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THE IMPORTANT ROLE OF CARBOHYDRATE FOR GYM GOING PEOPLE

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1.INTRODUCTION

Having a balanced diet has become a necessity for many people, nowadays. An ideal balanced diet is the one which contains all the major food groups including adequate protein, carbohydrates, high quality fats, vitamins and minerals. Healthy dietary habits are the pillar of good and nutritious life style. Likewise, there are ideal dietary requirement for person going to gym or who involved in sports There are many social factors that affect the ratio of boys to girls existing in the gym; it was observed that boys go to gym more in comparison to women. There are many new products in the market to enhance the endurance, but their consumption varies. Based on the information collected, a result was developed and reported here. Going to gym has been trending among people, specially youth, since few. Beverages composed of electrolytes play a vital role in their diet. Combination of nutritious foods and gym/exercise can make a person live a healthy and better life. Carbohydrates gives energy to body which help to do intense physical activities. Also how low card diets can be both beneficial and can harm. We discussed about how proper intake of carbohydrates increases metabolic rate.

Key words: Gym, Dietary habit, Metabolic rate, Healthy Benefits.

A gymnasium additionally called a ‘gym’ could be a fitness center. The origins of today’s gym go back to Ancient Balkan state, to a rime once gymnasiums were of nice significance [Kennell,2007]. Athletic facility helps to boost muscle strength and boost endurance (NIN,2011). Exercise delivers chemical elements and nutrients to tissue and helps vascular system works with efficiency. The healthy heart and respiratory organ improves the body energy and health to tackle chores.

An athlete challenges his body on a regular basis through physical training and competitions. In order to keep up requirement of his activity or sport, he requires enough fuel for his body on day to basis [Nancy,2008].

Why carbohydrate diet is important for gymnasium work?

Participating in endurance sports require optimal nutrition, with specific focus on dietary modifications. Targeted fitness development at an early stage, especially if we are doing heavy activities for avoiding potential over weight, reducing motor deficiencies and thus improving the general quality of life [Fogelholm M, 2010].

Table 1 : types of exercise

Day and Goal	Fat-Loss	Weight-Maintenance	Mass-Gain
Monday: Chest and Triceps	Low-carb intake on training days to promote fat loss and medium-carb days to promote regeneration between sessions.	Low-carb intake on non-training days to avoid fat gain.	Higher-carb intake on large muscle groups training day to promote weight gain.
Tuesday: Back & Biceps	Low- carb (1g per 1kg)	Medium-carb (3g per 1kg)	Medium-carb (3g per 1kg)
Wednesday: Off	Medium-carb (3g per 1kg)	Low-carb (1g per 1kg)	Low-carb (1g per 1kg)
Thursday: Legs	Low-carb (1g per 1kg)	Medium-carb (3g per 1kg)	High-carb (5g per 1kg)
Friday: Delts & Arms	Low-carb (1g per 1kg)	Medium-carb (3g per 1kg)	Medium-carb (3g per1kg)
Saturday: Off	Low-carb (1g per 1kg)	Low-carb (1g per 1kg)	Low-carb (1g per 1kg)
Sunday: Off	Medium-carb (3g per 1kg)	Low-carb (1g per 1kg)	Low-carb (1g per 1kg)

Carbohydrates are stored in the body in a form of glycogen, which can be used during physical activity. Carbohydrates is necessary to meet the demands of energy needed during exercise, to maintain blood glucose level and replenish muscle glycogen store. During sub-maximal exercise, carbohydrates in the body are the major source of fuel [US Department of agriculture, 2005]. Nutrition needs for peak athletic performance includes sufficient calorie intake, adequate hydration and attention on timing of meals taken. [Nancy,2002].

Table 2 : Energy requirement for gym going people

S.No	Types of activity	Average bodyweight [kg]	Total energy requirement [kcal/day]
1.	Heavy weight lifting, boxing, wrestling, judo, etc.	80-90	6000
2.	Endurance events: Marathon, Road cycling, etc.	60-70	5200
3.	Team events and power events of middle weight categories: Football, Sprint running, etc.	60-70	4500
4.	Gymnastics, table tennis etc.	60	3600

3.1) Carbohydrate diets and high Intensity exercise

Most of the people participate at a recreational level in multiple sprint sports such as Football, Tennis, Hockey, Rugby and Basket Ball than Endurance sports (Cycling, swimming or running). These multiple sprint sports involve a mixture of brief periods of exercise of maximum intensity followed by recovery periods of rest or light activity, and last up to 90 minutes. Only a limited amount of information is available, however, on the influence of diet of exercise of maximum intensity and brief duration. One of the reasons for a limited around of research on this topic has been the lack of suitable laboratory methods for studying the metabolic and physiological responses to maximal exercise. Inexpensive micro computers are now widely available, and so they are used to record rapid fluctuation in power sources during maximal exercise of short duration.

