## The Ups and Downs of High Elevation

## **Altitude Sickness**

Many people think altitude sickness only applies to bold mountaineers braving the blizzards of Everest and Annapurna. However, altitude sickness is also a concern in the higher regions of the Northern Japanese Alps. Cold temperatures, fatigue, and the lower oxygen saturation of the air are key factors in altitude sickness. It is important to know its causes, symptoms, and how to deal with it.

The temperature drops dramatically in the high mountains, falling by 0.6 degrees Celsius for every 100 meters of elevation. The ascent from the city of Takayama (570 m) to Tatamidaira on Mt. Norikura (2,702 m) is over 2,100 meters. When the wind is strong, the mountaintop can feel wintry even in July or August.

The air is also much thinner above 1,500 meters. If the air pressure is 1,000 hPa at sea level, it is around 730 hPa on Mt. Norikura—enough of a reduction that the air in a bag of potato chips will expand to the bursting point. For humans, the lower pressure means less air and less oxygen reaching the body's circulatory system. When this reduced oxygen supply is compounded by physical exertion and fatigue, people can suffer altitude sickness. Symptoms include shortness of breath, headache, and nausea.

Preparation is key. Make sure to bring warm, waterproof, and windproof clothing. Arrive refreshed, avoid extreme physical exertion, and stay warm and dry. Although altitude sickness at this elevation is unpleasant, it is rarely fatal.

If you do feel ill, experts offer the following advice. Inhale deeply, then slowly breathe out as if blowing out a candle. Repeat several times. This re-oxygenates the blood, and symptoms should subside. If you need further assistance, mountain huts have emergency oxygen supplies and experienced personnel.

## **Cool Summers**

Despite its dangers, the high-mountain climate has an upside. In summer, Mt. Norikura is far cooler than sea-level areas, or even the nearby cities. When it is 30 degrees in Takayama, for instance, it is only 17 or 18 degrees on the mountain. Temperatures on Mt. Norikura rarely exceed 20 degrees, making it a popular destination for visitors seeking escape from midsummer heat and humidity.