

2011 婆罗洲至中国四驱车友好远征  
*Borneo - China 4x4 Expedition 2011*



婆罗洲至中国四驱车友好远征  
*Borneo-China 4X4 Expedition*

婆罗洲汽车休闲旅游社

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MAJLIS BANDARAYA MIRI  
MIRI CITY COUNCIL

美里市长赖耀松律师  
2011 婆罗洲至中国四驱车友好远征  
(第二系列)活动小册献词

欣逢 2011 婆罗洲至中国四驱车友好远征队伍将於 6 月 1 日出发, 并配合这次远征出版活动小册子, 我深感荣幸, 应邀撰写献词。

婆罗洲至中国四驱车友好远征将由老马识途的队长林忠庆兽医带领友好远征团奔驰于山明水秀见称的中国为期近两个月。这项勇敢壮举值得赞许。这不但增见广闻也能调剂身心以保持卓越状况。这次的友好远征团也答应担任美里的旅游大使, 沿途向当地居民们介绍美里, 无论是商机或旅游, 将尽力而为。大家也传达讯息, 让富饶的中国群众们知道美里的公私机构正努力的塑造美里市成为一个具有活动力并富有绿意的旅游城。这份爱国情操令人赞赏并且是值得大家学习。

这是第二系列, 承续 2009 年的友好远征计划。虽然已有所见识, 不过远征行需要耗费经费和时间以及细心策划。然而有说众志成城, 任何困难都可以克服的。身为美里市长, 我在此要恭贺主办单位成功举办这友好远征计划, 也谨此致上我们衷心祝福, 旅程顺利平安, 凯旋归来。

谢谢。

美里市长赖耀松律师  
敬祝

## 策划总监兼领队：林忠庆兽医题词



### 个人简历：

祖籍福建闽清，1957 年出生于诗巫，毕业于侨南小学，中华中学及沙登农业大学。1983 年取得兽医医学士，翌年创立兽医院成为砂州最早之一及最久的私人执业兽医，亦是唯一在马来西亚和汶莱政府注册之合法兽医，服务于美里，民都鲁以及邻国汶莱。

2009 年策划并带领首支婆罗洲至中国四驱车远征队，圆满地创下壮举；完成 60 多天 21500 多公里自驾车游遍砂州、西马、泰国、寮国以及中国十七省三直辖区，轰动砂州。

### 前言：

自驾车旅游，有别于传统旅游。2010 年日本生产性本部发布的“休闲白皮书”显示，2009 年日本人最爱的休闲活动是“驾车兜风”。其实在欧美等发达国家早已风靡多时。那里的人民生活水平高，加上完善，四通八达的交通网和设施，家家户户都有能力并拥有各种汽车，房车，旅行车甚至先进的旅游房车，往往是全家人员或亲朋好友一起出动，自由自在地到处游山玩水，不亦乐乎！

我们驾着不同性能但绝对舒服、安全、心爱的车辆，自由自在地风驰于各种公路上，享受大自然的气息，观赏各种各样的人文景色，饱尝各式各样美食，克服各种各样的挑战，不受时间限制，以最低的费用去成就个人及一伙人的愿望，确实非笔墨所能形容的！

2008 年本人曾策划首创婆罗洲四驱车远征北京奥运，但因特殊原因被迫取消。而后再接再厉，又主催，策划进行并圆满完成了破天荒的 2009 婆罗洲至中国四驱车友好远征。由砂汶新马 27 个队员（包括 6 位女士），10 部四驱车于 4 月 12 日由美里出发，受到副首长，联邦部长，砂州部长，市长等官方隆重的欢送，并迎接凯旋归来，确实是空前轰动一时！

我主催此项活动，最大的心愿是要印证前人所言“读万卷书，不如行万里路”，并以“不登长城非好汉，不到黄河心不死”之决心去完成。

今年 2011 西藏之旅，通过我们中国合作伙伴云南省国际旅行社之协助下将于 6 月 1 日出发。四部四驱车于五月抄从美里市运往西马巴生港口。我们一行十位队员从砂州飞往吉隆坡，取车后直奔泰国，寮国而后抵达中国，将于 7 月 9 号完成 39 天近 15000 公里行程。再创造婆罗洲四驱车队另一壮举。

谨此预祝我们车队心想事成，一路顺利地完成任务。

- 标题 : 2011 婆罗洲至中国四驱车友好远征
- 日期 : 01.06.2011 – 09.07.2011
- 主办单位 : 婆罗洲汽车休闲旅游社  
林忠庆兽医 DR LING TUNG KING
- 协办单位 : 中国云南省国际旅行社  
谢志娟总经理 MS IRENE XIE  
电话: 0871-3382201, 0871-3308060, 手机: 13808705607
- 宗旨 : (1) 促进马中两国人民友好关系及相互推动两国之间的旅游, 文化及贸易活动。  
(2) 推广国际四驱车自驾游活动, 尤其是婆罗洲所拥有之广泛独特的天然环境, 以便能够常年都被例为活动场地。  
(3) 鼓励及推动更有责任感, 专业化, 更安全及有效率的四驱车活动, 尤其是应对各种探险中所面对的挑战; 团队精神, 驾驶技巧和应变能力等。  
(4) 借此平台提供大家去发挥更多的慈善与社会公益活动。



- 标志 :
- (1) 红色是代表中国及其丰富的旅游及文化资源。
  - (2) 绿色乃代表我国其中丰茂的绿色资源, 尤其是热带雨林以及我们这次漫长的翻山越岭的陆路旅程, 载着我们的期许及友谊之旅。
  - (3) 犀鸟代表我们故乡砂拉越, 以及熊猫代表主人家中国。
  - (4) 黑色之四驱车代表我们这次首创伟大的壮举, 破天荒地由婆罗洲出发远征中国。
  - (5) 此次活动的名称清楚书写在标志下。

- EVENT TITLE** : BORNEO-CHINA 4X4 EXPEDITION 2011
- DATE** : 01.06.2011 – 09.07.2011
- ORGANISER** : BORNEO AUTOMOBILE LEISURE TOUR AGENCY/BALTA (SARAWAK) SDN BHD  
(920448A)  
  
