

Now that you have signed up for a Pacific Rim Alliance it time to get in ready for that ski/board trip. Here's some tips on getting in shape, what you should bring with you to the slopes and how to dress for warmth and comfort. For the sake of clarity, when referring to skiing, we include snowboarding, ski skating, telemarking, etc.

We produce a public affairs report each month and include information on Safety, Health & Fitness. Check it out at <http://www.pacificrimalliance.org/F.PublicAffairs/Safety/0Safety.htm>

Advice For Skiers As We Age

To stay on top of your skiing game it's important to prepare for the hill in three ways: physical training, nutrition and equipment selection.

Physical Training

Getting tuned for skiing requires more than hitting the gym two weeks before the lifts open. You need to have a preparation season, the main ski season and a cool-down season each year to make it work. Experts recommend working on four areas: cardiovascular endurance, strength, balance and flexibility. Following are suggested exercises for each.

Cardiovascular

Aim to swim, bike, skate, walk or run for about 30 minutes, three to four days per week. Start with 15 minutes, and increase workout times slowly, adding no more than five minutes per session.

Strength

If you haven't been weight training, don't jump in and try to lift the same weights you did in your 20s. Start small and add weight slowly, no more than five pounds per session. Work both upper and lower body, as well as your abs and back, and be sure to train opposing muscle groups (e.g., hamstrings and quads, triceps and biceps) equally. Aim to strength-train two to three nonconsecutive days per week. To get you started, here are two strength exercises that you can do without weights:

The Wall Sit

An old standard, it still does the job. Standing with your back against a wall, squat as if sitting in a chair. Keep your knees aligned directly above your ankles. Hold for 30 seconds. Every other session, add 10 seconds to this.

The Alpine Bump

Stand in skiing position with your knees flexed. Squat down and up for 60 seconds in the range you use while skiing. Don't let your knees go in front of your toes. Add 15 seconds to the drill each session.

Balance

A good balance exercise is to stand on one foot with your eyes closed for one minute. As you improve, try it on a less stable surface, such as a pillow.

Flexibility

It is recommended to stretch daily to maintain muscle elasticity, which decreases with age but is vital for skiing. Suggested stretches include:

For the Hamstring

Stand facing a staircase in your home. Put your left foot close to the bottom step as if you were going to step up with your right foot. Instead, raise your right heel and place it on whichever stair gives you the best stretch (for most beginners it is the third stair). Hold the stretch for one minute, and then switch legs and repeat.

For the Quadriceps

Again, stand facing the stairs. With your left hand, hold on to the banister. With your right hand hold on to the top of your right foot and pull it straight toward your buttocks, being careful not to kick your knee out to the side. You should feel the stretch on the front of your thigh. Hold for one minute, and repeat with your left leg.

Heart Rate Monitoring

When you exercise, the heart beats faster to meet the demand for more blood and oxygen by the muscles of the body. The higher the intensity, the faster the heart will beat. This is why heart rate monitoring can be your best coach! It lets you know if you're working too hard or not hard enough.

To find your estimated target heart rate, take

$220 - \text{age} \times .60 = \text{Low end of training heart rate}$

$220 - \text{age} \times .85 = \text{High end of training heart rate}$

For general conditioning keep at the low end of the training heart rate. For higher intensity keep at the higher end of the training heart rate. For interval training try one minute at the high end, then one minute at the low end. Alternate for 15 - 20 minutes. Remember this is just an estimate. If you feel like you're exercising too hard, you probably are. Reduce the intensity.

Duration: 30 - 45 minutes for general conditioning, 15 - 20 minutes for interval training.

Nutrition

It's not news that we need to eat better as we age. But the reason why may come as a surprise to many. As we age, our bodies' ability to absorb calcium and vitamin D decreases, which takes a toll on bone health and makes fractures more likely. We also have a harder time absorbing vitamin B12, which is needed for normal nerve function. We need to eat a diet rich in these nutrients (try salmon, tuna, oysters, dairy products, barley and oatmeal), and some experts recommend taking supplements of each. The aging body also needs more water than ever, and a decreased thirst sensation is common with seniors. Skiers should drink at least eight glasses of caffeine-free fluid daily.

