

**COMPARISON OF ENERGY INTAKE AND ENERGY EXPENDITURE OF
PHYSICALLY ACTIVE MALES AND PHYSICALLY INACTIVE MALES
STUDENTS OF LOVELY PROFESSIONAL UNIVERSITY**

A Dissertation Submitted to the

Department of Physical Education

In the partial fulfillment of the requirement for the award of degree of

Master of Physical Education

By

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DECLARATION

I declare that the dissertation named “*Comparison of Energy Intake And Energy Expenditure of Physically Active Males and Physically Inactive Males students of Lovely Professional University*”, has prepared by me for the award of the degree of Masters in Physical Education and all the ideas that are used in this research isn't copied from any other research work or organizational data. All data which is used for this research is my original work. None of the unauthorized resources are used while formulating this research.

Signature

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CERTIFICATE

It is certify that Mr. Sandeep Kumar has completed the dissertation entitled *Comparison of Energy Intake And Energy Expenditure of Physically Active Males and Physically Inactive Males students of Lovely Professional University* under my guidance and supervision. To the best of the knowledge, the present work is the result of original investigation and study. No part of the dissertation has ever been submitted for any other degree or diploma.

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ABSTRACT

The present study is done on the “*Comparison of Energy Intake and Energy Expenditure of Physically Active Males and Physically Inactive Males students of Lovely Professional University*”. Knowledge of proper food and nutrition has a direct relationship on the health aspect of an individual. The requirement of energy balance requires the understanding of proper energy intake and energy expenditure. The knowledge of caloric intake and caloric expenditure is very important to know about. This research is conducted to find out the dietary intake and Expenditure and to evaluate the difference of dietary intake of Physically active Male students and physically inactive males of Lovely Professional University. As the result the evaluation reveals that the energy intake was more and balanced in Physically Active Males as compared to Physically Inactive Males and the energy expenditure was more in Physically Active Males as compared to Physically Active students of physical education and non-physical education. To complete the study the investigator has taken the sample size of 50 students 50 from each of physically Active Students of physical education and non-physical education students. The statistical t-test was used for comparing the data however the significant difference was in both of physically active and physical inactive students of lovely professional university.

Keywords: Energy Intake, Energy Expenditure.

Investigator

SANDEEP KUMAR

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TABLE OF CONTENTS

Chapter	Description	Page No
	Declaration	i
	Certificate	ii
	Abstract	iii
	Acknowledgement	iv
	Table of Contents	v
	List of Tables	vi
	List of Graphs	vii
Chapter-I	Introduction to the problem	1-7
	Significance of the study	6
	Statement of the problem	7
	Objectivity of the study	7
	Hypothesis	7
	Delimitation of the study	7
Chapter-II	REVIEW OF LITERATURE	8-11
Chapter-III	RESEARCH METHODOLOGY	12-17
Chapter-IV	RESULTS AND DISCUSSION	18- 34
	CONCLUSION AND FUTURE SCOPE	32-34
	LIST OF REFERENCES	35- 36
	APPENDICES	37-38

List of Tables

Sr. No	Description	Page No
1	Physical characteristics of physically active students	18
2	Physical characteristics of physically in- active students	18
3	Energy intake and expenditure of physically active students	19
4	Energy intake and expenditure of physically in-active students	19
5	Mean, S.D. & S.E.M values of carbohydrates, Fats and protien intake of the physically active students	20
6	Mean, S.D. & S.E.M values of carbohydrates, fats and protien intake of the physically in-active students	20

List of Graphs

Sr. No	Description	Page No
1	Comparison of Height of Physically Active Student and Physically In-Active Students	21
2	Comparison of Body Weight of Physically Active Student and Physically In-Active Students	22
3	Comparison of Energy Intake of Physically Active Student and Physically In-Active Students	23
4	Comparison of Energy Expenditure of Physically Active Student and Physically In-Active Students	24
5	Comparison of carbohydrates, fats and protein intake of the physically active students inactive students	25

Chapter I

INTRODUCTION

In this modern world the performance sports enhances with healthy dietary intake and decreases with unhealthy food. Knowledge of strong fitness goal and legitimate nourishment has an emphatically pondered impact the general wellbeing of a competitor and on even on the wellbeing status of the living standard of an individual person. The food habits which are cultivated from childhood vary according to the different socio-cultural groups and family background in India.

The rapidly developing science of nutrition has accumulated a mass of facts about what constitutes the best type of diet and proofs that food may be used as a tool for building cardio vascular endurance and strength etc. In the absence of proper nutrition no sports person of a country can be expected to achieve national fame which is essential for continued development of economic, social and political stability.

Diet conditioning and training are complementary to one another to improve the proficiency in sports and training schedule along with the acceptable well-balanced diet for an athlete in an year round affair.

In a survey of the nutritional practices of coaches in the big ten conferences, 78 percent of the coaches felt a need for more nutritional information, yet 69 percent of them rarely read about nutrition. Physical and additionally healthful molding is in charge of the execution level in various levels of rivalries. Nourishment is by all account not the only constraining component for execution level however it has the boosting impact on games execution, yet now and again it might restrain calculate where vitality admission is not as much as vitality use. Mackman (1992) has shown that food plays an important role in improving level of sportspersons.

According to Butter Worth et al., (1994) the composition of most endurance athlete's diets, however, has been reported to be similar to the diet of general population. With a fat intake higher and a carbohydrate intake lower is recommended for active individuals. There are limited studies in the field of sports nutrition.

Training and conditioning schedule also varies with the different events of sports and games, age, sex, season and even in the same season during different temperature the diet intake pattern for an individual physically active person. Similarly, which are also variable because of difference in the main effecting factors, like age of the person, gender(sex), body size of the person, duration and severity of training programs, environmental and climatic conditions of the area, types of sports, games, occupation and the level of competition.

The Sports scientists in the world have a wide knowledge of each nutrient which will enhance the performance of all the individual and making the society healthy and disease free. This is a realized that the whole individual needs a wide range of supplements in the event that they need to keep up their wellbeing and to lessen the danger of eating routine related and different maladies. The measure of every supplement which is required for the typical capacity is known as the nourishing necessity of the body to do the standard work without sought weakness. There are distinctive supplements and which likewise change between people to individual and life stages, e.g. pregnant lady require more iron than men.

