

Climb On!

There are hundreds of tricks and techniques that'll improve your ascending. But there's just one secret. Here it is.

By Mark Riedy

Cyclists obsess over climbing techniques and strategies: Can we burn off our friends if we grind away most of the climb like Giro d'Italia winner Gilberto Simoni, or should we try Tyler Hamilton's late-on-the-mountain knockout punches? Do we ascend better forward or back on the saddle? Are we scooping the pedals at the bottom of the stroke for maximum uphill power? n Such technical polish helps, but climbing prowess really comes down to a single simple equation: how much power you produce compared to how much you (combined with your bike) weigh. Lance Armstrong inadvertently demonstrated the primacy of the power-to-weight ratio when cancer stripped 15 pounds from his body, leaving him with the same engine on a much lighter chassis. Today, at 5-foot-11 and roughly 155 pounds, riding a 15-pound Trek, his average output of more than 300 watts on the world's toughest ascents--with spikes over 600 watts--makes him a climbing monster. n Here's everything you need to know to carve weight from your body and your bike, crank up the power and unleash your own beast.

Lose fat: Here's how to drop 10 pounds this month.

The South Beach Diet, by Arthur Agatston, M.D. (\$25, www.rodalestore.com), details an eating program that strips 8-13 pounds from most people in the first two weeks, then burns off about a pound a week until you hit your ideal weight. We like South Beach because, especially after the first two weeks, it lets you eat foods you love, including cheese, most carbohydrates and even some sweets--and because one of our lunchtime ride buddies lost the advertised eight pounds in the first two weeks and about a pound a week afterward.

Vastly simplified, the program, originally developed by the Miami cardiologist for his heart patients, appears to work for two reasons: First, by eliminating things such as highly processed carbs and caffeine, it resets your body's response to food, clearing up a tendency to inefficiently metabolize fats and sugar that's a by-product of the modern American diet; and second, after the first two weeks it's not a rigid starvation diet or all-protein regimen that eliminates fruits and veggies. You eat normal portions of normal food three times a day, with healthy snacks. The book includes 183 pages of recipes and sample meals, plus tips for eating at restaurants. Here are the basics.

Weeks 1 and 2

The break-in is strict. And cycling performance might temporarily suffer unless you immediately follow rides with lunch or dinner.

You Eat: Three normal-size meals every day--no post-ride pig-outs--and a midmorning and midafternoon snack. Sample breakfasts: tomato juice, egg-white omelet, bacon, decaffeinated coffee. Sample lunches: chicken Caesar salad or poached salmon. Sample dinners: Fish kabobs, balsamic chicken, oven-roasted vegetables. Sample snacks: hummus, raw vegetables.

You Skip: Pizza, pasta, energy bars, beer, wine, oatmeal, toast, potatoes, all fruits (including juices), corn, carrots, rice, all sweets.

Weeks 3 and 4

You can expand your food choices and stick to three daily meals plus snacks while losing a pound a week until you reach a weight you'd like to maintain; after that, as the book says, "If you want it and it doesn't undo all your sacrifices, you should go ahead and enjoy it."

You Eat: Dairy products, whole grains and some fruits such as apples and peaches. Sample

breakfasts: blueberries, strawberries, oatmeal, toast, coffee with non-fat milk. Sample lunches: tomato stuffed with tuna, apple-walnut chicken salad, roast beef, chef's salad. Sample dinners: herb-marinated chicken, spinach-stuffed salmon fillet, meat loaf, mushrooms sautéed in olive oil, tossed salad, red wine, fat-free pudding and chocolate. Sample snacks: apples, non-fat yogurt, skim-milk mozzarella cheese sticks.

You Skip: Carbohydrates from white flour and other high-glycemic foods, bagels, potatoes, non-whole-grain bread, jam, bananas, fruit juice, non-whole-grain pasta, white rice, watermelon, ice cream, rice cakes made with white rice, raisins, cookies.

Gain power A simple plan to become King of the Hill

If ordinary people transmuted into great climbers merely by losing body mass, we would've watched Jared from Subway battle Richard Simmons in the Alps this summer. You chew up hills when you're superslim and superpowerful.

"You don't build strength by just going up a hill as hard as you can until you blow up," says Steve Madden—not the editor-in-chief of this mag, but an elite-level USA Cycling coach and founder of Performance Sports (530/271-0345; cyclingfitness.com), a cycling-specific coaching and training service based in California. "You become stronger by being patient and following a long-term program." Here's Madden's six-week plan. Before you start, you should have a base of at least 4 to 6 weeks of easy, endurance riding 2 to 4 times per week.

