><i>After Gymnastics to increase mobility:</i> Complete 5 repetitions, holding each 5 seconds.</p>
<p>Shoulder Greasers</p> 	<p>Variation 1: Lying on foam roll, start with arms pointing to ceiling; move arms out into a goalpost position.</p> <p>Variation 2: Lying on foam roll, start with arms in goal post position; move arms up overhead into an "I" position, making sure to keep spine in a neutral position</p> <p><i>Before Gymnastics:</i> Hold for 8 second repeat 10 times.</p> <p><i>After Gymnastics:</i> Hold 1 minute, repeat 3 times</p>
<p>Tush Push with Arm Lifts</p> 	<p>On hands and knees, align yourself into a neutral spine position. Shift your weight backward into exercise ball while maintaining your straight spine. Keeping that resistance, slowly alternate raising one arm up.</p> <p><i>Repeat 15 times, complete 3 sets</i></p> <p><i>Perform 3-4 times a week</i></p>
<p>Partial Turkish Get Up</p> 	<p>Lying on your back with single leg bent and arm straight up on the same side. Lift onto opposite elbow, then move from bent elbow to the palm of your hand with a straight elbow. Reverse steps back down starting position.</p> <p><i>Repeat 3 times on each side, complete 3 sets</i></p> <p><i>Perform 3-4 a week</i></p>

What is it?



Osgood-Schlatter disease is an inflammatory condition that occurs at the growth plate of the shin bone (tibia) just below the knee. The condition is a result of repetitive tension and /or pressure on the growth center which is often due to the bone growing faster than the muscle during a growth spurt or with repetitive high impact activity such as running and jumping. When the growth plates close, the pain ceases.

Signs and Symptoms

- ⇒ Swelling, warmth and/ or tenderness below the knee
- ⇒ A firm bump under the knee (tibial tuberosity) that is exquisitely tender to touch
- ⇒ Pain with activity, especially with knee straightening, take off and landing from jumps, or vigorous activities

What should you do?

- ⇒ Rest: Modify gymnastics to pain-free activities; if not possible, total rest may be necessary.
- ⇒ Ice: ice pack 20 mins every 2-3 hours or ice massage 10 min. every 2-3 hours
- ⇒ Over the counter anti-inflammatory medication such as Advil, Aleve, and ibuprofen
- ⇒ Appropriate warm up and self-care exercises before impact activity, including stretching of thigh, hamstring, and calf muscles.
- ⇒ Imaging generally not necessary, but may need prescription strength anti-inflammatory.
- ⇒ Patella tendon band: a brace situated between the tibial tuberosity and the kneecap, may help relieve symptoms
- ⇒ Will benefit from a short course of physical therapy








PERFORMING ARTS

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Exercises for Osgood –Schlatter’s Disease

EXERCISE	INSTRUCTIONS
<p>Thigh Stretch 1</p> 	<p>While in a standing, bend your knee back behind and hold your ankle/foot. Next, gently pull your ankle toward you until a moderate pain free stretch is felt on your front thigh. Keep thighs in line with each other and torso up straight. Squeeze the butt muscle to increase the stretch at the front of the hip.</p> <p><i>Before Gymnastics:</i> Hold for 8 second repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> Hold 1 minute, repeat 3 times.</p>
<p>Thigh Stretch 2</p> 	<p>Lying on your back with foam roller positioned under your pelvis with single thigh up towards your chest and the opposite leg resting in a straight out position. Keep core activated to prevent arching in the low back. To intensify the stretch, actively push the heel of the lowered leg into the ground pushing knee straight.</p> <p><i>Before Gymnastics:</i> (dynamic) Hold for 8 second repeat 10 times. Alternate sides</p>
<p>Calf Stretches</p> 	<p><u>Gastrocnemius Stretch:</u> Stand on a slant board or incline foam with straight legs. Allow the heel to drop towards the ground.</p> <p><u>Soleus Stretch:</u> Stand on a slant board or incline foam with bent knees. Allow the heel to drop towards the ground.</p> <p><i>Before Gymnastics:</i> (dynamic) Hold for 8 second, repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> (static) Hold 1 minute, repeat 3 times.</p>
<p>Hamstring Stretches</p> 	<p>While lying on your back, raise up your leg and hold the back of your knee. Straighten the knee until a stretch is felt in the back of your thigh.</p> <p><i>Before Gymnastics:</i> (dynamic) Hold for 8 second repeat 10 times. Alternate sides</p> <p><i>After Gymnastics:</i> (static) Hold 1 minute, repeat 3 times.</p>
<p>Self Massage Techniques</p> 	<ol style="list-style-type: none"> <u>Calf foam rolling</u>- position foam roller under calf. Using arms move roller up and down muscle belly focusing on areas of tightness. <u>Quad foam rolling</u>: Position foam roller under front of thighs as pictured. Using your arms propped on your elbows, roll forward and back in areas of tightness on the front of the thigh. Do not foam roll over the knee joint. <p>Perform 2-3 minutes daily</p>

