

Outside

THE MASTER PLAN

It's a lot easier than you think to pick up a new sport—or to finally improve after years of static performance. We've talked to the pros in **RUNNING, CYCLING, TRIATHLON,** and **SNOW SPORTS,** and shared their secrets to getting started and getting faster.

**ALL YOU HAVE TO DO
IS GET OFF THE COUCH.**



bodywork

Fitness, Health
& Nutrition

> the master plan
**Part 4: Skiing
& Snowboarding**

Are You Ready for Ski Season?

You'd better be: You just paid \$87 for your lift ticket. Follow our preseason fitness plan and make last year's halfhearted half-days a distant memory.

BODYWORK



This season, ride a little stronger

A Simple Plan

A WEEK AT A SKI RESORT is supposed to be a vacation, not a marathon. With this in mind, we asked Ann Hodel, former NCAA Division I nordic ski racer and owner of Bodywise Physical Therapy, in Boulder, Colorado, to devise a 12-week winter fitness strategy. All you have to do is augment your (hopefully) regular routine of biking or running with a few ski- and snowboard-specific exercises. The best part? If you already work out regularly, this plan should take only about three more hours per week. —SAM MOULTON

Part One: Cardio

A good cardio base is essential if you want to ski or ride until the bullwheel's last turn. Start with three 30-minute sessions per week, and mix up your workouts between running, biking, and swimming, as outlined here. But don't feel like you need to do all three each week. Mix it up whenever possible, and do what you enjoy most.

TRAIL RUNNING: Besides building endurance in your calves and the quadriceps-hamstring-glute muscle complex, the great benefit of trail running is eccentric strengthening. "When you're running downhill, you're slowing your body weight—just as you do while skiing bumps," says Hodel. "This strengthens your muscles by lengthening them."

MOUNTAIN BIKING: Riding also pumps up your reactive timing—the ability to respond quickly to terrain changes and rapidly approaching objects, like trees. And, like

trail running, mountain biking improves balance. "It's a great cross-training activity for trail runners," says Hodel, "because it requires more explosive power from the legs but has less joint and bone impact."

SWIMMING: This complements your lower-body-intensive running and biking workouts by strengthening, stretching, and lengthening arm, chest, and back muscles. Swim with as smooth and stable a freestyle stroke as possible. Again, shoot for 30 minutes a session when you start.

THE GOAL: Increase each session's duration by 10 percent each week for the first two months—by the end of month two, your workouts should reach an hour. If you started with three workouts per week, try to up it to four or five. As the third month begins, make one or two of your weekly sessions an interval workout. This will push your anaerobic threshold, helping your body operate at high intensity for longer stretches. Start with 30 seconds of running or biking at 85–90 percent of your max heart rate (see below), followed by two minutes of moderate-intensity activity (40–50 percent of max heart rate), for ten cycles. For each of the next four weeks, extend the length of your intervals and rest periods by 30 seconds apiece. Don't do any other workouts on your interval days.

The Pacemaker To keep track of your effort during intervals, use a heart-rate monitor, like Polar's GPS-enabled RS800G3 (\$500; polarusa.com). Find a flat course and run as fast as you can for a half-mile (two laps on a standard track) to a mile. Check your monitor at the end—this figure is your max heart rate.



> pro tip

HELI-SKIING PREP

"Heli-skiing is a different world. You see first-timers do it and they're dead after lunch, because people generally don't ski around with their backpacks at resorts. **Before your first heli-trip, ski all day with a heavy pack to get used to the weight.** Throw some bricks in there. And make sure you bring skis with a lot of rocker."

—SETH MORRISON, 34, BIG-MOUNTAIN FILM STAR

Winter Wisdom **SOLE LENGTH** Measured in millimeters and usually found on the outside of the boot shell near the ankle. Knowing yours is helpful when demo-ing. **BOOT SIZE** Too big hurts more than too small. **REVERSE CAMBER** The increasingly popular shape of skis or snowboards that are designed specifically for powder, being slightly upturned at either end. **GOGGLES** Never leave them on your forehead. They'll fog up. **SUNGLASSES** In town, fine. On the hill, not unless you're Austrian and well-coiffed. **DIN SETTING** A measurement of how difficult it is to release from your bindings, based on your height, weight, boot-sole length, and skiing style. Know it: Set it too low and you'll release



Plyometric jumps



Cable chop for core strength



Part Two: Strength

Skiing and snowboarding require strong muscles capable of explosive movement and shock absorption. Divide your strength training into upper- and lower-body workouts. Don't ignore your chest and arms just because your legs do most of the work. Upper-body strength will give you more balance and confidence on steeps, add purpose to your pole plants, and help stave off arm injuries caused by falls. Shoot for two 45-minute strength sessions per week for the first two months. For the third month, stay at 45 minutes per session, but increase to three weekly sessions.