In our body every supplement has a specific capacity to perform in the body and a couple of supplements are required in bigger amounts than others required one. For instance, protein is required in gram (g) amounts as proteins are the building squares. Vitamin C is needed in milligram (mg) quantities which also acted as antioxidants (1/1000 gram) and vitamin B₁₂ is needed in microgram (µg) quantities (1/1000000 gram) which is a good source of vital nutrients for eyes. Singular necessities of every supplement are identified with a man's age, sexual orientation (Sex), level of physical movement in the standard exercise and

condition of wellbeing. Additionally, a couple people and assimilate use supplements less productively than others as a result of their poor metabolic exchange amid processing thus will have higher than normal nutritious prerequisites, e.g. in older people, vitamin B₁₂absorption is very poor in relation to their age so they are required to take supplements to fulfill there requirements .

In the United Kingdom, roughly calculated requirements for all the major groups of the population are based on suggestions that was given by the Committee on Medical Aspects of Food and Nutrition Policy (COMA) back in the early 1990s. COMA evaluated that the available scientific evidence and calculated nutritional requirements of various groups within the different groups of British population. In the published report in the 1991 Dietary reference values for food energy and nutrients for the population of Great Britain. From that time, COMA has been overtaken by the Scientific Advisory Committee on Nutrition (SACN). Instead of than reviewing all the nutrients in one time evaluation, SACN is concentrating on nutrients about which is needed more, e.g. iron, foliate, selenium and vitamin D, and a report has already published on each of these. SACN is also considering whether the energy requirements need any kind of adjustment in an individual. Groups of population for which dietary reference values have been set include:

Boys and girls (aged 0-3 months; 4-6 months; 7-9 months; 10-12 months; 1-3 years; 4-6 years; 7-10 years) **Males** (aged 11-14 years; 15-18 years; 19-50 years; 50+ years) **and Females** (aged 11-14 years; 15-18 years; 19-50 years; 50+ years; pregnancy and breastfeeding).

Nutritionally healthy diet chart for an average male or female is made up of the basic nutrients which were required by the body each day:

Food Nutrient	Quantity Per Day
Fats	65 grams
Proteins	55 grams
Saturated Fatty Acids	22-22 grams
Carbohydrates	300-310 grams
Sugars	80-90 grams
Sodium (salt)	2-6 grams
Fiber food	30-35grams

Sugars are the rich wellspring of vitality which has turned into the main foe to many eating routine. The two principle types of sugars will be sugars, (for example, fructose, glucose, and lactose) and starches, which are found in nourishments, for example, dull vegetables, grains, rice, breads, and oats. The body separates (or changes over) most starches into the sugar glucose, which is ingested into the circulation system. Nourishments from the vegetable sources and whole grains were the great wellsprings of compound starches, while simple sugars are established in organic products, table sugar, and nectar and sweetened prepared substances.

Proteins give essential shape to all cells in the body. They additionally help repair tissues and battle with the contamination. In the event that there utilization surpasses the body's needs, protein can fill in as a vitality source, conveying 4 calories for every gram. Twenty amino acids constitute the building squares of proteins. Of these, nine are fundamental amino acids, which must originate from the eating routine. Interestingly, the body can make the rest of the essential required amino acids if the need emerges. Creature items and vegetables are great protein sources. Like starches and proteins, fats supply essentialness to fuel the methods that keep your body alive. Strangely, nevertheless, they

pack 9 calories for every gram. They all around fall in one of four classes, in light of their compound structure: monounsaturated, polyunsaturated, drenched and transfats. Transfats are man-made and considered the unhealthiest in light of the fact that they raise repulsive LDL cholesterol and lower awesome HDL cholesterol. Drenched fats as a rule begun from animal fats and tend to raise terrible cholesterol, while point oil and vegetable fats are generally unsaturated and help cut down dreadful cholesterol.

Vitamins are brain boggling regular substances that work together with proteins called mixes, to help creation reactions occur in the body. From reactions required for support absorption to bone building and era, they are incorporated. The Linus Pauling Institute portrays 13 vitamins that the body requires for prosperity and suitable change. They vary in their specific parts and are either water-dissolvable, for instance, vitamin C and the B-complex vitamins, or fat-dissolvable, for instance, vitamins A, D, E or K. Nourishments developed from the beginning among the wealthiest wellsprings of by and large vitamins.

Minerals offer structure to your bones, teeth and nails. Like vitamins, they help impetuses in many body shapes. Not in the least like vitamins, regardless, they are inorganic substances that begun from the soil, shakes and water and are devoured by plants. Genuine minerals frequently have recommended step by step values more than 250 milligrams, according to the American Dietetic Association. Cases join calcium, phosphorus and magnesium. On the other hand, the body needs tinier measures of take after minerals, for the most part under 20 milligrams. Instances of take after minerals consolidate fluoride, chromium, iodine, iron, chromium and zinc. Extraordinary mineral sources join deplete, verdant vegetables and meat. Every cell and almost all life-managing body forms oblige water to work, and the American Dietetic Association gauges that it represents 45 to 75 percent of body weight. The normal grown-up loses 2.5 quarts or a greater amount of water day by day through sweat, pee, solid discharges and breathing. For ideal hydration, the Institute of

Medicine suggests a normal admission of 3.7 liters for grown-up guys and 2.7 liters for ladies, which ought to originate from sustenance and drinks.

Energy expenditure is the amount of energy (or calories) that a person needs to carry out a physical function such as breathing, circulating blood, digesting food, or physical movement. Your total daily energy expenditure (TDEE) is the total number of calories you burn each day.

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OBJECTIVES OF THE STUDY

To find out the dietary intake and Expenditure of university physically active males and inactive males.

To evaluate the difference of dietary intake of university physically active males and inactive males.

HYPOTHESES

There will be significant difference in energy intake and energy expenditure of university physically active males and inactive males.

DELIMITATIONS

The study is delimited to Male groups only.

The subjects taken for the study are only 40 in number.

The study is delimited to age ranging between 17 to 25 years.

SIGNIFICANCE OF THE STUDY

The study will provide the nutritional guidelines for university physically active males and inactive males.

The study would lay down the guidelines for the coaches and physical education teachers and sports administration for searching the diet given to the players.

The study would help them to find out balance diet for the athletes according to their game to raise the standard of the players and the sports performance.

It would help to prepare dietary schedule for long time training which will help to get best results.

Chapter II

REVIEW OF RELATED LITERATURE

Physical activity greatly affects the energy expenditure. The range is over 10 folds between resting and maximum athletic activities. The studies in the field of sports sciences are related to the nutritional requirement in different sports events and effect supplementations of various nutrients on performance level of athlete has been carried out in the various department of sports sciences throughout the world for the improvement of sports performances.

