ALTITUDE ADJUSTMENT

RMBL sits at an altitude of over 9400 ft. Adjusting can pose some challenges and some outright risks.

Up this high, the air is thin. While air is always 21% oxygen, at high altitude the molecules are farther apart due to lower atmospheric pressure. But your lung volume remains the same. Result? Less O2 per breath. The air is also dry up here and the sun is intense.

It is very difficult to predict an individual's response to altitude. Physical fitness and even previous experience don't matter. How well and quickly you adapt to altitude depends on a combination of genetics and your rate of ascent (how many days or hours it took you to get here). Since it is unpredictable your best course of action is to **take it slow**!

What you can expect to experience: Initially, your body may capture more oxygen by increasing breathing rate and depth, and ramping up heart rate and blood pressure. You are also likely to experience "altitude diuresis" as the body sheds fluid reducing cardiac load. PLEASE NOTE: this frequent urination at altitude does NOT mean that you are well hydrated. You may also feel fatigued and have poor-quality sleep. These symptoms usually only last a few days.

As you remain at altitude you will adapt. Your body will make more red blood cells – starting as early as 2 weeks after arrival. [Interesting fact about different human adaptations to altitude: In Peru and Bolivia, the people have higher levels of hemoglobin and increased lung expansion capacity. In Tibet and Nepal, the people have a faster respiratory rate and broader arteries which provide increased blood flow.]

Abnormal responses – mild AMS = acute mountain sickness
Symptoms are headache, decreased appetite, fatigue, dizziness, nausea, trouble sleeping
Treatment- Rest, hydrate. Mild AMS usually resolves in a few days.

Abnormal responses, severe AMS = HAPE and HACE -EMERGENCY!

HAPE is High Altitude Pulmonary Edema, or fluid in the lungs. Symptoms are fatigue, breathlessness, rapid shallow breaths, cough, rattly breathing, congestion, cyanosis, drowsiness. This is a serious, potentially life-threatening condition.
Treatment – GO DOWN to a lower altitude! Seek medical care.

HACE is High Altitude Cerebral Edema, or fluid in the brain. The hallmark symptom is change in mentation or abnormal thinking. There may also be staggering gait. This often has onset at night. This is a serious, potentially life-threatening condition.
Treatment - GO DOWN to a lower altitude IMMEDIATELY! Seek medical care..

What to do to optimize your altitude adjustment. Take it slow! Don't climb a peak the first week. Don't exercise hard for a few days. Rest, drink a lot of water (two glasses at each meal, a bottle of water between meals, always carry water with you). Minimize alcohol intake (depresses respiration which you need, increases diuresis which you don't need, sedates you) and caffeine

intake (increases diuresis) If you get sick, or have any of the severe symptoms above, alert RMBL staff immediately.