LOWER BODY

PLYOMETRIC JUMPS: This classic drill builds the fast-twitch muscle fibers you need to carve aggressive turns. Use a plyo-box, bench, tortoise—anything about one foot high. Stand next to it, jump onto it sideways, jump (don't step) back down, and then explode up again as many times as you can in 60 seconds. Switch to the other side and repeat. Then face the box and jump forward onto it. Again, shoot for as many reps as possible in 60 seconds.

LUNGES: Know that feeling when your thighs feel like they're going to burn through your ski pants? Lunges will help. Stand with legs hip width apart, hands on hips. Step forward, right leg first, lowering your pelvis until your front knee is bent 90 degrees. Then return to starting position. Do 10–12 reps, then repeat with your left leg. Lunging during runs or hikes on uneven trails will work your balance skills. As time goes on, try

holding light weights—about five pounds—in your hands to increase the difficulty.

SQUATS: Nothing builds power in your quads and glutes like squats, so try to work in one session a week. Stand with feet hip width apart, with a squat bar across your trapezius muscles. Press your chest up and out. Your lower back should be slightly



THE FUEL

There are exactly three things you need to know about ski nutrition: (1) It's all about breakfast. Start with oatmeal and fresh fruit. A little protein and fat to keep you full isn't bad. We recommend Canadian bacon. Hot chocolate is hydrating as well as sweet. (2) Injuries usually happen in the afternoon, due to fatigue, so snack frequently. Granola bars and dried fruits provide a blood-glucose pickup to help you maintain focus. (3) Hydration is key. Insulate a warmed sports drink, and down at least 24 ounces each in the morning and in the afternoon. And try to resist the urge to slug seven beers in the hot tub: The extra fluid loss from the alcohol and sweating will hurt the next day. —MONIQUE RYAN

arched. Squat until you begin to feel your hamstrings touch your calves. Pick a weight that allows you to do three sets of 10–12 reps. Use slow, controlled movements.

UPPER BODY

CHIN-UPS: You don't need a dumbbell rack to build a strong upper body. Start with chin-ups, and don't be afraid to use a chin-up-assist machine. Shoot for two sets of three to six reps. Proper form: palms facing you, arms slightly wider than shoulder width and fully extended. Pull up until your chin reaches the bar. By the end of one month you should be able to do three sets; at the end of two months, three sets with less counterweight on the assist machine; and by the end of three months, you should be up to four sets with no counterweight.

PUSH-UPS: Start with two sets of 10–12 reps. Lie chest-down with your hands at shoulder level, palms flat on the floor and slightly more than shoulder width apart. Look ahead and push up. Keep your back straight. Add one set after each month.

MILITARY PRESS: Shoulder injuries happen when skiers break falls with their arms. This exercise helps strengthen the shoulder joint. Sitting with your back supported, grab a weight in each hand. Hold the weights up, squeezing your shoulder blades together so your elbows are at 90 degrees. Raise weights, then lower.



For past installments of the Master Plan, visit outsideonline.com/masterplan

when you don't want to; too high and you can tear your ACL. **UNISUITS** Are not back. **DAFFIES, SPREAD-EAGLES, AND BACK-SCRATCHERS** Not back either, but should be. **SNOWBOARD STANCE** To find out if you ride goofy-foot or regular, run across the floor in socks and slide. The way you slide is the way you should ride. (*Risky Business* shows us that Tom Cruise rides goofy-foot.) **SNOWBOARD BINDINGS** In powder, set them farther back. **BUCKLING** Buckle from the bottom up, as this helps the liner's tongue align correctly. **DRINKING** Hydration packs go underneath your jacket. Winterize yours with a neoprene sleeve. After drinking, blow back into the tube so it doesn't freeze. **POLES** It

Part Three: Core

Start with three workouts per week, at five to ten minutes each (save time by doing them before or after strength sessions). For each workout, do two to three sets of the exercises below at six to eight reps each. After a month, you'll be strong enough to increase the reps to the 10–12 range. Add more sets as you become stronger. By the end of month three, you should be doing three sets of 10–12 reps five times per week. Each session should take 10–20 minutes.

