

LETTER TO THE EDITOR

PEFR IN CEMENT PIPE FACTORY WORKERS IN RELATION TO SMOKING

Sir,

(Received on November 25, 1999)

We have analyzed the effect of cement exposure and smoking on PEFR. The study was conducted in the cement piper factory located at Ibrahimpatanam, Hyderabad. The total number of 73 males workers in the age group of 19-25 yrs were studied. Healthy workers with no previous history of respiratory or significant illness were selected. Age of the subjects and anthropometric measurements like Height (cms) & Weight(kgs) were recorded. PEFR was measured using Pocket Peak Flow Meter.

Grouping of the subject was done as follows:

Ht wise : Group A1 between 160-170cms
Group B1 between 150-160cms

Wt wise : Group A2 between 50-60kgs
Group b2 between 40-50kgs

Each group was subdivided into smokers & nonsmokers. Mean Height, Weight & PEFR was calculated & the "r" & "p" was determined in each group. The findings are presented in the Table I & II, separately for Ht & Wt respectively.

1. The PEFR of all groups is less than normal values reported in literature(I). This may be due to the exposure to cement.
2. As expected PEFR is less in smokers when compared to nonsmokers.
3. But unexpected finding is that there is no correlation between PEFR & Ht or

TABLE I

	Ht. (Cms) ± SD.	PEFR (L/min) ± SD.	n	r	Pvalue
A1 Non-Somkers	164.56±2.71	483±77.1	30	0.32	0.0005
Somkers	163.71±2.61	392.85±67.61	21	0.002	
B1 Non-Somkers	155.63±2.69	392.85±67.61	11	0.06	0.004
Somkers	155.45±2.76	400±51.7	11	0.16	

TABLE II

	Wt. (kgs) ± SD.	PEFR (L/min) ± SD.	n	r	P value
A2					
Non-Somkers	54.88±2.90	473.07±86.29	26	0.22	0.004
Somkers	56.42±2.33	410.95±53.09	21	0.46	
B2					
Non-Somkers	47±2.6	477.27±64.66	15	0.01	0.001
Somkers	46±2.81	392.6±37.76	11	0.37	

PEFR & Wt in any group as indicated by their "r" values. This contradicts the results obtained by Alkija et al (2) who reported that PEFR in cement Factory correlated well with Height.

4. Abu Dhasise et al (3) have studied pulmonary function in cement Workers in

Jordan and concluded that inhalation of Cement dust irritates respiratory tree without markedly affecting the lung function and that smoking aggravates this effect. But our study reflects that ventilatory functions were affected significantly both by exposure to cement (4) and smoking.

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