What is it?



Sever's disease is an inflammatory condition of the growth plates at the back of the heel (calcaneus). Sever's is a result of repetitive tension and /or pressure on the growth center which is often due to the bone growing faster than the muscle during a growth spurt or with repetitive high impact activity such as running and jumping. It is a self-limiting disease. When the growth plates close, the pain ceases.

Signs and Symptoms

- ⇒ Pain at the back of the heel
- ⇒ Pain during or after impact activities (typically running, jumping, and tumbling)

What should you do?

- ⇒ Modify activity: decrease volume of tumbling, vaulting, and jumping
- ⇒ Ice: ice pack 20 mins every 2-3 hours or ice massage 10 min. every 2-3 hours
- ⇒ Over the counter anti-inflammatory medication such as Advil, Aleve, and ibuprofen
- ⇒ Calf stretching and self-massage 2-3 times per day
- ⇒ Appropriate warm up and self-care exercises before impact activity
- ⇒ **Heel cup** to soften the impact the occurs directly on the heel
- ⇒ **X brace or Kinesiotape** to provide support and pain relief
- ⇒ No imaging necessary, but may need prescription strength anti-inflammatory.
- ⇒ May benefit from a short course of physical therapy



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Exercises for Sever's Disease

EXERCISE	INSTRUCTIONS
<p>Press outs</p> 	<p>Start in neutral then press out with the foot; make sure to keep the leg still and only move the foot; as the exercise becomes easier, increase resistance by pulling band. Perform 30 repetitions 3-4x/week</p>
<p>Press Ins</p> 	<p>Start in neutral then press in; make sure to keep the leg still and only move the foot; as the exercise becomes easier, increase resistance by pulling band tighter. Perform 30 repetitions 3-4x/week</p>
<p>Calf Stretches</p> 	<p><u>Gastrocnemius Stretch</u>: Stand on a slant board or incline foam with straight legs. Allow the heel to drop towards the ground.</p> <p><u>Soleus Stretch</u>: Stand on a slant board or incline foam with bent knees. Allow the heel to drop towards the ground.</p> <p><i>Before Gymnastics</i>: (dynamic) Hold for 8 second, repeat 10 times. Alternate sides</p> <p><i>After Gymnastics</i>: (static) Hold 1 minute, repeat 3 times.</p>
<p>Dynamic Balance</p> 	<p>Start with standing on single leg with arms crossed over chest. Next, rotate upper trunk right and left keeping hips and pelvis squared to the front, continue rotating trunk side to side until 60secs are complete.</p> <p>Complete 3 repetitions; Hold for 60 seconds rotating both directions while maintaining a controlled continuous pace. 3-4x/week</p>
<p>Self Massage Techniques</p> 	<ol style="list-style-type: none"> <u>Calf foam rolling</u>- position foam roller under calf. Using arms move roller up and down muscle belly focusing on areas of tightness. <u>Arch rolling</u>: position lacrosse ball or golf ball on arch and roll areas where tightness is felt. <p>Perform 2-3 minutes daily</p>