



DYNAMIC WARM-UP

Prior to any strength training session or conditioning session, a specific and complete warm-up routine is necessary in order to prepare the body to perform at a high level. The dynamic warm-up will:

- Increase core body temperature
- Lubricate major joints and prepare the necessary tendons and ligaments for the activities ahead
- Mentally prepare the athlete for the session
- Improve major joint mobility
- Allow specific muscles to function through their full range of motion

Attached you will find the following components that comprise the JMU Strength and Conditioning Dynamic Warm-up:

- General Warm-Up
- Foam Roller Series
- Groin Series
- AIS Stretching
 - Hamstrings
 - Quads
- Activation Series
 - Monster Walk Variations
 - Quadruped Exercises
 - Core Series
- Dynamic Flexibility Exercises

General Warm-up

A non-specific or specific metabolic activity that increases core body temperature; must be done prior to the beginning of the dynamic warm-up session. Choose one of the following:

Jump Rope: 3 to 5 minutes of continuous jumping

Cardio (Bike/Treadmill/Elliptical): 3 to 5 minutes at a moderate resistance and pace

Light Jog: 3 to 5 minutes at a moderate pace

Foam Roll Exercises

A form of self-myofascial release that uses the pressure of your body weight connected with the foam roller to apply active release therapy to areas of trauma in the muscle or specific trigger points in the body.

Quads – Begin with the body prone and the roller placed in the middle of the thigh, just below the iliac crest. Roll from the upper thigh just above the top of the knee joint.



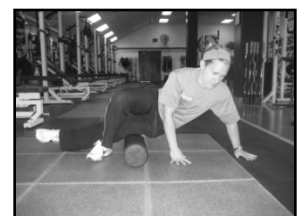
Hip Rotators/Piriformis – Sit on the roller and cross one leg over the other to target the affected hip. Simply make the rolls short and concise to the affected area, focusing on the trigger points along the way.



Adductors – Bend the affected leg and begin rolling just above the knee, then proceed to rolling high into the groin.



IT Band – Lie on their affected side with the roller directly below the hip. Supporting your weight with your hand, roll from the bottom of the hip to the top of the knee joint, keeping the leg straight that is on the roller. To increase difficulty – stack both legs on top of one another.



Hamstrings – Start by putting the roller directly underneath the thighs, and then roll from the bottom of the thigh to the top of the thigh. To increase difficulty – stack one ankle over the other and focus on one hamstring at a time.



Lower Back – Begin by crossing the arms over the chest and lying supine on the roller. Then roll from the mid-back to right above the glutes, targeting the erectors and any trigger points along the way.



Upper Back – Begin by crossing the arms over their chest and lying supine on the roller. Then protract the shoulder blades and roll from the traps down into the delts, rhomboids, and lats.



Lats – Start by lying on the side with the roller directly underneath the armpit. Proceed by rolling in short fluid motions from their armpit about six inches lower into the lat.



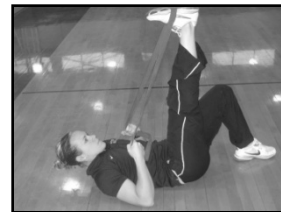
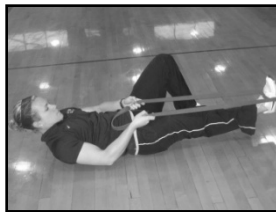
Calves – Start by putting the roller directly underneath the affected calf, and then roll from the top of the ankle to the bottom of the knee. To increase difficulty – isolate your calves, and roll only one at a time.



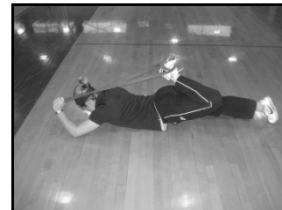
Active Isolated Stretching

Active isolated stretching (AIS) will help you bolster your flexibility and retain the gains you've made. In AIS, you don't hold a stretch for 10 to 30 seconds as you would in traditional stretching. Instead, you use a rope or band to gently assist in pulling your muscle a little farther than your body would ordinarily allow. This form of stretching reprograms your brain and your body to remember new ranges of motion, so you see fast improvements in flexibility.

Hamstrings – start by wrapping the band around the ball of their foot. Then, while flexing the quad, violently kick the straight leg up and back while pulling on the band. By pulling on the band, the range of motion increases and the stretch is enhanced – opening up a greater range of flexibility.