Eating behavior, particularly restrained eating, has been suggested as a variable that could potentially influence EI following exercise (Luch *et al.*, 2000). Controlling for eating behaviors is still a novel concept within the literature and to date has been used primarily to recruit participants with specific eating behaviors (King *et al.*, 1996; Martins *et al.*, 2008; Keim, Cauty, Barbieri, & Wu, 1996; Bryant, King, & Blundell, 2005; Bryant, Finlayson, King, & Blundell, 74, 2006). There have only been a few studies that have recruited and compared participants with opposing eating behaviors. Luch *et al.* (2000) compared female restrained eaters (TFEQ mean score 13.3 ± 2.5) to female unrestrained eaters (TFEQ mean score 4.4 ± 3). Participants completed 50 min of cycling exercise at 70 % VO₂max followed by either a high fat or low fat test meal; resulting in 4 conditions, rest high-fat, rest low-fat, exercise high-fat, exercise low-fat. There were no significant differences between the exercise or rest conditions for EI with either restrained or unrestrained eaters, indicating the increased EE from the imposed exercise was not compensated for by a change in EI. Interestingly however, it was found that in the rest conditions, EI was significantly higher in the restrained eaters (high fat: 5.1 ± 1.0 MJ; low fat: 3.2 ± 0.5 MJ) compared to the unrestrained eaters (high fat: 4.5 ± 0.8 MJ; low fat: 2.7 ± 0.5 MJ). No significant differences between the groups for EI were found for either exercise high-fat or exercise low-fat. It was also reported that

exercise was more effective at creating an energy deficit in the restrained eaters compared to the unrestrained eaters. Dietary restraint might therefore influence exercise by acting as a controlling mechanism to prevent over eating as opposed to a disinhibitor to eating. Finally food hedonic ratings were measured (the pleasantness, palatability and tastiness; Lluch *et al.*, 2000). Following the high-fat lunch, pleasantness was rated significantly higher in the restrained individuals compared to the unrestrained individuals. The perception of the pleasantness, tastiness and palatability of the foods was significantly higher following exercise when compared to the rest condition, independent of dietary restraint.

Bryant *et al.* (2005, 2006) recruited females with low-disinhibition (LD) and high-disinhibition (HD) (disinhibition scores not available) and assessed their EI, 75 appetite (2005) and food preferences (2006) in a control and exercise condition (cycling at 70 % HRmax for 50 min). Exercise increased fullness and decreased hunger and desire to eat for HD more so than the LD (2005). HD rated the test meal 'more tasty' for the exercise condition although total EI was unchanged (Bryant *et al.*, 2005). HD was also associated with a significantly greater liking for all food stimuli and a higher preference for high fat foods (Bryant *et al.*, 2006). However, following exercise HD was associated with a significant increase for preferences for low-fat foods and a reduced motivation to eat (Bryant *et al.*, 2006). These findings suggest scores of disinhibition may impact the way an individual responds to food following an imposed bout of exercise.

Exercise-induced changes in food reward have also been indicated by Finlayson *et al.* (2009) following a bout of cycling exercise at 70 % HRmax for 50 min. Changes to EI following the exercise condition identified two groups within the participants: non-compensators - those who did not alter their EI following exercise and compensators - those who increased their EI following exercise. Compensators in addition to increasing their EI, also rated their food more palatable, indicated an increased wanting of food following

exercise, as well as, an increased preference for high-fat sweet foods compared to non-compensators. Understanding whether there is an enhanced motivational drive for wanting food following exercise may explain some of the individual differences observed between participants. Identifying and characterizing psychological markers of eating behavior may improve the efficiency of exercise prescription as a tool to promote weight loss. Further investigations are required within the adult literature considering both physiological and psychological predispositions, which may control EI compensation following imposed EE.

It has been proposed that habitual exercisers have increased appetite sensitivity compared to inactive individuals (Bilski *et al.*, 2009). Bilski *et al.* (2009) suggested the increased sensitivity of satiety signaling may be attributed to the increase in insulin sensitivity associated with habitual exercise. This is a hypothesis that still requires further investigation. Differences between habitual and non-habitual exercisers have been investigated in studies as early as 1956. Mayer, Roy and Mitra monitored EE and EI in mill workers categorizing them according to their level of occupational PA. An increase in EI was shown when estimated energy requirements increased, however, the rise in EI was only observed in the groups performing activity above a threshold level. Those workers who performed sedentary activities, did not decrease their EI in proportion to the decrease in EE, but instead had intakes similar to those at higher expenditures leading to positive energy balance. This early work was the first suggestion that increased sedentariness may invoke poor appetite control.

Appetite is more commonly reported to be suppressed or eating delayed immediately post exercise (exercise induced anorexia; Elder & Roberts, 2007). However, appetite suppression most often does not translate into an actual 83 change in EI. Elder and Roberts (2007) also suggest that any decrease in appetite suppression is acute (approx. 1 hr). A recent meta-analysis by Schubert *et al.* (2013) found that following a bout of exercise when

compared to a control condition, 28 trials indicated a changed in EI of ± 400 kJ, whilst 17 showed an increase of more than 400 kJ and 6 showed a decrease of more than 400 kJ. Similarly an earlier review by Bilski *et al.* (2009) from 12 papers investigating EI following exercise, showed eight studies found no change to total EI following exercise whilst two showed an increase and two a decrease. With such equivocal findings, further research is required within this complex area. A recommendation that all the variables mentioned within this chapter should be considered when planning future investigations has been made as they all may impact the findings in some way.

RESEARCH METHODOLOGY

The purpose of the present study is to know the energy intake and energy expenditure of physically active males and physically inactive males of the university.

The various parameters measured in the study have been enlisted under following.

1. Anthropometric measurements
2. Subjects
3. Method for determination of caloric intake
4. Method to determine caloric expenditure

Anthropometric measurements

Anthropometry is the most common technique used to assess the presence and degree of protein-energy malnutrition. Anthropometry is the measurement of body parameters to indicate nutritional status. Anthropometry can be used to measure an individual to determine if he or she needs nutrition intervention or it can be used to measure many individuals to determine if malnutrition is a problem in a population.

Some common anthropometric measurements include:

1. Height or length
2. Weight
3. Mid-upper arm circumference (MUAC)
4. Demi-span or arm span
5. Knee height
6. Sitting height
7. Skin fold thickness
- 8 Head circumference.

Subjects

The study will be conducted on 25 university physically active males of physical education department of the Lovely Professional University and 25 university inactive males of different other departments of the Lovely Professional University.

