

## 12 week Ski Training Program

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Ski time! Are you ready for the season? If not, no problem. That's what this program is for. But you might be asking yourself:

### What makes this program "ski-specific"?

The short answer is that this program will prepare your body for the rigors of skiing so that you can enjoy this great sport. The program will help you be able to ski for longer without getting tired, will reduce the risk of injury (falls happen in skiing, so remember this is injury risk reduction, not injury prevention), will reduce the incidents of muscle soreness, and may even increase your skiing ability.

More specifically, the program includes:

- **Corrective exercises** to address movement limitations, because if your body does not move well on land, it will not fare any better on skis. Improving hip and thoracic spine mobility will also reduce the likelihood of getting a sore back.
- **Strength training** to...make you stronger. In particular, strong legs and a strong core are essential for quality skiing. This program includes a balance of hip-dominant, knee-dominant, anterior core, posterior core, rotational core, upper body pulls, and upper body pushes to make sure you are strong all over. There is also single-leg work to make sure both legs - and therefore turns both ways - are strong. Plus some lateral leg work specific to skiing, and a touch of isometric leg work to help you endure those tuck situations. The program also includes a variety of repetition ranges and holds to address pure strength, strength endurance, and eccentric strength.
- **Power** exercises help to give you that extra push when you need to either get out of a sticky situation, really get down into a sweet GS turn, and to be able to ski the bumps instead of letting them ski you.
- A combination of **anaerobic** and **aerobic** conditioning builds your energy system so that you have the strength-endurance to perform on individual runs, and the stamina to last all day.
- **Foam rolling** and **static stretching** to help your body with recovery. Recovery is a crucial part of training, yet it is often overlooked. In fact recovery is an essential part of the muscle building process. Foam rolling can help to relieve tension from the areas in your muscles and fascia that have knots and trigger points, while also activating your fascia. Static stretching helps to maintain or even regain range of motion in your joints and length in your muscles and fascia. These together can help with overuse injury reduction, and with on-hill performance resulting from improved mobility.

### Before you start!

**Are you healthy enough to do this workout?** Remember that any exercise can be dangerous. Please go to the Physical Activity Readiness Questionnaire (PAR-Q) available at <http://www.csep.ca/CMFiles/publications/parq/par-q.pdf> and answer the questions on that form for yourself. If based on the PAR-Q, you feel you are not ready to perform this activity, please see your doctor before engaging in this program.

One more IMPORTANT NOTE: **YOU SHOULD NEVER EXPERIENCE PAIN WHEN DOING THESE EXERCISES. IF YOU DO, CEASE THE ACTIVITY IMMEDIATELY. IF THE PROBLEM PERSISTS, CONSULT YOUR PHYSICIAN.**

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### What you will need

1. A foam roller
2. Some weights, preferably a full set or an adjustable dumbbell set such as Powerblocks. Or just some weights you have lying around.
3. Some exercise bands or tubing. There are only a few exercises that require this, but they really are great to have. You may be able to work around it with some creativity if you don't have this, or you can get at least one as they are relatively inexpensive.
4. Something to use as low hurdles ideally, but almost anything will do, such as cans of soup, or even just hopping over lines in the floor.
5. Something to hop onto. The bottom stair in your staircase (assuming it's a stable staircase!) can work well, or a plyometric box, or something like a Reebok step. Do be careful with this though, and make sure what you're hopping onto is built well, and ideally secured against a wall. I once landed on the edge of a box that was not well-secured and took a spill when it tipped over underneath me. Don't let that happen to you!
6. A bench or stability ball for bench pressing. CAUTION!!!! If you are using a stability ball for this purpose, make sure it is in fact an anti-burst ball, that it is in good shape, and that you do not use heavy weights with it. People have been injured this way, so be careful! I suggest a bench is the best option. An alternative is to lie on the floor (knees bent). This is not as good because the range is reduced, but it does still work.
7. A sturdy door handle, railing or access to a cable column. This is for doing cable or band exercises. If you're rigging something up at home with a band, make sure it is secure! Try it out gently first before jumping in.
8. A horizontal bar about hip height that you can hang from. If you are working out at a gym, this can be accomplished with a barbell in a squat rack or in a Smith machine, or a set of rings or TRX suspension trainer. If at home, it could be a TRX, or see what you have. Or if you don't have anything that will work, then either stick with the 1 arm DB row, or try the alternate exercise listed (one arm band pull).
9. Ideally you will have a pull up bar. If not, continue doing the inverted row.
10. Access to a treadmill, elliptical, stationary bike, skiers edge, slide board, or safe place to run or bike outside where you can alternate between hard and slow efforts.
11. Some flooring that has some slide, such as hardwood or tile and a hand towel or furniture savers.
12. Appropriate workout wear.

