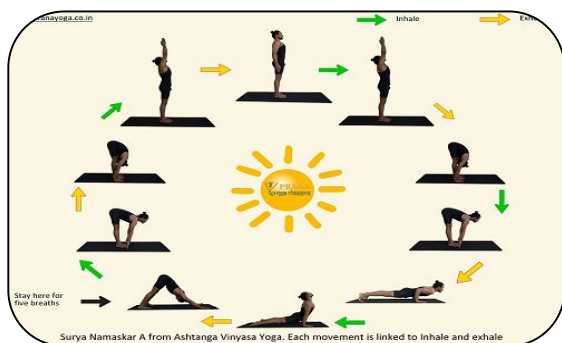




## EFFECT OF SURYA NAMASKAR ON HEART RATE AND FLEXIBILITY



### ABSTRACT:

The purpose of the study is to determine the effect of yoga practice "Surya namaskar" on resting heart rate (HR) and students' flexibility. We randomly selected twenty students of Naini Degree College, Naini (Allahabad) for this study as a subject. Their age ranged from 18 to 24 yrs. The session of practice was divided in two sessions in a day i.e. morning and evening session for a period of ten weeks. The variables resting heart rate and flexibility were selected for the present study. Pre and post - test were conducted in order to identify the significance difference. The collected data was analyze by 't' test. The result shows that there is a significant difference was found in resting heart rate.

**KEYWORDS:** Heart Rate, Flexibility etc.

### INTRODUCTION :

Standard use of various yoga practices in various networks has been appeared to diminish pulse and circulatory strain. It's gotten more obvious as of late that individuals need methods to assist them with adapting to the day by day stressors of current life. With stress related hypertension and cardiovascular sickness on the ascent. Much of the time encouraging psyche and body adaptability is effectively set aside when it is likely required the most. Keeping the body sound, notwithstanding, can assist with easing

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snugness and stresses which can prompt interminable and once in a while difficult physical issues. Having been sidelined from customary exercises because of orthopedic or different issues, getting inspired to begin practicing again turns out to be progressively troublesome. Notwithstanding the likely physical dangers of rigidity, even the most devoted sprinter or recreational competitor regularly doesn't set aside a few minutes for satisfactory adaptability preparing. Givens that time is constantly observed as a limiting variable when working out, a standard act of "Surya namaskar" (salute to the sun) might be the ideal solution for individuals with time difficulties. Surya namaskar is a succession of 12 physical stances, comprising of various forward and switch twists. The arrangement of developments stretch the spinal segment and upper and lower body through their full scope of movement, kneading, conditioning and invigorating crucial organs by on the other hand flexing the body forward and in reverse. The reproduced push-up development and chest area weight bearing situations in the arrangement may assist with creating solid quality and perseverance in the pectoral, rear arm muscles, just as the muscles of the storage compartment. The arrangement gives such a significant stretch to the body that it is viewed as a total yoga practice without anyone else. The reason for the examination is to decide the impacts of about a month and a half "Surya namaskar" yoga practice on pulse and adaptability of understudies. It was guessed that there will be a noteworthy distinction in the chose factors

following ten weeks "Surya Namaskar" practice.

## METHODOLOGY

Simple random sampling for the selection of subjects was adopted in the present study. For the present study twenty male students have been selected. The ages ranged from 18 to 24 yrs for subjects. Sit and reach test was used to measure the flexibility and resting heart rate was measured manually with the help of stop watch. The Surya Namaskar practice was given to the subjects for ten weeks, twice daily at Naini Degree College, Naini (Allahabad). Variables selected for the study was resting heart rate and flexibility. The data was collected twice i.e. prior to the start of training program (Pre data) and after the completion of the ten weeks practice (post data). The data collected the study was statistically analyzed by employing 't' test at level of significance.

## RESULT

't' test was applied to find out the significance difference between the pre - test and post -test means of the selected variables. The level of significance was chosen to test the hypothesis was 0.05.

**Table 1: Values of Paired Statistics of Resting Heart Rate**

Groups	Mean	S.D	S.E.M	'T' Ratio
Pre-test	64.66	8.70	2.51	5.19*
Post-test	58.16	5.93	1.71	

\*significant at 0.05 level of significance; t.05=2.18

Table 1 indicate the mean, standard deviation and standard error mean values of pre-test of resting heart rate which were found to be 64.66, 8.70 and 2.52 respectively. And the values of mean, standard deviation and standard error mean of post-test of resting heart rate were found to be 58.16, 5.93 and 1.71 respectively. Table 1 also indicate the paired sample t-test of resting heart rate which shows that there was a significant different in the pre and post - test values of the variable resting heart rate. The calculated value of 't' was found to be 5.19\* at 0.05 level of 't' at 0.05 level of significance.

**Table 2: Values of Paired Statistics of Flexibility**

Groups	Mean	S.D	S.E.M	'T' Ratio
Pre-test	1.96	0.05	0.12	2.68*
Post-test	2.46	0.25	0.05	

\*significant at 0.05 level of significance; t.05-2.18

Table 2 shows the mean, standard deviation and standard error mean values of pre-test of flexibility which were found to be 1.96, 0.05 and 0.12 respectively. And the values of mean, standard deviation and standard error mean of post-test of flexibility were found to be 2.46, 0.25 and 0.05 respectively. Table 2 also indicate the paired sample t-test of flexibility which shows that there was a significant difference in the pre and post - test values of the variables flexibility. The calculated value of 't' was found to be 2.68\* at 0.05 level of significance, which is higher than the tabulated value of 't' at 0.05 level of significance.

## CONCLUSION

On the basis of finding it is concluded that there is significant difference in resting heart rate and flexibility of Naini Degree College, Naini (Allahabad). Result of present study support finding of Kristine (2008) and Sivasankara (2006) in case of BMI and is compatible with results. The hypothesis stated earlier that there shall be a significant difference in the selected variables following ten weeks "Surya Namaskar" practice was excepted.

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