Method for Determination of Caloric Intake:

For determining the caloric intake, a record of everything eaten and drink along with specific amounts will be recorded to find out the caloric, value of food eaten and the composition of food items in terms of grams of carbohydrates, fats and proteins in each item will be consulted from the book, “Nutritive value of Indian foods” by C. Gopalan, B.V. Shastri and Balasubramaniam and values will be recorded in the tables and Nutrition Exercise and Weight Reduction” by Dr. S.K.Verma and Dr. Rupinder Mokha.





Method for the Determination of Caloric Expenditure:

For activities completed in 24 hours ranging from sleeping, Walking sitting, standing, playing etc. will be recorded in the tables along with tentative durations. The duration column should add up to 24 hours caloric expenditure. Tables for determining the total caloric burnt was consulted from monogram “healthier Living by Dr, D.K. Kansal, S.K.Vermaand M.S. Sohal.



STATISTICAL CONSIDERATION

The Mean

To obtain valuable results and further interpretations of study the present study has been processed with the help of following statistical measures.

The Mean is one of the most useful and widely used method to find out the average in statistics. Its is calculated by adding up all the number and dividing that sum by the total number of numbers.

The formula for Mean is as stated below:

$$\bar{x} = \frac{\sum x}{N}$$

Here,

\sum , represents the summation

x , represents scores (Mean Value)

N represents Total number of scores.

Standard Deviation

Standard deviation measures the absolute depression of variability. The Standard Deviation is a measure of **how spread out numbers is**.

n the formulas.

The symbol for Standard Deviation is σ (the Greek letter sigma).

This is the formula for Standard Deviation:

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

Standard Error of Mean (SEM):

Standard error of mean indicates the average dispersion that will be anticipated in the arithmetic mean and is calculated as:

$$\text{S.E. M.} = \text{S.D.} / \sqrt{N}$$

Where S.D. = Standard Deviation

N = Total Numbers of the individual sample.

't' test -Test of Significance

$$t = \frac{\bar{x} - \mu_0}{s / \sqrt{n}}$$

A t-test's statistical significance indicates whether or not the difference between two groups' averages most likely reflects a "real" difference in the population from which the groups were sampled.

Dietary intake data was considered reliable at <20% when using the percentage of relative standard error (SEM _ Mean). Seven day means for total energy intake (kJ), total energy expenditure (kJ), energy deficit (kJ) and macronutrients (% total energy intake, g, g_kg_1) will be determined.

TABLE I

PHYSICAL CHARACTERISTICS OF PHYSICALLY ACTIVE STUDENTS

	Body Height (Cms)	Body Weight (Kgs)
Mean	174.6	65.6
±S.D.	4.72	3.76
S.E.M.	0.68	0.53

TABLE II

PHYSICAL CHARACTERISTICS OF PHYSICALLY IN- ACTIVE STUDENTS

	Height (Cms)	Weight (Kgs)
Mean	168.5	61.94
±S.D.	3.66	2.77
S.E.M.	0.52	0.39

TABLE III
ENERGY INTAKE AND EXPENDITURE OF PHYSICALLY ACTIVE
STUDENTS

	Energy Intake (Kcal)	Energy Expenditure (Kcal)
Mean	3477.46	3467.58
±S.D.	100.32	69.09
S.E.M.	14.18	9.77

TABLE IV
ENERGY INTAKE AND EXPENDITURE OF PHYSICALLY IN-ACTIVE
STUDENTS

	Energy Intake (Kcal)	Energy Expenditure (Kcal)
Mean	2506.44	2446.34
±S.D.	126.15	106.79
S.E.M.	17.84	15.10

TABLE V
MEAN, S.D. & S.E.M VALUES OF CARBOHYDERATES,
FATS AND PROTIEIN INTAKE OF THE PHYSICALLY ACTIVE STUDENTS

	Carbohydrates (Kcal)	Fats (Kcal)	Proteins (Kcal)
Mean	2085.24	864.36	521.80
±S.D.	60.13	35.97	29.06
S.E.M.	8.50	4.80	4.10

TABLE VI
Mean, S.D. & S.E.M VALUES OF CARBOHYDERATES,
FATS AND PROTIEIN INTAKE OF THE PHYSICALLY IN-ACTIVE STUDENTS

	Carbohydrates (Kcal)	Fats (Kcal)	Proteins (Kcal)
Mean	1463.88	774.30	265.22
±S.D.	56.78	62.22	26.47
S.E.M.	8.03	3.47	3.70

Fig. 1: Comparison of Height of Physically Active Student and Physically In-Active Students

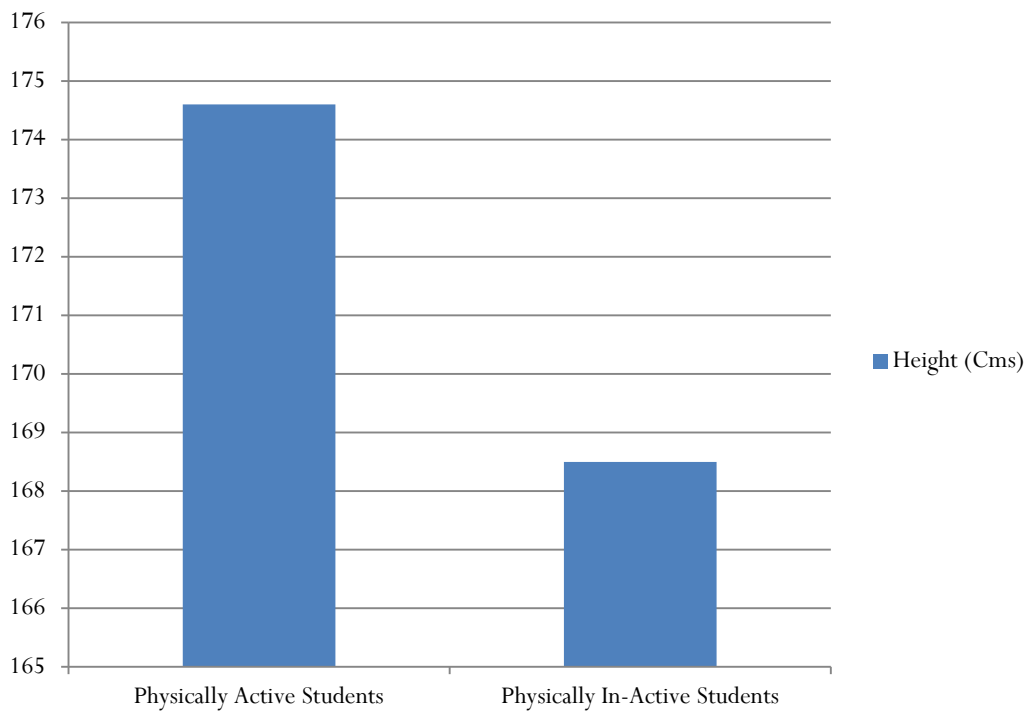


Fig. 2: Comparison of Body Weight of Physically Active Student and Physically In-Active Students