### How the program works

This program has 3 phases, and each phase contains a "Day One" and a "Day Two" workout. You will receive one phase of the program at a time. This is the first phase. In 3 weeks, you will receive the 2nd phase by email, and then 3 weeks after that, you will receive the 3rd phase. The reason we are sending it in phases is partly to keep it simple for you (best to figure out one phase and then figure out the next), and partly as a motivator. The way we figure it, if for some reason you fall off the ski-prep wagon, then we hope that receiving the next phase will motivate you to get back on.

To get maximum benefit from this program, you should be doing a work out from the program 3 or 4 times per week. Whichever option you choose (and it can change week to week), just make sure that you alternate Day One and Day Two workouts.

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### How to use this program

For each phase of the program, you will receive a Day One and a Day Two progress tracking sheet, as well as a set of images and detailed descriptions for each exercise. The exercise images and descriptions are in the same order that they are in in the tracking sheets.

The exercises are listed in the left hand column of the tracking sheet, along with an indication of how long the movement should take (e.g. Fast, Slow, 5 seconds). The number of sets is indicated by additional lines after the exercise is listed. For example, the Movement Prep section from Day One is shown below. There is one exercise listed right after the other. This indicates that you only need to do one set. So in this case, you would Foam Roll for 3minutes, then you would do 5 reps on each side of Ankle mobility, holding each rep for 5s, then you would do 5 fore/aft legs swings each fairly quickly, followed by 5 rotational leg swings each, and then 3 half-kneeling hip flexor lunge stretches with a 10second hold each. You would then continue with the remaining exercises in the list, one after the other. And in this case, the number of repetitions you do each day is the same throughout this phase.

Date:													
Movement Prep	Hold	Reps	Note	Reps	Note	Reps	Note	Reps	Note	Reps	Note	Reps	Note
Foam roll - All	3m	1		1		1		1		1		1	
Ankle mobility (toe on wall calf stretch)	5s	5		5		5		5		5		5	
Leg swings (Fore/aft)	1s	5		5		5		5		5		5	
Leg swings (Rotational)	1s	5		5		5		5		5		5	
Half-kneeling hip flexor lunge stretch	10s	3		3		3		3		3		3	
Sidelying quad stretch	10s	3		3		3		3		3		3	
Mountain climber	3s	10		10		10		10		10		10	
Walking single leg romanian deadlifts	1s	5		5		5		5		5		5	
Spiderman walks with rotation	1s	5		5		5		5		5		5	

In the power and strength sections, you will see that there is a line under the exercise that says "2nd set", and in some cases "3rd set". This indicates that you will do multiple sets. Note that you should do exercises with multiple sets in circuit format. So in the example below, you would do 2 *squat jumps* the first day that you do the workout, followed immediately by 3 each of *forward hop to step and hold*, and then you would rest for 60s, and repeat. Notice that the number of reps increases, so the second time you do this workout, you will do 3 squat jumps instead of two, building up to 4 squat jumps and four each of the forward hops.

Power Circuit	Rest	Reps	Weight	Reps	Weight	Reps	Weight	Reps	Weight	Reps	Weight	Reps	Weight
Squat jump	0s	2		3		3		4		4		4	
2nd set	0s	2		3		3		4		4		4	
Forward hop to step and hold	60s	3		3		3		3		4		4	
2nd set	60s	3		3		3		3		4		4	

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### Lots of new exercises

You will probably see a lot of exercises in this program that you have not seen before. I think you will find it a good thing! But remember that when you try new exercises, it usually takes a bit longer at first. Please don't be discouraged if the first few workouts take longer than you thought they would - it will take less time once you get the hang of it! To make up for this, the first time you do Day One and Day Two, we suggest you only do 2 sets of the strength circuit instead of 3. Phases 2 and 3 will have some new exercises, but they will also have many of the exercises you are doing in phase 1, so getting started with those phases will be easier. Stick it out because you will find that these exercises really help your skiing as well as your overall physical health, and I hope they will continue to use them well beyond ski preparation.

### What to expect from each workout

Each workout includes the following sections:

Movement preparation: This section is geared toward preparing your body for the workout as well as helping your body to move better overall. Every day starts off with 3 minutes of foam rolling, followed by a selection of corrective exercises and dynamic movements.

Power: This section is geared toward making you more explosive, so that you can either get out of a sticky situation, or launch yourself off a jump or bump.

Strength: Probably does not need much explanation. Strength will help you to ski well, and balanced strength will help to reduce your risk of injury. The strength section is done as a circuit (one exercise after another with minimal rest), which will also provide an aerobic benefit without compromising strength gains.

Conditioning: This is where we get you ready so that you can enjoy the entire run, and to help you to last all day. It is primarily high intensity intervals, which is considered anaerobic conditioning, but keep in mind that both research and real-world experience show that you will get an aerobic benefit from anaerobic training. We do include a bit of steady-state work for additional aerobic benefit, and to aid in recovery. The intervals may seem short, but remember that intensity is more important than duration.