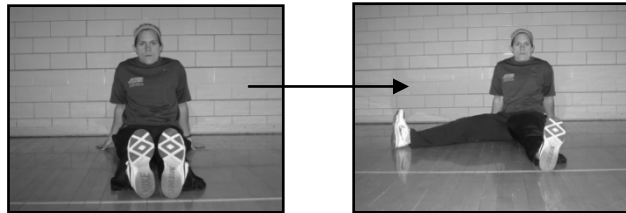
Quadriceps – start by wrapping the band around the ball of their foot. Then, while flexing the hamstring and glute, lift the thigh off the ground and pull on the band. By pulling on the band, the range of motion increases and the stretch is enhanced – opening up a greater range of flexibility.



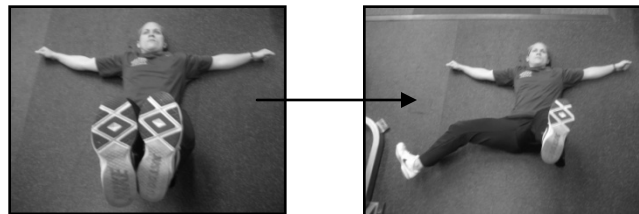
Groin Series

The groin series is used for injury prevention to stretch the hip musculature and adductors prior to any strength and conditioning session. The following three exercises can be done with or without a jump stretch band or rope in order to improve flexibility in the groin.

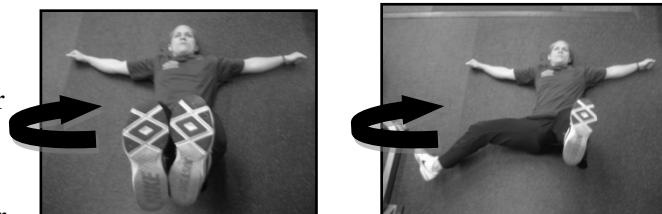
Seated Split Kick – Start by sitting tall with your palms down. Then proceed by dynamically swinging open one leg while the other leg is stationary. The goal is to open to 90 degrees and finish where you started.



Single Leg Drop Outs – Start by lying on your back and proceed to slowly drop one leg out to the floor while the other leg is stationary. The goal is to open to 90 degrees and finish where you started.



Single Leg Drop Out with Rotation – Start by lying on your back and proceed to slowly drop one leg down and out to the floor while the other leg is stationary. The goal is to create a circular movement with the active leg and finish where you started. Proceed with clockwise and counter clockwise circles on both legs.



ACTIVATION

This portion of the warm-up seeks to “turn on” or stimulate the muscles needed for the work-out. By activating the small muscles during the warm-up, the larger muscles will fire more effectively – thus preventing injury and strengthening the entire musculature.

Monster Walk Series

Monster Walks help to activate the glute medius hip stabilizer muscle which provides efficient knee stabilization, and will allow for efficient linear and lateral movement. Furthermore, these exercises will cause the knee to track correctly, thus putting athletes at less risk for ACL injuries.

Lateral Monster Walks – Start in an athletic stance with your knees bent, chest up and arms at 90 degrees. Leading with your outside knee, step away from the opposite knee to increase tension on the bend. Then take another step with your inside foot to return to your athletic stance. Repeat your steps for the desired distance, maintaining tension on the band and a solid athletic position.



Backward Monster Walks – Start in an athletic stance with your knees bent, chest up and arms at 90 degrees. Leading with your heel, step backward to increase tension on the bend. Then take another step with your opposite foot to return to your athletic stance. Repeat your steps for the desired distance, maintaining a solid athletic position.

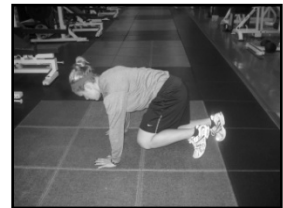


Lower Body Activation

Fire Hydrants – Start on all fours with your arms straight, knees directly underneath your hips and your toes pulled toward your chins. Maintaining a flat back and without bending your arms, raise your right knee so its parallel to the floor, hold for 2 seconds, and lower it slowly.



Forward Knee Circles – Start on all fours with your arms straight, knees directly underneath your hips and your toes pulled toward your chins. Maintaining a flat back and without bending your arms, drive your right knee toward your right elbow, then making a circle bring it parallel to the floor and lower it slowly back to the starting position.