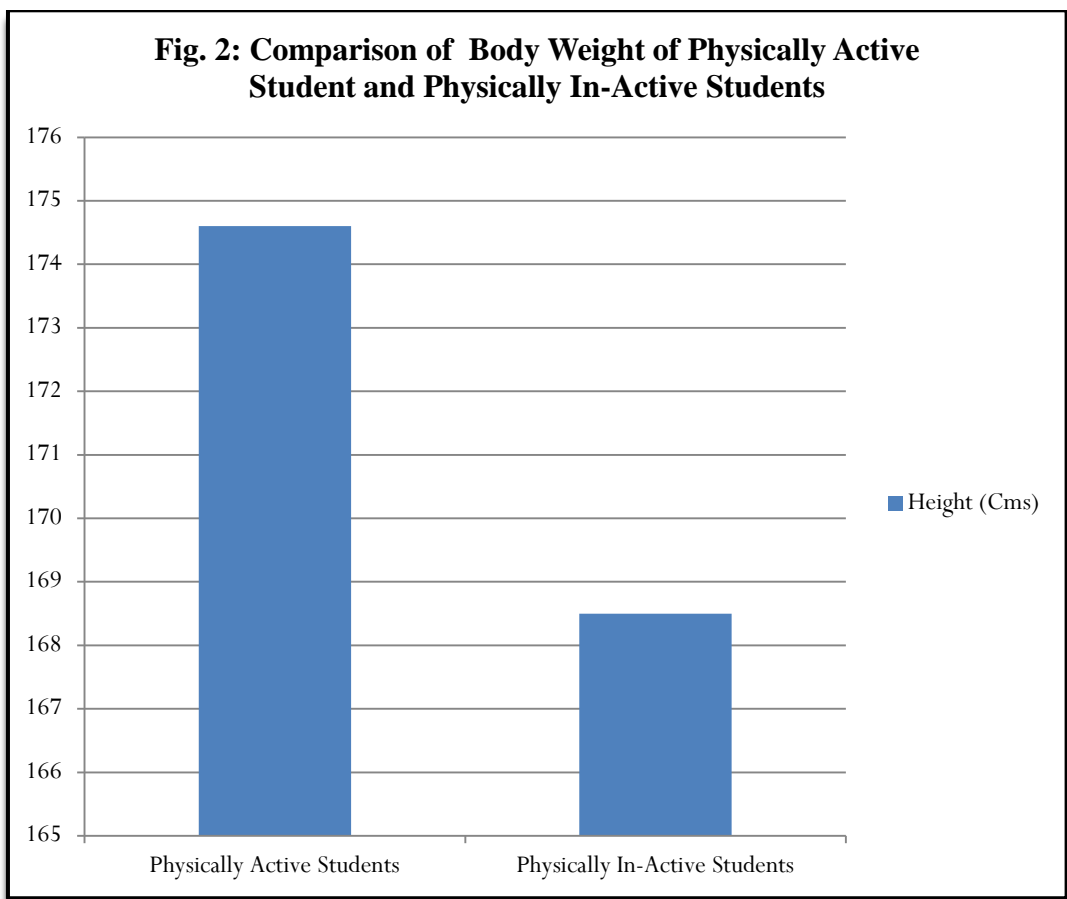


Fig.3: Comparison of Energy Intake of Physically Active Student and Physically In-Active Students

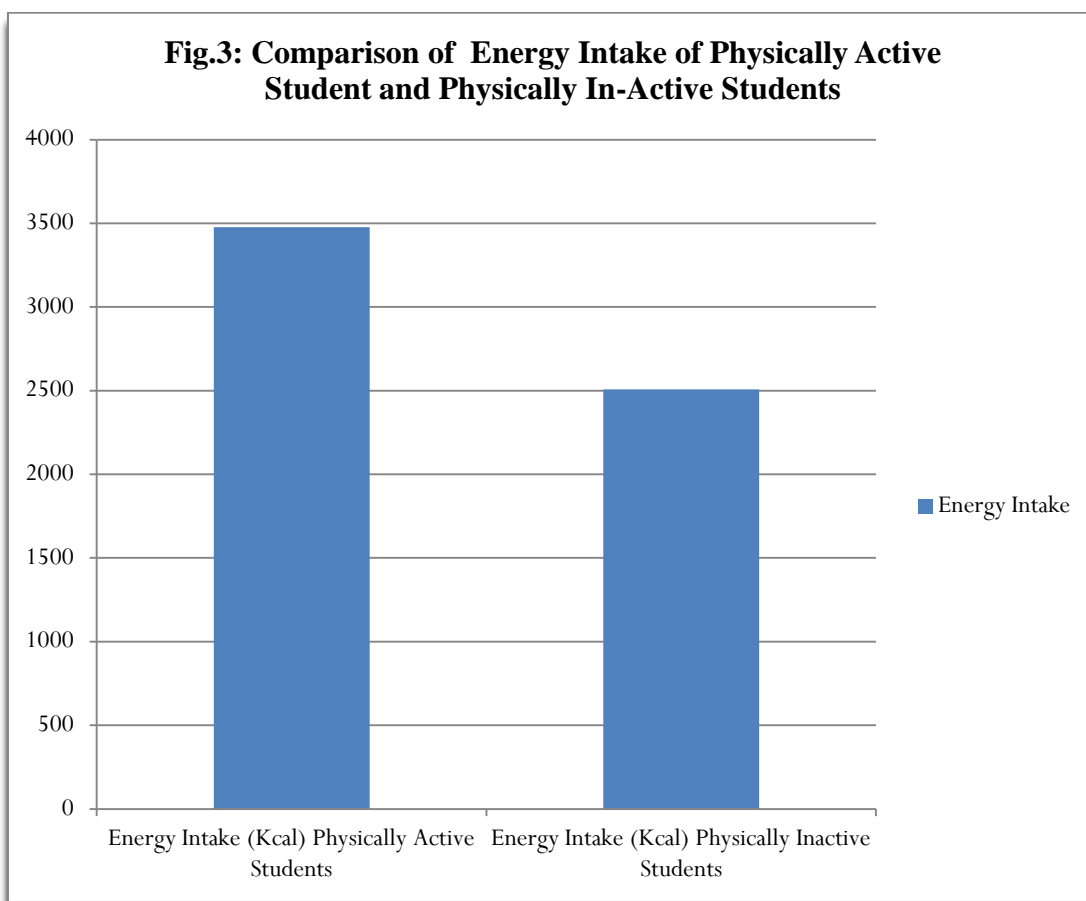


Fig.4 : Comparison of Energy Expenditure of Physically Active Student and Physically In-Active Students

