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# Effect of Asana and Pranayama Practice with Natural Diet Total Cholesterol among the Patients of Coronary Artery Disease

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**Abstract**

*The present investigation research is to find out the effect of asana and pranayama practice with natural diet among the patients of Coronary Artery Disease. To implement this study 80 male patients of the coronary artery disease are selected from Kerala. The subjects are randomly assigned to four equated groups. Experimental group –I (N=20), underwent Asana Practices With Natural Diet (APWND), experimental group –II (N=20) underwent Pranayama Practices With Natural Diet (PPWND), experimental group –III (N=20) underwent Combination of Asana, Pranayama practices With Natural Diet (CAPPWND) and control group (N=20) do not undergo any specific training. The experimental groups participated in yoga training schedule of three alternative days in a week for the period of 12 weeks. The study is including the total cholesterol decrease and the performance due to yogic practices variations of yoga, pranayama with natural diet on systolic blood pressure and diastolic blood pressure among the patients of coronary artery disease and the control group are not showed any significant improvement.*

**Keywords:** Asana Practices, Natural Diet**,** Pranayama, Systolic Blood Pressure, Diastolic Blood Pressure.



## Introduction

Coronary Artery Disease may not have any noticeable signs at first, but signs may start occurring as a plaque continues to accumulate in the coronary arteries, explains Mayo Clinic. The primary symptom of coronary artery disease is angina, which is a pain that can occur in the chest, left shoulder, neck, arms or in the back if the heart does not receive sufficient oxygen and blood, reports Healthline. The heart may become weak, causing heart failure or abnormal heart rhythms. Doctors believe that the coronary artery disease occurs from damaging to the inner layer of a coronary artery and causing atherosclerosis, a condition in which fatty deposits build up in the arteries, notes Mayo Clinic. Causes include diabetes, smoking, inactive lifestyle and high blood pressure which is narrowing and thickening of the arteries. The risk factors increase with age, a family history of heart disease, increased stress in life and high levels of homocysteine which is an amino acid for making and maintaining body tissues Patients with signs of coronary artery disease should seek immediate medical attention, advises Healthline.

Asana Pranayama Mudra Bandha is recognised internationally as one of the most systematic yoga and its are available today. Since its first publication by the Bihar School of Yoga in 1969, it has been reprinted thirteen times and translated into many languages. It is the main reference text used by yoga teachers and students of Bihar Yoga/Satyananda Yoga within the International Yoga Fellowship Movement, and many other traditions as well. This comprehensive text provides clear illustrations, step by step directions and details of chakra awareness. It guides the practitioner or teacher from the simplest to the most advanced practices of the hatha yoga system. A therapeutic index is included for the use of doctors and yoga therapists incorporating the recent information from the research in yoga. This edition successfully brings the exposition of yoga practices to the standard of a university text.

The science of yoga begins to work on the outermost aspect of the personality, the physical body, which can be is a practical and familiar starting point. For most of the people when imbalance is experienced at this level, the organs, muscles and nerves will no longer function in harmony, rather they act in opposition to each other. For instance, if the endocrine system become irregular and the efficiency of the nervous system decrease to such extent that a disease will manifest. Yoga aims at bringing different bodily functions into a perfect coordination so that they work for the good of the whole body.

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## Methodology

The present investigation research was to find

out the effect of yoga, pranayama with natural diet on total cholesterol among the patients of coronary artery disease. To accomplish the intention of the research of 100 male patients of coronary artery disease were selected from Kerala. The subjects were randomly assigned to four equated groups. Experimental group –I (N=25), underwent Asana Practices with Natural Diet (APWND), experimental group –II (N=25) underwent Pranayama Practices with Natural Diet (PPWND), experimental group –III (N=25) underwent the combination of Asana, Pranayama Practices with Natural Diet (CAPPWND) and the control group (N=25) did not undergo any specific training. The experimental groups participated in yoga training schedule of five days in a week for the period of 12 weeks. The study variables including the total cholesterol measured blood test, the data were analysed by using 't' ratio, analysis of variance, Schefee's post hoc test.

