

CIWC Western States Workshop  
Trip Planning Basics

General Considerations:

1. Know the risks that pertain to your trip. We are blindsided by unknown unknowns. We can be prepared for known unknowns. The goal of this workshop is to convert unknown unknowns into known unknowns, so you can take them in stride as they develop.
2. Be smart. The West is an alien environment for most midwesterners, and risks that need to be considered may seem overwhelming. However, not every risk prevails in every western environment. Narrow the scope for your trip & use common sense. Western trips can be opportunities of a lifetime!
3. Be flexible. Any number of things can conspire to make the planned trip impossible. As long as the group has a good time, it doesn't matter if the trip was completed as planned or not. Safety is paramount!
4. Altitude sickness is virtually unavoidable. Given the duration of CIWC trips, it's impossible to acclimatize to higher altitude. (The body doesn't even start to make more red blood cells for one week.) It's critical to monitor symptoms, and to avoid other conditions, such as dehydration, hypothermia & low blood sugar, that can compound & turn a trip into a miserable experience, if not a life threatening one.
5. Mileage objectives. Because of terrain & altitude sickness, daily mileage goals that would be realistic in the midwest become unrealistic on western trips. This is especially true for slow acclimatizers. Having modest objectives allows participants to enjoy the experience, rather than experiencing it as a death march.
6. Weather is totally unpredictable. Weather at the beginning of a day is no indication of what will transpire later on. Within one day, a hiker can pass through numerous life zones & microclimates. Each mountain can make it's own weather. Even on a day hike, temperature can vary by 50 degrees or more, & one should be prepared to layer up & layer down throughout the day. Low humidity means cold nights.
7. Water is a critical resource. Much of the legal system in the west revolves around water rights & for good reason. Most of the west is high desert. Be opportunistic. Take advantage of opportunities to keep water supplies topped off. A map may show a water source, but it may be erratic or only seasonal & dry when you get to it. Water may be contaminated by wild animals or livestock. A stream that is accessible in one place may be 50 feet below you further up the trail.
8. Wild animals. Most wild animals want to avoid you at least as much as you want to avoid them. Use common sense, and be aware of when dangerous situations can arise. Traveling in groups of two or more (preferably more) affords protection against most types of dangerous encounters.
9. Search & rescue. During peak season, it can take days to organize a search & rescue operation, given that other SAR operations may be ongoing. Bad weather can delay

rescue operations for days. Many areas can't be reached by helicopter because of altitude or terrain. Be prepared for this possibility. Solo hikers can & do fall off of trails, with their remains not found for months or years. In many cases, they could have been rescued. Hike in groups and/or follow a buddy system. Don't rely on search & rescue to evacuate hikers to lower elevation. Be prepared to do this yourself.

### Specifics:

1. Acclimatization requires 3.5 days per 1,000 feet. For example, 17.5 days at 5,000 feet, 28 days at 8,000 feet, 35 days at 10,000 feet. Trips don't typically last that long.
2. There is 40% less oxygen in the air on Pike's Peak than at sea level.
3. Going up 1,000 feet in elevation is like traveling 300 miles north. Life zones shift accordingly.
4. Going up 1,000 feet in elevation (or traveling 300 miles north) reduces temperature by 3 degrees F. This works in combination. For example, an area that is 600 miles north & 3,000 feet higher in elevation is expected to be 15 degrees cooler, everything else being equal.
5. Altitude depresses appetite, but you need more calories. Eat lots of sugar & complex carbs. Avoid protein. Take anti-nausea meds, as needed, to avoid low blood sugar & dehydration.
6. Know how you will accommodate slow acclimatizers. (Assume there will be some on the trip.) Will you scale back trip objectives? Can you set up a base camp with optional day hikes for fast acclimatizers, while allowing slow acclimatizers to rest?
7. Make sure the group has meds for mild AMS, such as ibuprofen, anti-vomiting medication, sugary drinks, etc.
8. Each day of the trip, know how you will get people to lower elevation as needed. You will need to be able to do this in the event of severe AMS, HACE or HAPE. Onset can be sudden & can affect someone who previously seemed to be doing well. You will need to be able to get him or her to lower elevation regardless of darkness or weather conditions, and you can't wait for help to arrive.
9. Sunburn happens more quickly & easily at high elevation. Windburn is a strong possibility in the alpine zone. Plan accordingly.
10. The western side of a mountain range generally will be wetter than the eastern side, which is typically in the rain shadow.
11. Plan each day's hike so as not to be above timberline after 1 pm (preferably noon), due to lightning risk. This may mean getting started at 4 am or earlier on any given day. Keep in mind that storms can also involve white out conditions & ice, which can suddenly create deadly technical climbing conditions. (Club trips should not involve technical climbing conditions without a guide.)
12. Low humidity means cold nights, due to low dew point.