BALL CRUNCH (UPPER ABS): Performing crunches on an exercise ball requires balance, so it's a great workout for skiers. Lie on your back over the ball, with your spine following the ball's curve. Slowly sit up and don't allow the ball to roll under your hips.

CAPTAIN'S CHAIR (LOWER ABS): Grip the handholds on the captain's chair at your gym and stabilize your back against the chair back, legs hanging down. Lift your knees in toward your chest, then return to the starting position. Don't want to go to the gym? Do bicycles. Lie on your back, knees bent, hands clasped behind your neck. Alternately touch each elbow to your opposite knee as you bring the knee in.

CABLE WOODCHOP (OBLIQUES): At the gym, do this key core-building exercise with the cable machine. At home, use a dumbbell or elastic exercise tubing. Stand with your feet shoulder width apart, knees bent. Your right shoulder should be next to the pulley on the cable machine, or the tree or wall where you've attached the tubing. Grab the handle with both hands and rotate to the left and down. When your hands reach your left thigh, reverse the motion. Do all reps on one side, then switch sides.



> pro tip AVOIDING FALLING

"Most people fall because they are afraid to fall. Their minds are wrapped around the fear. **At the top of sketchy runs, I imagine the run so that when I actually do it I can turn my mind off.** Once you start thinking, you react too slowly—and pretty soon you're crashing!"

—JEREMY NOBIS, 38, BIG-MOUNTAIN FREESKIER AND TETON GRAVITY RESEARCH STAR

doesn't matter what they're made of, as long as they're the correct size. Flip one upside down at the store and put your hand on top of the basket: Your arm should be at a 90-degree angle. **TREES** Look between them, not at them. **SKI BLADES** Never. **TURTLENECKS** See ski blades. **VERTICAL** Feet skied in a day, measured by nifty but unnecessary watches. This figure is unrelated to the quality of your trip.

—S.M.

AVOID THE KNIFE

Here's how to prevent the most common ski and snowboard injuries, according to Laura Keller, director of rehabilitation at San Francisco's Stone Clinic. **INJURY:** Torn anterior cruciate ligament from backward falls. **BEAT IT:** Do squats and lunges to strengthen the muscles around your knee. And stay forward: Skiing from the backseat can stress your knee ligaments. **INJURY:** Fractured tibial plateau from increased mechanical forces generated by quicker-turning deep-sidecut skis. **BEAT IT:** When using new skis, start slowly: If you attempt to jam deep-sidecut skis into turns like you would straighter skis, you'll lock them into an arc your body can't follow. **INJURY:** Fractured wrist from falling onto an outstretched arm when your snowboard's edge catches. **BEAT IT:** Get your board tuned with a one-to-two-degree base bevel, which will make your edges less grabby. —S.M.



Stay forward
to prevent
buckling knees

THE CASE FOR NORDIC

Ski mountaineer Chris Davenport cross-trains on skate skis. As does ski photographer Scott Markewitz. Ditto the Austrian World Cup racer Hermann Maier. So what gives? The modern skate-skiing technique—hands forward, low center of gravity—translates well to alpine skiing. "The balance is more challenging, so you get a better feel for the snow," says Nathan Schultz, owner of Colorado's Boulder Nordic Sport. But endurance training is the big advantage. "With a solid nordic base, you can last for a hard day of alpine skiing instead of just three or four hours," says Schultz. —MARC PERUZZI



> pro tip
SNOWBOARD LEGS

“You fall a lot snowboarding. To make sure I bounce back, I do regular squats, single-leg squats, lateral squats—**do any squat or lunge you can think of to get used to being in strange positions.** You can see the immediate benefits. At the Olympics in 2006 I landed really flat, and would have wrecked, but I stood up out of it.”

