



# A Study on Nutrient Intake and Body Mass Index in Relation to Joint Pain of Adult Women

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**ABSTRACT**

The study entitled "A study on nutrient intake and body mass intake in relation to joint pain of adult females" is basically concentrated on women. Women with joint pain often think that anything can't help them. They may not seek medical attention because they believe that joint pain is an inevitable consequence of aging. Therefore in this study we focused on the preventive measures for a disease rather than cure. The study proceeded with the selection of 100 adult women among them 40 have no-joint pain and 60 have joint pain .All the subjects belong to low socio economic group of Indore (M.P) city. Required baseline information were collected from the subjects. Anthropometric measurements like weight, height were measured to assess body mass index and dietary intake of nutrients were calculated using 24 hours dietary recall method.

The results revealed that the majority of joint pain and non-joint pain women were in the range of 1300-1800 kcal per day but the joint pain women were 71% and non-joint pain women were 55% in this range. Protein intake were in the range of 25-30 g per day and 55% women of joint pain and 40% of non-joint pain .fat intake in the range of 40-50 g fat per day and 66.66% joint pain women and 40% of non-joint pain women were in this range. Out of 60 women of joint pain and 40 women of non-joint pain the maximum women in the range of 16-18 BMI which were underweight. Thus in LIG there is no relation of BMI with joint pain.

**KEYWORDS**

Anthropometric measurement, Dietary intake, Joint pain

**Introduction:-**

Ageing is a process which continue conception to death. In this process body goes through different changes accordingly with the age .In adult age the body catabolic process take place more rapidly and faster in comparison to anabolic process .If in this age we do not concentrate on our diet and health then we starts suffering from various disease .Due to which it adversely effects body function therefore to outcome from the negative effect of harmful disease .We should starts taking prevention in early stage of disease. But in our country India the majority as well as old age people did not pay any attention on their health which cause various changes in body metabolism. Consequently it effects to our body function .Joint pain is an example of disease in this age .But in this age symptoms and signs are ignored generally. If their causes and symptoms of joint pain are not prevented then this prevailing symptoms could give rise to many other diseases.

The study aimed to investigate the impact of nutrient intake and weight on joint pain of adult women.

**Material & Methods:-**

The study proceeds with the selection of 100 adult women among them 40 women were having no joint pain and 60 women were having joint pain .All the women belong to low socio economic group of Indore (M.P) city. Required baseline information were collected from the subjects. Height and Weight were measured to assess body mass index and dietary intake of nutrients were calculated using 24 hours dietary recall method.

**Results & Discussion:-**

**Table 1: Nutrients intake in relation to joint pain & no joint pain.**

Group	Nutrient Intake	Calculated Rp Bis
Joint pain Non joint pain	Energy (Kcal)	.30*
Joint pain Non joint pain	Protein (g)	.208**

Joint pain Non joint pain	Fat (g)	.23*
Joint pain Non joint pain	Carbohydrate (g)	.32*

\*significant at level 0.01

\*\*significant at level 0.05

From the above table that Rpbis value for the nutrients intake with joint pain were found to be significant .Moreover the table is suggesting a significant positive relation between nutrient intakes with joint pain of women. It means that the joint pain is related with nutrient intake.

On the basis of data collection the majority of joint pain and non-joint pain women were in the range of 1300-1800 kcal per day but the joint pain women were 71% and non-joint pain women were 55% in this range so the frequency of joint pain women is more in this range. On the basis of data collection the calorie intake in both group was less then RDA. The majority of joint pain and non-joint pain women were in the range of 25-30 g protein per day and 55% women of joint pain and 40% of non-joint pain women were in this range so protein intake is related to joint pain. The majority of fat intake in the range of 40-50gm fat per day and 66.66% joint pain women and 40% of non-joint pain women were in this range. But in LIG group fat intake was more than RDA. So the fat intake is related to joint pain.

**Table 2: Nutrients intake in relation to joint pain & no joint pain.**

s.no	Group	Calculated Rpbis
1.	Joint pain	0.15
2.	Non joint pain	

From the above table it is evident that the obtained Rpbis value is less than the level of significant so for the association of joint pain and non-joint pain adult women with the BMI was found non-significant.

On the basis of data collection out of 60 women of joint pain and 40 women of non-joint pain the maximum women were in the range of 16-18 BMI which were underweight but the frequency of joint pain women were more in this range. Thus in low income group and underweight women there is no relation of BMI with joint pain.

**Conclusion:-**

Joint pain is a common complaint for many people. There are several factors that can cause joint pain. Foods may be a more frequent contributor to joint pain. Awareness and knowledge of the causes of joint pain lead to a more accurate diagnosis. Management of joint pain is in the accurate diagnosis and effective treatment for that diagnosis.

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