



Effects of High Altitude on Visitors

While part of your visit to Colorado will be spent in a learning (indoor) environment, we hope that you will take some time to explore the natural beauty Colorado has to offer. Please keep in mind that high altitude can dramatically increase the demands placed on your body. This information is being presented to help you have a healthy and enjoyable trip in high altitude areas.

What is High Altitude?

Broadly interpreted, high altitude could be anything above 5,280 feet (1,609 kilometers) in elevation. About three-quarters of the nation's land above 10,000 feet lies in Colorado. Colorado's average elevation is 6,800 feet.

What are the Effects of High Altitude?

The two main differences between the high altitude environment and sea level are decreased oxygen delivery and decreased humidity, or moisture content, in the surrounding air. At an elevation of 8,000 to 10,000 feet the oxygen is approximately 40-45 percent less dense (creating the feeling of "less oxygen"), and the humidity is 50-80 percent lower than at sea level. A sudden change in environment from sea level to high altitude can produce symptoms of dizziness, nausea, insomnia, diarrhea, restlessness, shortness of breath and air hunger. Palpitations or fast heartbeat, headache, nasal congestion, coughing, increased flatulence or gas, easy fatigue and intolerance to exertion also may be experienced. If the high altitude experience progresses, more shortness of breath and increased coughing and edema (fluid accumulation in the lungs) may occur, requiring medical attention and possible hospitalization.

What Can Be Done to Adapt to High Altitude?

The initial complaints should disappear as your body adjusts to the lowered oxygen content and dryness. This may take anywhere from a few days to a few weeks. Upon arrival to high altitude, do not overdo. Drink plenty of water. Eat lightly. For the first 48-72 hours, limit alcohol. Alcohol aggravates the high altitude syndrome. Most of all keep physical exertion to a minimum for the first day. Over-exertion before your body can adapt to the lower oxygen and dryness can result in more severe and persistent symptoms.

If you are over 35 and plan strenuous exercise while in high altitude, it would be best too check with your doctor first. If you have a history of heart, circulatory or lung disease, it is mandatory to check with your doctor before coming to high altitude. Respiratory infections or pneumonia should be completely resolved before coming to altitude, since they can be dramatically worsened by the extra strain placed on your body. Pregnant women should seek the advice of their physicians before exerting themselves to high altitude.

Some Final Suggestions

Hydrate, hydrate, hydrate! Rest appropriately and do not overdo the first two days. Take a nap when sleepy and get a good night's sleep after a day of hiking or sightseeing. Eat lightly and drink plenty of liquids, but limit alcohol for the first 48 hours. You may wish to include a good moisture crème or lotion and a bottle of artificial tears when you pack your luggage. If you experience any symptoms that were mentioned, you may be suffering from oxygen deficiency. The symptoms are a caution to decrease your activity and protect yourself. A day of rest at this time is strongly suggested. If your symptoms do not improve or if symptoms develop that worry you, do not hesitate to contact a local physician. It is very easy to call a doctor's office or the Emergency Room at the local hospital and talk to the nurse or doctor on duty if you have any questions about your arrival to a higher altitude.