

# SKI LAST DEGREE FITNESS PROGRAM



For many, Ski Last Degree will be one of the toughest challenges they ever undertake. This fitness program has been designed to gradually increase your endurance, so that you can maintain eight hours of vigorous activity by the time you arrive in Antarctica. This fitness program is suggested as a starting point and should be achievable for anyone, but it may start at too basic a level for those with a higher level of fitness.

If you have any questions about your health, please contact your physician before starting this fitness program.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Week 1</b>	<b>Run:</b> 5 min slow jog warm up, followed by 3 X 4 min Threshold Pace intervals, 2 min recovery in between. Cool down walk for 5 min. Finish with flexibility.	<b>Run:</b> 5 min slow jog warm up, followed by 3 X 4 min Threshold Pace intervals, 2 min recovery in between. Cool down walk for 5 min. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 30 min on level terrain, on an easy surface. Finish with flexibility.	<b>Run:</b> 10 min slow jog warm up, followed by 3 X 4 min Threshold Pace intervals, 1 min recovery in between. Cool down walk for 5 min. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Tire Hike:</b> Drag your tires for 1 hour on easy, level terrain. Finish with flexibility.	<b>Run:</b> Run for 3 min and walk for 2 min for a 1 hour period at a steady and sustainable pace on a reasonably level route. Finish with flexibility.
<b>Week 2</b>	Recovery day with flexibility stretches.	<b>Run:</b> 10 min slow jog warm up, followed by 3 X 5 min Threshold Pace intervals, 1.5 min recovery in between. Cool down walk for 5 min. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 30 min on level terrain, on an easy surface. Finish with flexibility.	<b>Run:</b> 10 min slow jog warm up, followed by 3 X 5 min Threshold Pace intervals, 1 min recovery in between. Cool down walk for 5 min. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Tire Hike:</b> Drag your tires for 1 hour on mixed terrain; try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> Run for 4 min and walk for 1 min for a 1 hour period at a steady and sustainable pace on a reasonably level route. Finish with flexibility.
<b>Week 3</b>	Recovery day with flexibility stretches.	<b>Run:</b> 15 min jog warm up, followed by 3 X 6 min Threshold Pace intervals, 1.5 min recovery in between. Cool down walk for 10 min. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 30 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> Run for 5 min and walk for 1 min for a 30 minute period at a steady and sustainable pace on a reasonably level route. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Tire Hike:</b> Drag your tires for 1 hour on mixed terrain; try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> Run for 4 min and walk for 1 min for a 1.5 hour period at a steady and sustainable pace on a reasonably level route. Finish with flexibility.

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Week 4	Recovery day with flexibility stretches.	<b>Run:</b> 1 hour, first 5 km no walking, then 5 min running and 1 min walking to the end. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 30 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 5 km no walking, followed by 10 min cool down walk. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> Run for 4 min and walk for 1 min for a 1.5 hour period at a steady and sustainable pace on a reasonably level route. Finish with flexibility.
Week 5	Recovery day with flexibility stretches.	<b>Run:</b> 5 km no walking, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 30 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 10 km, first 5 km no walking, then 5 min running and 1 min walking to the end. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 40 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> Run for 5 min walk for 1 min for two hours on a reasonably level route. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, try to incorporate a couple of steeper hills and some road work. Finish with flexibility.
Week 6	Recovery day with flexibility stretches.	<b>Run:</b> 5 km no walking, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 40 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 10 km no walking, followed by 10 min cool down walk. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Run:</b> Run for 5 min and walk for 1 min, for 2 hours on mixed terrain. Try to incorporate a couple of moderate hills. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, try to incorporate a couple of steeper hills and some road work. Finish with flexibility.
Week 7	Recovery day with flexibility stretches.	<b>Run:</b> 5 km no walking, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 40 min on mixed terrain, try to incorporate a couple of moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 10 km, first 5 km no walking, then 5 min running and 1 min walking to the end. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 1 hour on reasonably level and easy terrain. Finish with flexibility.	<b>Run:</b> Run for 5 min and walk for 1 min, for 2 hours on mixed terrain. Try to incorporate a couple of moderate hills. Finish with flexibility.	<b>Backpack Hike:</b> 3 hours. Pack a reasonably heavy but sustainable backpack and head out for a rigorous hike. Pick some interesting hilly terrain on rough trails if possible.

