



## Did You Know?

The State of Colorado consists of various altitudes and is the home to more mountains around and above 14,000 feet. To the south of Denver lies Colorado Springs, sitting at an altitude of 6,035 feet. Manitou Springs, just 5 miles to the west of Colorado Springs, is approximately 6,500 feet. Further west, Cripple Creek sits around 9,500 feet, and the summit of Pikes Peak is 14,110 feet.

Denver really is exactly one mile high. There is a step on the State Capitol Building that is exactly 5,280 feet above sea level - one mile high. The 11th step is carved in stone as a mile high, but in 1969, it was found that the actual spot was 4 steps higher. In 2002, it was discovered that Denver is 3 feet higher than previously thought. So take your pick of steps, but one of them is assuredly one mile high.

In the Front Range rarified air, golf balls go ten percent farther. So do cocktails. Alcoholic drinks pack more of a wallop than at sea level. The sun feels warmer,



because you're closer to it, but your coffee is cooler, because water boils at 202 degrees. There's 25 percent less protection from the sun, so sunscreen is a must.

Don't let anything you hear about the high altitude scare you. The air is just thinner – there are fewer molecules of oxygen available in the air and therefore, in your bloodstream. This might cause fatigue, shortness of breath, headache, and/or light-headedness.

Symptoms vary from minor to life threatening, and a good rule is to assume that a “not so good feeling” at altitude is due to altitude sickness unless another explanation (such as diarrhea) exists.



**Drink plenty of water.** Colorado tends to be dry like the desert. You need to drink more water here than you would at a lower elevation. Avoid physical exertion the first 24

hours. Traveling alone requires more physical exertion than many are used to. Traveling to the airport and carrying luggage, not to mention jet lag, all have effects on the body. If you normally run 10 miles a day, you might try 6 miles in Denver until you adjust. If you are planning a trip to the mountains, don't do it the first day your visitors are here. Give their bodies a few days to get used to being a "mile high" before moving them up even higher.

### Eat foods high in potassium

Include in your diet: broccoli, bananas, avocado, cantaloupe, bran products, celery, greens, bran, dates, chocolate, granola, dried fruit, potatoes, tomatoes, etc. Be sure to eat even if you don't feel like it. A diet high in complex carbohydrates is generally thought to be best for high altitudes.



### What to bring

Colorado receives more than 300 days of sunshine each year (more than San Diego or Miami). Bring sunglasses, sunscreen, lip balm... even in winter. There is 25 percent less protection from the sun's rays at this elevation.

### Weather

A few days before your trip, check [www.weather.com](http://www.weather.com) for the latest on weather and temperature. Use this information to pack appropriately. Because Colorado is closer to the sun it can feel much warmer but can cool down in the evening, particularly in the spring and fall. It is best to layer clothing especially in the mountain areas.

### Traveling with newborns

In general, postpone travel to elevations above 8,000 for the first month of life. If you are coming from sea level with a newborn, you should avoid mountain travel above 8,000 feet for the first one or two months of life. Travel to the mountains shouldn't cause any problems if the destination is less than 8,000 feet. Check with your health provider before traveling.



### Symptoms of altitude sickness

Headaches, breathlessness, fatigue, dizziness  
Decreased appetite  
Nausea or vomiting  
Inability to sleep  
Swelling of the face, hands, feet  
Social withdrawal

Colorado provides various opportunities to engage in outdoor activities like hiking, skiing, white water rafting, and much more. The more you know about outdoor safety, the more enjoyable your tour will be.

For more information, visit the Pikes Peak Library District ([www.ppld.org](http://www.ppld.org)) to check out additional resources not only on high altitude health, cooking, the history of Colorado Springs, and anything else you can imagine.



Information provided by the  
Convention & Visitor Bureau and the Pediatric Advisor/  
C.S. Mott  
Children's Hospital

## Food Preparation

Cooking/baking at higher elevation may require a change in time, temperature, or recipe because of the lower atmosphere pressure due to a thinner blanket of air above. This decreased pressure affects food preparation in two ways:

\* Water and other liquids evaporate faster and boil at lower temperatures.

\* Leavening gases in breads and cakes expand more.

### Practical notes

Do not assume your sea level recipe will fail. Try it first. It may need little or no modification.

Try the smaller adjustment first--this may be all that is needed. In making rich cakes at high altitudes, it is sometimes necessary to reduce shortening by 1 or 2 tablespoons.

Fat, like sugar, weakens cell structure. Also, increasing the amount of egg strengthens the cell structure and may prevent the too-rich cake from falling.

### Cake recipe adjustments for high altitudes

Adjustment at 3,000 ft. 5,000 ft. 7,000 ft.

Reduce baking powder, for each tsp.      1/8 t.    1/8-1/4 t.    1/4 t.

Reduce sugar, for each cup      0-1 T.    0-2 T.    1-3 T.

Increase liquid, for each cup, add      1-2 T.    2-4 T.    3-4 T.

### Bread

At high altitudes, the rising period is shortened. Since the development of a good flavor in bread partially depends on the length of the rising period, it is well to maintain that period. Punching the dough down *twice* gives time for the flavor to develop. In addition, flours tend to be drier and thus able to absorb more liquid in

high, dry climates. Therefore, less flour may be needed to make the dough the proper consistency.

### Cakes made with shortening

Most cake recipes need no modification up to an altitude of 3,000 feet. Above that, decreasing the amount of leavening agent and increasing the baking temperature 15 degrees to 25 degrees F "sets" the batter before the cells formed by the leavening gas expand too much. Excessive evaporation of water at high altitude leads to high concentration of sugar which weakens the cell structure. Therefore, decrease sugar in the recipe and increase liquid.

### Angel food and sponge cakes

The leavening gas for these is largely air. Beat egg whites only until they form peaks that fall over--not stiff and dry, which would cause collapse of cells. Strengthen cell structure by using less sugar and more flour, and a higher baking temperature.

### Cake mixes

Adjustments usually take the form of adding all-purpose flour and liquid. Suggestions for high altitude adjustments are provided on most cake mix boxes.

### Cookies

Although many sea-level cookie recipes yield acceptable results at high altitudes, they often can be improved by a slight increase in baking temperature; a slight decrease in baking powder or soda, fat, and sugar; and/or a slight increase in liquid ingredients and flour. Many cookie recipes contain a higher proportion of sugar and fat than necessary, even at low altitudes.

### Biscuits, muffins and quick breads

Quick breads vary from muffin-like to cake-like in cell structure. Reducing the baking soda or powder slightly will usually improve results. Quick breads with a cake-like texture are more delicately balanced and usually can be improved at high altitudes by following the adjustment recommendations given above for cakes.

## High Altitude Living



Welcome to Colorado Springs and the Front Range

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