Phase 1: Strengthen your legs

You'll spend three to four weeks building raw strength. Follow it with a week of easy spinning for recuperation.

Strength-Endurance Intervals

These long, high-resistance intervals boost the strength of your muscles and the energy-supply systems that fuel them.

What It Looks Like: You're stuck in too big a gear and struggling to turn it over. "It's like a leg press on the bike," says Madden. **Ideal Location:** 1- to 5-mile climb with a grade from 5 to 7 percent. "Steeper than that and you have to work too hard just to get up the climb. If there aren't any hills that long where you are, find a stiff headwind," says Madden. **Duration:** 10 to 15 minutes for each interval, with a 15-minute recovery period between intervals. **Cadence:** 65 to 75 rpm. **Heart Rate:** About 10 percent below your anaerobic threshold, or the toughest effort at which you can speak without gasping hard for air. **Do:** 2 per ride, 2 to 3 times per week.

Tempo Intervals

These steady intervals build aerobic power. "Tempo work is extremely valuable for people who don't race, because it builds endurance and long-term power," says Madden. "It makes their legs strong." **What It Looks Like:** You're cruising in the middle of a fast-moving peloton. **Ideal Location:** Deserted road, flat or hilly, with no stop signs or obstructions for 10 miles. **Duration:** 15 to 20 minutes, extending by 15 minutes as you gain power until you're doing 1 hour. "When you can do this for an hour, you've reached a fitness benchmark," says Madden. "You know your aerobic capacity, muscles and endurance energy systems are trained, and you're ready to move up to the next level." **Cadence:** 75 to 80 rpm. **Heart Rate:** About 10 percent below anaerobic threshold. **Do:** 1 per ride, 2 to 3 times per week.

Phase 2: Top off your climbing potential

These two workouts put the final touches on your raw ascending ability by pushing the upper

reaches of your heart rate for brief periods of time. Do this for three to four weeks, and you'll eat mountains.

1-Mile Threshold Hill Repeats

These boost top-end climbing power--while helping you discover the limits of your body. **What It Looks Like:** A controlled implosion. **Ideal Location:** A 1-mile grade between 5 and 8 percent. **Duration:** 4 to 10 minutes. Recover 8 to 10 minutes, then repeat. **Cadence:** 70 to 90 rpm, in a gear you'd use for a fast day of riding. **Heart Rate:** The highest you can sustain for the entire climb. "If the intensity or time drops as you climb, either you're going too hard, you're not ready for this workout, or you're not having a good day," says Madden. **Do:** 4 to 6 per ride, twice per week.

Climbing Accelerations

This workout helps build all-out explosiveness. **What It Looks Like:** Lance attacking on Alpe d'Huez. **Ideal Location:** 3- to 5-mile climb with no interruptions; if that's not available, do these on a trainer with the front wheel elevated 3 to 4 inches to simulate climbing. **Duration:** Warm up, then climb at your tempo pace for 5 minutes, finishing with a strong, 45- to 90-second acceleration. Recover for 1 to 2 minutes, then repeat. **Cadence:** 70 to 90 rpm in a gear you'd use for a fast day of riding. **Heart Rate:** At or just above your climbing threshold rate (usually about 3 to 5 bpm above your threshold on flat roads). **Do:** 4 to 6 per ride, twice a week.

Put your bike on a diet. Just don't call it fat

Once your body's at fighting trim, top off your climbing potential by shaving grams--or even pounds--from your machine. Here are 28 ways to lighten up, ranging from jobs that just get your hands a little dirty to purchases that'll melt your credit card. The Value Meter that accompanies each item ranges from 1 (poor) to 4 (great) and is based on our calculation of the cost versus the benefit. It factors in overall gain rather than just dollars-per-gram, which allows us to account for variables such as the fact that trimming weight that rotates (as on wheels) helps you more than shaving static weight. For your reference, 28 grams equals 1 ounce, and 448 grams equals about 1 pound.

