

ROCKY MOUNTAIN CHALLENGE
PIKE'S PEAK CLIMB TRAINING GUIDELINES
CLIMB DATE ~ JUNE 27, 2009

TRAINING

Assess your condition. The first step is to assess your current fitness state by doing a comprehensive assessment, preferably three months before your climb. The idea is to normalize the following conditions. Climbers must at least be able to walk for 6 hours comfortably.

Areas to look at:

- Blood pressure
- Aerobic fitness
- Body weight/body fat % (the more fat you have, the more "gear" you will carry)

TRAINING PROGRAM

Here's a basic program that I've found works well.

You may want to tailor it, increase it or reduce it to suit your style.

Monday -Wednesday -Friday (Aerobic) – 3 days per week or more often

Do an aerobic activity like brisk walking/jogging/cycling and stair climbing for 30-40 minutes. Try and aim for working out at 70% of your maximum heart rate.

Every weekend do one 2-hour hike (up and down hills if possible; treadmills are great option).

Strength Training - Optional

Leg strength:

- Incline leg press
- Leg Extension
- Walking lunges
- Rear lunges
- Standing calf raises

Leg Extension

Seated on a table or chair, lean back slightly with hands grasping the sides. It is best if each leg is done individually. Extend your foot forward and upward, pausing momentarily in the extended position, and then recover to the starting position. Resistance is applied on the front side of the ankle. Keep your butt on the table or bench at all times and do not lean forward. If this bothers your knees, reduce the weight, and do not extend your leg out as far.

Leg Press (inner thighs)

Sit on Leg Press machine and position your feet with your heels about 4-6 inches apart, toes facing out. Take a deep breath and then lower the platform slowly, keeping your knees in line with your feet. When you've covered the platform as far as comfortable, push out in a controlled manner to return to the starting position, exhaling as you do so. As you return to the start, do not lock out your knees. This technique will provide continuous tension on the thigh muscles to make them work harder. If this exercise bothers your knees, try reducing the range of motion so you do not come down too far.

Lunge Walk (thighs, hamstrings and buttocks)

These should be done to fatigue, without additional resistance. You'll need a large space, such as the perimeter of a gym or aerobics room. Using long, controlled steps, lunge forward in a walking motion. Keep your torso erect and drop your hips as low as comfortable. It's good to perform near a wall to assist with your balance.

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Reverse Lunge (thighs, buttocks and extra emphasis on hamstrings) -This is one of the most neglected of the lunge series, but because of its additional emphasis on the hamstring, it is one of the most important. It is the same as the Lunge Walk, but backwards. Begin with your feet nearly shoulder-width apart, torso erect. Take a slow, controlled step backward with one leg, lowering your hips so that your forward thigh becomes parallel to the floor. Your knee should be positioned directly over your ankle and foot. Your front foot should point straight ahead and your trailing knee should be extended to stretch your hip flexor muscles. The exertion phase of the exercise occurs when you push off your rear foot and step back to return to the starting position.

Standing Calf Raise (calves)

Position yourself on a standing calf machine by placing your feet so that your heels can extend below the toes; this will enable you to get a full stretch on the muscles. With your leg straight, lower your heels as far as comfortable and then raise your heels as high as possible to achieve maximum contraction. Pause momentarily in this position. Toe position can be varied to change the emphasis. Because this exercise has the potential to make your calves especially sore, for your first several workouts you should use light weights. As you become more accustomed to the movement, you may want to perform extra repetitions until you feel the "bum".

Flexibility

Stretches to do on a daily basis:

- Hamstrings
- Quads
- Calves

Equipment familiarity: Weekend hikes should be done with equipment to get used to it (boots, day-pack and walking stick).

Mental approach: Very important, build up knowledge about the mountain by reading available literature. Be fully prepared.

ALTITUDE TIPS

Above 10,000 ft. there is a noticeable decrease in air pressure. Consequently you'll notice a shortness of breath. It feels like you're breathing through a towel. Even after performing the easiest of tasks, like packing your daypack, you'll find yourself breathing very heavily -like after a long sprint.

Acetazolamide (Diamox) This is a medication that forces the kidneys to excrete bicarbonate, the base form of carbon dioxide; this re-acidifies the blood, balancing the effects of the hyperventilation that occurs at altitude in an attempt to get oxygen. This re-acidification acts as a respiratory stimulant, particularly at night, reducing or eliminating the periodic breathing pattern common at altitude. Its net effect is to accelerate acclimatization. Diamox isn't a magic bullet and will not cure AMS, it will only help speed up acclimatization.

DR. PETER HACKETT, one of the world's foremost experts on altitude sickness, recommends that climbers start Diamox two days before they start their climb. He recommends 125 mg twice a day. This is a prescription drug. Diamox is a sulfonamide medication and persons allergic to sulfa medicines should not take it.

Side Effects of Diamox Continuous diarrhea and stomach cramps often occur when using Diamox. If this happens, it is advisable to discontinue taking the drug. Minor side effects include numbness, tingling, or vibrating sensations in hands, feet, and lips. Also, taste alterations and ringing in the ears. These go away when the medicine is stopped.

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Since Diamox works by forcing a bicarbonate diuresis, you will urinate more on this medication, which means you should increase your water intake. Uncommon side effects include nausea and headache.

Consult your doctor before taking anything new.

Ginkgo Biloba - You can try the herb GINKGO BILOBA for altitude adjustment. The recommended dosage is 100 mg twice a day, starting a few days before your climb. The research results are not conclusive, but some people use it very successfully. The experts don't know why it helps. The herb also increases peripheral blood flow, so your hands and feet may stay warmer. It is not harmful to take both Ginkgo and Diamox.

