

**Part I: Concept of Bhastrika Pranayama with Special Emphasis according to
Yoga Spiritual Texts.**

**Part II: Changes in Nasal Dominance at Sunrise and Sunset in Children
Undergoing Intensive Yoga Training.**

**By
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Abstract

The present study was conducted to examine the changes in nostril dominance in 414 school children (age 9 to 12 years) during an intensive residential yoga training program. Subjects were randomly allocated to three equal groups (n=138) after stratifying for sex. Each group was assigned to one of three integrated yoga modules, which are specially designed to improve physical stamina (PS), intelligence (IQ) and creativity (CV). All three groups underwent their respective yoga training intensively for 8 days. Nostril dominance was assessed at sunrise and sunset on all days 8 days of training using the slide method. Analysis was done by means of chi-square test. Results showed that the nostril dominance of all three groups significantly shifted from left or right nostril to both nostrils at both sunrise and sunset. There was no significant difference between boys and girls in the pattern of shift in nostril dominance. Correlation analysis of frequency data of nostril dominance from 1st day to 8th day indicated significant negative correlation's between right or left and both nostril dominance patterns. These findings from the present study suggest that intensive yoga training for 8 days may improve nasal balance and hence autonomic balance.

Discussion

The present study showed that the nostril dominance of all three groups shifted from left or right nostril to both nostrils at both sunrise and sunset. There was no significant difference between boys and girls in the pattern of shift in nostril dominance. Correlation analysis of frequency data of nostril dominance from 2nd day to 9th day indicated significant negative correlation's between right or left and both nostril dominance patterns. These findings from

the present study suggest that intensive yoga training for 10 days may improve nasal balance and hence autonomic balance. Percentage (%) changes show that an IQ intervention group was better than PS&CV groups. It is believed that when there is perfect balance and harmony in healthy persons there will be a balance in the functioning of the right (surya) and left (Chandra) nadis reflected as nasal dominance on the corresponding side. Hence we would expect right and left nostrils would be open equal number of times in the day. And as they improve in their spiritual (yoga) purification their balanced nostril functions will move towards equal flow in both nostrils considered to be being sushumna nadi flow.

Earlier studies on right nostril breathing pranayama (SAV) (5, 9, and 10) should that this leads to greater oxygen consumption and sympathetic stimulation. Both nostril dominance show that there is greater peace and stability at a deeper level which can be considered a sign of spiritual growth (sushumna) as mentioned in the swara yoga text (7). The result of this study has confirmed the balancing effect of yoga through a significant increase in both nostrils dominance. Hence the specially prepared practices of IAY helped children both nostrils dominance. This result shows that final out come of male and female performing similarly on a separate basis.

It is mostly applicable in preventing much modern stress related disease. The scriptures same the right nostril as sun channel (surya nadi) & the left nostril as moon channel (chandra nadi) also it is said that right nostril breathing could be dominance at SR and left nostril dominance at SS. the present study has confirmed this statement from the scriptures in children of 9 to12 years at their baseline values.

Key Words: School students, Nostril Dominance, Yoga for Physical stamina, Creativity, Intelligence.