Backward Knee Circles – Start on all fours with your arms straight, knees directly underneath your hips and your toes pulled toward your chins. Maintaining a flat back and without bending your arms, drive your right knee backward away from your right elbow, then making a circle bring it parallel to the floor and lower it slowly back to the starting position.



Straight Leg Raises – Start on all fours, with your arms straight, your left leg bent, and right leg straight so it is perpendicular to your body and your right knee is in line with your hip. Slowly raise your right foot 6 inches from the floor, hold for 2 seconds, and lower it slowly.



Core Activation

Bows and Toes – With your elbows bent directly under your shoulders, and your back flat hold yourself up on your elbows and toes. Flex your abs and focus on your thumbs.



Bows and Heels – With your elbows bent directly under your shoulders, and your back flat hold yourself up on your elbows and heels. Flex your abs and focus on your toes.



Side Plank – With your elbow bent directly under your shoulder, and your back flat, hold yourself up on your elbow and heels. Keep your ankles stacked and your hips forward. Stare at a point straight ahead and keep your abs flexed.



DYNAMIC FLEXIBILITY

This portion of the warm-up improves the range of motion along the muscle that is specifically targeted. These stretches are done actively, stretching and lengthening the muscle for the training session.

Dynamic Stretching Routine

High Knee Pulls – Grab one knee pulling it into your chest – stretching your hamstring and pushing up on the toe that is on the floor. Maintain good posture and alternate your reps.



Quad Pulls – Grab one foot where your laces are, bend your knee and pull your foot to your butt. Lean forward, maintaining your balance and try to touch the ground with the opposite hand. Maintain good posture and alternate your reps.



Straight Leg Kicks – Keeping your legs straight, walk forward and kick your toe to your opposite hand. Maintain good posture and alternate your reps.



Lunge and Reach – Lunge forward, keeping your front knee behind your toe and your front heel flat on the ground. Reach overhead with both arms and keep your hands together. Push your hips forward and stretch your hip flexor.



2 Slides to Groin Stretch – Shuffle sideways twice, keeping your feet apart and ending in a wide squat. Lean to your right bending your right leg and keeping your left leg straight, stretch your groin. Stretch the other side, then turn and face the opposite way – repeat the drill shuffling twice and stretching again.



Spiderman – Start in a push-up; bring your right foot forward placing it outside your right hand. Support yourself on your left hand, bend your right elbow and try to touch your right elbow to your right ankle. Your left leg and left arm will remain straight while you stretch for 5 to 10 seconds. When the stretch is finished, walk out to a pushup and repeat the stretch for your left side.



Spiderman + Kickback – Start in a push-up; bring your right foot forward placing it outside your right hand. Support yourself on your left hand, bend your right elbow and try to touch your right elbow to your right ankle. From here, take your right hand and move it to the other side of your right leg; push back so both legs are straight and your hands remain on the floor. Your arms and legs will remain straight while you stretch for 5 to 10 seconds. When the stretch is finished, walk out to a pushup and repeat the stretch for your left side.



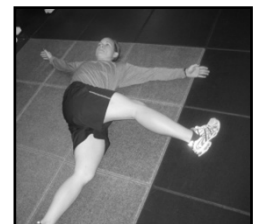
Leg Cradles – Grab your right ankle, and bending at the knee, attempt to pull your ankle up and in front of you stretching your right glute.



Inchworms – Start in a pushup, take small steps keeping your legs and arms straight, walk your feet toward your hands. Your butt should come up in the air and your goal is to get your feet closer to your hands each time. Once you cannot keep your legs straight anymore, walk your hands out again and repeat.



Iron Cross – Lay flat on your back with your legs straight and together. Your arms should be straight out perpendicular to your legs. Alternating your legs and keeping them close to the ground, try to touch your right toe to your left hand and then your left toe to your right hand. Your upper back will stay in contact with the floor and your lower back is the target of this stretch.



Scorpion – Lay flat on your stomach with your legs straight and together. Your arms should be straight out perpendicular to your legs. Alternating your legs and keeping them close to the ground, try to touch your right heel to your left hand and then your left heel to your right hand. Your chest will stay in contact with the floor and your lower back is the target of this stretch.

