



Biste Winter Sports Preparation

Winter Sports preparedness is important for several reasons, not the least of which is Bigger Fun Factor! Fitness attuned to your sport also improves your performance, your stamina and decreases the potential for injury.



Our specialty at Biste Technologies is 1 on 1 real-time private and personalized ski and snowboard coaching. We coach Never-ers through experienced senior racers and competitive athletes. Our goal is to help you reach "your" mountain goals in a very efficient manner using our own technology that is not available anywhere else near Lake Tahoe. Based on those mountain goals and a physical assessment we determine the frequency of visits to meet your goal, as well as if you need specialize services such as equipment, boot fitting and canting to optimize your success factor. Our partner Evoke Fitness has athletic trainers that will customize a workout to match those mountain goals, and work closely with us on your journey.

Depending on your fitness level and individual needs there are 14 different exercises that we promote and incorporate into that training. That training circuit goes hand in hand with our Snow Biste ski deck. We follow the recommendations of a dedicated fitness routine as defined by the Reno Orthopaedic Clinic (ROC) - 6 to 8 weeks fitness preparation prior to the winter sports season, with a ramped down but continued fitness program throughout the season.



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In addition to one on one training, we offer semi-private group settings and open group classes based on two age groups – Younger and Older, you choose. Our goal is for our clients to develop friendships in these classes that bring them to the mountain together. We also schedule team sessions for 3 to 8 people, such as families and friends, Tahoe League racers, Diamond Peak teammates, high school ski teams, Sky Tavern, Sierra League racers, or USSA Masters to sign up as a group and participate in the entire fitness routine from Ski Deck to Cardio to Plyo to Weights. These Group sessions are 2, 3 or 4 times per week with a month

commitment, have a dedicated fitness trainer and have the opportunity to get a baseline assessment done by ROC which gives guaranteed sports doctors doctor visit within 24 hours of an injury.

Your skills progression is tracked as you move through the program. Most but not all of our skills can be performed on our ski deck, there are however skills that need to be performed on the mountain. Depending on the weather we run both mountain transition lessons and mountain skill sessions. Transitions are for your first visit to the snow after the deck, and skills sessions take the classroom training outside.

Keep track of you progress and enjoy the season!

Kris



Warm-Up Drills

We'll start by combining a cardio warm-up with the essentials of core strength and then work into other drills. Most athletes think of their "core" as their six-pack abdominal muscles. However, it is also important to incorporate training for the glutes and lower back when you're working on your core.



Jumping Rope

Make sure that the rope is the right length for you. A general rule is to have the rope long enough that if you stand on it with one foot the ends of the handles reach just below your chest. As your rope jumping gets faster you will want to shorten the rope so that it clears your head by only 4" to 6".

Suggested: 4 sets of 3 minute rounds adding in Ab work(Sit-up/Crunches) at the end of each set

- First set Start by jumping at a comfortable speed until you get the rhythm,
- Jump with both feet. Speed up until you are at about half your fastest spin
- At the end of the set add in a set of sit-ups /crunches for about 1 minute
- Second set jump one foot, alternating left to right foot. Finish the set with sit-up/crunches.
- Third set jumping jack style opening and closing legs each jump. Finish the set with sit-up/crunches.
- Fourth set two jumps left then two jumps right. Finish the set with sit-up/crunches.
- Strive to get five sets with the last set being a mix of styles working into speed and double jumping

"This drill is great a cardio warm up, and is great for timing, balance, speed and agility on the snow."



Sit Ups and Crunches

There are several different types of sit-ups/crunches. I prefer sit-ups with hands behind the head crossed on your chest or next to your ears. There is also the Janda sit-up which isolates the Hip Flexors.

Suggested: 4 sets of 20. Mix in with your jump rope routine

- Basic sit-ups start by laying on you back with your feet on floor and knees at a 90 degree angle
- Keep your feet and butt on the floor, raise your torso off the floor
- Come all the way up rounding your lower back
- Avoid jerking your head up with your hands

Mix your sets up with reverse, twist and side crunches. You may need to place a rolled towel or appropriate pillow under your back at the greatest point of the arch. Ball Passes are an interesting variation of the crunch.

“These essential preseason routines together get your heart rate up work core muscles, abs and obliques which are essential to balance, speed and agility.”

Band Walks:

Suggested: Start with two sets of 20 steps in each direction of 1) There and Back, 2) Skater Sweep.

3) Squat and extend 10 each leg.

-Stay low in a quarter-squat position, turn your knees out and take a big sideways step followed by a halfway step with the other foot.

-Repeat the sideways stepping motion to the left for five yards and then repeat to the right for another five yards. It's important to keep your hip level with your chest and your eyes up. If it's working, your hips will be burning.

“Band Walks are an essential part of a preseason ski fitness routine. Mini-band walks target the gluteus medius and stabilizing muscles of the hips. This exercise is extremely important for proper landing technique and jump mechanics on the mountain.”



Dumb Bell Row:

Suggested: Start with 10lb dumbbells and work up.

- Start with a one knee on a bench, back straight, chin up
- Lower weight down and lift back up. Target your lower back and glutes.

“This exercise improves your posture, strengthens your lower

back rhomboids, glutes and opens your chest.”

Medicine Ball Pump Squat

Suggested: 3 sets of 1 minute each

- Start with an 8lb medicine ball (work up in weight).
- Hold to your chest and lower into a squat position.
- Staying low, perform short pump squats (pulsing up and down about an inch or so) staying low and not coming back up to start until the minute is up. Your muscles should always be contracting and back straight.
- Vary by placing feet either 4” or 12” apart.