Equipment

Modern equipment, despite making the sport significantly easier, isn't always easily embraced by seniors. There's a reason why skis are shaped now. There's a reason why cotton is called 'death cloth.' That old gear just isn't helping you anymore. You need to update."

Best advice? Buy clothing made with performance fabrics, and demo equipment until you find the right skis. Then buy them. As for boots, boot fitters have made the days of aching feet almost obsolete. Spend the extra cash and have your boots fitted just for you. Aging skiers need to take good care of their feet. The cost (around \$150) is worth it.

Race To The Finish

To catch your second wind, consider racing. While free skiing, you make turns when and where you want. Racing forces you to turn at the gates, which ultimately improves your technique. The most widespread racing option is Charles Schwab NASTAR, a program created by SKI Magazine in 1968 that is available at more than 100 resorts nationwide. The NASTAR ranking system is similar to a golf handicap, allowing you to gauge your improvement from one race to the next. NASTAR offers age groups in five-year increments, ranging up to the 85-and-over category. For more information, visit nastar.com or call 212-779-6600. To take it to the next level, try Masters racing. The USSA Masters Program-in which adult skiers up to 80 years old race on world-class courses-has champion skiers who never raced until their 40s or 50s. For details, visit www.usskiteam.com, click on "alpine," then "masters." Or call 435-647-2633.

Aggressive Training for Ski Season

It's never too early to start getting your body in shape for the upcoming season. I'm sure everyone has taken the first run of the season, and while hanging over their poles exhausted, said, "I should have run. I should have worked out. I should have done something. Well, try one of these exercises to help get in shape, prevent injury, and ski better than your friends.

Ideally you should do ski-specific training four times a week, but even once or twice a week will get you off to a good start.

Stair Jumps

This drill is not for the meek, but it works wonders. Find a steep set of stairs, preferably one with more than 30 steps. Outside stairs seem to give you more incentive, but work with what you've got.

Starting at the top of the stairs, leap out to the side and down to the first step, landing on one foot. Sink onto the foot, placing your weight on your quad. After you've sunk down to the point where your knee has about a 45-degree bend, spring off that foot, bounding sideways, up into the air, landing on the next step with your other foot. Repeat until you reach the bottom of the stairs. Take a breather.

Do the same thing going up the stairs, bouncing from one foot to the next, one foot on each step.

Vary the speed of descent and climb. This exercise develops leg strength and improves foot speed, especially on the descents.

Start off slowly. Do three to five rounds of stairs, then go home. Take a day off, see how you feel; do one or two extra rounds the next session. Keep adding rounds as the weeks progress toward snow time.

Be sure to focus on keeping your body centered down the steps, your legs flowing from side to side underneath your torso.

If stair jumps seem a little too much, try some lunges.

Lunges

While holding five to ten-pound dumbbells at your side (arms straight), feet parallel, dip straight ahead of you, lunging down onto one leg. Try to form a 90-degree angle with your knee, putting your weight on the quad muscle. Hold for a second, then rise back up slowly so that your feet are parallel. Do three sets of 12 to 15 reps.

Tips for Prior to Hitting the Slopes

Obtain proper equipment. Be sure to have your ski or snowboard bindings adjusted correctly at a local ski shop. You can rent good ski or snowboarding equipment at Great Divide.

