

Rådgivning til førstegangsreisende om hvordan unngå høydesyke

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Innhold

- Patofysiologi bak høydesyke
- Medikamenter
- Konklusjon

Vi repeterer lige

$$\text{PiO}_2 = F_{\text{O}_2} * P_{\text{total}}$$

Ved havoverflaten: 101,3 kPa

- Ved 2500 moh: 74,6 kPa
- Ved 5000 moh: 53,7 kPa
- På toppen af Mount Everest: 31,4 kPa

Solens stråling gjør luftsøylen høyere =

33,7 kPa

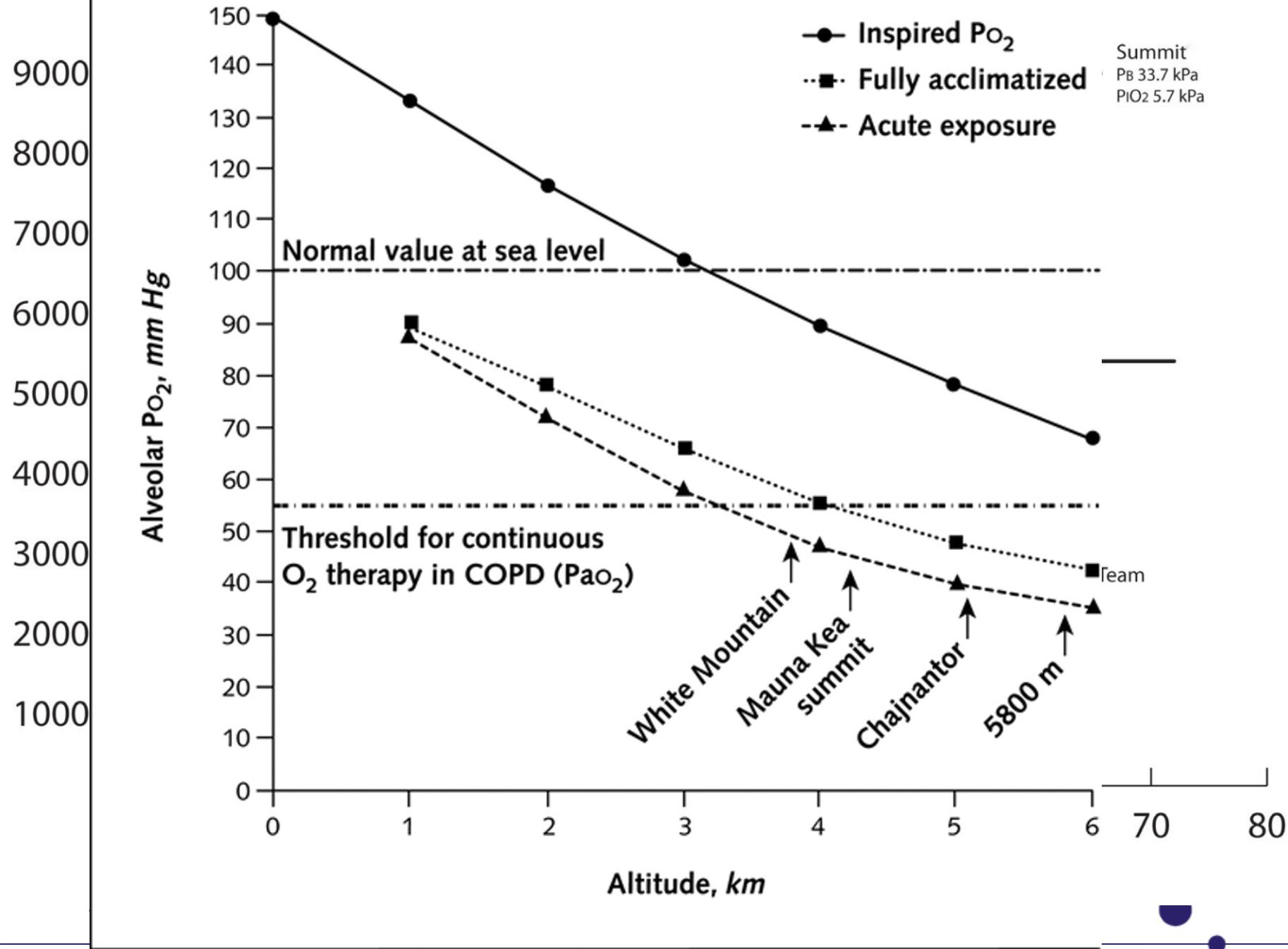
Table 2 Laboratory altitude, mean barometric pressure, mean laboratory temperature and inspired partial pressure of oxygen