Even though there is rapid utilization of muscle glycogen during several brief periods of intense workout, the rate of glycogenolysis decreases as the research continues. For example, a series of maximum sprints of six second durations and 30-second recovery. On a cycle ergometer, degradation of glycogen was cut in half during the final sprint. This glycogen sparing is probably the consequence of an increase in the aerobic metabolism of glycogen and free fatty acids.

Performance during sports which involve several brief sprints may not be improved by carbohydrate loading. Sports which demands that they periods of sprinting like football, reduces by muscle glycogen concentrations to critically low values. Performance is impaired when this happens, and so carbohydrate loading would probably be of benefit to participate in multiple sprint sports.

3.2) Composition of Pre-Exercise Meals

The type of Carbohydrate in pre-exercise meals and their influences on subsequent endurance capacity has, until recently, receive 2-liter attention. The description of Carbohydrate either simple or complex is an inadequate way of classifying them. Metabolically more informative way of describing carbohydrate is the degree to which they raise blood glucose concentration. Carbohydrates which produce a large incline in blood glucose concentration, In response to a standard amount of carbohydrates (50g), are classified as having a high glycemic index. The metabolic response during exercise is different as a consequence of the glycemic indices of the carbohydrates consumed the exercise, and so the choice of carbohydrate in pre-competition meals could have a performance in human body. In one study, on the influence of high and low glycemic index carbohydrate foods on exercise capacity, the glycemic index carbohydrate appear to improve endurance capacity to a greater extend than the high glycemic index foods. The study used lentils as the low glycemic index food, with potatoes and glucose as the high glycemic index foods, and the compared the response to these after drinking a glucose solution or plain water. Eating a high fat meal 3 to 4 hours before exercise is to recommended as a nutritional preparation for endurance competition due to these meals can takes more time to digest. There is so evidence from animal studies to suggest that increased fat intake will result in a lower than normal oxidation of carbohydrate during exercise. At this glycogen sparing did occur following a high fat meal then it would be expected to delay the onset of fatigue in a similar manner to consuming carbohydrate-rich meals before exercise. Reason study has attempted to state this question by comparing the endurance performance results of subjects following iso-caloric high fat or high carbohydrate meals, 4 hours before sub-maximal exercise. With pre-exercise meals contained approximately nearly 280g of carbohydrate in the high carbohydrate meal and 84g in the high fat meal. There was no statistically significant difference between the endurance times from the high carbohydrate and high fat(low carbohydrate) meals.

3.3) Recovery from Exercise

Recovery from Workout is not a passive process. Tissue undergo repair and the production, fluid balance is restored and substrate stores are replaced. Carbohydrate replacement is the most important events during recovery. When several days separate the periods of exercise or participation in sport, a normal mix diet contain about to 4-5g /kg body weight(BW) of carbohydrate is sufficient to replace muscle glycogen stores. However, daily training or competition makes considerable demands on the body's carbohydrate stores. Hence, normally high carbohydrate intake of athletes may not be enough to prevent a gradual reduction in this important fuel store. In instance, even the daily carbohydrate intake is 5g/kg BW, cycling or running for an hour each day gradually delays the daily restoration of muscle glycogen stores. Increasing the carbohydrate intake to 8g/kg BW per day may not be enough to prevent the significant production in muscle glycogen concentration after 5 successive days of heart rating. The studies depict the importance of prescribing adequate amount of carbohydrate for athletes in training and justifies the need for more frequent recovery days between periods of intense training.

Every training program is based on three cardinal principles namely intensity, frequency and duration. Of these three principles, frequency is probably the most important because repeated stimulation promotes the adaption process. Elite and professional athletes train more than they compete therefore in order to cope with their training loads it is essential that they recover quickly. It is also important that those who play recreational sport or exercise for health recover quickly so that they avoid residual fatigue and its negative impact on their vitality and enthusiasm for physical activity. Strategies for optimizing recovery from exercise depend on the specific sport or type of exercise, its intensity and duration, and the time between training sessions or competitions. Successful recovery involves many physiological and metabolic processes that act in concert to prepare the athlete for the next bout of exercise. However, the essential requirements for successful short - term recovery are resynthesizing of the body's carbohydrate stores: rehydration, and adequate rest. A return of performance is the clear measure of successful recovery. Therefore, this brief review will address only those studies that have assessed the influences of carbohydrate nutrition on performance following medium (24 hours) and short (4-5 hours) recoveries after endurance running and after variable speed running that are common in multiple sprint sports .