- When buying skiwear, look for fabric that is water and wind-resistant. Look for wind flaps to shield zippers, snug cuffs at wrists and ankles, collars that can be snuggled up to the chin and drawstrings that can be adjusted for comfort and keep wind out. Be sure to buy quality clothing and products.
- Dress in layers. Layering allows you to accommodate your body's constantly changing temperature. For example, dress in polypropylene underwear (top and bottoms), which feels good next to the skin, dries quickly, absorbs sweat and keeps you warm. Wear a turtleneck, sweater and jacket.
- Be prepared. Mother Nature has a mind of her own. Bring a headband or hat with you to the slopes, 60 percent of heat-loss is through the head. Wear gloves or mittens (mittens are usually better for those susceptible to cold hands).
- Wear sun protection. The sun reflects off the snow and is stronger than you think, even on cloudy days!
- Always wear eye protection. Have sunglasses and goggles with you. Skiing and snowboarding are a lot more fun when you can see.

Tips for While on the Slopes

- Take a lesson. Like anything, you'll improve the most when you receive some guidance. The best way to become a good skier or snowboarder is to take a lesson from a qualified instructor.
- The key to successful skiing/snowboarding is control. To have it, you must be aware of your technique, the terrain and the skiers/snowboarders around you.
- Be aware of the snow conditions and how they can change. As conditions turn firm, the skiing gets hard and fast. Begin a run slowly.
- Skiing and snowboarding require a mental and physical presence.
- If you find yourself on a slope that exceeds your ability level, always leave your skis/snowboard on and side step down the slope.
- The all-important warm-up run prepares you mentally and physically for the day ahead.
- Drink plenty of water. Be careful not to become dehydrated.
- Curb alcohol consumption. Skiing and snowboarding do not mix well with alcohol or drugs.
- Know your limits. Learn to ski and snowboard smoothly—and in control. Stop before you become fatigued and, most of all have fun.
- Never ski in the woods alone. Always have a partner and be sure to stay within visual range of each other.
- Never ski in out-of-bounds or closed areas.
- Be "woods-wise." Understand the hidden dangers of tree-skiing— deep snow pockets, hidden undergrowth, stumps and rocks can all be dangerous.
- Always ski in control. Use caution.
- Learn to ski and snowboard smoothly--and in control. Stop before you become fatigued and, most of all have fun.
- Follow the "Your Responsibility Code," the seven safety rules of the slopes:

Your Responsibility Code

Skiing can be enjoyed in many ways. At ski areas you may see people using alpine, snowboard, telemark, cross country and other specialized ski equipment, such as that used by disabled or other skiers. Regardless of how you decide to enjoy the slopes, always show courtesy to others and be aware that there are elements of risk in skiing that common sense and personal awareness can help reduce. Observe the code listed below and share with other skiers the responsibility for a great skiing experience.

- 1 Always stay in control.
- 2 People ahead of you have the right of way.
- 3 Stop in a safe place for you and others.
- 4 Whenever starting downhill or merging, look uphill and yield.
- 5 Use devices to help prevent runaway equipment.
- 6 Observe signs and warnings, and keep off closed trails.
- 7 Know how to use the lifts safely.

KNOW THE CODE. IT'S YOUR RESPONSIBILITY. This is a partial list. Be safety conscious.

Ski Tips For Kids (which applies to adults also)

Starting your kids early, opens a world of adventure, fun, laughter and beautiful scenery unsurpassed, from many other sports and interests. It's a tremendous feeling to learn that your kids' fondest childhood memories were of your family ski vacations and now skiing has become an important element in their lives. Your kids will be forever grateful to you when they become adults!

Dress in layers.

Layering allows you to accommodate your body's constantly changing temperature. For example, dress your kids in polypropylene underwear (top and bottoms) which feels good next to the skin, dries quickly, absorbs sweat and keeps you warm. Your kids should also wear a turtleneck, sweater and jacket.

Be prepared.

Mother nature has a mind of her own. Kids should wear a hat or headband, 80 percent of heat-loss is through the head. Kids should also wear gloves or mittens (mittens are usually better for kids who are susceptible to cold hands).

Be sure they wear sun protection, even on cloudy days.

The sun reflects off the snow and is stronger than you think!

Have sunglasses and goggles with them.

Skiing is a lot more fun when you can see. Always wear eye protection.