Flexibility: The goal of this section is similar goals to the movement prep - to improve your long term movement, and thus your skiing.

Do the exercises in each section in the order listed on the left of the tracking sheet. There are accompanying images and descriptions for each exercise.

**Note about Power exercises:** You will see that in most cases you will do very few repetitions of power exercises. This is for a reason! There is a strong neuromuscular element to effectively training power production, meaning that we want to be fresh, so that we can maximize muscle fiber recruitment. So remember to think maximum intensity for each of the few reps, instead of getting the intensity by doing more repetitions.

A second point for power exercises is that they are as much about developing the ability to land (proprioception) as they are about the power to launch. So you don't want to jump as high or as far as you can - you want to jump as high or as far as you can land. It is for this reason that you will notice phase one primarily includes jump or hop and hold exercises, but you will see in phases two and three that you will move into continuous or plyometric movements.

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### How do I determine what weight to use

It is important to build up the weight gradually to avoid injury. Once you can do all of the reps and sets of an exercise with good form, then think about adding 2.5 to 5 lbs for an upper body exercise, or 5 to 10 lbs for a lower body exercise. If you are not sure, it is always better to err on the side of caution.

### Do I use the same weight if the number of reps changes?

No. If you are going to do fewer reps, then you should be able to add weight. Conversely, if you are going to do more reps, then you should use less weight. Here is some guidance for how much weight to use (always round down):

From 10 reps to 6 reps: add 15%

From 6 reps to 15 reps: reduce to 75%

### Weekly schedule

If you are doing 4 days per week, then you will do each workout twice per week (Day One, Day Two, Day One, Day Two). It is possible to do the workout on four consecutive days, but it is better if you have a day of rest in there.

If you workout three times per week then it will look like this:

Week 1: Day One, Day Two, Day One

Week 2: Day Two, Day One, Day Two

The program is based around a 3 workout per week schedule, and so it is intended to last for 4 weeks. You will notice that there are progress tracking sheets provided for each day of each phase. In total, there is room to track 6 Day One workouts and 6 Day Two workouts for each phase.

If you decide to go the extra mile and workout 4 times per week, then you will finish the program in 9 weeks. Well that doesn't seem fair! So we have a solution. If you have been doing the workout 4 times per week, then at the end of the 8th week, send an email to [coach@customstrength.com](mailto:coach@customstrength.com), and we will send you a FREE bonus fourth phase.

Note that 3 times per week is enough to get you in shape for skiing, but you will see increased benefit from doing 4 times per week. So what about 5 or 6 times? I think you run the risk of overtraining if you do it that often. If you want more exercise, think about cross-training! Go for a bike ride, in-line skate, hike, or play another sport.

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### Contact us

Questions, please email us at [coach@customstrength.com](mailto:coach@customstrength.com). Someone from Custom Strength will reply as quickly as possible.

We are confident that if you follow the training in this program, you will be surprised at how strong and fit you feel when you are lucky enough to go skiing. If you think of it, please send us an email at [coach@customstrength.com](mailto:coach@customstrength.com) and let us know how you fare on those first few days, or on your ski vacation. We do like hearing a good ski story!

### Terms of use

Thank you for purchasing this program. I spent far more hours developing it than I care to know. While I enjoyed doing it, it was still a whole lot of time and energy. I mention this because I know how easy it is to give a copy of a pdf to friends and colleagues. It may be possible to set up some security features to prevent that, but instead of assuming the worst in people, I prefer to assume the best. So instead of working out security features, I am simply asking you not to share it. I am asking you to respect the time and effort that went into developing this. If you think it's a great program, then by all means - tell your friends and colleagues about it. :) But please don't give them a free copy.

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### About the author



Elsbeth Vaino is a strength and conditioning professional and ski instructor in Canada. She works regularly with clients at Ottawa Osteopathy & Sports Therapy, performing in-depth functional assessments and then creating personalized strength & conditioning programs based on individual goals, schedule, activities and abilities. In the winter, Elsbeth also works as a ski instructor at Camp Fortune, where she works with clients to break through skiing plateaus and extend their love affair with skiing. She holds many certifications, including the National Strength and Conditioning Association (NSCA) Certified Strength & Conditioning Specialist (CSCS), National Academy of Sports Medicine (NASM) Certified Personal Trainer, Functional Movement Screen (FMS) Certification, Canadian Ski Instructors Alliance (CSIA) instructor certification, and National Coaching Certification Program (NCCP) coaching certification.

Elsbeth has also coached ultimate (head coach of the Ottawa Junior Ultimate team), and hockey (Bel-Air midget girls), and has been a guide for disabled skiers. As an athlete, she has also competed provincially in basketball and hockey, and nationally in ultimate.