

## Effect of Yoga on Blood Pressure and Heart Rate in Normal Subjects of Different Age Groups

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### Abstract

**Background:** Stress and cardiovascular disorders are a modern-day phenomenon. Yoga is an age-old technique of mediation and exercise that has now been focussed increasingly due to its beneficial effects on cardiovascular and autonomic nervous systems. We in the current study tried to evaluate the blood pressure, heart rate changes in normal males and females after 6 months of yoga training. **Methods:** A total of n=50 healthy volunteers were incorporated in this study out of which n=22, were female (Group A) and n=28 were Males (group B). All the subjects were given yogic training by a qualified instructor for a period of 6 months for 1 hour daily between 6 am and 7 a.m. The following schedule was adopted 1) Warm-up exercises followed by Shavasana – 5 minutes. 2) Prayer (Suryanamaskara) – 10 minutes 3) Asanas – 20 minutes 4) Pranayama – 10 minutes, 5) Meditation – 10 minutes 6) Shavasana 5 – 10 minutes. The session was concluded by meditation and finally Shavasana. **Results:** The mean resting systolic blood pressure (mmHg) before the yogic practice was  $122.5 \pm 9.94$  in group-A., in group-B  $125 \pm 7.25$ . After 2 months of practice, systolic blood pressure (SBP) was reduced in Group-A to  $117.7 \pm 9.99$ , in Group-B  $124.4 \pm 6.53$  the p values were found to be significant. After 4 months, there was a further highly significant reduction in the resting systolic blood pressure in Group-A to  $115.60 \pm 10.67$ , in Group-B heart rate reduced to  $123.0 \pm 4.84$  ( $P < 0.001$ ). The systolic blood pressure reduced further to a level of  $114.2 \pm 10.64$  in Group-A,  $120.4 \pm 5.64$  in Group-B after 6 months of yogic practice which is highly significant  $p < 0.001$ . **Conclusion:** It can be concluded that yogic practice helps to achieve a stable autonomic balance and to develop a relative hypometabolic state. Hence, yoga can be used as an intervention in aging persons to reduce the morbidity and mortality from cardiovascular diseases which are now topping the lists.