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## New research on altitude sickness

Children are less susceptible to mountain sickness - a common and unpleasant effect of high altitude exposure - than previously thought, a study by scientists of the University Hospital of Bern and Basel University has found. Researchers came to this conclusion following an assessment made on top of the 3,450-metre-high Jungfrauoch in the Bernese Alps.

Acute mountain sickness is by far the most frequent problem in people who go to high altitudes and rather surprisingly there is very little information about its prevalence and its outcome. The study was particularly concerned with the effects of the condition in children.

In all, 48 children and adolescents - 20 girls and 28 boys aged ten to 17 - were taken to the Jungfrauoch high-altitude research station in the Bernese Oberland.

The young people, all with no previous high altitude experience, were assessed at six, 18 and 42 hours after their arrival. Prevalence of acute mountain sickness during the first three days was 37.5 per cent.

It evolved favourably in the vast majority of these children and most of them didn't even need drugs to treat symptoms associated with acute mountain sickness. Two thirds of the children with the condition developed symptoms during the first few hours at high altitude. These symptoms decreased progressively during the next two days as



Jungfrauoch 3454m, Europe's highest altitude railway station

they became acclimatized. Rates were similar for both sexes and nobody was evacuated to a lower altitude. Five needed treatment for their symptoms and responded well. Overall, the findings suggest that for the majority of healthy non-acclimatised children and adolescents, travel to 3,500m is safe, and preventative treatment for acute mountain sickness is not needed.

Studies looked at acute mountain sickness in adults, after arriving by airplane in Nepal (same altitude as Jungfrauoch) and there the prevalence of acute mountain sickness was between 80 and 90 per cent.

However, a study carried out by Zurich University at the top of the Jungfrauoch in 2006, testing parents and children, came to the opposite conclusion - i.e. that children were more prone to acute mountain sickness...

### Acute mountain sickness

Acute mountain sickness is caused by a shortage of oxygen after ascending to high altitudes, normally of more than 2,400 metres. It can result in hyperventilation, nausea and exhaustion. In extreme cases, it can progress into high altitude cerebral or pulmonary edema - swelling of the brain or lungs - which can be fatal. The condition is often associated with mountaineers but anyone spending time at elevation can suffer from it.

It occurs because the body is not getting enough oxygen. The percentage of oxygen in the air remains constant, but since air pressure decreases with altitude, fewer oxygen molecules are breathed in. Oxygen is essential for muscles and organs to function properly.

*from swissinfo*

## Gefüllte Äpfel



4 mittelgrosse Aepfel      Kerngehäuse ausstechen, Schale mit einem Messer mehrmals längs einschneiden

### Füllung

100 g gemahlene Mandeln  
2 Esslöffel Zucker  
Saft und Schale einer halben ungespritzten Zitrone  
ca 3 Esslöffel Milch

Alles gut mischen und die Mischung sorgfältig in die Äpfel und ca 1cm über den Rand hinaus füllen.

2 Esslöffel Butter flüssig      Aepfel damit bestreichen, in eine ofenfeste Form stellen darüber streuen

1 Esslöffel Zucker  
knapp 100ml Apfelsaft oder Wasser      in die Form giessen, sodass die Aepfel ca einen halben Zentimeter tief in der Flüssigkeit stehen

ca 20 Minuten in der Mitte des auf 220 Grad vorgeheizten Ofens backen, heiss servieren

Tip: evtl eine Kugel Vanilleglace auf die heissen Aepfel geben, sofort servieren

**En quete!**