Food	Approximate Weights		Kitchen Measures
Porridge	500g	20 oz.	2 large bowls
Cornflakes	50g	2 oz	1 large bowl
Potato			
Boiled	300g	12 oz.	5 egg size potatoes
Jacket	175g	7 oz	1 medium potato with skin
Rice (Cooked)	225g	9 oz.	4 tablespoons
Pasta			
White or Wholemeal(Cooked)	225g	9 oz	8 tablespoons
White Bread	100g	4 oz.	3 to 4 slices
Bagel	75g	3 oz.	1
Malt Loaf	75g	4 oz.	2 to 3 slices
Jaffa Cakes	75g	3 oz.	6

Fruit Juice	550ml	22 fl. Oz	1 pint
Milk	1000ml	40 fl. Oz	2 pint
Cola (not diet)	500ml	20 fl. oz	1.5 cans
Fruit			
Apples	425g	17 oz.	4 medium
Oranges (peeled)	625g	25 oz.	4 medium
Bananas	225g	9 oz.	2 large

An adequate intake of saccharide is crucial for maintaining muscle polysaccharide stores throughout laborious coaching. Carbohydrates are important to serving to reach a decide performance throughout physical activity. The globe Health Organization (WHO) has counseled taking a minimum of 60-75 % of total energy from carbohydrates, Fat is that the another necessary part of a healthy diet that provides energy , essential component of cell membranes thus , 15-20 % of energy counseled ought to be taken from fat . Super molecule might stimulate muscle super molecule synthesis within the post - exercise amount, promoting the method of adaptation within the muscles, thus it is counseled to possess a minimum of 10-15 % of energy from super molecule made food. The intake of calorie and super molecule conjointly depends on aim, gender, weight, and height of the individual (Gulamhusein,2020] . The primarily food decisions are stewed sweet potatoes, oats and skimmed milk with buggy and raisins, paste sandwich, fruits like banana, low - fat Greek food and grilled chicken, brown rice, inexperienced beans and unsweetened - tea, turkey and cheese sandwich on whole wheat bread with lettuce, tomato and avocado (Amy Goodson , 2018) . One of the trickiest things is to manage with meals throughout athletic events. It is vital for athletes to confirm that food they like that conjointly facilitate to maximize performance. They must not experiment new food or new routine on the day of competition. General pointers embody uptake meals minimum three hours before an incident to permit correct digestion and to reduce channel upset throughout exercise. Meals ought to embody carbohydrates, super molecule and fat. However, fiber ought to be restricted. High - fat meals ought to be avoided before exercise as a result of they will delay gastric - emptying, creating contestant feel sluggish, thereby adversely poignant performance. For early morning follow and for pre - game snacks or liquid meal ought to be eaten one to a pair of hour before exercise. Snacks will embody recent fruit edible fruit, a bowl of cereal with milk, and juice or fruit - based smoothies. Throughout an incident, sports drinks, fruit or dry cereal bars will be eaten to refuel and keep energy up Recovery foods ought to be consumed at intervals thirty min of exercise, and once more at intervals one to a pair of hour of exercise, to assist reloads muscles with polysaccharide and permit for correct recovery. These foods ought to embody super molecule and carbohydrates. Examples are graham beans with paste and juice, food with fruit, or a sports drink with fruit and cheese [Laura K Purcell,2013). Figure 1: Selection of the food The food pyramid is depicted in Figure 1. It is the pictorial explanation of nutritional approach showing guidelines of the food to be consumed in appropriate quantity by athletes [Mettler.2010)

3.4) Carbohydrate loading

Carbohydrates area unit the foremost necessary fuel supply for athletes as a result of the supply the aldohexose used for energy. One gram of sugar contains roughly four kilocalories of energy Aldohexose is keep as animal starch in muscles and liver. Muscle animal starch is that the most without delay out their energy supply for muscle throughout exercise and may be discharged a lot of quickly than different energy sources. Smart sources of carbohydrates embody whole grains, vegetables, fruits, milk and yoghurt (Laura K composer, 2013). Carbohydrate is much needed in high intensity endurance exercise wherever there's nice demand of animal starch within the body. The procedure starts six days before the competition. For the primary 3 days the athletes take terribly less sugar and will calculate to deplete the animal starch within the body.