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Week 8	Recovery day with flexibility stretches.	<b>Run:</b> 10 min jog warm up, followed by 30 min at Threshold Pace. Cool down jog for 10 min. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 1 hour on mixed terrain, with some steep hills and some road work. Finish with flexibility.	<b>Run:</b> 10 km no walking, followed by 10 min cool down walk. Finish with flexibility.	Recovery day with flexibility stretches.	<b>Run:</b> 3 hours. Run the first hour, run 5 min and walk 1 min the second hour, speed trek the third hour. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, try to incorporate a couple of steeper hills and some road work. Finish with flexibility.
Week 9	Recovery day with flexibility stretches.	<b>Run:</b> 10 min jog warm up, followed by 30 min at Threshold Pace. Cool down jog for 10 min. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 1 hour on mixed terrain, with some steep hills and some road work. Finish with flexibility.	<b>Run:</b> 10 km no walking on a reasonably level route, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, with some steep hills and some road work. Finish with flexibility.	<b>Run:</b> 3 hours. Run the first hour, run 5 min and walk 1 min the second hour, speed trek the third hour. Finish with flexibility.	<b>Backpack Hike:</b> 4 hours. Pack a reasonably heavy but sustainable backpack and head out for a rigorous hike. Pick some interesting hilly terrain on rough trails if possible.
Week 10	Recovery day with flexibility stretches.	<b>Run:</b> 10 km no walking on a reasonably level route, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 1.5 hours on mixed terrain, with some steep hills and some road work. Finish with flexibility.	<b>Hill Running:</b> Warm up for 15 min on the level followed by 5 X 1.5 min hill repeats (8% grade) with 4 min recovery in between. Over the first 60 seconds of each repeat build to above Threshold Pace. For the following 30 seconds increase effort to maximum. Cool down 15 min. Finish with Flexibility.	Recovery day with flexibility stretches.	<b>Run:</b> 15 km no walking on a reasonably level route, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 4 hours on mixed terrain, try to incorporate a couple of steeper hills and some road work. Finish with flexibility.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Week 11</b>	Recovery day with flexibility stretches.	<b>Hill Running:</b> Warm up for 15 min on the level followed by 6 X 2 min hill repeats (8% grade) with 4 min recovery in between. Over the first 60 seconds of each repeat build to above Threshold Pace. For the following 30 seconds increase effort to maximum. Cool down 15 min. Finish with Flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, with some moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 15 km no walking on a reasonably level route, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, with some moderate hills and some road work. Finish with flexibility.	<b>Run:</b> 3 hours. Run the first hour, run 5 min and walk 1 min the second and third hours. Finish with flexibility.	<b>Backpack Hike:</b> 4 hours. Pack a reasonably heavy but sustainable backpack. And head out for a brisk hike. Pick some interesting hilly terrain on rough trails if possible.
<b>Week 12</b>	Recovery day with flexibility stretches.	<b>Run:</b> 15 km no walking on a reasonably level route, followed by 10 min cool down walk. Finish with flexibility.	<b>Tire Hike:</b> Drag your tires for 2 hours on mixed terrain, with some moderate hills and some road work. Finish with flexibility.	<b>Hill Running:</b> Warm up for 15 min on the level followed by 7 X 2 min hill repeats (8% grade) with 4 min recovery in between. Over the first 60 seconds of each repeat build to above Threshold Pace. For the following 30 seconds increase effort to maximum. Cool down 15 min. Finish with Flexibility.	Recovery day with flexibility stretches.	<b>Big Tire Hike Weekend:</b> Take some camping gear and make a trip of it. Drag your tires with a backpack for 8 hours on mixed terrain. Stop every hour for food and water. Sustain a slow steady pace. Finish with flexibility.	<b>Big Tire Hike Weekend:</b> Drag your tires with a backpack for 8 hours on mixed terrain. Stop every hour for food and water. Sustain a slow steady pace. Finish with flexibility.

# TRAINING NOTES

## Threshold Pace

Your strong but steady pace, it should feel comfortably hard. By the time you reach the end of the work interval, you should be ready for the recovery interval.

## Backpack Weight

A heavy but sustainable backpack would typically be around 25% of your body weight.

## Flexibility Stretches

See next sheet for some recommended leg and back stretches, these would be a minimum and you might like to add more depending on your body type.

## Tires

You should have two standard sized car tires linked together, with an approximately 7 ft (2 m) trace to pull them from.