DR LING TUNG KING
- CO-ORGANISER** : CT ZONE, YUNNAN INTERNATIONAL TOUR AGENCY  
  
MS IRENE XIE  
  
Tel: 0871-3382201, 0871-3308060,  
  
Mobile: 13808705607
- OBJECTIVES** :
- (1) To promote tourism, cultural and trade relationship between the people of Malaysia and China.
  - (2) To be recognised as the leading international 4x4 expedition and to place Borneo on the international event and adventure tourism calendar.
  - (3) Encourage responsible and disciplined four wheel driving with the spirit of adventure, teamwork, skillful and safe driving.
  - (4) To create a platform for all parties to contribute one way or another in social welfare and charity works.
- LOGO** :
- (1) The letter 'C' in red, which is the traditional chinese colour, represents China and its richness in culture and customs.
  - (2) The letter 'M' represents Malaysia whilst the green colour signifies the abundance virgin forest and greens of Malaysia. The smooth curves of the letter 'M' also represent us spreading peace and friendship along the long route from Malaysia to China.
  - (3) The flying hornbill represents our home state, Sarawak, taking us from Borneo to the host country, China, which is represented by the panda.
  - (4) The black colour vehicle represents our magnificent convoy fulfilling and achieving our dream to be the first ever expedition on road from Borneo to China. The vehicle also represents the whole expedition by 4 x 4 SUV.
  - (5) The title of the whole event is clearly written in both Chinese and English languages.

## Borneo-China 4x4 Expedition 2011 - Vehicle List

No.	Registered Owner	Vehicle No.	Maker	Model	Engine No.	Chassis No.	Capacity	Year	Fuel	Colour	Seats	Weight	Value (RM)	L/R Hand	Vehicle Size L x W x H (mm)
1	LIVE ANIMALS CENTRE	QME3088	Toyota	Land Cruiser UZL100 S/Wagon	2UZ-0259299	UZJ100-0122349	4663cc	1998	Petrol	Gold	7	2320kg	250,000	Right hand	4890 x 1941 x 1849
2	TAM WENG SENG	QAW8268	Toyota	Hilux D/Cab 3.0G (A)	IKD6720719	MROFZZ9G201614054	2982cc	2011	Diesel	White	5	1920kg	107,000	Right hand	5255 x 1835 x 1810
3	HWANG HUAT CHOON	QMQ39	Toyota	Land Cruiser CBA-UZJ200W	2UZ-1289533	UZJ200-4018429	4663cc	2008	Petrol	Black	8	2600kg	400,000	Right hand	4950 x 1970 x 1880
4	CHUNG JING TRANSPORT SERVICES SDN BHD	QTH2	Hummer	H2	43N122360	5GRGN23UA3H122360	5960cc	2006	Petrol	Beige	5	3500kg	450,000	Left hand	5169 x 2062 x 1976

## Borneo-China 4x4 Expedition 2011 - List of Participants & Vehicles

No.	Vehicle No.	Make/Model	Name	Tel	DOB	IC Number	P/p No	P/Issue	Issue Date	Exp Date	D/Licence	Exp Date	Visa	Expiry
1	QME3088	Lexus LX470	Dr Ling Tung King	9-885588	25-Sep-1957	570925-13-5607	K18331175	Miri	7-Nov-2007	5-May-2013	X282220	2-Jun-2015	F0530767	27-Jul-2011
			Leow Peng Lim	2-2222089	4-Dec-1958	581204-02-5591	A24165886	Miri	20-May-2011	20-Nov-2016	Y526204	8-Feb-2017	F4623895	24-Nov-2011
			Chern Wee Sze	6-8608382	19-Jun-1973	730619-13-5481	K20079395	Kuching	20-Apr-2009	20-Apr-2014	S971805	10-Dec-2011	F0530763	27-Jul-2011
2	QAW8268	Toyota Hilux D/Cab	Tam Weng Seng	9-8741909	10-Sep-1963	630910-01-5559	A20568259	Bintulu	8-Oct-2009	8-Apr-2015	X295246	19-Jun-2015	F0530762	27-Jul-2011
			Yio Yok Seng	3-8333813	17-Oct-1949	491017-13-5227	K23718520	Bintulu	14-Feb-2011	14-Feb-2016	Y524302	2-Jun-2016	F0530764	27-Jul-2011
3	QMQ39	Toyota L/Cruiser	Moh Mei Ling (F)	3-8333813	16-Oct-1956	561016-13-5170	K23718519	Bintulu	14-Feb-2011	14-Feb-2016	Y524301	2-Jun-2016	F0530761	27-Jul-2011
			Hwang Huat Choon	2-8896666	8-Jun-1972	720608-13-5057	K24328508	Miri	26-May-2011	26-May-2016	U863015	11-Jan-2012	F4815092	27-Nov-2011
4	QTH2	Hummer H2	Hwang Huat Nan	2-8538535	26-Apr-1973	730426-13-5741	K20300729	Subang	19-May-2009	13-Oct-2014	BG793633	20-Oct-2014	F7089610	13-May-2013
			Ling Tung Hui	6-8709922	16-Nov-1961	611116-13-5613	K19421423	Miri	28-Oct-2008	28-Oct-2013	W903106	14-Apr-2015	F0530766	27-Jul-2011
			Ling Ting King	9-8550929	9-Aug-1949	490809-13-5335	K18020088	Miri	14-Aug-2007	14-Aug-2012	T661317	24-Oct-2012	F4650598	13-Aug-2011

## Borneo-China 4x4 Expedition 2011 - Participant List

No.	Car No.	Participant's Name	中文名	Sex	Birth Date	Birth Place	Age	Nationality	Occupation	PIP No.	Issue Date	Issue Pic	Expiry	Driving L	B/Grp	Visa	Expiry
1	QME3088	Dr Ling Tung King	林忠庆	Male	25-Sep-1957	Sarawak	54	Malaysian	Vet Surgeon	K18331175	7-Nov-2007	Miri	7-May-2013	X282220	O+	F0530767	27-Jul-2011
2	QME3088	Leow Peng Lim	廖惠显	Male	4-Dec-1958	Kedah	53	Malaysian	Businessman	A24165886	20-May-2011	Miri	20-Nov-2016	Y526204	O+	F4623895	24-Nov-2011
3	QME3088	Chern Wee Sze	莊维思	Male	19-Jun-1973	Sarawak	38	Malaysian	Businessman	K20079395	20-Apr-2009	Kuching	20-Apr-2014	S971805	A+	F0530763	27-Jul-2011
4	QAW8268	Tam Weng Seng	谭永成	Male	10-Sep-1963	Johor	48	Malaysian	Businessman	A20568259	8-Oct-2009	Bintulu	8-Apr-2015	X295246	O+	F0530762	27-Jul-2011
5	QAW8268	Yio Yok Seng	杨育生	Male	17-Oct-1949	Sarawak	62	Malaysian	Businessman	K23718520	14-Feb-2011	Bintulu	14-Feb-2016	Y524302	B+	F0530764	27-Jul-2011
6	QAW8268	Moh Mei Ling	毛美玲	Female	16-Oct-1956	Sarawak	55	Malaysian	Housewife	K23718519	14-Feb-2011	Bintulu	14-Feb-2016	Y524301	A+	F0530761	27-Jul-2011
7	QMQ39	Hwang Huat Choon	范发俊	Male	8-Jun-1972	Sarawak	39	Malaysian	Businessman	K24328508	26-May-2011	Miri	26-May-2016	U863015	A+	F4815092	27-Nov-2011
8	QMQ39	Hwang Huat Nan	范华展	Male	26-Apr-1973	Sarawak	38	Malaysian	Businessman	K20300729	19-May-2009	Subang	13-Oct-2014	BG793633	O+	F7089610	13-May-2013
9	QTH2	Ling Tung Hui	林忠祥	Male	16-Nov-1961	Sarawak	50	Malaysian	Businessman	K19421423	28-Oct-2008	Miri	28-Oct-2013	W903106	O+	F0530766	27-Jul-2011
10	QTH2	Ling Ting King	林中均	Male	9-Aug-1949	Sarawak	62	Malaysian	Businessman	K18020088	14-Aug-2007	Miri	14-Aug-2012	T661317	O+	F4650598	13-Aug-2011