**Data collection and analysis**

The previously described search strategy was used to obtain the titles and abstracts of studies that might be relevant for this review. Each abstract was identified in the research was independently evaluated by the two authors. If at least one of the authors considered one reference eligible, the full text was obtained for the complete assessment. In a similar fashion, two authors independently evaluated full-text articles for the eligibility and filled the inclusion and exclusion criteria in a standard form. A standardized data extraction form was used for the inclusion and exclusion criteria. In case of any disagreement, the authors discussed the reasons for their decisions and a final decision was made by consensus.

**Analysis of Data and Interpretation**

**Table I.** Significance of Mean Gain/ Losses between Pre –Post test of Suryanamaskar with Asana practices with Natural Diet total cholesterol among the patients of Coronary Artery Disease.

| Test | Mean | Std. Deviation | M.D | S.D.E | 't' ratio |
|---|---|---|---|---|---|
| Pre-Test | 202.7600 | 12.51093 | 2.40000 | .20000 | 12.000* |
| Post test | 200.3600 | 11.95436 | | | |

Table value(2.06 )0.05 level of Significance

**Table II.** Significance of Mean Gain/ Losses between Pre –Post test of Pranayama practices with Natural Diet on total cholesterol among the Patients of Coronary Artery Disease

| Test | Mean | Std. Deviation | M.D | S.D.E | 't' ratio |
|---|---|---|---|---|---|
| Pre-Test | 202.5200 | 10.04208 | 4.12000 | .58686 | 7.020* |
| Post test | 198.4000 | 9.15605 | | | |

Table value(2.06 )0.05 level of Significance

**Table III.** Significance of Mean Gain/ Losses between Pre –Post test of Combination of Asana Pranayama practices with Natural Diet on total cholesterol among the Patients of Coronary Artery Disease

| Test | Mean | Std. Deviation | M.D | S.D.E | 't' ratio |
|---|---|---|---|---|---|
| Pre-Test | 203.3600 | 16.39075 | 5.72000 | .97430 | 5.87* |
| Post Test | 197.6400 | 22.65112 | | | |

**Table value(2.06 )0.05 level of Significance**

**Table IV.** Significance of Mean Gain/ Losses between Pre –Post test of control group on total cholesterol of Coronary Artery Disease patient

| Test | Mean | Std. Deviation | M.D | S.D.E | 't' ratio |
|---|---|---|---|---|---|
| TCpre | 202.1600 | 19.05842 | .04000 | .04000 | 1.000 |
| TCpos | 202.1200 | 19.01824 | | | |

**Table value(2.06 )0.05 level of Significance**

**Table V.** Analysis on Pre Test among the APWND, PPWND, CAPPWND and CG on total cholesterol of coronary artery disease patient

| Source of Variance | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 19.080 | 3 | 6.360 | .029 | .993 |
| Within Groups | 21341.920 | 96 | 222.312 | | |

0.05 level of significance (T.V.)

**Table VI.** Analysis on Post Test among the APWND, PPWND, CAPPWND and CG on total cholesterol of the Coronary Artery Disease Patient.

| Source of Variance | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 305.150 | 3 | 101.717 | .369 | .775 |
| Within Groups | 26436.16 | 96 | 275.377 | | |

**Result of the Study**

1. It was resulted that the Asana With Natural Diet significantly improved on the total cholesterol among the patients of Coronary Artery Disease.
2. It was resulted that the Pranayama With Natural Diet significantly improved on the total cholesterol among the patients of Coronary Artery Disease.
3. It was resulted that the Combinations of Asana, Pranayama with Natural Diet Significantly improved on the total cholesterol among the patients of Coronary Artery Disease.

**Conclusions**

1. It was concluded that the Asana with Natural Diet significantly improved on total cholesterol among the patients of Coronary Artery Disease.
2. It was concluded that the Pranayama with Natural Diet significantly improved on the total cholesterol among the patients of Coronary Artery Disease.
3. It was concluded that the Combinations of Asana, Pranayama with Natural Diet significantly improved on the total cholesterol among the patients of coronary Artery Disease.
4. It was concluded that the Pranayama with Natural Diet significantly improved on the total cholesterol better than Asana with Natural Diet and Control Group among the patients of Coronary Artery Disease.
5. It was concluded that the Asana with Natural Diet significantly improved on the total cholesterol better than Asana with Natural Diet and Control Group among the patients of Coronary Artery Disease.

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