

LETTER TO THE EDITOR

PRANAYAMA—THE YOGIC SCIENCE OF BREATHING

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Dear Editor,

We read with great interest the article by Puja *et al* on alternate nostril breathing in December issue of PJP.

Pranayama incorporates right nostril breathing (RNB or *surya anuloma viloma*), left nostril breathing (LNB or *chandra anuloma viloma*) as well as alternate nostril breathing (ANB or *nadishudhi*). It is of interest to note that when all three techniques were practiced for the same frequency and duration, interesting results were obtained. RNB caused a significant increase in oxygen consumption (37%) and there was a significant decrease in body weight with all three practices. This reduction was comparable for RNB and LNB (2.3 kg) and less for alternate nostril breathing (1.5 kg).¹

Backon has shown that RNB significantly increases blood glucose levels, whereas LNB lowers it.² The present study covered only respiratory parameters however these breathing exercises are reported to influence cardio-respiratory and autonomic functions as well.

Subbalakshmi *et al* suggests that the 'Nadi-shodhana Pranayama' rapidly alters cardiopulmonary responses and improves simple problem solving.³ In another recent study increase in PEFR and significantly fall in pulse rate, respiratory rate and diastolic pressure was noted after four weeks of practice of ANB.⁴

Unilateral nostril yoga breathing practices appear to influence the blood pressure in different ways which suggest possible therapeutic applications.⁵

L. Rai *et al* found that induced LNB produced decreased systolic, diastolic and mean blood pressures. They suggested that the LNB could be used as a prophylactic means to combat rises in blood pressure associated with everyday stress and strain of life.⁶ They also found that induced RNB caused correction of blood pressure to normal levels, increases heart rate, increase skin conductance and increased body temperature.

We feel this is an ideal opportunity to draw attention on effect of Pranayama on cognition. This year's study indicates that high-frequency yoga breathing and breath awareness, though very different practices, influences the P300 also.⁷ LNB increases performance in a spatial cognitive task, corresponding to the cerebral hemisphere contralateral to the patent nostril.⁸

In conclusion, it can be said that Pranayama is a highly interesting field for further research and this technique and other variations of unilateral forced nostril breathing deserve further study regarding therapeutic merits in a wide range of disorders.

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