## 参与队员名单及车辆：

### (1) QME 3088



#### DRIVER



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#### PASSENGER(S)



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## (2) QAW 8268



### DRIVER



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### PASSENGER(S)



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Name : **MOH MEI LING 毛美玲**  
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### (3) QMQ 39



#### DRIVER



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#### PASSENGER(S)



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## (4) QTH 2



### DRIVER



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### PASSENGER(S)



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# THAILAND ROUTE MAP 泰国路线图



# CHINA ROUTE MAP 中国路线图



## 2011 婆罗洲至西藏之旅——行程表

日期	行程	里数 (km)	住宿
6月1	砂州 - 吉隆坡	航空	吉隆坡
2	吉隆坡 - 合艾	550	合艾
3	合艾 - 华欣	732	华欣
4	华欣 - 彭世乐	585	彭世乐
5	彭世乐 - 清孔	463	清孔
6	清孔 - 会晒 - 磨丁 - 磨憨 - 勐腊	303	勐腊三星
7	勐腊 - 昆明	650	昆明四星
8	昆明	—	昆明四星
9	昆明 - 丽江	500	丽江准四
10	丽江 - 香格里拉	200	香格里拉三星
11	香格里拉 - 德钦	200	德钦三星
12	德钦 - 如美	270	如美温泉度假村
13	如美 - 八宿	380	八宿
14	八宿 - 然乌	100	然乌 (当地最好)
15	然乌 - 林芝	360	林芝三星
16	林芝 - 拉萨	400	拉萨三星
17	拉萨	—	拉萨三星
18	拉萨 - 羊湖 - 拉孜	430	拉孜三星
19	拉孜 - 定日 - 珠峰大本营 - 定日	280	定日二星
20	定日 - 日喀则	240	日喀则三星
21	日喀则 - 当雄	280	当雄二星
22	当雄 - 纳木错 - 那曲	280	那曲三星
23	那曲 - 格尔木	860	格尔木三星
24	格尔木 - 青海湖	500	青海湖三星
25	青海湖 - 西宁	200	西宁三星或准四
26	西宁 - 同仁	160	同仁三星
27	同仁 - 若尔盖 - 川主寺	450	川主寺四星
28	川主寺 - 黄龙 - 九寨沟	180	九寨沟沟口四星
29	九寨沟 - 九寨天堂	120	九寨沟四星
30	九寨沟 - 成都	400	成都准四或四星
7月1	成都 - 宜宾	360	宜宾三三星
2	宜宾 - 昆明	400	昆明四星
3	昆明 - 景洪	560	景洪四星
4	景洪 - 磨憨 - 磨丁 - 会晒 - 清莱 (含渡船)	600	清莱
5	清莱 - 大城府	753	大城府
6	大城府 - 素伽他尼	735	素伽他尼
7	素伽他尼 - 吉隆坡	856	吉隆坡
8	吉隆坡	—	吉隆坡
9	吉隆坡 - 砂州	航空	

行程记录表：

01/06 婆罗洲 — 吉隆坡（航空）

(Day 1)

住：Tune Hotel, Damansara, Kuala Lumpur

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

02/06 吉隆坡 — 合艾（550 公里）

(Day 2) 进入泰国，办理车队进入泰国相关手续，与西马车队会合。

住：泰国合艾

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

03/06 合艾 — 华欣 (732 公里)

(Day 3) 行程略

住：泰国华欣

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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04/06 华欣 — 彭世乐 (585 公里)

(Day 4) 行程略

住：泰国彭世乐

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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05/06 彭世乐 — 清孔 (463 公里)

(Day 5)

住：泰国清孔

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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06/06 清孔 — 会晒 — 磨丁 (250 公里) 磨慈 — 勐腊 (53 公里)

(Day 6) 中国旅行社派车赴会晒接团，协助老挝旅行社办理车辆及人员过关的有关手续。(含渡船)

住：勐腊三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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07/06 勐腊 — 昆明 (650 公里)

(Day 7) 车检, 中国交通法规培训。途径红河大桥往昆明。红河大桥长 801 米, 从桥面到江面高达 163 米, 曾经是连续钢构的世界第一高桥。

住: 昆明四星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

08/06 昆明

(Day 8) 休整, 购买入藏用品等。

住: 昆明四星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

09/06 昆明 — 丽江 (500 公里)

(Day 9) 丽江坐落于中国云南西北, 1285 年建城。有别于中国的其他古城, 丽江是一座没有城墙的古城, 河水穿城而过, 古城保留了数百座古桥和有 500 多年历史的古民居。

住: 昆明准四

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

10/06 丽江 — 香格里拉 (200 公里)

(Day 10) 游览丽江古城, 古城的中心是形似一颗方印的四方街, 也是从前集市和聚会的地方。赴香格里拉, 途中游览虎跳峡。金沙江 (长江的上游) 在哈巴雪山和玉龙雪山两山的夹峙中江面突然收窄, 仅有 Y 多米宽, 水流湍急, 江中有一巨石, 传说老虎借此石一跃而过对岸, 虎跳峡因此而得名。从江面到玉龙雪山山顶高差达 3900 米, 是世界上最深的峡谷之一。香格里拉原名中甸, 这里因与小说“失去的地平线”一书所描写的环境极为相似, 故而更名。