—GRETCHEN BLEILER, 27, OLYMPIC SNOWBOARDER



The Essentials

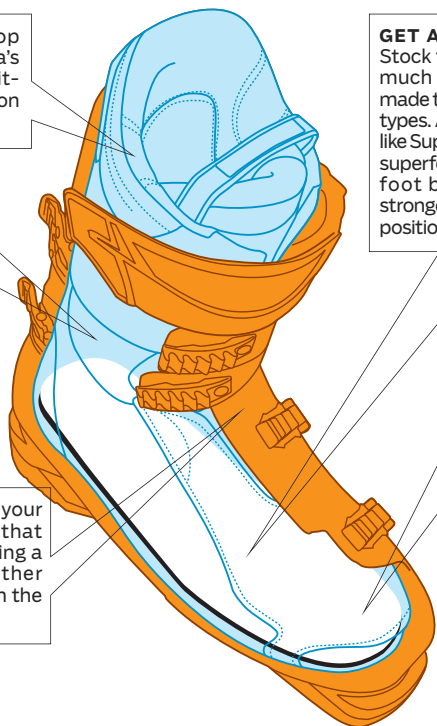
THE SEASON'S BEST PERFORMANCE-ENHANCING GEAR

1. Booster's aftermarket bootstrap helps alleviate shin bang and increases your boot's shock absorption in cruddy snow. \$28; skimetrix.com **2.** CW-X's Stabilix compression tights provide more support than regular long underwear, and this three-quarter-length model won't bunch up around your boots. \$86; cw-x.com **3.** Because they're better at wicking moisture and letting the liners insulate, ultrathin socks like Bridgedale's Micro Fit are warmer than they appear. Plus, they don't get compressed into the soft tissue of your feet, like thick socks do. \$20; bridgedale.com **4.** Of all the goggles we tested for this year's Winter Buyer's Guide, Smith's frameless I/O had the best clarity and peripheral vision. \$160; smithoptics.com **5.** Vökl's Unlimited AC50 skis, one of our favorite all-mountain types, come with Marker's new, integrated Motion iPT Wide Ride binding system, which is 30 percent wider than conventional bindings. This translates to wicked power transfer to the skis' edges. \$1,175; voelkl.com **6.** Simply adding a heat-moldable, semi-custom footbed like Sole's Regular Softec can dramatically improve the fit and comfort of your boot. \$45; yoursole.com

BUY SMART Find a shop that's certified by America's Best Bootfitters (bootfitters.com), an organization of independent fitters.

GET A TIGHT FIT Most new skiers buy over-size boots because they feel good at first. Then the liner packs out. Buy a snug boot. If one area is too tight, a good boot fitter can fix it.

STRETCH THE SHELL If your boot fitter determines that the shell plastic is causing a pressure point, he'll either grind or heat and stretch the shell to modify it.



GET A CUSTOM FOOTBED Stock footbeds don't provide much support, since they're made to fit a wide range of foot types. A custom-built footbed, like Superfeet's Kork Vac (\$120; superfeet.com), will keep your foot bones stacked in the strongest possible anatomical position.

GET SIZED Your boot fitter will have you put your bare foot into a shell with the liner removed. Slide your foot forward until your toes touch the front. If the fitter can put his index and middle finger between your heel and the shell, the size is correct.

Fit Tight

Boots that fit well transfer energy to your skis smoothly—and boots that don't fit well hurt. So every serious skier should get his boots professionally fitted. Here, Bob Remiger, of the Boot Doctors, in Taos Ski Valley, New Mexico, dishes on how to do it right. —S.M.

LAST-MINUTE FIX

Your ski vacation is two weeks away, and all you've been doing is watching football and drinking beer. Don't panic. Instead, do this: (1) After a warm-up run, do as many two-legged jumps for height as you can stand, exploding off the ground and absorbing the landing. “Make yourself sore now, so you won't be as sore after skiing,” says Sam Punderson, the big-mountain program director at Maine's Carrabassett Valley Academy. But let your body heal. Three sessions to exhaustion is about all you can handle in two weeks. (2) Work your core (see previous page). (3) Get mentally prepared: *Rent Hot Dog ... the Movie*. —M.P.

Over the Edge

The Skier's Edge—the goofy-looking contraption you always see on TV—is supposed to build strength and improve skill by taking you through a simulated turn. Three weeks out of ACL surgery, my physical therapist put me on a Skier's Edge. In two minutes I had it mastered—there's no skill involved. I couldn't break a sweat. And the resistance is puny, so don't look for strength gains. Still, it does mimic the skiing motion well. You could use it to loosen up your hips before opening day. Just don't try catching air on one. —M.P.