## Tire Pulling Technique

Pull your tires preferably with the sledding harness that you will use on the ice or if you are not planning to buy your own, then you can use a good quality backpack with a padded waistband. Pull from the waistband and make sure it is slung low across your hips. Sledding harnesses are available from [www.acapulka.com](http://www.acapulka.com) or [www.snowsled.com](http://www.snowsled.com). Always pull your tires using a pair of hiking poles. Pulling your tires on roads in warm conditions will be toughest, as they should want to stick to the tarred surface. Focus on keeping your hands low in front and beside you with your poles, quite long, going out behind you, imagine all the power in your arms going back down the poles and pushing back out behind you. Try to find bumpy obstacles like logs and curbs to drag your tires over, focus on bending your knees and throwing your weight and shoulders forward to lever the tires over the obstacle.

## Hydration

It is really important to stay well hydrated during all the scheduled exercise. Invest in a hydration pack and make sure you drink at least every 15 minutes on the longer sessions. We would also recommend using a high energy, electrolyte type supplement in your water.

## Energy

For sessions of two hours or longer you should be taking some high-energy snacks or bars to keep you going.

## Recovery Products

We highly recommend the use of specialist protein recovery supplements after the longer sessions.

## Shoes

There is a lot of running in the program as it is extremely effective for building up endurance fitness. We highly recommend visiting a specialist running shop that conducts footfall testing to diagnose the best running shoes and support for you.

## Flexibility Within the Program

We appreciate that people have busy lives and have tried to develop a program that is manageable within a normal working week. If you have commitments that make a particular day impossible then by all means move days about, but try to stick to the principle of the program.

## Injuries

If you experience pain or injury during the training program please contact your guide to discuss the best way to proceed. Often it is best to reduce exercise to a minimum to let the injury recover, but sometimes, alternative exercise can be substituted.

## Strength and Core Stability

In addition to this training program you should also seek to undertake a regular program of strength and core stability training specific to your body type. Work with weights and strength exercises will all be beneficial for developing your physical hardness.

## Mental Training

The mental challenges of the expedition are the hardest, for many participants. Building up mental stamina is important and takes practice. On the ice you will ski everyday, whether you feel like it or not, so try to be diligent with your training, even when you don't want to.

## Cross Country Skiing

Not everyone will be in a part of the world where ski training is possible, but any experience you can get will be valuable. The more efficient you are at skiing, the less energy you will waste.

## Weight Gain and Eating

Try to put on a few extra pounds before starting the expedition. The extra fat helps keep you warm and provides reserves to fuel the intense exercise that you will be doing. Expect to lose 15- 25 lbs during the expedition. Also train to eat more, gradually building up your calorie intake. It can take 2-4 months for the body to become accustomed to eating larger portions and accessing the calories.

# FLEXIBILITY STRETCHES



## Lying Gluteal Stretch

Bend knees so that your feet are flat on the floor. Cross one leg over the thigh of other leg. Pull your hands through the opening created between your legs and grasp back of thigh of lower leg with both hands. For a deeper stretch place your hands just below the knee of the bottom leg. As you hold, make sure that you head is relaxed on the mat. Hold for 30 seconds and switch sides.



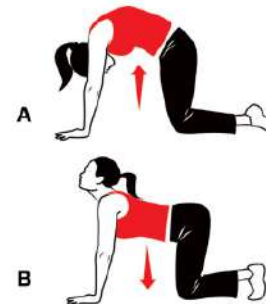
## Kneeling Hip Flexor

Kneel on the floor. Put one leg out in front of you, knee bent at a 90° angle, the opposite leg outstretched behind you. Press your hips forward towards your front knee, keeping your back as straight as possible. Hold this position comfortably for 20 seconds and switch legs.



## Pigeon Pose

Begin this stretch on your elbows and knees. Bring one leg across, in front of the opposite knee. Slowly extend your back leg outwards until it is straight behind you. Hold for 30 seconds.



## Cat/Camel Stretch

Begin on your hands and knees. Round your back by contracting your abdominals and tucking your pelvis. Then allow your back to sag toward the floor as you lift your chest forward. Hold briefly. Repeat three to five times, slowly alternating between the two positions.



## Standing Calf Stretch

Start by taking a large step forward. Use a wall or something sturdy for balance if necessary. With back foot flat on the floor and pointing straight forward, slowly transfer weight onto the front leg until you feel the stretch in the calf of the back leg.



## Short Adductor Stretch

Sit on the floor with your knees bent and feet together. Place your hands on your ankles and push down gently on your knees with your elbows to increase the stretch. Hold for between 10 and 30 seconds.