住: 香格里拉三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

11/06 香格里拉 — 德钦 (200 公里)

(Day 11) 途中欣赏金沙江大拐弯, 奔子栏藏族村寨, 梅里雪山的雄姿。

住: 德钦三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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12/06 德钦 — 如美 (270 公里)

(Day 12) 红拉雪山, 进入滇藏交界第一个县——芒康。

住: 如美温泉度假村

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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13/06 如美 — 八宿 (380 公里)

(Day 13) 过澜沧江峡谷、邦达草原、怒江大峡谷，完成世界自然遗产“三江并流”的穿越。从然乌湖到林芝是川藏南线最美的路段。澜沧江峡谷是云南省高差最大的地方，是一个神奇的峡谷，两岸的树木郁郁葱葱，它们的形态是如此多姿，还有村落、古寺镶嵌在无数的小溪间。位于三江流域之高山深谷中的邦达草原是一块地势宽缓、水草丰美的高寒草原。这里绿茵如毡。除成群牛羊在那里游荡觅食外，偶尔也会有一些藏羚羊出没于其间。走进怒江大峡谷，就来到了世界上最长、最神秘、最美丽险奇和最原始古朴的东方大峡谷。两岸白花飘香，山腰原始森林郁郁葱葱，冬春两季冰雪覆盖，景色如画。

住：八宿

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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14/06 八宿 — 然乌 (100 公里)

(Day 14) 前往然乌湖，欣赏然乌湖周围风光，搭建帐篷、晚上篝火晚（团队内）。然乌湖是由于山体滑坡和泥石流堵塞形成的堰塞湖，它也是雅鲁藏布江支流帕隆藏布江的主要源头。然乌沟有着中国罕见的冰川带，然乌湖湖水颜色多变，湖边藏寨、牧场、云杉林、雪山冰川，那美丽的景色一定超出你的想象。

住：然乌（当地最好）

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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15/06 然乌 — 林芝 (360 公里)

(Day 15) 高山湖泊、雪山、冰川。翻越色季拉山口，脚下是茫茫鲁朗林海和牧场，如果运气好的话，你还可以欣赏到南迦巴瓦的雄姿。色季拉最出名的便是那满山满眼的杜鹃花了。色季拉山的杜鹃花面积大，品种多，每年4月中旬到6月底，从山脚到山顶依次开放，景色极为壮观。

住：林芝三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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16/06 林芝 — 拉萨 (400 公里)

(Day 16) 尼洋河发源于米拉山，河水在阳光的照射下泛着蓝色绸带般耀眼的光，十分迷人。途中我们将欣赏到中流砥柱的景观，翻越海拔 5020 米的米拉雪山。

住：拉萨三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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17/06 拉萨

(Day 17) 今天将参观布达拉宫、大昭寺、八廓街。布达拉宫建在布达拉山（红山）上，宫殿依地势高低从下向上建筑，建筑面积为 13 万平方米，主楼高 13 层，高 117 米。殿宇重叠，巍峨耸峙，金碧辉煌。大昭寺始建于 647 年，是拉萨建立最早的佛教寺院，集唐朝、吐蕃、尼泊尔、印度建筑风格为一体。珍藏有大量珍贵文物，其中以文成公主从长安带到西藏的释迦牟尼 12 岁等身镀金佛最为有名。大昭寺也是藏民心中的最神圣的地方，每年有很多香客到此磕长头。八廓街是环大昭寺而建的长约一公里的街道，街道旁的房屋一律是以白石垒墙，碉式平顶的藏式建筑风格。黑框的门窗上装饰着绘有吉祥图案的白色帏帘。这里商店林立，摊贩云集，到拉萨的游客无不到此选购藏族风格浓郁的纪念品。

住：拉萨三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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18/06 拉萨 — 羊湖 — 拉牧 (430 公里)

(Day 18) 欣赏圣湖羊卓雍措风光。

住：拉牧三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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19/06 拉牧 — 定日 — 珠峰大本营 — 定日 (280 公里)

(Day 19) 前往珠峰大本营, 欣赏珠穆朗玛峰雄姿。

住: 定日二星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

20/06 定日 — 日喀则 (240 公里)

(Day 20) 参观扎什伦布寺。

住: 日喀则三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_



23/06 那曲 — 格尔木 (860 公里)

(Day 23) 经过藏北草原、可可西里

住：格尔木三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

24/06 格尔木 — 青海湖 (500 公里)

(Day 24) 早上休整，10:30 左右前往青海湖，从远处观青海湖风光。青海湖既是中国最大的内陆湖泊，也是中国最大的咸水湖。青海湖在不同的季节里，景色迥然不同。夏秋季，青海湖畔山清水秀，天高气爽，景色十分绮丽。寒冷的冬季，当寒流到来的时候，四周群山和草原会变得一片枯黄，有时还要披上一层厚厚的银装。每年 11 月份，青海湖便开始结冰，浩瀚碧澄的湖面，冰封玉砌，银装素裹，就像一面巨大的宝镜。

住：青海湖三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

25/06 青海湖 — 西宁 (200 公里)

(Day 25) 抵达后参观马步芳旧宅。马步芳公馆始建于 1942 年 6 月 (民国 31 年)，耗资 3000 万大洋，次年 6 月建成，为马步芳私邸，取名为“馨庐”。

住：西宁三星或准四

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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26/06 西宁 — 同仁 (160 公里)

(Day 26) 欣赏沿途草原风光，参观下吾屯寺，这里是中国著名的唐卡绘制的地方。

住：同仁三星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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27/06 同仁 — 若尔盖 — 川主寺 (450 公里)

(Day 27) 沿途草原风光。从同仁到若尔盖，这块位于青海、甘肃、四川三省交界的地方是中国最美的草原和湿地，6-8月草原上各种野花盛开、芳草萋萋，羊群在草原上游荡，犹如仙境一般。

住：川主寺四星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

28/06 川主寺 — 黄龙 — 九寨沟 (180 公里)

(Day 28) 游览黄龙景区，前往九寨沟。黄龙名胜风景区由黄龙本部和牟尼沟两部分组成，主要因佛门名刹黄龙寺而得名，以彩池、雪山、峡谷、森林“四绝”著称于世，是中国唯一的保护完好的高原湿地。这里山势如龙，又称“藏龙山”。这一地区还生存着许多濒临灭绝的动物，包括大熊猫和四川疣鼻金丝猴。1991年被联合国列入《世界自然遗产名录》。