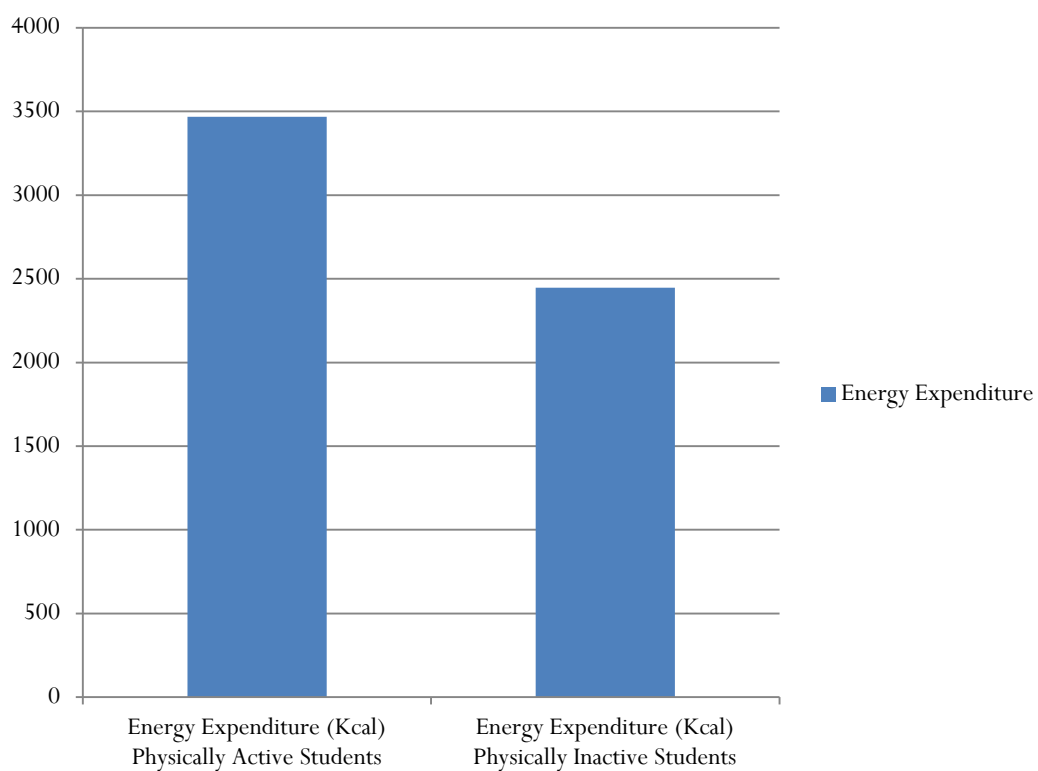
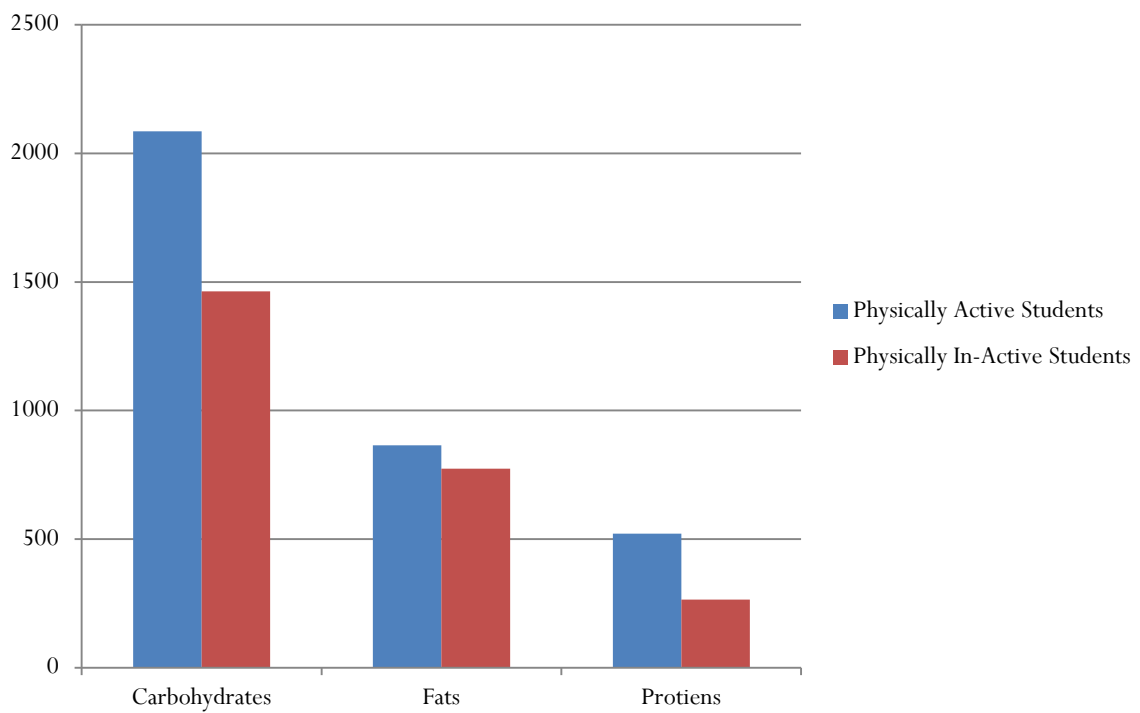


Fig.5 : COMPARISON OF CARBOHYDERATES, FATS AND PROTIEN INTAKE OF THE PHYSICALLY ACTIVE STUDENTS INACTIVE STUDENTS



ANTHROPOMETRIC MEASUREMENTS:

Fig. I From Table I and table 2 shows that the mean height of the physically active players was $174.6 \pm$ (Cms) and the Physically Inactive students group (i.e. control group). To compare the Height of these two groups t-test was applied and physically active group students were taller than the physically inactive student group and difference was statistically significant.

Fig. II. From table I and table II indicates the mean body weight of the physically active players was 65.6 ± 3.76 (Kgs) and the Physically Inactive students group (i.e. control group). To compare the Body Weight of these two groups t-test was applied and when the mean values of both physically active group and physically inactive student group and students physically active group were heavier the physically inactive student group and difference was statistically significant.