13. Don't jump. Keep at least one foot on the ground at all times. When possible, use trekking poles to maintain three points of contact. Be careful in boulder fields. Boulders can shift unpredictably. Avoid getting limbs wedged between boulders. Learn the proper techniques for navigating scree slopes. Watch your footing on narrow trails that are along steep drop-offs. Stop walking when you want to adjust your pack, drink water, take pictures, etc.
14. River crossings tend to be easier early in the day, due to snow melt as the day progresses. A river or creek that was an easy crossing early in the day may be impassable later in the day, or after a storm.
15. Nights tend to be colder near rivers & streams, as cold air sinks down from mountains. It's usually better to camp higher up, even if it means walking further for water.
16. Estimating hiking time. See <http://www.douglastwitchell.com/hikingcalculator.php> Calculation should be based on the least fit member of the group. For example, for 8 miles round trip & 2,000 feet cumulative elevation gain, estimated time for a slightly overweight hiker is between 7:40 & 9:20 hours. Warning: "The hike may be long enough or steep enough to cause problems for overweight hikers." Where such warning appears, consider reducing distance and/or elevation gain until it doesn't. The trip leader may want to disqualify individuals who are below a certain fitness level, so the group can travel further & faster each day. (You will not be able to tell in advance who will be fast & slow acclimatizers.)
17. Keep the communication channels open regarding symptoms of altitude sickness. Don't push hikers. Don't make slow acclimatizers feel bad because they are slowing down the rest of the group. It's not their fault. They may compensate by pushing through & withholding information, creating a deadly situation.
18. As a group member, don't criticize the trip leader for a trip plan that seems too aggressive, considering your ability to acclimatize. As long as the trip leader is open to making adjustments in the trip plan as needed, you'll be fine.
19. Mountains & canyon walls to the east & west cause the sun to rise later & set earlier. This can reduce available daylight by two hours or more. To avoid hiking in precarious terrain during darkness, plan on setting up camp early.
20. Snow can be contaminated with bacteria, among other things. (You will see pink, gray & other colors in the snow at high elevations.) Even water from snowmelt should be treated.
21. Water boils at lower temperature as elevation increases. This increases cooking time for meals. Although water boils at lower temperature at high elevation, boiling water is still considered effective as a disinfectant, even at Everest Basecamp.
22. More people die going down a mountain than going up. (This doesn't count people who fall off a mountain while going up.) Don't use up all of your energy & resources going up. Don't be fixated on the summit ("summit fever"). If the stars aren't aligned in terms of weather or in any other way, descend & live to summit another day!

23. The pinebark beetle infestation is killing trees in the Rockies, almost entire forests in places. Such forests are especially hazardous in high winds, which can come at any time. So these forests are not a safe refuge during a storm or a good place to camp. Be alert when hiking within a swath of dead trees. Cold winters kill pinebark beetles, and infestations are less common as you go north.
24. If the snowpack is especially heavy during the winter, some hiking routes may require technical climbing skills even in the summer. Some passes may not be open until early July or even later. Ask about local conditions, and change plans as needed.
25. Don't slide down snowfields. Hikers have been killed that way, slamming into rocks or going over cliffs.
26. Terrain may have changed due to avalanches, forest fires, flash floods & other disasters, since a map was made. As a result, trails may have been rerouted & may not be clearly marked. Review your proposed route with a ranger.
27. Trails in the west are often not well marked. In fact, there may be no trail – only rock cairns (a pile of rocks every so often) to mark the route. Mountains are unreliable as landmarks because one can easily be mistaken for another. In some areas, you're almost guaranteed to get lost from time to time, such as sections of the CDT. Confused thinking from altitude sickness, dehydration, hypothermia and/or low blood sugar can compound the difficulty. Route finding with a buddy or as a group is good insurance.
28. Look backward along the trail from time to time, especially if you will be going back along the same route. Mountain trails look completely different going back the other way. (This isn't a bad idea even if you won't be going back along the same route. You may find that you're lost, and you will want to be able to find your way back to the last known location.)