住：九寨沟沟口四星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_





03/07 昆明 — 景洪 (560 公里)

(Day 33)

住：景洪四星

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

04/07 景洪 — 磨憨 — 磨丁 — 会晒 — 清莱 (含渡船) (600 公里)

(Day 34)

住：清莱

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

05/07 清莱 — 大城府 (753 公里)

(Day 35)

住：大城府

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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06/07 大城府 — 素伽他尼 (735 公里)

(Day 36)

住：素伽他尼

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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07/07 素伽他尼 — 吉隆坡 (856 公里)

(Day 37) 回到马来西亚

住：吉隆坡

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

08/07 吉隆坡

(Day 38) 休息，前往巴生港口将战车交托货运公司，寄船返美里。

住：Tune Hotel, LCCT

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

09/07 吉隆坡 — 砂州 (航空)

(Day 39) 结束旅程，凯旋回到温馨的家园。

住：

时间 高度 温度 里数 \_\_\_\_\_

T M °C km \_\_\_\_\_

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# 有关在中国自驾汽车旅游的注意事项

## 一、自驾车特殊规定：

- 1、外籍人员在中国开展驾驶车辆旅游的活动，须经过政府的特别批准；
- 2、自驾车行驶的路线必须得到政府的批准，车队必须按照规定线路行驶，如果没有按照批准的线路可能会引起不必要的麻烦；
- 3、车队必须在中国的导游及引导车陪同下行进和活动，车主和司机不得擅自离队；
- 4、每天车队抵达目的地后，所有的车辆必须停在酒店，车主和司机不得擅自将车开出酒店。

## 二、行车：

- 1、驾驶证：在中国驾车，必须申领中国驾驶证，无证驾驶可能会被拘留；
- 2、行驶方向：中国是靠右行驶，一些来自靠左行驶国家的司机要注意，超车时必须从左边超车；
- 3、公路等级：
  - (1)、按国家标准分为：国道、省道、县道、乡村公路；
  - (2)、按等级及路况分：高速公路、一级公路、二级公路、三级公路（路宽约 6-7 米）、乡村公路及土路（路宽约 4.5-3 米）
- 4、行驶速度：
  - (1)、高速公路最高限速是 120 公里/小时，在弯道或危险的地段会减低，路旁会有标示；有些高速公路的最高限速只是 80 公里/小时。
  - (2)、一级公路的限速通常是 80-60 公里/小时，二级、三级及乡村公路的的限速从 60-30 公里/小时，请按路旁限速标志行驶；
  - (3)、经过村庄、学校、弯道等地方时，限速为 30 公里以下。
  - (4)、进入隧道时，车速要下降 10-30% 不等；
  - (5)、超速驾驶：超速将处以罚款并扣分，超速 50% 以上将被罚款 1800 元并吊销驾驶执照。
- 5、路面状况：
  - (1)、除高速公路外，很多地方是混合交通，车辆、行人、脚踏车、三轮车、甚至马车（在乡下）都会出现在公路上，驾车时必须特别注意；
  - (2)、在混合交通的路上，时常会有行人突然横穿马路，驾车时必须特别留意；
  - (3)、夜间行车时，有些中国车辆不开夜灯，所以夜间行车时速度不要太快，以免发生因视

线不佳发生追尾的事故；

(4)、在一些交通岔口，要小心提防突然转入公路的拖拉机、农用车、摩托、三轮车或自行车等；

6、酒后驾驶：严禁酒后驾车，包含啤酒。酒后驾车可能被罚款甚至拘留；

7、事故责任界定：在中国，行人及非机动车骑行者被视为弱势群体。所以在机动车与行人或非机动车骑行者发生交通事故时，即使是行人的全部责任，机动车仍须承担责任。

8、其它：

(1)、不能在弯道超车和停车；

(2)、前排座位的驾驶员和乘客乘车时必须系安全带；

(3)、雨天行车。在多发生塌方的路段，为预防塌方，雨后行车不要太靠边；

(4)、雪地行车。雪地行车要用四轮驱动、低档位、低速，轻打方向、轻换档，最好不要踩刹车，如果要踩刹车，也要轻轻地踩；按前面车辆的车轮印走是比较安全的；

(5)、有些货车的刹车制动系统在长下坡路段可能会失灵，在行驶时遇到这些车辆要特别小心；

(6)、有些使用水冷却刹车的载重车，在长下坡时喷水冷却刹车，路上会留下很多水迹，致使道路很滑，骑行摩托车要特别注意。

(7)、在中国，大部分的高速公路限制摩托车驶入。

# 高原自驾车旅游的小贴士

## 一、海拔和气温及其它：

- 1、5-10月是到高原旅游的最佳季节，5月底至6月，草原上青草发芽，各种鲜花开放，草原一片生机，通常气温也比较适合；
- 2、高原日温差较大，以六月为例，海拔2300-2600米的地方，中午太阳下的气温可能在18-22度，而早晚只有12度；
- 3、海拔每升高100米，气温要下降0.6度；所以在一些山口、湖边风会比较大，气温也要低些。  
以六月为例，海拔4000-4800米的地方，即使是中午有太阳的时候，气温也可能只有6-10度；在海拔4500米以上的地方，6月飞雪也是可能的；
- 4、由云南驾车进入西藏的优势：
  - 海拔从800米逐步上升，客人容易适应；
  - 滇藏线及川藏线高山和峡谷相间，虽然沿途会经过3000+米，4000米及5000米的高山垭口，但是在高海拔停留的时间比较短，客人不容易发生高山反应；
  - 从日喀则到定日段以及定日-那曲-沱沱河段，海拔比较高，但这段时间对高原已经有了一个适应过程，但是身体反应还是多少会有的；
- 5、高海拔的地方，空气中的氧气含量减少，所以人容易产生疲劳，连续驾车3个小时，人会发生嗜睡，所以乘客多和司机讲话、及时更换司机很有必要；
- 6、高原紫外线强，夕阳下阳光非常刺眼，雪山和冰川，阳光的反射也非常强；

## 二、关于当地风俗：

- 1、入乡随俗是最好的旅游方法，况且他们的饮食习惯必定对高山效应有所帮助。
- 2、由于藏族人的生活习惯有别与汉族，为避免产生误会或种族问题，在藏族地

区旅游时，各队员应更加礼貌，不要对服务员呼喊，不要责骂乞丐，拍照（包括拍摄他们的宠物如藏獒）要征得当地人的同意，或者谈好价钱再拍。需要特别注意的是参观羊卓雍错湖的时候。