Laboratory	Approx Altitude metres	Ambient Temperature °C	Barometric Pressure millibar	Barometric Pressure mmHg	Barometric Pressure Kpa	PiO ₂ mmHg	PiO ₂ Kpa
LONDON	75	24.1 (1)	1005	754 (10)	100.5 (1.3)	148.0	19.7
KATHMANDU	1300	26.1 (1.5)	867	650 (3)	86.7 (0.4)	126.2	16.8
NAMCHE	3500	19.6 (2.6)	670	505 (3)	67.3 (0.4)	95.4	12.7
PHERICHE	4250	13.1 (1.7)	615	461 (2)	61.5 (0.3)	86.7	11.6
EBC	5300	21.5 (5.6)	538	404 (3)	53.8 (0.3)	74.7	9.9
WCWM	6400	12.7 (3.9)	467	350 (0.9)	46.7 (0.1)	63.4	8.5
SOUTH COL	7950	15.0 (8.9)	389	292 (2.3)	38.9 (0.3)	51.3	6.8
BALCONY	8400	Not recorded	363	272	36.3	47.1	6.3

Altitudes taken from map values to nearest 50 m; Barometric pressures and temperature are mean (standard deviation) values recorded during laboratory testing in the field; PiO₂ = Inspired partial pressure of oxygen -calculated from barometric pressures.



Altitude (metres)



Akklimatisering

- Økt ventilasjon
 - øker PAO₂, senker PaCO₂
- Økt sympathisk aktivitet
 - øker hjertets minuttvolum
- Økt Hb
 - øker blodets oksygenbærende evne
- Økt 2,3 BPG i røde blodceller
 - høyreforskyver O₂-dissosiasjonskurven



AMS Worksheet

Based on the Lake Louise AMS Questionnaire

Name _____ Age _____ Sex _____ Date _____

Prev Hx AMS/HAPE/HACE?

Meds:

Ascent Profile:

Treatment:

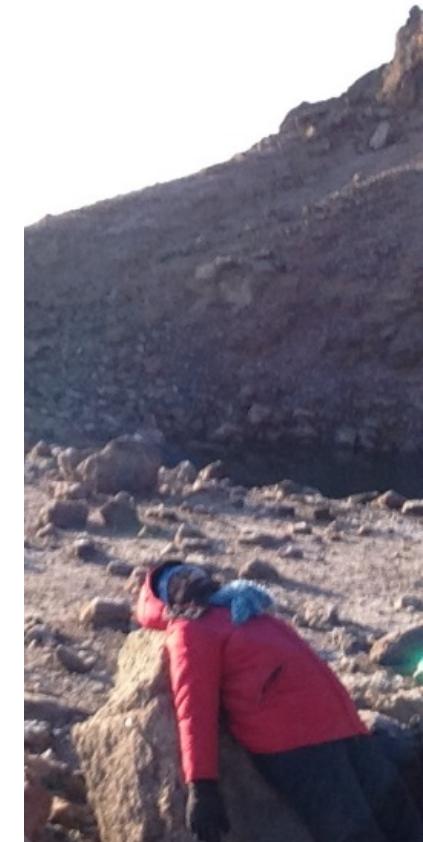
Symptoms:	Time	Altitude	=	=	=	=	=	=	=
1. Headache:									
No headache	0								
Mild headache	1								
Moderate headache	2								
Severe, incapacitating	3								
2. GI:									
No GI symptoms	0								
Poor appetite or nausea	1								
Moderate nausea or vomiting	2								
Severe N&V, incapacitating	3								
3. Fatigue/weak:									
Not tired or weak	0								
Mild fatigue/weakness	1								
Moderate fatigue/weakness	2								
Severe F/W, incapacitating	3								
4. Dizzy/lightheaded:									
Not dizzy	0								
Mild dizziness	1								
Moderate dizziness	2								
Severe, incapacitating	3								
5. Difficulty sleeping:									
Slept well as usual	0								
Did not sleep as well as usual	1								
Woke many times, poor night's sleep	2								
Could not sleep at all	3								
Symptom Score:									
Clinical Assessment:									
6. Change in mental status:									
No change	0								
Lethargy/lassitude	1								
Disoriented/confused	2								
Stupor/semitconsciousness	3								
7. Ataxia(heel to toe walking):									
No ataxia	0								
Maneuvers to maintain balance	1								
Steps off line	2								
Falls down	3								
Can't stand	4								
8. Peripheral edema:									
No edema	0								
One location	1								
Two or more locations	2								
Clinical Assessment Score:									
Total Score:									

AMS – acute mountain sickness**Lake Louise Score**

- < 3 - mild
- 3 – 5 - moderate
- > 6 – severe

Symptomene likner,
men skal adskilles fra:

- Dehydrering
- Hyponatriemi
- Hypotermi
- Utmattelse
- Virale infeksjoner
- (fyllesyke)

