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## Increasing heart attacks in young Indians

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### Abstract

Heart disease is a broad term that includes several more specific heart conditions. The most common heart condition in the world is coronary heart disease, which can lead to heart attack and other serious conditions. CHD is the most common type of heart disease. CHD occurs when the coronary arteries, that supply blood to the heart muscle, become hardened and narrowed due to the plaque buildup.

**Keywords:** Heart attacks

### Introduction

India is seen as the diabetes and coronary heart disease capital of the world. According to the current estimates, India will soon have the highest number of heart disease cases in the world. According to the Indian Heart Association, “50 per cent of all heart attacks in Indians occur under 50 years of age and 25 per cent of all heart attacks in Indians occur under 40 years of age. Population living in cities are three times more prone to heart attacks than people living in villages.” Heart disease is increasing in younger generation with a significant risk in both males and females. More and more number of young Indians are suffering from coronary artery disease, owing to their poor lifestyle and if this continues the future looks even more dangerous. Ten years back, we at Apollo hospitals hardly saw any young patients with heart attack but now, we get many cases in the 25-35 years age group with heart attack in our emergency.

### Objectives

1. To assess the socio-economic status of the heart patients.
2. To assess the anthropometrical, clinical and nutritional parameters.

### Methodology

The study was conducted in Kanpur district. One medical college, two private nursing homes and two heart centers were selected in this study. 240 heart patients were selected (140 male and 100 females) in this study area. Dependent and independent variables were used such as age, education, caste, religion, causes, lifestyle, symptoms, blood pressure etc. The statistical tools were used such as mean, SD,  $\chi^2$ , rank were selected in this research area.

### Results

**Table 1:** Distribution of heart patients according to age group

Age group (years)	Male	Female	Total
30 – 40	4 (2.7)	-	4 (1.8)
40 – 50	25 (16.7)	12 (17.1)	37 (16.8)
50 – 60	44 (29.3)	20 (28.6)	64 (29.1)
60 – 70	50 (33.3)	26 (37.1)	76 (34.6)
70 & above	27 (18.0)	12 (17.2)	39 (17.7)
Total	150 (100.0)	70 (100.0)	220 (100.0)
$\chi^2$	0.353* $P < 0.05$		

(Figures in parenthesis indicate percentage of respective values)

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Disease of the heart may affect the pericardium, myocardium or endocardium. In addition, the blood vessels within the heart, having the heart or the heart valves may be diseased. A heart attack and a stroke are by no means always fatal. Some

can go back to their old activities, some remain involved and some are handicapped. In arteriosclerosis, the walls of small arteries become thickened to ageing or due to hypertension.

**Table 2:** Distribution of heart patients according to blood pressure (systolic)

Blood pressure (Systolic) mm	Male	Female	Total
100 – 120	35 (23.3)	10 (14.3)	45 (20.5)
120 – 140	35 (23.3)	11 (15.7)	46 (20.9)
140 – 160	34 (22.7)	20 (28.6)	54 (24.5)
160 – 180	46 (30.7)	29 (41.4)	75 (34.1)
Total	150 (100.0)	70 (100.0)	220 (100.0)
$\chi^2$	5.535 $P>0.05$		

(Figures in parenthesis indicate percentage of respective values)

Blood pressure is a measurement of how much force the blood exerts on the walls of the blood vessels. There are many different events occurring within the body as the heart pumps blood, known collectively as the cardiac cycle and so blood

pressure is measured at different points throughout this cycle. Systolic blood pressure measures the maximum pressure in the arteries during the cardiac cycle, which occurs when the heart contracts, or beats, to pump blood.