Frame

For Free: Remove barrel adjusters from the derailleur cables to save 25 grams per pair. Got disc brakes? Pull the canti posts from the frame to save 50 grams per pair. (4)

For \$125 or less: At 22 grams, Salsa's \$19 Lip-Lock seat collar saves 28-50 grams over typical clamps. (4)

For \$275 or less: The \$275, 210-gram Cane Creek AD-12 rear shock saves nearly 100 grams compared to even light shocks such as the Fox Float AVA. (1)

Like a drunken sailor: At less than 900 grams in medium size, Litespeed's Ghisallo road frame (\$6,345 with Dura-Ace and Ksyrium wheels) is tough to beat. (1)

Fork:

For Free: If your position's dialed but you still run excess steerer tube (spacers above the headset), trim it. An inch of aluminum or carbon tube weighs 7-12 grams. (4)

For \$125 or less: Most stock headsets are inexpensive and heavy. Tiso's \$105, 82-gram Joe headset saves 50-100 grams. (3)

For \$275 or less: Profile's \$240 BSC Carbon fork with carbon steerer tube is 30-60 grams lighter than aluminum- or steel-steerer forks. (2)

Like a drunken sailor: RockShox's \$500, 1,305-gram SID Race suspension fork and AlphaQ's \$399, 315-gram (11?-in.) Sub-3 road fork are two of our favorites. (2)

Drivetrain

For Free:Go core, baby! Removing derailleurs, shifters, cassette and chainrings cuts about 900 grams and makes you one of those purist single-speeders. (4)

For \$125 or less:A \$100, 12-23 Dura-Ace cassette is 63 grams lighter than Ultegra and 88 grams lighter than 105. (3)

For \$275 or less: Inferno's \$175 12-32 cassette is 100 grams lighter than XTR, and a 12-23 is 50 grams lighter than Dura-Ace. How long will it last? Who knows. (2)

Like a drunken sailor: Get wide gears with FSA's \$330, 520-gram Carbon Pro Compact road crank and save up to 200+ grams compared to some stock triples. (1)

Wheels

For Free:Dump the plastic spoke protector, save 40-50 grams. (4)

For \$125 or less:Superlight tubes such as Panaracer's \$16, 75-gram Green Lite can shed 60-120 grams per pair compared to stock. The best money you can spend. (4)

For \$275 or less: Add Tioga's \$35-\$45 Red Phoenix (440 grams, 26x1.8), or Continental's \$50 Grand Prix Supersonic (160 grams, 700x23) tires. (3)

Like a drunken sailor: ADA's custom carbon road wheels start at \$3,000-and less than 1,000 grams per pair, which is lighter than just the rear of many stock wheelsets. (1)

Stem/Bar

For Free:Bar-ends are over; aero bars are for TTs or triathlons only. Dump 'em and shave 100-600 grams. (4)

For \$125 or less: Swap your road or mountain stem for Ritchey's \$90, 125-gram WCS, the most affordable and elegant ultralight stem. (3)

For \$275 or less: Get the Ritchey stem plus 201-gram, \$75 TTT Prima 199 road bar or \$99, 102-gram Easton EC90 SL XC composite bar and \$11, 18-gram Titec Pork Rinds grips. (2)

Like a drunken sailor: Deda's 200-gram Spectrum carbon road bar bites you for \$465; it'd be a shame not to spec it up with a \$290, 120-gram MAG 00 magnesium stem. (1)

Seatpost/Saddle

For Free:Remove your seatpack and carry the pump, tube and tools in your jersey pockets. You save 50-100 grams. (4)

For \$125 or less: There are lighter seats, but none cost less than the svelte, \$125, 135-gram Selle Italia SLR.(3)

For \$275 or less: The SLR plus a \$130 USE Alien Carbon seatpost (131 grams for 27.2 x 270mm) can be more than 200 grams lighter than a stock setup. (3)

Like a drunken sailor: Jan Ullrich rides a custom AX Lightness Apollo post/saddle combo. Get one for \$600; it can weigh as little as 115 grams. (1)

Accessories

For Free: Riding with friends? Make sure one of them that you can keep up with has a mini-tool, then leave yours behind and save about 100 grams. Chintzy-but effective.(4)

For \$125 or less: Tune's \$45 composite Skyline bottle cage weighs an astonishing 4 grams--40-70 grams lighter than most aluminum cages. Not surprisingly, it's for road bikes only. (1)

For \$275 or less: Since you're being a gram geek, you gotta consider that a feathery road shoe such as DMT's \$269 Ultimax Carbon can be about 150 grams lighter than many other kicks. (3)

Like a drunken sailor: Crank Brothers \$400 Triple Ti pedals weigh just 186 grams and work well for road and mountain. (1)