Breathing: Inhale deeply as your foot comes off the ground, then use the force of stepping uphill to facilitate a complete exhalation, squeezing the carbon dioxide out and setting you up for the next breath.

Insomnia: One of the side effects of high altitude is insomnia. Most sleeping medications are respiratory depressants, and can be dangerous at altitude. Ambien (Zolpidem) is the only sleeping agent that does not depress ventilation at high altitude, and may be a safe treatment for insomnia in persons with Acute Mountain Sickness.

Rest-Stepping To rest-step, drop your heel and completely straighten your leg with each step. This puts the weight on your skeleton and allows your muscles to relax momentarily. This technique works really well at higher altitudes, when you're extremely tired.

THINGS TO AVOID Respiratory depression (the slowing down of breathing) can be caused by various medications and may be a problem at altitude. The following medications can do this and should never be used by someone who has symptoms of altitude illness:

Alcohol
Sleeping pills (other than Ambien)
Narcotic pain medications

Do NOT climb higher than 9000ft if you have:

- a respiratory infection
- a sore throat
- a cold
- a cough
- a high temperature
- a nose bleed.

The Science of Staying Warm with the LAYERING SYSTEM

The rules about "layering" (what you wear and how you wear it) have changed. "Intelligent" materials are here, and they rely on physics, chemistry, and even biology to be more effective -and work better when layered above or below another material. The goal of these "smart" clothes is to simplify and reduce, by making clothing more efficient. Stay away from cotton or cotton blends. Cotton dries very slowly and will not hold as much heat for your body once it is sweaty. Stick to wool or synthetic fabrics *ONLY!* Examples are "fleece," "polypropylene," "Lycra," "Nylon."

Now, one piece can do the work of two, or work over a broader temperature range. No longer do you need to pile on thick layers of fabric as the weather gets colder; if it gets cold, today's techno fabrics will hold more heat, and when you heat up, they will cool you off.

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Layers

Different outdoor gear manufactures make many different types of synthetic fabrics that all work quite well. The layers named below vary from brand to brand. The important thing is to know that your layers will allow you to regulate your body's temperature appropriately. Everyone is different in this regard. You need to be sure that you are comfortable with the combinations of the layers below heating you up and cooling you down as necessary. We recommend that you test your own personal layering system in real temperature situations.

www.sierratradingpost.com -great prices on closeout gear

www.oagear.com -great spot for women's gear

www.llbean.com -great gear, great prices

www.rei.com -great gear, great prices, become a member and earn cash back

Each brand and piece of gear is different, and each of us has a different body type. Some people sweat buckets, others don't. Some people get cold easily, others are like coal furnaces. You know your body better than anyone, so you need to test how your gear works on your body.

RECOMMENDED CLOTHING & GEAR LIST

Sunglasses that wrap around, or have side shields. Glacier glasses are a good option. It is essential to have good eye protection especially at high altitude.

Upper Body: Two or three layers for the upper body. These must be made of wool or synthetic materials. Layers must fit over each other and provide good insulation.

Undergarments: Synthetic – NO COTTON!

T-shirts: polypropylene is best; no cotton. (Techwick, UnderArmour, etc); Shortsleeve "silk weight" and a long sleeve "medium weight" and/or fleece.

Upper body fourth layer: "expedition" weight. NO COTTON!

Down or synthetic fill jacket for cold

Outer shell: a good parka made of Gortex or waterproof nylon that has been seam

Thin gloves or mittens: wool or synthetic "light" weight.

Underwear: Synthetic materials. NO COTTON!

Hiking shorts/pants: one pair of quick drying shorts

Hiking pants with zip off legs are nice, but not required.

Thin socks: "silk" to "light" weight socks (polypropylene or other "wicking" fabric) to wear under heavy wool socks; multiple layers help prevent blisters and keep feet dry.

Hiking boots: one pair hiking boots large enough to be comfortable with one thin and one heavy sock. "Light" to "Mid" weight hikers that are water proof and offer good ankle support. BE SURE YOUR BOOTS ARE "BROKEN IN." Wear your boots on a number of good full day hikes to see how your feet act. Bring moleskin and put it on early if you feel a "hotspot."

Sunscreen: bring plenty of sun block with SPF of 15 or more

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Lip balm: must have an SPF rating of 15 or more.

Personal first aid and personal medicines: should include moleskin for blisters; pepto for stomach upset; Q-tips; anti-bacterial hand soap (Purell). Medical kit should include Tylenol or Ibuprofen.

MP3

Umbrella (optional): protection from rain and sun

Snacks: bring a supply of your favorite snacks to eat on the climb. Powerbars, granola, hard candies

Water containers: You will need to carry about 2-3 liters (we can refill at the midway point). So bring enough water carrying capacity. 2 one-liter (one-quart), wide-mouthed "Nalgene" type bottles *AND* one 2-3 liter "camelback" should suffice.

Energy drinks/snacks -like Gatorade (powdered), "Emergen-C", "powerbars," "powergels," etc. It is very important to replenish your body's electrolytes as well as calories.

Remember HYDRATE HYDRATE HYDRATE!!!! Water consumption is one of the best ways to stave off altitude sickness. You should be urinating every few hours, if not DRINK MORE

Gear Medium daypack: with padded shoulder straps and waist belt; used for carrying personal gear such as water bottle, extra clothing, snacks, camera, etc.

Individual Pack cover: to completely cover your daypack and keep it dry. Even the packs v /that are "waterproof" can leak while in an equatorial rain shower.

ZIPLOC Bags. Bring along 5-15 extras as they come in handy on the trail for litter, keeping things dry, etc. It's a good idea to ziplock anything in your pack that absolutely cannot get wet. Even with a waterproof bag, a pack cover and diligence about things when it rains, stuff still manages to get wet.

TRAVEL LIGHT!!!!
(You won't be sorry!)