When buying skiwear, look for fabric that is water and wind-resistant.

Look for wind flaps to shield zippers, snug cuffs at wrists and ankles, collars that can be snuggled up to the chin and drawstrings that can be adjusted for comfort and keep wind out. Be sure to buy your children quality clothing products.

Make sure your child can get ahold of you.

Be sure your child has the name and phone number of your hotel written down on a piece of paper and it's in a secure pocket. Although it is very unlikely that your child would get separated from the instructor, be sure your child has a trail map and is able to remember the instructor's name.

Do your homework prior to your trip.

When you've decide what area to take your ski trip, call the ski resorts in the area and research how each area's children ski school programs are structured. Ask about the number of kids in the class? What if your child gets cold? What if your child wants to stop skiing after one hour?

Put your kids in ski school to get them on the right track.

Children's instructors know how to teach kids, it's their business. Then you'll enjoy skiing with your kids and they will be proud to show you their skiing abilities. An observance from a long-time skier is that when his daughter skied with him, she regressed, as opposed to skiing with her peers in a lesson. "She wanted to ski in-between my legs and fell down more often. We had fun with her being silly, but a lesson allowed her to focus on her skiing and she really excelled."

Helmet Issues

Helmets -- protective head gear -- brain buckets -- are worn by rock climbers, ice climbers, mountain bikers, road cyclists,

kayakers, skydivers, paragliders, in-line skaters, motocross enthusiasts and motorcyclists, auto racers, equestrians, hockey players, construction and utility workers, skiers and snowboarders; by professionals and amateurs, kids and adults, men and women. Wearing protective headgear is a matter of choice.

Helmets are a viable piece of equipment for skiers and snowboarders, just as they are for any sport or profession where one might encounter a bump on the head. But the bottom line is it's a matter of personal choice whether to wear one, or not. There is a wide variety of helmets available. If you choose to wear a helmet, it is important that it fits properly, is comfortable, and offers the appropriate level of protection for the activity of choice.

Purchasing a Helmet—

The most important consideration when purchasing a helmet is the fit.

A helmet is not a piece of equipment that you want to purchase too small or too large to grow into. If a helmet doesn't fit correctly, it may not perform to its ability in the event of an accident.

When shopping for a helmet, bring along your goggles, or borrow a pair that matches your own from the shop.

Make sure your entire forehead (above eyebrows to hairline) is covered by your helmet or goggles, because if there's a gap on your forehead between your helmet and your goggles, this exposed area can get cold and wet on snowy days.

Unlike a hat, a helmet can't be amended or "pushed down" to keep your forehead warm.

Look for a helmet that is engineered to work well with goggles or provides its own integrated goggles.

It's important for a helmet to work with goggles and glasses to maintain vision, airflow and comfort.

Make sure the helmet conforms to a snow sports helmet standard (Common European Norm, American Society of Testing and Materials (ASTM) and/or Snell.)

Ask an experienced ski shop associate to assist you to identify the best brand for your head shape and confirm a proper fit.

Skier's and Rider's Checklist

Equipment. We're figuring you've got your skis/board and poles – or you'll be renting them once we get to Europe.

- Sunglasses
- Goggles
- Sunscreen
- Lip Balm
- Ski or Snowboard lock
- Boots
- Bag to carry clothing, boots, and extra equipment

Clothing. There are a lot of different ways to dress for winter sports. Some will keep you warmer than others.

- Long Underwear
- Ski Pants or Bib Pant (NO JEANS!)
- Outer Layer Jacket (Preferably waterproof/breathable shell)
- Gloves or Mittens
- Neck Gaiter
- Turtleneck
- Sweater or Fleece
- Socks or Sock Liner (1 thin to medium weight pair should do)
- Vest (for insulation)
- Face Mask
- Warm ups for after skiing or riding
- Hat or Headband

Dressing properly. Assume you will encounter foul weather so you can stay warm, dry, and comfortable.