Off the Wall

>Parkour looks crazy, but then, so does solo climbing. Is it time we start taking this thing seriously? BY NICK HEIL

I'M WATCHING AS HUMAN spring Ryan Ford clammers up to a balcony 20 feet high, leaps over my head, and arcs toward a narrow wall 15 feet away. It's a feat of athleticism that makes Acapulco cliff diving look like doing a cannonball into your backyard pool. If Ford, 21, blows the landing, he'll end up in traction. But he sticks it, feet planted firmly, and peers down at me. "Your turn!" he says, prompting a shriveling sensation below my waist. Then he laughs: "Just kidding."

I've come to Boulder, Colorado, to join Ford's training school, Colorado Parkour, and find out whether this burgeoning fad is a serious fitness tool or an acrobatic expression of youthful angst. Closely related to free running, this French-born activity uses natural and man-made objects—walls, stairwells, cars, whatever—to pull off vaults, climbs, and jumps. Think Cirque du Soleil meets running from the cops. You might know it from YouTube, or the chase scene from *Casino Royale*, in which one of the sport's creators, Sébastien Foucan, hops between tower cranes.

Ford's class is one of many proliferating around the country, designed to recruit people like me. And it's working: Membership on americanparkour.com has doubled over the past year, to 41,000. I didn't have any grand illusions of jumping off a grain silo, but I thought parkour's basic skills would help my skiing and climbing.

"There's really nothing that it won't benefit," says Mark Toorock, a.k.a. M2, one of the original practitioners in the U.S., who now teaches parkour classes in Washington, D.C. "Power, endurance, agility, flexibility—it'll all improve."

I arrived at Ford's training center—a small gym in the back of an old church—along with 15 other students. In front of me was Evan, eight, who was half my size. Behind

me was Camilo, a 34-year-old educational director for World Trade Center Denver. He'd been doing parkour for nine months and had lost 35 pounds. The rest of the group—all guys—were in their teens or early



Ryan Ford and a friend warm up at the University of Colorado

twenties. A few looked like they had just come from punk-band practice.

After the warm-up, Ford and another instructor coached us through vaulting exercises over a four-foot-high box. Before long, I managed to do a "kong," a basic vault in which you run at the hurdle, jump, plant both hands on top, shoot your legs

between your hands, knees first, and continue running on the other side. Parkour's two prime mantras are "Be strong to be useful" and "Repetition is key," so we cranked out lap after lap, leaving me drenched in sweat.

After the drills, the instructors set up an obstacle course that required us to clear a vault, leap up onto a box, do "precision jumps" (see "Target Practice," below), and then scramble over a high wall before dropping into a shoulder roll. While attempting my roll I veered into some gymnastics equipment stacked against the wall, bringing the gear down on top of me with a loud crash (thankfully, the only thing injured was my ego). We concluded with a final workout—a grueling circuit of push-ups, sit-ups, and a few other core-crushing exercises.

Before leaving the next day, I asked Ford to show me some real live parkour. I followed him around the University of Colorado campus while he and a friend leaped into stairwells, flipped over walls, and balanced on handrails like Olympic gymnasts, causing passersby to stop and gawk. I casually mentioned that getting older seems to take me away from the kind of imaginative fun that parkour entails. And then Ford, who is too mature for his age, said something that stuck with me: "We don't stop playing because we get old. We get old because we stop playing."

On the drive home, I kept catching myself eyeing random features in the landscape, wondering if they might be vaultable. I was hooked. The next day, on a trail run, I saw two big boulders spaced at what seemed to be just the right distance apart. But when I tried to do a four-foot jump between them I came up short, tweaked my ankle, and limped back to my car. That's the thing about parkour: The pros make it look easy. It's going to be a while until my YouTube debut. ○

TARGET PRACTICE

Before you disable yourself trying to mimic the parkour pros on YouTube, get a taste of how tough it can be with this basic move, called a precision jump. It's like a plyometric-box workout, only more fun (and more difficult).

- (1) Find a curb or low rock, or place a two-by-four on the ground—anything to act as a target.
- (2) From a flat starting point a few feet away, jump onto said target and land on two feet.
- (3) Absorb the momentum of the jump by dropping into a squat, then stand up while maintaining your balance. Repeat.
- (4) Start with small distances—just a few feet—and work your way up to longer jumps.. —N.H.

Want more? For a customized beginner's video workout by Colorado Parkour's Ryan Ford, visit outsideonline.com/parkour.