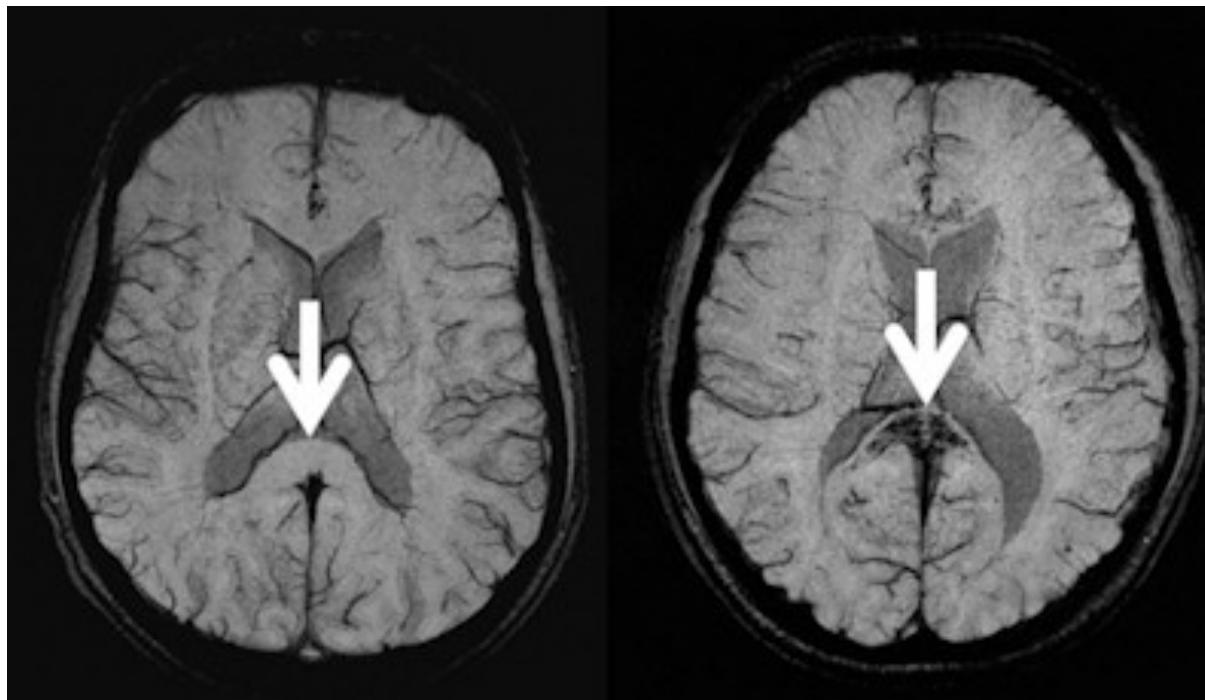


High altitude cerebral edema

Hypoksi-indusert kapillærlekkasje

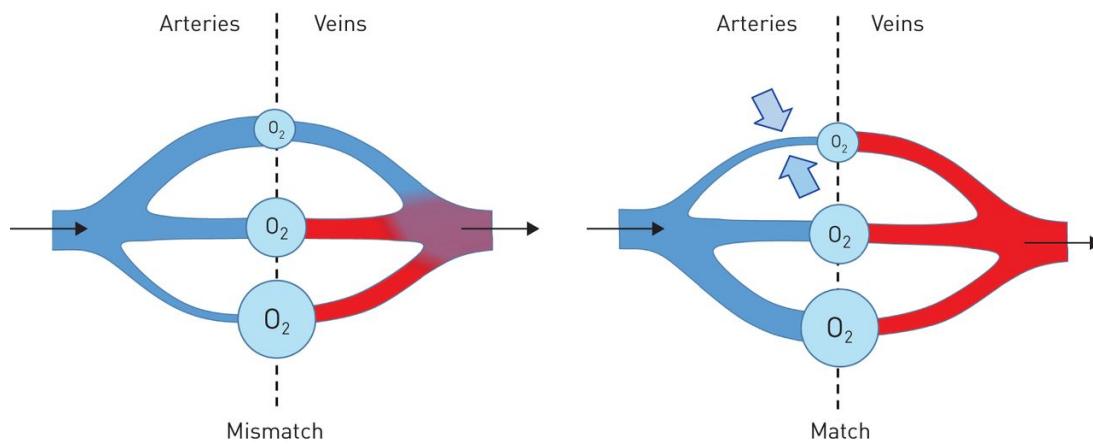
Økt intrakranielt trykk

Ødemdannelse



High altitude pulmonary edema

Ujevn vasokonstriksjon
Pulmonary hypertension



Medikamenter

Acetazolamid

Dexametason

Nifedipine

Tadalafil

Sildenafil

Coca

Ginkgo Biloba



Konklusjon

Restriktiv holdning til
medikamentell profylakse

HAPE-disponerte individer

Nedstigning som primær
behandling

Gå sakte og kos deg på tur!



Takk for oppmerksomheten!

