Normal peak expiratory flow in healthy adult male and female subjects.

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East African Medical Journal, 01 Feb 1994, 71(2):98-101

PMID: 7925053

Abstract

Peak expiratory flows (PEF) were measured in 830 and 270 healthy male and female subjects respectively using Autospiro model AS-500 (Minato, Japan) fitted with a heated pneumotachograph. All measurements were made in the standing position. Male subjects gave significantly larger PEF values than female subjects ($P < 0.001$), and PEF decreased with age at a rate of about 6.45% year. In the female subjects, PEF increased with age to reach a peak at about 32 years decreasing thereafter. The equations representing peak expiratory flow for this population are: PEF = 0.042H - 0.051A + 3.5 (l.s-1) for the male subjects and PEF = 0.014H + 4.445 (l.s-1) for female subjects, where H and A represent height (cm) and age (years) respectively. Regression equations for predicting PEF constructed in this study gave smaller PEF values than values from prediction equation derived from a Caucasian population. It is therefore, highly desirable that equations suitable for predicting PEF in our region be established and more research in this area is required to cover some of the minority tribes in our region.