“This exercise builds local muscular endurance in the lower back, glutes, and quads. ”



Squat Jump



Suggested: 2 to 4 sets of 4 - Both Narrow (4") and Wide (14") foot width

- Start with your feet narrow or wide.
- Squat down so your thighs are parallel to the floor knees behind toes,
- Spring high into the air. Land softly absorbing the landing - repeat.

"This exercise develops explosiveness in the quads and glutes, which is necessary if you want to ski fast and push hard out of your turns,"

Single Leg Box Squats

Weighted Single Leg Box Squats are a phenomenal exercise that develops explosive strength and dynamic balance during the preseason. You can mimic this exercise at home to prepare for ski season. This routine requires heavy use of the glutes, quads, hamstrings, calves and core.

Suggested: Start with 3 sets of 8 repetitions per leg for this exercise.

- Start with a box that is at a height so that when you sit on it your knees are at a 90 degree angle
- On one leg, slowly lower yourself down to the box. It's important when doing this lift that your knee doesn't cave in toward the mid-line of your body, and your knee does not go past your toe.
- Focus on keeping your head up, chest out and pushing through your heels. Pay particular attention to pushing with your glute.

"This a great exercise for skiing because it requires eccentric strength (lengthening of the muscle while contracting) on the way down and good balance and control coming up."



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Back Extension:

Suggested: Start with 3 sets of 6 repetitions

Using a back extension station

- Hips to pad so legs are extended and target your lower back and glutes.
- Chin down, hands to chest. Bending at the waist lower yourself down
- Extend up by squeezing your shoulder blades and feeling the strength from your glutes and hamstrings (not your lower back)

"This is a great preseason exercise to target multifidus, glutes and lower back. Together these exercises train the entire posterior chain."

Romanian Deadlift

Suggested: 4 sets of 8

Grab two 10-12 lb dumbbells (you can increase the weight as you up the intensity). Bend your knees slightly, keeping your back straight and knees above center of your foot, lean forward grab the dumb bells and lift keeping the weight closely following the front of your body, hinging at the hips and keeping your back straight so that the weight works your hamstrings and glutes not your back. Push your hips forward when reaching the top, rolling your shoulders back and chest open. Repeat

"Hamstring strength is really important to prevent ACL injuries, which are prevalent in skiing. By working the hamstrings, you help stabilize the knee joint and prevent injuries."



Single-Leg Eccentric Leg Press

Suggested: 4 sets of 8 light, 4 x 4 heavy - each side



Start with the leg press empty then over time build up to about 50 to 70 percent of what you can lift with both legs. With one leg, Slowly lower the plate down knee to chest (six seconds). When you're at the bottom, push up (If you are at 50 to 70% of lift max use both legs to lift up). Resist the weight coming down on you to keep the

movement smooth and in control. (If you have to move too fast, then the weight is too heavy.)

"About 80 percent of alpine skiing and boarding is eccentric, so this downward pressure helps mimic when you are going into a turn, with inertia and gravity pushing you into the ground."

Backwards Treadmill Walk

Suggested: 3 sets of 1 minute; build up to 3 sets of 3 minutes

Using a treadmill



- Start walking very slowly on the treadmill 2-3 miles per hour.
- Increase the incline as high as it goes.
- Very carefully, turn around so you're facing backwards—your toes should be pointing toward the end of the belt, like you're walking backwards uphill.



BISTE TECHNOLOGIES

- As you walk, drop to a squat so that your knees are at nearly 90 degrees—similar to the tuck position of skiing.

"This exercise builds strength endurance in the quads and glutes. It doesn't look that hard, but when you hop on and do it, it's brutal — thirty seconds in and your legs are on fire."

Add running backwards and grapevines to your outside running routine.

Overhead Medicine Ball Throws

Suggested: Start with 4 sets of 4 repetitions for this exercise.

Overhead Medicine Ball Throws are an alternative to Power Cleans or Weighted Squat Jumps. Overhead Medicine Ball Throws demand forceful triple extension of the hips, knees and ankles—the primary sequence to jump and produce power. Build explosive strength in the quads, glutes, and hamstrings and lower back.

- Start by holding a 4-6 pound medicine ball from underneath,
- Squat down and lower the ball between your legs.
- Throw the ball up explosively as hard as you can. Focusing on a big jump and pushing your feet through the floor

"This preseason exercise is critical for explosiveness—allowing you to go into a turn and use explosion to push out with a lot of force and maintain velocity into the next turn."

Lateral Box Jumps

Suggested: Start with 3 sets at 30 seconds apiece for this exercise.

Lateral Box Jumps are a great preseason exercise. This exercise involves quick and explosive jumps while also adding the challenge of a change in direction. The goal is to maintain excellent body control while quickly jumping from side to side and up and down on the box.

- Focus on jumping up to the box and then jumping down and landing on the far side.
- In a swift but controlled motion, repeat the same steps as above but back in the opposite direction.



- Concentrate on being as fast as you can on the ground and getting in as many reps as you can in 30 seconds.

"This drill will work your explosiveness out of turns, bumps and moguls. Try this exercise at to better your boxes and rails next time you're on the mountain."

Bosu Balance Training

Suggested: 2 complete revolutions in each direction - 10 second holds

- Start by standing on the Bosu ball with both feet shoulder width apart.
- Lower into your tuck with hands extended out in front of your face.
- Straighten and flatten your back and think of limited wind resistance. Hold the position for 10 sec.
- Next, hop up while maintaining hand position, rotate a quarter turn and land back on the Bosu
- Immediately lower back into your tuck. Hold 10 sec.
- Complete two full circles, a quarter hop at a time.
- Repeat in opposite direction.

"This drill works balance, core and leg strength and explosiveness in your longer radius turns."

Conquer the mountains before

ever stepping foot on them!



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