

General Nordic Ski Training

Month	Cardio	Strength	Aerobic Power and Strength (Intervals)
	*All cardio in this column should be done in zone 1.		
May	Begin to develop aerobic capacity (in zone 1). Lots of long, easy distances (ranging from 40 minutes up to 1hr 30 mins of cardio 5-6 days a week). Recommend focusing far more on cross training at this point.	Keep weights light and focus more on developing good technique. Do more repetitions of a lower weight. Strength exercises between 2-3 times a week	Include 2 intensities a week. Examples: tempo workouts, fartleks, fewer reps of long intervals to maintain (ex 3x10minreps), and higher reps of shorter intervals (pickups)
June	Continue developing aerobic capacity. Still lots of long , easy distances (in zone 1). Start to introduce more rollerskiing (focus of rollerskis should be slow with technique critiquing and adaptations, add some work on rolling terrain). 45minutes up to 2 hours of cardio 5-6 days a week. Majority of cardio should still be cross training.	Continue keeping weights light and focusing more on developing good technique. Do more repetitions of lighter weights. Strength exercises between 2-3 times a week	Include 2 intensities a week. Examples: tempo workouts, fartleks, fewer reps of long intervals to maintain (ex. 3x10minreps). Higher reps of shorter intervals (pickups). Add a race in this month.
July	Continue developing aerobic capacity. Still lots of long, easy distances (in zone1). Add some trail running.	Begin focusing more on developing maximum power; continue high	Include 2 intensities a week. Try to add in a race this month

	Continue introducing more rollerskiing (focus of rollerskis should be slow with technique critiquing and adaptations). 50 minutes up to 2 hours of cardio 5-6 days a week. Majority of cardio should still be cross training.	repetitions with heavier weights. Continue strength exercises 2-3 times a week.	(ex. a trail running race). Have one workout be a longer zone 3 effort, and the other workout a shorter zone 3 effort.
August	Continue developing aerobic capacity. Still lots of long, easy distances (in zone1). Technique adaptations from previous months should come naturally and easily to athletes. 55 minutes up to 2.5 hours of cardio 5-6 days a week. Majority of cardio should now be ski-specific (rollerskiing or ski walking).	Continue developing maximum power; continue high repetitions with heavier weights. Continue strength exercises 2-3 times a week.	Ski stride/ski walk longer intervals uphill. Include 2 intensities a week (one of these should be a race, or race effort). Intervals and races should be 15-30 minutes of effort total.
September	Continue developing aerobic capacity. Still lots of long, easy distances (in zone1). Technique adaptations from previous months should come naturally and easily to athletes. 1 hour up to 3 hours of cardio each day 5-6 days a week.	Continue developing maximum power; continue high repetitions with heavier weights. Continue strength exercises 2-3 times a week.	Include 2 intensities a week. Have one anaerobic workout (2 minute and under sprints) and one longer zone 3 workout around 30mins total work time.
October	Continue developing aerobic capacity. Still lots of long, easy distances (in zone1). 1 hour up to 3 hours of cardio each day, 5-6 days a week.	Begin fewer repetitions with heavier weights than the previous cycle. Continue strength	Include 2 intensities a week. Examples of workouts for this month are:

		exercises 2-3 times a week.	anaerobic workouts (2 minute and under sprints), zone 4 going uphill; tempos; and zone 3 (30 minutes total of work) with sprint warmup (ex. 6-12x10 secs). Add in a race (ex. cross country running)
November	Continue developing aerobic capacity. Still lots of long, easy distances (in zone1). 1 hour up to 3 hours of cardio each day, 5-6 days a week. In the last half of the month, cardio workouts can decrease slightly in length. At the end of the month, cardio can vary from 50mins to 2.5 hours in length. If possible, get on snow.	Begin fewer repetitions with heavier weights than the previous cycle. Continue strength exercises 2 times a week. One time should be ski specific strength (legs only, arms only, diagonal arms on rollerskis, double pole uphill, etc.). In the last 2 weeks of the month, slowly start to decrease max power and maintain strength (high repetitions at middle weight).	Add in a rollerski race (if possible). Example workouts: include sprints (ex. 10x less than 10 seconds) on rollerskis twice a week on rolling terrain; shorter ski strides intervals (5x 2-4 minutes); long z3 tempos on skis (30 minutes of effort broken up ex. 4x5, 2x15 etc.)
December	Maintain cardio built up during the summer/fall months. Continue working in zone 1, but decrease	Begin to focus on maintaining strength rather than escalating it.	If on snow, work on distance work. If no snow, continue with

