

# The Record of the SpO<sub>2</sub> Level and the State of Health of the Middle-Aged and Elderly Persons on the Baltoro Glacier Trek

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The purpose of this research is to find out how middle-aged and elderly persons acclimatize to the altitude by recording and examining their SpO<sub>2</sub> level and state of health while they are trekking at high altitudes.

I trekked on the Baltoro Glacier in August 2013, as a member of a party of eight middle-aged and elderly persons, and recorded their SpO<sub>2</sub> level and state of health. The records show that it is important for the party of middle-aged and elderly persons to walk slowly (at the pace of the slowest member) with regular breaks and not to cover a long distance a day. It is also important to have digestible food and to drink enough water.

The changes of the SpO<sub>2</sub> level show sawlike patterns: the level falls as the altitude increases in the day and it rises again while they stay at the same altitude at night. But at the altitude of 3,500 to 4,000 meters, these patterns disappear. It means that altitude acclimatization is difficult at this altitude zone, as is said before.

The SpO<sub>2</sub> level of the members who acclimatized to the altitude well fluctuated little while that of the members who did not acclimatize well fluctuated widely. Some of the members did not feel good at the very beginning of the trek and their SpO<sub>2</sub> level fell. It is estimated that this poor physical condition led to their later poor altitude acclimatization. It is also estimated that the poor physical condition at the very beginning and the wide fluctuation of the SpO<sub>2</sub> level led to their mountain sickness.