

Physical Growth of High Altitude Spitian Boys

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ABSTRACT The present study is an effort to explore the effect of high altitude on the physical growth of Spitian children. The present cross sectional study has been conducted on Spitian boys, ranging in age from 5 to 20 years. Anthropometric data was collected on 636 subjects during 1996-1998 from various areas of Spiti valley by PPS. The altitudes of these areas range between 3500 -4200 metres above mean-sea-level. The adolescent spurt in case of Spitian boys occurs at 15-16 years of age in weight and 13-14 years in height whereas the peak adolescent gain in chest circumference is even later and takes place at 17-18 years. It can be concluded from the above results that the adolescent spurt is delayed in Spitian boys. The proportionally greater chest cage size has emerged as the most important morphological characteristic in various studies. This seems to be an adaptation to low partial pressure of oxygen. A very late adolescent spurt in chest circumference might be giving an edge to the high altitude populations to keep on adding to the final adult dimensions by way of extending the growth period.