

A person is running on a paved path in a mountainous area. In the background, there is a red and white striped pole, a building, and a mountain range under a cloudy sky. The overall scene is hazy and atmospheric.

# Altitude Training

Live High Train High

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# What is Altitude

- The higher you go the thinner the air
- Thinner air means less air resistance
- Therefore, sprinters & jumpers perform better at altitude BUT
- Thinner air means less oxygen for the endurance athlete and consequently Slower performances



# What this means

- The body adapts to less oxygen
- Increases the red blood cells
- Red blood cells are produced in response to a greater release of the hormone erythropoietin (EPO) by the kidneys
- These red blood cells carry oxygen from your lungs to your muscles
- The more red blood cells you have the more oxygen your blood can carry

# When you get back to sea level?

- Extra red blood cells will supercharge your muscles with oxygen and push you along faster. Well that's the idea!!!
- Increased endurance and speed
- Improved recovery
- Less fatigue

# Possible side effects at altitude

- Higher heart rate
- Decreased appetite
- Insomnia
- Dizziness
- Headache
- Nausea
- Fatigue
- Nose bleeds
- Mostly occur at high altitudes of 2200mtrs or above

# Precautions

- Iron is one of the building blocks of red blood cells. So you must make sure you have sufficient iron levels when you first come to altitude
- It is also good to be in generally good health and to take vitamin C while at altitude
- Wk 1. shorter and low intensity sessions to adapt
- Wk 2. sessions can be made longer with gradual introduction to intensity
- Wk 3. is closer to sea level type of training for the robust athlete

(the more altitude training you have the more you get better at adapting next time round)

# Most common mistakes

- Intensities too high
- Recovery times too short



# Recovery



- Very important!!
- Recovery is slower at altitude
- Nutrition, hydration and rest are even more important than usual to enhance the process



# Where to go

- Thredbo – 1365m
- Falls Creek – 1600m
- Boulder, Colorado – 1655m
- St Moritz, Switzerland – 1800m
- Flagstaff, Arizona – 2100m

# References

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