Thin air and thinner up high

To paraphrase a common expression, "Everybody complains about the thin air, but nobody does anything about it"

In reality, many people actually do something about it. Either they purposefully avoid it or else they deci-



Outdoors *By John Unger*

sively seek it out. A third option is to purposefully acclimatize to it.

Hunting seasons for deer and elk routinely attract some people to the high altitudes who

do not otherwise spend much time up there. Difficulties can occur for those who have not properly gotten accustomed to being active in the thinner air, a process called acclimatization.

You yourself might be having family or friends (from lower elevations) arriving in Montrose in November by plane who plan on carrying a rifle and a pack up high the next day after landing here or plan on skiing in Telluride their first full day here.

Their airplane cabin will have been pressurized to about the altitude of Montrose or Ouray, which can be a bit of a physiological stress on some people already. To drive up to the mountains the very next day can raise the risk that you may have to abandon your outing and instead descend with them back to Montrose, due to their headache, dizziness or nausea.

Visitors from out-of-state often become ill on a trip to the Rockies because they ascend too high too quickly. Whether hunters, downhill skiers, or mountain runners, the ambition to make the most of a limited duration visit can shortchange good judgment and lead to the symptoms mentioned above, with or without the added features of vomiting, sleep disturbances and fatigue.

These are symptoms of the well-defined health disorder known by it's initials: AMS, which stands for Acute Mountain Sickness.

This illness can develop at altitudes as low as 6,500 feet elevation, which is not much higher than the elevation of Montrose itself.

Is it just a danger for travelers from out-of-state, and for those who are not in good physical condition before



A runner in late October ascends in the thin air near timberline in the Mill Creek Basin. (Submitted photo)

they get to the mountains? The answer is "no" to both of these questions. During the Pikes Peak Marathon, a round-trip footrace that ascends and then descends that famous fourteener, I have seen what appeared to be extremely fit runners being evacuated by horseback from the hiking trails on the course. I recall that each of them looked far more miserable than the rest of us who were still on our way up to the top of the peak.

The Merck Manual, a standard of current medical knowledge, states that the risk of AMS is increased by exertion and also by ascending too high too quickly. It further points out that physical fitness, by itself, is not protective. Instead, acclimatization to high altitudes is still needed, even by aerobically fit individuals.

This acclimatization process mainly takes time and patience. For instance, consider a multi-day trip to ski the high peaks, whether at a lift-served area or at a high hut trip near timberline. An

unacclimatized skier can benefit by limiting his or her rate of ascent to 1500 vertical feet gained in elevation the first day and limiting additional exertion that day. This allows the body to adapt by several methods. One adaptation the body makes is done by increasing the amount of blood that the heart can pump with each beat. A second is that the body makes more red blood cells, which are like a train's tanker cars for carrying oxygen to supply our tissues. A third method the body employs is to increase our tolerance for aerobic (oxygen-using) activity.

The second day, another maximum of 1500 feet elevation gain can be performed, and while asleep that night, the body will continue the above acclimatization. Coming from sea level, most people can acclimatize to 10,000 feet elevation in a few days.

Those of us who have lived at the nearly 6,000 feet elevation of Montrose for some time can often do well without these steps of acclimatization. Our

friends or family arriving here to visit from much lower elevations need our consideration in order to avoid AMS or

The most important concept to take away from this article is to be alert for breathlessness while at rest at higher altitudes. If you or a member of your party experiences such, it is necessary to descend in elevation. If ego or time pressure lead to such a person ascending further, not only AMS can come on, but other very real and very life-threatening conditions can quickly develop and lead to tragedy.

Acclimatize on your way up to high altitudes. Descend if breathless at rest at elevation.

John T. Unger is a Diplomate of the American Chiropractic Board of Sports Physicians, with more than 25 years of practice in Montrose. He relishes living within a 40-minute drive of the really thin air. Ideas for future columns are welcomed at sportsdocunger.com.

The cell phone as a vital survival tool

There was a time in my life that I absolutely hated the cell phone. Because of my line of work, I often had to carry two phones and a pager. These communication nightmares would go off constantly, affording me no quiet time and very little sleep.

When I would get a day off to spend in the woods, I would leave the noisemakers at home. If someone needed to contact me they were just out of luck. Problem was if I needed help, I was unable to contact anyone.

I have seen articles where some survivalist can make 25 different survival tools from a cell phone. While this is all well and good, if you have your pack with you, none of that is necessary. What we shall explore is using it as a communication device while afield.

As we have discussed here several times, let someone know about your plans. Tell them where you are going, where camp will be, clothes you are wearing and when you are to return.

This gives emergency folks a place to start. When we have a



There are a number of ways to stay in touch while outdoors. The cell phone can be a real life saver when used properly and may have some features you did not know about. (Photo courtesy of Mark Rackay)

camp location, vehicle or any other starting point, it saves many precious hours in locating a lost or injured party.

Many of us leave the cell phone in the vehicle or even at home because they assume there is no service in the mountains.

While it is true that coverage is sketchy at best in many areas, the cell companies are improving and expanding coverage every day.

Cell phones have become the most important tool in finding lost and injured folks. Seems that everybody, including young children, has them. Bringing it along as part of your kit only makes sense.

Start the trip with a fullycharged phone. You can top off the charge in the vehicle on your way to the starting point of your adventure.

Then, keep the phone off.
Having a phone on and searching for service will drain the battery prematurely. Try to store the phone close to your body and under layers of clothes during cold weather. Keeping the battery warm also helps to conserve the power for when you need it. Think how your car battery behaves

in the cold.

Before your trip, activate your phone's automatic location setting. This allows emergency services (911) to get a ping and calculate your location utilizing latitude and longitude (GPS.) This feature was used on a pair of lost hikers a couple years ago. It allowed the posse members to practically walk directly to the pair. They were found in a couple hours rather than several days because of this feature.

Turn your phone on at

least once a day for about five minutes. When powered up, phones check in with the nearest tower. Even though there might not be enough signal to make a call, it can be enough to leave an electronic trail that can be used later in an emergency.

Cell phones, like radios, work off of a line of sight. This means that land features such as mountains, heavy tree cover and rock formations can actually block the signal.

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If you are going to make an emergency call, try and find the highest and most open location to provide the best signal. Hold the phone in the air at arm's length and rotate around until you find reception. Once you find the "spot" you can return there when you need to use the phone.

I was on an elk hunting trip some years ago where the only service I could find was in a spot about 50 feet from camp, next to a fence line. I would power up the phone and check in twice daily from that location.

If you do not have enough reception to make a call, or if the reception is spotty, it's possible you can get out a text message. The emergency 911 people do not have texting capabilities but your contacts at home should. Send them the emergency text about where you are and the problem that you have. The contact can then contact 911 and get help coming.

You can also send out the text and many phones will send it when service is found. It only takes a second for that message to get sent so even a brief flicker of service can get the message out.

the message out.
For service just about anywhere on earth a satellite phone is the answer.
Unfortunately, they are quite expensive to buy and the service is quite costly as well.
On my meager salary, the cell phone is the most cost effective. Make it a part of your

survival kit. Until next time, see you on

the trail.

Mark Rackay is a freelance writer who serves as a director for the Montrose County Sheriff's Posse. For information about the Posse call (970) 252-4033 (leave a message) or email info@mcspi.org.