**Table 3:** Causes of heart diseases

Causes of heart disease	Male				Female			
	Yes	No	Scores	Rank	Yes	No	Scores	Rank
Physical stress	58	92	1.39	V	24	46	1.39	VI
Lack of physical exercise	28	122	1.19	IX	8	62	1.11	X
Obesity	15	135	1.10	X	13	57	1.19	VIII
Smoking	32	118	1.21	VIII	2	68	1.03	XIV
Hypertension	84	66	1.56	II	56	14	1.80	I
Shortness of breath	66	84	1.44	IV	35	35	1.50	IV
Diabetes	42	108	1.28	VII	22	48	1.31	VII
Mental stress	96	54	1.64	I	39	31	1.56	III
Sleeplessness	79	71	1.53	III	43	27	1.61	II
High intake of fat	35	115	1.23	VI	27	43	1.39	V
Use of birth control pills	-	150	1.00	XIV	3	67	1.04	XIII
Low intake of vitamin and minerals in foods	6	144	1.04	XIII	5	65	1.07	XII
High intake of sodium	14	136	1.09	XI	9	61	1.13	IX
Bad relationship	7	143	1.05	XII	6	64	1.09	XI
P	0.767* $P>0.05$							

The effects of emotional stress, behaviour habits and socio-economic status on the risk of heart disease and heart attack have not been proven. That is because we all deal with stress

differently; how much and in what way stress affects us can vary from person to person.

**Table 4:** Distribution of heart patients according to their feelings

Feelings	Male	Female	Total
Tension	74 (49.3)	42 (60.0)	116 (52.7)
Depression	24 (16.0)	11 (15.7)	35 (15.9)
Anxiety	13 (8.7)	8 (11.4)	21 (9.5)
Shocked	39 (26.0)	9 (12.9)	48 (21.9)
Total	150 (58.3)	70 (41.7)	220 (100.0)
$\chi^2$	5.192 $P<0.05$		

(Figures in parenthesis indicate percentage of respective values)

People who are under a lot of tension have an increased risk of heart disease. Tension is generally the kind of stress people are talking about when they say that stress causes heart disease. Under the right (or rather, wrong) circumstances,

emotional stress may contribute to the development of chronic heart disease, or can help precipitate acute cardiac problems in people who already have heart disease.

**Table 5:** Preventing measures and control of heart disease

Control of heart disease	Male				Female			
	Yes	No	Scores	Rank	Yes	No	Scores	Rank
Control BP	96 (64.0)	54 (36.0)	1.64	I	60 (85.7)	10 (14.3)	1.86	I
Control cholesterol	58 (38.7)	92 (61.3)	1.39	III	28 (40.0)	42 (60.0)	1.40	III
Control diabetes	45 (30.0)	105 (70.0)	1.30	V	22 (31.4)	48 (68.6)	1.31	V
Maintain healthy weight	18 (12.0)	132 (88.0)	1.12	VII	11 (15.7)	59 (84.3)	1.16	VI
Regular exercise	12 (8.0)	138 (92.0)	1.08	IX	5 (7.1)	65 (92.9)	1.07	VIII
Good and balanced diet	70 (46.7)	80 (53.3)	1.47	II	25 (35.7)	45 (64.3)	1.36	IV
Live healthy life	12 (8.0)	138 (92.0)	1.08	IX	6 (8.6)	64 (91.4)	1.09	VII
Regular body check up	54 (36.0)	96 (64.0)	1.36	IV	38 (54.3)	32 (45.7)	1.54	II
Moderate use of alcohol	32 (21.3)	118 (78.7)	1.21	VI	3 (4.3)	67 (95.7)	1.04	IX
No tobacco use	15 (10.0)	135 (90.0)	1.10	VIII	-	-	-	-
P	0.473							

After screening patients, heart center physicians and staff work specifically on modifying the risk factors in order to prevent the onset or progression of cardiovascular disease. Make sure get to goal, whether it's with lifestyle modification, medications as appropriate, exercise therapies or diet. This is accomplished with a combination of individual and group therapies such as diet, food preparation, weight control and smoking cessation classes.

### Conclusion

Heart disease is the number one cause of death in India. The most common type is coronary artery disease. Risk factors include high cholesterol, being overweight and high blood pressure. It usually takes years for symptoms to appear, in many cases, the first symptom is the heart attack. While there is no cure, the condition often can be treated through lifestyle changes (such as losing weight or quitting smoking) and possibly taking medication.

### Recommendations

- Exercise regularly
- Eat less saturated fat, more produce and more fibre
- Yoga may help to reduce heart problems and others

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