	workout lengths. Lengths can vary from 45 mins up to 2:30mins. Technique from summer rollerskiing technique sessions should be transferred on to snow.	Higher reps with the medium weight. 2-3 times a week.	sprints (ex. 10x less than 10 seconds) on rollerskis twice a week on rolling terrain; shorter ski strides intervals (5x 2-4 minutes); long z3 tempos on skis (30 minutes of effort broken up ex. 4x5, 2x15 etc.)
January	Maintain cardio built up during the summer/fall months. Continue working in zone 1, but decrease workout lengths. Lengths can vary from 45 mins up to 2 hours. Technique should be maintained. Recover well from races.	Continue to maintain strength rather than escalating it. Higher reps with the medium weight. 2-3 times a week. Focus on core and upper body strength.	Race (find invitationals between O' Cup weekends). Leading up to race: one shorter zone 3 (3x5 mins) and one zone 4 sprint (4x30secs)
February	Maintain cardio. Continue working in zone 1, but decrease workout lengths. Lengths can vary from 45 mins up to 2 hours. Technique should be maintained. Recover well from races.	Continue to maintain strength rather than escalating it. Higher reps with the medium weight. 2-3 times a week. Focus on core and upper body strength.	Race (look for a longer race/loppet). Leading up to race: one shorter zone 3 (3x5 mins) and one zone 4 sprint (4x30secs)
March	Maintain cardio. Continue working in zone 1, but decrease workout lengths. Lengths can vary from 45 mins up to	Continue to maintain strength rather than escalating it. Higher reps	Race. Look for loppets. Pick your favourite workouts.

	2 hours. Technique should be maintained.	with the medium weight. 2-3 times a week. Focus on core and upper body strength.	Stay on skis as long as you can!
April	Recovery month. We recommend you focus only on cross training and keep any workouts extremely light.	Recovery month. We recommend you focus only on cross training and keep any workouts extremely light.	Recovery month. We recommend you focus only on cross training and keep any workouts extremely light.

A few extra notes:

- Good cardio options are running, swimming, biking and rollerskiing.
- Good basic strength/core options are:

STRENGTH: *Weights can be added to each of these exercises to modify for higher weight training times.*

- Pushups
- Lunges
- Sit-ups
- Fire-hydrants
- Dips
- Squats
- Leg Lifts
- Bridges
- Calf Raises
- Single-Legged Squats
- Pull-ups
- Good mornings
- Pull-ups

CORE:

- Sit-ups -Side Plank
- Leg-ups -Leg Lifts
- Rower -Swimmer Kick
- Russian Twists -Crunchy Frog
- Bicycles -Sprinter
- Toe-Touches -Twisting Windmill
- Plank -Superman
- V-sits -Crunches
- Dead Bug

PLYOMETRICS: *Plyometrics can be added with and/or in addition to the strength exercises (weight can also be added to these exercises)*

- Explode up!
- Frog Jump
- Single Legged Strides
- Skier Lunge (up hill)
- Mountain Climbers
- Balance Exercises
- Side to Side Lunges
- Burpees
- Skipping
- Speed ladder
- Squat jump and hold
- 1 or 2 leg box jump hold
- Split squat hold.

- Rest cycles should be added in as well. One rest day a week is recommended. Also, every 2-4 months, add in a rest week. You can add in more depending on how your athletes are feeling. Training is very minimal and easy in rest weeks and includes lots of cross training.

The training plan above is based on this Long Term Athlete Development Plan, from Cross Country Canada.

YTP Guidelines for L2C For later part of stage: Females 17-19, Males 18-20

Priority 1 = Priority 1 Priority 2 = Priority 2 Priority 3 = Priority 3

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Periods	General preparation period		Specific preparation period			Pre-competition period	Early competition period	Peak competition period			Recovery		
Specific vs Non-Specific Ratio	20-80	40-60	40-60	60-40	70-30	70-30	80-20			10-90			
Aerobic Capacity	Develop						Maintain	Maintain			Very low volume; no intensity; physical and mental regeneration.		
Aerobic Power	Maintain	Develop					Maintain						
Anaerobic Alactic Power/ Speed	Develop						Maintain						
Anaerobic Lactic Capacity					Develop		Maintain						
Strength	Develop good strength technique; general prep		Develop max strength and hypertrophy			Develop power		Maintain (core and upper body)					
Racing		Off-season races every 3-4 weeks in an endurance sport/activity						Race preparation, adaptation	Peak preparation				
Technique		Acquire new technique and correct mistakes		Stabilize new patterns		Stabilize at high intensity	On-snow adaptation	Maintain					
Mental training	Acquire new techniques and correct undesired patterns			Develop focus and stress management			Maintain all skills						
Medical Assessment	x			x			x			x			
Monthly Volume (Average Hrs)	40-60	50-70	50-60	50-70	50-60	50-70	50-60	40-50	40-50	40-50		30-40	20

Yearly Training Plan Guidelines – Learning to Compete

NOTE: Energy system training like aerobic capacity, aerobic power, anaerobic alactic power, etc, should include some sessions of double pole and legs only work.

