

## Evaluate the Distribution of Oxygen Saturation in Asymptomatic Adults and to Find the Effect of Body Mass Index in Oxygen Saturation Values in Aseer Region, Saudi Arabia

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### ABSTRACT

**Introduction:** At high altitudes, high altitude oxygenation improves oxygenation or enriches the body with more oxygen. Low oxygen saturation levels or desaturation of an individual's blood can occur at high elevations. Low atmospheric pressure at high elevations causes this to happen. The extent to which hemoglobin is bound or saturated to oxygen is referred to as oxygen saturation levels.

**Methods:** In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the SpO<sub>2</sub>, obesity and demographics. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia.

**Results:** Out of total 332 patients, mean (SD) of age DBP, Pulse, RR SBP and SpO<sub>2</sub> were 29.5(12.74), 78.94(13.40), 81.03(13.45), 17.93(2.23), 12.8.40(16.43), 95.85(2.74). BMI did not have significant relationship with SpO<sub>2</sub>.

**Conclusion:** This must be factored into considerations in ambulatory programs for overweight people, particularly those with heart disease, because it may contribute to angina. Through the development of emphysema, COPD, and chronic bronchitis, smoking is linked to reduced oxygen saturation. Smoking was linked to a drop in SpO<sub>2</sub>.

**Keywords:** SpO<sub>2</sub>, Body mass index, Patients, Risk factors, Saturation

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