Anyone who's ever endured a torturously long chairlift ride--teeth chattering, sweat from the previous run freezing against the

body--can appreciate the importance of dressing appropriately for outdoor winter sports. If you plan on actually moving, it's not as simple as pulling on a hefty sweater and giant parka. For skiing, snowboarding, snowshoeing, winter running, ice climbing, or any other outdoor pursuit, the goal is to stay warm and dry. How to do it? Dress in multiple, lightweight layers.

The layering system

The beauty of layering is that you can shed and add clothing as conditions or your exertion levels change. Thanks to new high-tech fabrics, personal climate control is now a reality: body-warmed air is trapped between layers of clothing while moisture vapor from perspiration is allowed to escape.

A layering system usually includes three components: an inner moisture-wicking layer; a middle insulating layer; and an outer shell layer. It's important to keep several things in mind as you consider the numerous styles and fabrics available for each layer. Garments should be lightweight and compressible; if you need to shed a pullover, for instance, it should easily fit into a fanny pack or rucksack. Look for high-quality synthetic fabrics that are breathable--natural fibers such as cotton and wool retain moisture, leaving you damp and cold. Be sure to choose a shell that is large enough to fit comfortably over several layers and try to select garments that are versatile enough to adapt to changes in the weather and useful for a variety of activities.

Additional variables to consider include your fitness level, your body type, the activity you'll be doing, and where you'll be doing it. Do you chill easily? Sweat a lot? Dress accordingly. Highly aerobic activities such as cross-country skiing and running require very different clothing systems from sports such as snowboarding and downhill skiing, in which your energy output constantly fluctuates. And if you're heading into the backcountry or will be far from a heated shelter for any extended period, your clothing will be as important as any piece of equipment you have. It can mean the difference between life and death.

The weather, of course, is one of the most significant factors in what you decide to wear. Heeding the weather forecast can help ensure an enjoyable excursion; ignoring it can make you rue the day you first strapped on skis or boards. And don't forget: even if you've checked the weather report, you should always be prepared for unforeseen changes. Remember Murphy's Law, and be prepared for anything, particularly in the backcountry.

Dressing for highly aerobic winter sports

Even though the thermostat reads 15 degrees and you can see your breath, if you're running, hiking, snowshoeing, or cross-country skiing, you can expect to heat up fast and perspire. If the sweat you produce during this workout is trapped next to your skin, you will eventually feel chilled. Not only is this cold clammy feeling uncomfortable, it can be dangerous, especially as you start to cool down. Protect yourself by wearing lightweight layers that you can remove quickly and stow away as you warm up.

Moisture management is the first consideration here. To keep the body warm during high-energy activities, clothing should transport moisture away from the skin, to the outer surface of the fabric where it can evaporate.

Your next layer should be a lightweight stretchy insulator such as a breathable fleece sweater or vest. While you might not need it once you're warmed up, you'll appreciate a cozy top on your descent or on the ride home.

The final part of your cold-weather wear should be a lightweight and versatile shell jacket that will function for highly aerobic as well as less strenuous activities, depending on what you layer under it. For aerobic activities, a shell's ventilating features are particularly important. Look for underarm zippers as well as venting pockets and back flaps.

Depending on the activity and weather, a lightweight wicking layer and stretch fleece pant are often all you'll need on the bottom. In deeper snow, you can wear gaiters to protect your feet and ankles, but carry lightweight shell pants with side zips just in case the weather gets nasty.

Always bring a hat and gloves, regardless of the weather or your activity level. As with the rest of your clothing, synthetic materials work best for protecting you against the extremes--plus they don't itch! Look for fleece hats made with Windstopper fabric; gloves and mittens layered with Gore-Tex and fleece; and socks made of synthetic, moisture-wicking materials.