- 3、不要在沿途或停留点给物品或金钱予当地小孩或乞丐，否则可能吸引众多村民涌上来，请小心你的财务及车辆的物品。
- 4、有些寺庙不可以拍照，有些寺庙拍照要另外付钱，请遵从有关规定；
- 5、进寺庙时在佛像面前不要大声喧哗，要遵从寺庙管理人员的安排；
- 6、不要带超出个人需要的宗教用品包括书籍；
- 7、避免谈论一些敏感话题；

### 三、雪盲、高山症及预防等：

#### （一）雪盲：

- 1、什么是雪盲？如果长时间看着被太阳照射的雪地，结膜及角膜受到刺激，眼睛充血，不一会就流泪睁不开眼睛，这就是雪盲。
- 2、预防和治疗：可用湿敷的方法，民间疗法是在眼皮上贴梅干肉。如果用太阳镜及防风眼镜预防，就不至于发生雪盲。

#### （二）高山症：

- 1、什么是高山症？高山症又叫高原反应，是指由低海拔到高海拔地区，引起的身体不适，由平原进入高原，大部分人都会有不同程度的高山反应。

#### 2、症状：

根据个人的体质、诱因会有不同反应：

轻度反应：嗜睡、难以入睡、头重、胸闷、气短、口干咽痛、轻度腹泻；

中度反应：呕吐、重度腹泻、持续头痛、呼吸急促、缺氧、水肿、指甲和嘴唇因缺氧略有发紫；

重度反应：严重的中度反应、昏迷高烧而引起的高原肺水肿、脑水肿、严重缺氧等。

3、高原反应一般都可自愈，症状稍重的可采取吸氧、止痛、镇静等方法；症状很重的可采取使用高压氧舱大量补充氧气、并在应用药物治疗的同时，迅速转送到低海拔地区。

#### 4、高山症的预防：

- 进入高海拔地区前要体检，严重心脏、肺、脑和血液系统疾病患者不宜进入高海拔地区；
- 进入高海拔地区前要避免劳累过度、受寒而引起的感冒（重症感冒非常容易引起高山症）；
- 膳食应选择高热量易消化食物，不宜饮酒、暴饮暴食。晚餐不要过量，以免增加胃肠道负担，使心肺受压，造成胸闷心慌；
- 切忌在高海拔的地方吸烟，这样极易引起高山反应；
- 不要在高海拔的地方奔跑或剧烈运动，以防止引起高山反应；
- 冬天房间暖气不要调得太大，以免咽痛、被褥太薄引起感冒；有人为增加房间的湿度，睡前适当饮水（不要一次喝太多），或在房间的浴盆内放一些水；
- 民间有一些草药预防高山症，最常用的是红景天，藏民用红景天（根茎）泡水饮用；
- 也可在进入高海拔地区前开始服用红景天胶囊或口含片；
- 最为重要的是保持心情轻松和愉悦，这是预防高山症的最重要的方法；
- 对高山反应，要重视和预防，不要有心理压力和负担；
- 欧美国家研究的一些西药如 Diamox，对预防高山症非常有效，这些药在马来西亚、泰国可以买到，中国目前买不到。

备注：进藏自驾车团我公司会为每位客人准备一罐氧气和一盒抗高山反应的保健药

#### 四、准备物品和禁带物品：

6月沿途经过的地方会有夏天炎热的气候如：勐腊-元江段，成都-昆明段，气温在30-35度；也会有凉爽的气候，如西藏、青海段，气温在12-20度；还有高山寒段气温在6-12度；携带衣物请据此安排；

##### 1、个人物品：

- a) 太阳镜、润唇膏、防晒霜、防寒服、手套、遮阳帽；
- b) 常用药品：喉咙痛、腹泻、感冒、咳嗽、发烧及预防高山反应药品；
- c) 相机充电电池、相机内存卡；
- d) 足够的现金；

##### 2、车辆：

右舵车、四驱柴油发动机的车型在中国非常少，所有的零配件都要从马来西亚或泰国带到中国，而西藏的机场、航班都很少，县城或市镇相隔的距离很远，一旦车辆故障需要更换零配件，都非常的不易或要花费很多的金钱与时间，所以出发前对车辆做认真地保养和准备合理数量的零配件非常重要；

- a) 有关配件：轮胎、皮带、机油及机油格、刹车片、保险丝、柴油添加剂等；
- b) 车队内如果所驾车型是独一无二的，在零配件的准备方面尤其要考虑周全。

出门在外，相互的配合、帮助、支持和谅解都是非常重要的品德，是旅途愉快和团队得以顺利进行的必要保证，更是我们四驱自驾精神的体现。

# **HIGH ALTITUDE TREKKING & CLIMBING**

The pleasures of trekking in the world's highest mountain ranges cannot be overstated. Neither can the dangers. Altitude sickness can occur in some people as low as 8,000 feet, but serious symptoms do not usually occur until over 12,000 feet. Even then it is not the height that is important, rather the speed in which you ascended to that altitude.

Acute mountain sickness (AMS) is actually more common in fit young men because they are more likely to attempt a rapid ascent by racing up the mountain like some indestructible super hero! As a general rule, it is far safer (and more enjoyable) to avoid altitude sickness by planning a sensible itinerary that allows for gradual acclimatisation to altitude as you ascend, (you can race back down as fast as you like!).

## **What is High Altitude?**

<b>High</b>	<b>2,500 to 4,000 metres</b>	<b>8,000 to 13,000 feet</b>
<b>Very High</b>	<b>4,000 to 5,500 metres</b>	<b>13,000 to 18,000 feet</b>
<b>Extremely High</b>	<b>over 5,500 metres</b>	<b>over 18,000 feet</b>

It is difficult to determine who may be affected by altitude sickness since there are no specific factors such as age, sex, or physical condition that correlate with susceptibility. Some people get it and some people don't because some people are more susceptible than others.

Most people can ascend to 2,500 metres (8,000 feet) with little or no effect. If you have been at that altitude before with no problem, you can probably return to that altitude without problems as long as you are properly acclimatised. If you haven't been to high altitude before, you should exercise caution when doing so.

## **The Causes of Altitude Sickness**

The percentage of oxygen in the atmosphere at sea level is about 21% and the barometric pressure is around 1000mb (760 mmHg). As altitude increases, the percentage remains the same but the number of oxygen molecules per breath is reduced. At 3,600 metres (12,000 feet) the barometric pressure is only about 630 mb (480 mmHg), so there are roughly 40% fewer oxygen molecules per breath so the body must adjust to having less oxygen.

