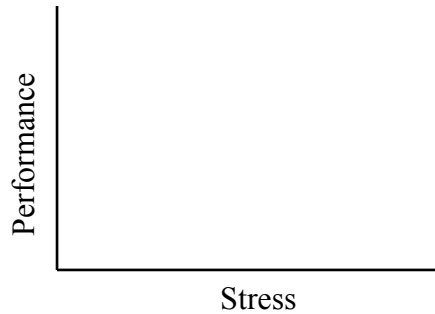


# Aeromedical Factors

## I'm Safe Checklist

I \_\_\_\_\_  
M \_\_\_\_\_  
S \_\_\_\_\_  
A \_\_\_\_\_  
F \_\_\_\_\_  
E \_\_\_\_\_

## Plot Stress vs. Performance



## Hypoxia

Hypoxia is a lack of \_\_\_\_\_ in the human body.

The four types of hypoxia are:

1. \_\_\_\_\_ is a result of insufficient oxygen available to the lungs.  
Example: \_\_\_\_\_
2. \_\_\_\_\_ occurs when the blood is not able to take up and transport a sufficient amount of oxygen to the cells in the body.  
Example: \_\_\_\_\_
3. \_\_\_\_\_ results when the oxygen-rich blood in the lungs is not moving to the tissues that need it.  
Example: \_\_\_\_\_
4. \_\_\_\_\_ is the inability of the cells to effectively use oxygen.  
Example: \_\_\_\_\_

## Symptoms of Hypoxia

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Altitude	Time of Useful Consciousness
45,000 feet MSL	9 to 15 seconds
40,000 feet MSL	15 to 20 seconds
35,000 feet MSL	30 to 60 seconds
30,000 feet MSL	1 to 2 minutes
28,000 feet MSL	2 1/2 to 3 minutes
25,000 feet MSL	3 to 5 minutes
22,000 feet MSL	5 to 10 minutes
20,000 feet MSL	30 minutes or more

## Hyperventilation

Hyperventilation is a lack of \_\_\_\_\_ in the human body.

At high altitudes, the carbon dioxide level in the blood is already at a reduced level. Pilots encountering an unexpected stressful situation may unconsciously increase their breathing rate. This can cause hyperventilation.

Symptoms of hyperventilation are similar to symptoms of \_\_\_\_\_.

“Cures” include consciously reducing the rate of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, or breathing into a \_\_\_\_\_.

## Hazardous Attitudes

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## Antidotes

Follow the rules. They are usually right.

Not so fast. Think first.

It could happen to me.

Taking chances is foolish.

I'm not helpless. I can make a difference.

## Vision

During the daytime, the \_\_\_\_\_ in the eyes are most active. When scanning from right to left, pilots should systematically focus on different segments of the sky for short intervals.

During the nighttime, the \_\_\_\_\_ are most active. They can take approximately \_\_\_\_\_ minutes to fully adapt to the dark. A bright light, however, can completely destroy night adaptation, leaving night vision severely compromised while the adaptation process is repeated.

Pilots should reduce interior lighting intensity to a minimum level and avoid bright lights before and during the flight. Red cockpit lighting also helps preserve night vision, but red light severely distorts some colors and completely washes out the color red.