Energy Intake And Energy Expenditure:

Fig. III. From table III and table IV indicates the mean Energy Intake and Energy Expenditure of the physically active players was 3477.46 ± 100.32 (Kcal) while the Physically Inactive students group (i.e. control group) was 2506.44 ± 126.15 (Kcal). Thus the result after comparison indicates that the energy intake was more in Physically Active Student group as compared to the physically In active Group of Students When t-test was applied, the difference in the mean value of energy intake in both the groups i.e. physically inactive student group and Physically active group of students difference was statistically significant.

Fig. V. from table V shows that the mean intake of carbohydrates of physically active student group was 2085.24 ± 60.13 Kcal, and means Carbohydrates intake of Physically In-active student group is 1463.88 ± 56.78 Kcal. When the mean value of the carbohydrates was compared there was a highly statistically significant difference was observed

Fig.V. from table V shows that the mean intake of Fats of physically active student group was 864.36 ± 35.97 Kcal and means Fats intake of Physically In-active student group is 774.30 ± 62.22 Kcal. When the mean value of the Fats was compared there was a highly statistically significant difference was observed.

Fig.V. from table V shows that the mean intake of Proteins of physically active student group was 521.80 ± 29.06 Kcal, and means Proteins intake of Physically In-active student group is 265.22 ± 26.47 Kcal. When the mean value of the Proteins was compared there was a highly statistically significant difference was observed

DISCUSSION

Balance food intake has a direct relationship to all the physical, physiological and biomechanical status of the sportsman. Each individual who wants to live a healthy life, he must have the knowledge of his or her energy intake and energy expenditure. To live a healthy life it is very important to maintain height, weight and body mass collation from different literatures, it has been observed that the balanced nutrition i.e. intake of dietary component are very important to maintain healthy living in day to day life pattern.

Being strong means eating right and working out. To keep a sound adjust eat less a man ought to attempt to eat day by day no less than a part of the six noteworthy nutritional categories, and exercise no less than three times each week to keep the body fit and diminish the odds of weakness. A healthy eating regimen and way of life can help a man carry on with a long sound life.

Two of the six noteworthy nutrition types are leafy foods. To begin with, oranges have been found to help battle distinctive sorts of malignancies and different sicknesses. Analysts discovered oranges have the most astounding centralization of cancer prevention agents in all organic products. Cancer prevention agents recharge and limit the harm to our cells; for instance, these cells help us contain a solid resistant framework to battle disease. They additionally diminish the maturing procedure our body experiences.

Oranges are named citrus products of the soil has been found that they diminish the danger of mouth, larynx, and stomach tumor by half. Broccoli when it is bitten or crushed contains little measure of a synthetic called sulphorpane that has hostile to malignancy compound. Scientists found that crude broccoli needs sulpharpane and has no growth battling power, however when broccoli is warmed to 60 C it contains the counter malignancy compound at higher proportion. This is an exceptionally troublesome way acquire sulphoraphane, on the grounds that you must be mindful so as not to cook it. Scientists

recommend approaches to safeguard abnormal amounts of sulphoraphane by killing qualities, and cross breeds with wild strains. This sounds frightening when they are changing the concoction structure of the vegetable. There are constantly different vegetables and natural products that are rich in different chemicals that help battle illnesses like growth increment invulnerability and society and culture and living status of other wellbeing diseases.

Strength training exercise helps your bones, muscle tissue, and joints. Our bones start to thin and wear out as we age. Strength training replenishes our bones and helps fight against osteoporosis, which deforms the bone. Muscle tissue is important it keeps our ligaments cartilage all together to perform our Daily Movements.

Starches are the rich wellspring of vitality which have turned into the central foe to many eating routine. The two fundamental types of sugars will be sugars, (for example, fructose, glucose, and lactose) and starches, which are found in sustenances, for example, dull vegetables, grains, rice, breads, and oats. The body separates (or changes over) most starches into the sugar glucose, which is assimilated into the circulatory system. Plant-based substances and entire grains are great wellsprings of complex starches, while straightforward sugars are established in natural products, table sugar, and nectar and sweetened handled nourishments.

Proteins give fundamental shape to all cells in the body. They additionally help repair tissues and battle with the disease. On the off chance that there utilization surpasses the body's needs, protein can fill in as a vitality source, conveying 4 calories for each gram. Twenty amino acids constitute the building squares of proteins. Of these, nine are basic amino acids, which must originate from the eating regimen. Conversely, the body can make the rest of the superfluous amino acids if the need emerges. Creature items and vegetables are great protein sources.

Everybody is looking at carrying on with a sound life. Be that as it may, not very many really hone the specialty of living solid. A considerable lot of us trust, a solid life infers looking great and resting easy. Be that as it may, what does a solid life truly suggest? Clearly, a sound individual is depicted as one, who does not smoke, does not drink in abundance, has a solid weight and eats sound nourishments and activities consistently. All in all, what number of us really do every one of these things? Nowadays, it is difficult to focus on a sound way of life.

A solid way of life may not be anything but difficult to focus on. Everybody has such a great amount to do what with work and family and different commitments. In any case, the secret to remaining focused on a sound way of life is not to stretch the little things and consider rolling out little improvements and not huge ones. Doing one thing that prompts a solid way of life consistently is the principal period of responsibility. Staying away from additional servings of sustenance, drinking an additional glass of water are recently a few things that can help make the street to a sound life start. In any case, there are such a large number of more things that can be considered to guarantee a solid life.

Health and fitness is a big issue nowadays. Excessively numerous quick substances and too little exercise alongside an excess of television viewing and personal computer recreations result in poor fitness. Everybody has a reason to not work out. They are either excessively occupied or too sick or excessively fat, which makes it impossible to work out. Practice decreases the danger of coronary illness, diabetes, keeps up bone mass, upgrades confidence, and diminishes stretch. Starting with a positive inclination and attempting to make the perfect open door for improvement – any sort of advancement – can ensure prosperity. The reality of the situation is, sweating and strengthening the body are brilliant, if there is a perfect chance to do in that capacity. Regardless, any kind of improvement, for

instance, walking, doing assignments and despite planting is considered exercise and this can be have a gigantic impact towards ensuring a strong lifestyle.

A sound eating regimen is principal for a solid life. This does not mean eating simply solid foods. That is to state, keeping to an eating routine however much as could be normal. A coincidental piece of cake or a chocolate won't have any sort of impact to prosperity. In reality, this is seen as particularly stable. Steady pigging out on treats and oily sustenances, in any case, is not by any means. A sound eating routine upgrades a strong lifestyle, and also keeps up a flawless weight. Eating more diminutive parts, fusing more vegetables in a supper, changing to more valuable serving of blended greens dressings, and eating more normal items is the best way to deal with enter a sound lifestyle through foods.