In addition, the lower air pressure at high altitude can cause fluids to leak from the capillaries in both the lungs and the brain which can lead to a fluid build-up. Continuing on to higher altitude without proper acclimatisation can lead to the potentially serious, even life-threatening altitude sickness.

## **Acclimatisation**

The main cause of altitude sickness is going too high too quickly. Given enough time, your body will adapt to the decrease in oxygen at a specific altitude. This process is known as acclimatisation and generally takes one to three days at any given altitude, e.g. if you climb to 3,000 metres and spend several days at that altitude, your body will acclimatise to 3,000 metres. If you then climb to 5,000 metres your body has to acclimatise once again.

Several changes take place in the body which enable it to cope with decreased oxygen:

- The depth of respiration increases.
- The body produces more red blood cells to carry oxygen.
- Pressure in pulmonary capillaries is increased, "forcing" blood into parts of the lung which are not normally used when breathing at sea level.
- The body produces more of a particular enzyme that causes the release of oxygen from haemoglobin to the body tissues.

## Cheyne-Stokes Respirations

Above 3,000 metres (10,000 feet) most people experience a periodic breathing during sleep known as Cheyne-Stokes Respirations. The pattern begins with a few shallow breaths and increases to deep sighing respirations then falls off rapidly even ceasing entirely for a few seconds and then the shallow breaths begin again. During the period when breathing stops the person often becomes restless and may wake with a sudden feeling of suffocation. This can disturb sleeping patterns, exhausting the climber. This type of breathing is not considered abnormal at high altitudes. Acetazolamide is helpful in relieving this periodic breathing.

## Acute Mountain Sickness (AMS)

AMS is very common at high altitude. At over 3,000 metres (10,000 feet) 75% of people will have mild symptoms. The occurrence of AMS is dependent upon the elevation, the rate of ascent, and individual susceptibility. Many people will experience mild AMS during the acclimatisation process. The symptoms usually start 12 to 24 hours after arrival at altitude and begin to decrease in severity around the third day.

The symptoms of Mild AMS include:

- Headache
- Nausea & Dizziness
- Loss of appetite
- Fatigue
- Shortness of breath
- Disturbed sleep
- General feeling of malaise



Symptoms tend to be worse at night and when respiratory drive is decreased. Mild AMS does not interfere with normal activity and symptoms generally subside within two to four days as the body acclimatizes. As long as symptoms are mild, and only a nuisance, ascent can continue at a moderate rate. When hiking, it is essential that you communicate any symptoms of illness immediately to others on your trip.

## Moderate AMS

The signs and symptoms of Moderate AMS include:-

- Severe headache that is not relieved by medication
- Nausea and vomiting, increasing weakness and fatigue
- Shortness of breath
- Decreased co-ordination (ataxia).

Normal activity is difficult, although the person may still be able to walk on their own. At this stage, only advanced medications or descent can reverse the problem. Descending only 300 metres (1,000 feet) will result in some improvement, and twenty four hours at the lower altitude will result in a significant improvement. The person should remain at lower altitude until all the symptoms have subsided (up to 3 days). At this point, the person has become acclimatised to that altitude and can begin ascending again.

The best test for moderate AMS is to have the person walk a straight line heel to toe just like a sobriety test. A person with ataxia would be unable to walk a straight line. This is a clear indication that an immediate descent is required. It is important to get the person to descend before the ataxia reaches the point where they cannot walk on their own (which would necessitate a stretcher evacuation).

## Severe AMS

Severe AMS results in an increase in the severity of the aforementioned symptoms including:

- Shortness of breath at rest
- Inability to walk
- Decreasing mental status
- Fluid build-up in the lungs

Severe AMS requires immediate descent of around 600 metres (2,000 feet) to a lower altitude.

There are two serious conditions associated with severe altitude sickness; High Altitude Cerebral Oedema (HACO) and High Altitude Pulmonary Oedema (HAPO). Both of these happen less frequently, especially to those who are properly acclimatised. But, when they do occur, it is usually in people going too high too fast or going very high and staying there. In both cases the lack of oxygen results in leakage of fluid through the capillary walls into either the lungs or the brain.

## High Altitude Pulmonary Oedema (HAPO)

HAPO results from fluid build up in the lungs. This fluid prevents effective oxygen exchange. As the condition becomes more severe, the level of oxygen in the bloodstream decreases, which leads to cyanosis, impaired cerebral function, and death.

Symptoms of HAPO include:-

- Shortness of breath at rest
- Tightness in the chest, and a persistent cough bringing up white, watery, or frothy fluid
- Marked fatigue and weakness
- A feeling of impending suffocation at night
- Confusion, and irrational behaviour

Confusion and irrational behaviour are signs that insufficient oxygen is reaching the brain. One of the methods for testing yourself for HAPO is to check your recovery time after exertion. In cases of HAPO, immediate descent of around 600 metres (2,000 feet) is a necessary life-saving measure. Anyone suffering from HAPO must be evacuated to a medical facility for proper follow-up treatment.

## High Altitude Cerebral Oedema (HACO)

HACO is the result of the swelling of brain tissue from fluid leakage.

Symptoms of HACO include:-

- Headache
- Weakness
- Disorientation
- Loss of co-ordination
- Decreasing levels of consciousness
- Loss of memory
- Hallucinations & psychotic behaviour
- Coma.



It generally occurs after a week or more at high altitude. Severe instances can lead to death if not treated quickly. Immediate descent of around 600 metres (2,000 feet) is a necessary lifesaving measure. There are some medications that may be used for treatment in the field, but these require proper training in their use.

Anyone suffering from HACO must be evacuated to a medical facility for follow-up treatment.

## Prevention of Altitude Sickness

This involves proper acclimatisation and the possible use of medications.

### Some basic guidelines for the prevention of AMS:-

- If possible, don't fly or drive to high altitude. Start below 3,000 metres (10,000 feet) and walk up.
- If you do fly or drive, do not overexert yourself or move higher for the first 24 hours.
- If you go above 3,000 metres (10,000 feet), only increase your altitude by 300 metres (1,000 feet) per day, and for every 900 metres (3,000 feet) of elevation gained, take a rest day to acclimatise.
- Climb high and sleep low! You can climb more than 300 metres (1,000 feet) in a day as long as you come back down and sleep at a lower altitude.
- If you begin to show symptoms of moderate altitude sickness, don't go higher until symptoms decrease.
- If symptoms increase, go down, down, down!
- Keep in mind that different people will acclimatise at different rates. Make sure everyone in your party is properly acclimatised before going any higher.
- Stay properly hydrated. Acclimatisation is often accompanied by fluid loss, so you need to drink lots of fluids to remain properly hydrated (at least four to six litres per day). Urine output should be copious and clear to pale yellow.
- Take it easy and don't overexert yourself when you first get up to altitude. But, light activity during the day is better than sleeping because respiration decreases during sleep, exacerbating the symptoms.
- Avoid tobacco, alcohol and other depressant drugs including, barbiturates, tranquillisers, sleeping pills and opiates such as dihydrocodeine. These further decrease the respiratory drive during sleep resulting in a worsening of symptoms.
- Eat a high calorie diet while at altitude.
- Remember: Acclimatisation is inhibited by overexertion, dehydration, and alcohol.