Dressing for activities where energy output fluctuates

It's 8:30 a.m. and you're in the parking lot, surveying the skies and your duffel bag as you try to decide what to wear. Getting dressed for a day of downhill skiing or snowboarding can be especially tricky. In the next several hours, you'll work up a sweat carving turns and negotiating mogul fields, but you'll also sit on the chairlift, exposed to biting winds and wishing you had a down-filled mummy bag.

As you mull over your ensemble, keep the basic principles of layering in mind, incorporating warmer windproof garments with plenty of venting options. Underneath, choose mid- or heavyweight long underwear with wicking capabilities. Staying dry is the best way to combat the inevitable cooling while you're at rest in the lift lines and on the chairlift. Also, look for undergarments with zip turtlenecks.

Next, layer on a lofty insulator, such as fleece pile, to trap warm air and protect you against the cold. Again, the fabric should wick moisture and breathe to help you stay dry. Another good option for skiing and boarding is windproof fleece. Several manufacturers now offer garments that feature a layer of wind protection sandwiched between layers of fleece, providing extra warmth and protection without added weight or bulk.

Shells for downhill skiing should be completely windproof and provide plenty of opportunities to vent. A longer three-quarter length shell parka will keep wind and snow out most effectively, with the added benefit of keeping your backside warm on the lift. A hood is handy for extra head and neck protection in high winds.

For the best performance and comfort, wear shell pants over stretchy fleece tights. Features to look for in shell pants include full side zips for ventilation, articulated knees for ease of movement, and bibs for extra snow protection. Some people, particularly snowboarders, like an extra layer of warmth and padding for sitting in the snow--it's also nice on the lift.

When natural fibers like cotton and wool get wet from snow or perspiration, they retain their moisture, leaving the wearer wet and chilled. Not only is this uncomfortable, it can affect performance and be potentially dangerous. When skin remains wet in a cold environment, the body's core temperature can be lowered enough to cause hypothermia. Not only do synthetic fabrics wick moisture away from the skin, they dry quickly and help keep the wearer warm in the process.

Gore-Tex is actually not a fabric, it's a membrane that is laminated to a shell fabric such as nylon or polyester. Before the mid-1970s, when Gore-Tex was invented, wearing a water- and windproof shell jacket meant sacrificing breathability. Both waterproof and breathable, Gore-Tex set a new standard for technical outerwear. Today, many outdoor clothing manufacturers offer functional alternatives to Gore-Tex, all of which provide varying degrees of waterproofing and breathability. One of these alternatives might work for you just as well or better than Gore-Tex--it's really a matter of assessing your personal needs depending on your activity level, body type, and where you'll be skiing, boarding, or snowshoeing.

For any outdoor winter activity, an inner wicking layer is crucial. Nothing will help you stay warm and comfortable as well as a garment with moisture-transport capabilities. You can purchase an inexpensive fleece insulator that will function during most activities. Look for features that add versatility, such as a snap turtleneck or full zip. An outer shell doesn't always have to be both waterproof and breathable--you can consider more affordable alternatives that are highly water-resistant yet still breathable. Again, keep versatility and ventilation in mind. Snap-off hoods, underarm zippers, and ventilating pockets are features that add value and performance to a shell garment. A pair of full side-zip shell pants are another investment worth making. As the weather changes, you can easily put them on or take them off without removing skis or snowshoes.

Most outdoor manufacturers offer fleece garments in various weights for different activity levels and climates. When shopping, think hard about the type of activity you'll do most often, and where you'll do it, as well as how your body functions. Lightweight stretchy fleece garments are best for highly aerobic sports like cross-country skiing and running; the stretch allows arms to swing freely and makes the garment easier to add or shed. For downhill skiing and snowboarding, you might need a thicker fleece to retain warmth between runs. There are numerous fleece weights and styles to help outdoor enthusiasts find the perfect fit for their specific needs.

There are many good sources of information and apparel. On the Internet, check out the website for Ski and Skiing (www.skinet.com), which contains sections on apparel and fabrics used in the outdoors. Also, the SnowSports Industries of America website (www.snowlink.com), can help you locate many outdoor manufacturers.