A sound lifestyle is imperative, paying little respect to whether in youth or adulthood. Not a lot of watchmen inclination their children to eat sound sustenances and live strong lives. This is the thing that prompts youth forcefulness. A sound lifestyle is fundamental to everyone paying little mind to age. It is never past the point where it is conceivable to consider continuing with a sound life. A sound lifestyle ensures a long and strong life. We live in a world where nobody of us have time to keep healthy or stay fit. Healthy living is a combination of so enormous things, physiological responses, a few psychological, some physical stress. The first step to living a healthy life is to have a positive attitude towards life. The next step is motivate oneself to take part in any daily physical activity this will give a boost to their lifestyle. Somebody has says truthfully about the fitness of the physically fitness that it is not achieved in a day it is a prolong process and goes with various stages of life.

Physical exercise is the initial step you can take to carry on an ailment free and solid way of life. Only a little measure of activity sessions consistently, you will make the most of

your life as much as you can for till the finish of your life. You don't have turned into a wellness oddity to end up noticeably sound. All you require simply need to partake in a little measure of physical exercise regular to keep up a decent level of wellness objective. This won't just enhance your way of life and make your solid living a shelter, however you will likewise find this additional measure of activity will likewise expand your working vitality levels, answer is that you will feel lesser weariness amid your normal exercise.

One may not appreciate investing hours working out at the recreation center or on the treadmill running for a considerable length of time however notwithstanding climbing stairs and taking a shot at snag course to build quality and perseverance. Swimming for entertainment is great additionally useful for not just getting more fit and keeping up a sound way of life. It additionally enhances muscle execution and gives a solid, conditioned looking body.

By doing physical action every day not just the route by which you can acquire a sound living additionally turn out to be rationally, physically and socially fit. Eating effectively and giving your body right levels of nourishment is likewise a decent habit. In this day and age, many individuals just basically don't have sufficient energy for doing any activity since they get ready new, solid sustenance consistently. In any case, this does not need to be as troublesome as you would first envision.

You don't need to recoil your eating routine to death keeping in mind the end goal to be nutritious. However it's only an instance of eating the correct nourishments in the correct way. Eating more garbage sustenance things in every day routine will prompt corpulence and builds weakness and shortage working level of the body and Fruit and vegetables are solid forever in this manner you ought to incorporate a greater amount of them. One ought to

preferably be going for no less than five parts of foods grown from the ground every day. You ought to likewise intend to drink no less than 2-3 liters of water for each day.

Something basic, such as swapping late morning nourishment with chocolate bar or fussy toast an organic product juice or an apple this will once more, enhance the wellbeing and help us keep up the correct level of calories which were required by the body.

Being nutritious is not as hard as you may think of dining on a table. Changing a few simple things works perfect for you. All you need to cut down on sugar in your tea and change from ghee (Butter), this will lower your cholesterol level in your blood and in the body.

Do you think that if some program is good for on individual but not for other? If you want to get the optimum levels of performance for your body, you could see a dietician that will tell you the right intake of food what you should be eating, and what you should be get rid off. You can also read books and websites which will be helping you lose weight and reach optimum fitness. All you need to do is find a workout scheme that works for you.

Nutrition and Physical activity is very essential for a healthy life style in today's world. Not only will you look good and feel good, but by eating the right things and doing the right amount of exercise, you could also lower your chances of getting infected from serious life-threatening diseases. Heart disease, as an example, is one of the biggest killers in obese people. This is your decision that whether you want a healthy living or not, but you should be follow the living with a good healthy intake and exercising daily at least half an hour a day.

The Present Study reveals that the physically Active Male Students were taking good amount of carbohydrates, fats and proteins. Carbohydrates are essential food for energy. As they provide instant energy in the form of glucose during performance. And also they are in

our body in the form of glycogen which is stored in the muscles and liver. During prolonged exercise glycogen which is stored in the muscles and in the liver gets converted to glucose and provides energy to the body.

The physically active students were having 25% of their energy intake from fats. Fat is also an important energy fuel during prolonged endurance performance exercises. Fats provide the glycogen sparing effect and thus provide the energy by the breakdown of fats into free fatty acids and triglycerides. And in the present study the physically inactive group were taking 30% of their energy from fat source in the daily food intake. The physically inactive group of students of Lovely Professional University must take low fat intake in their routine diet and they should indulge themselves in hard physical activities. Otherwise that would create health problems like Artherosclerosis, Hypertension and Diabetics etc.

Protein intake of the Physically Active students group was 15% which is the actual requirement of protein intake required for our body. The physically active student group hence need more proteins in their daily dietary intake for their growth and repair of the body tissues. However the physically inactive group of the Lovely Professional University were having low protein intake as their diet is not balanced with nutritive food nutrients. They were not aware of the thing that, "their daily requirement of protein in average individual body cannot be stored, as they were expelled out of the body via urine". But the excess of protein intake is also very harmful for the body. Hence the physically active as well as physically inactive groups must take precautions and take optimum amount of proteins in their diet which were required for the body.

The result of present study shows that the particularly physically active students take sufficient diet indeed which is rich in most of the nutrients and required for the proper

functioning i.e. their energy intake was almost equals to their energy expenditure. So there is no need to add any extra diet to increase the intake of this particular group of sports persons but only till their activity demands for more energy.

Thus the above discussion can be concluded by saying that the observed nutritional status of the physically Active males of Lovely Professional University are not upto the mark to there performance. So stress should be given on proper counseling and dietary charts showing proper dietary intake in accordance with energy expenditure should be prepared and these dietary pattern should be scheduled for the whole year round, with an over all external factors affecting the energy expenditure .

Thus, proper dietary counseling and proper eating and expending habits should be advised to whole population i.e. to take proper and balance diet to maintain better health status.

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FORM – A

Preparation of Daily intake Chart For the calculation of total Caloric Intake

Time	Menu	Ingredients	Amount	Energy
Early Morning				
Breakfast				
Lunch				
Evening				
Late Evening				
Dinner				
Bed Time				

Form – B

Preparation of Daily Expenditure Chart

A Time	B Weight of the Individual Kg	C Nature of Activity	D Duration of activity (Mins)	E Rate of Energy Expenditure determined From Caloric Expenditure table (Cal/Kg/Min)	F Energy Expen. (Cal) = B.D.E.