## Preventative Medications

**Acetazolamide (Diamox):** This is the most tried and tested drug for altitude sickness prevention and treatment. Unlike dexamethasone (below) this drug does not mask the symptoms but actually treats the problem. It seems to work by increasing the amount of alkali (bicarbonate) excreted in the urine, making the blood more acidic. Acidifying the blood drives the ventilation, which is the cornerstone of acclimatisation.

For prevention, 125 to 250mg twice daily starting one or two days before and continuing for three days once the highest altitude is reached, is effective. Blood concentrations of acetazolamide peak between one to four hours after administration of the tablets.

Studies have shown that prophylactic administration of acetazolamide at a dose of 250mg every eight to twelve hours before and during rapid ascent to altitude results in fewer and/or less severe symptoms (such as headache, nausea, shortness of breath, dizziness, drowsiness, and fatigue) of acute mountain sickness (AMS). Pulmonary function is greater both in subjects with mild AMS and asymptomatic subjects. The treated climbers also had less difficulty in sleeping.

Gradual ascent is always desirable to try to avoid acute mountain sickness but if rapid ascent is undertaken and acetazolamide is used, it should be noted that such use does not obviate the need for a prompt descent if severe forms of high altitude sickness occur, i.e. pulmonary or cerebral oedema.

Side effects of acetazolamide include: an uncomfortable tingling of the fingers, toes and face carbonated drinks tasting flat; excessive urination; and rarely, blurring of vision.

On most treks, gradual ascent is possible and prophylaxis tends to be discouraged. Certainly if trekkers do develop headache and nausea or the other symptoms of AMS, then treatment with acetazolamide is fine. The treatment dosage is 250 mg twice a day for about three days.

A trial course is recommended before going to a remote location where a severe allergic reaction could prove difficult to treat if it occurred.

**Dexamethasone** (a steroid) is a drug that decreases brain and other swelling reversing the effects of AMS. The dose is typically 4 mg twice a day for a few days starting with the ascent. This prevents most of the symptoms of altitude illness from developing.

**WARNING:** Dexamethasone is a powerful drug and should be used with caution and only on the advice of a physician and should only be used to aid acclimatisation by sufficiently qualified persons or those with the necessary experience of its use.

## Treatment of AMS

The only cure for mountain sickness is either acclimatisation or descent.

Symptoms of Mild AMS can be treated with pain killers for headache, **acetazolamide and dexamethasone**. These help to reduce the severity of the symptoms, but remember, reducing the symptoms is not curing the problem and could even exacerbate the problem by masking other symptoms.

**Acetazolamide** allows you to breathe faster so that you metabolise more oxygen, thereby minimising the symptoms caused by poor oxygenation which is especially helpful at night when the respiratory drive is decreased.

**Dexamethasone:** This powerful steroid drug can be life saving in people with HACO, and works by decreasing swelling and reducing the pressure in the skull. The dosage is 4 mg three times per day, and obvious improvement usually occurs within about six hours. This drug "buys time" especially at night when it may be problematic to descend. Descent should be carried out the next day. It is unwise to ascend while taking dexamethasone: unlike diamox this drug only masks the symptoms.

Dexamethasone can be highly effective: many people who are lethargic or even in coma will improve significantly after tablets or an injection, and may even be able to descend with assistance. Many pilgrims at the annual festival at Gosainkunda lake in Nepal suffer from HACO following a rapid rate of ascent, and respond remarkably well to dexamethasone. Mountain climbers also sometimes carry this drug to prevent or treat AMS. It needs to be used cautiously, however, because it can cause stomach irritation, euphoria or depression.

It may be a good idea to pack this drug for a high altitude trek for emergency usage in the event of HACO. In people allergic to sulpha drugs (and therefore unable to take diamox) dexamethasone can also be used for prevention: 4 mg twice a day for about three days may be sufficient.

### ***Other Medicines used for treating Altitude Sickness include:-***

**Ibuprofen** which is effective in relieving altitude induced headache. (600mg three times a day).

**Nifedipine:** This drug is usually used to treat high blood pressure. It rapidly decreases pulmonary artery pressure and also seems able to decrease the narrowing in the pulmonary artery caused by low oxygen levels, thereby improving oxygen transfer. It can therefore be used to treat HAPO, though unfortunately its effectiveness is not anywhere as dramatic that of dexamethasone in HACO. The dosage is 20mg of long acting nifedipine, six to eight hourly.

Nifedipine can cause a sudden lowering of blood pressure so the patient has to be warned to get up slowly from a sitting or reclining position. It has also been used in the same dosage to prevent HAPO in people with a past history of this disease.

**Furosemide** may clear the lungs of water in HAPO and reverse the suppression of urine brought on by altitude. However, Furosemide can also lead to collapse from low volume shock if the victim is already dehydrated. Treatment dosage is 120mg daily.

**Breathing** · 100% Oxygen also reduces the effects of altitude sickness.

### **The Gamow Bag**

This clever invention has revolutionised field treatment of altitude sickness. The bag is composed of a sealed chamber with a pump. The casualty is placed inside the bag and it is inflated by pumping it full of air effectively increasing the concentration of oxygen and therefore simulating a descent to lower altitude.

In as little as 10 minutes the bag can create an "atmosphere" that corresponds to that at 900 to 1,500 metres (3,000 to 5,000 feet) lower. After two hours in the bag, the person's body chemistry will have "reset" to the lower altitude. This acclimatisation lasts for up to 12 hours outside of the bag which should be enough time to get them down to a lower altitude and allow for further acclimatisation.

The bag and pump together weigh about 6.5 kilos (15 pounds) and are now carried on most major high altitude expeditions. Bags can be rented for short term treks or expeditions.

鸣谢

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# 备注

# 备注

# Autograph



远征队接受市长授旗礼摄于石油博物馆，背景为美里市