Within the last 3 days the jock takes additional carbohydrates, the body can fill up the animal starch stores and prime them up with a bit additional (Carbohydrate Loading. 2020).

Carbohydrate requirement before and after Exercise

Duration	**Carbohydrate Intake**
Pre workout/ Before Exercise	**6-10grams /kg of body weight**
Post workout/After Exercise	**1-1.5grams/kg of body weight**

{Pre- and Post- workout nutrition for strength training,2015}

3.5) Carbohydrate food choice

Energy bar Energy bars, additionally recognized as snack bars square measure healthy, appropriate and ready - to eat developed snacks to produce nutrition in sufficient amount (Ho et al., 2016) . These square measure dense and top quality cereal - based snacks that measure instant energy suppliers with an honest quantity of fat, super molecule and carbohydrates (Gill and Singh, 2020) . The studies have reported that energy bars contribute concerning 3-9 g of fat, 7-15 g of super molecule, 20-40 g of carbohydrates and 200-300 kcal energy per 100g [Tiwari et al. 2016). The energy content of a number of the energy bars is given in Table six.

Nutritional composition of some existing energy bars in the Indian market (per 100g)

S.No.	**Product**	**Energy (Kcal)**	**Source**
1.	Rinse on the go Blueberry bolt granola bars	506.04	Neulife
2.	On the run oats & apricot energy bars	447	Wizbiker
3.	Clif chocolate chip energy Bars	367.6	Calorieking 2019
4.	Nourish vitals Granola snack bar (Cranberry & black Cerrant)	388.91	Amazon
5.	ASAP almond &dark chocolate granola bars	436.2	BigBasket
6.	Clif mojo bars	422.2	Eat This Much
7.	Bar a day hearty bite standard energybars	481.2	BarAday, 2020
8.	Yoga bar multigrainenergy Bars	436.8	Fatsecret, 18
9.	Quest nutrition proteinbars	316.6	Indian Body Building, 2018
10.	Probite energybars	424	Gill and Singh, 2020

4.OBJECTIVE OF THE STUDY

The mandate of the present study is as under

- Sources of Carbohydrate
- Low carb diet and their effects
- Gender, age and Profession
- Frequency of Gym going
- Reason of going to Gym
- Enhancing Healthcare Team Outcomes
- Carbs and physical/mental performance during intermittent exercise to fatigue

4.1) Sources of Carbohydrate

[N Engl J Med,2011] : The important thing is the type of carbohydrate we choose to eat because some sources are healthier than others. The amount of carbohydrates in the diet – high or low- is less important than the type of carbohydrate in the diet. For example, healthy, whole grains such as whole wheat bread, rye, barley and quinoa are better choices than highly refined white bread or French fries.

Many people are confused about carbohydrates, but keep in mind that its more important to eat carbohydrates from healthy foods than to follow a strict diet limiting or carbohydrates consumed.

Carbohydrates are found in a wide array of both healthy and unhealthy foods – bread, beans, milk, popcorn, potatoes, cookies, spaghetti, soft drinks, corn and cherry pie. They also come in a variety of forms. The most common and abundant forms are sugars, fibres and starches.

Foods high in carbohydrate are an important part of a healthy diet. Carbohydrates provide the body with glucose, which is converted to energy used to support bodily functions and physical activity. But carbohydrates quality is important; some types of carbohydrates – rich foods are better than others:

- The healthiest sources of carbohydrates – unprocessed or minimally processed whole grains, vegetables, fruits and beans – promote good health by delivering vitamins, minerals, fiber and a host of important phytonutrients.
- Unhealthier sources of carbohydrates include white bread, pastries, sodas and other highly processed or refined foods. These items contain easily digested carbohydrates that may contribute to weight gain, interfere with weight loss and promote diabetes and heart disease.

Recommended servings	One serve is equivalent
4-6 serves of grain (mostly wholegrain foods)	• 1 slice of wholegrain bread • ½ cup of cooked porridgde • ½ a cup of cooked grains (such as pasta, brown rice, quinoa, polenta)
2 serves of fruit	• 1 apple, orange or banana • 1 cup of canned fruit (no added sugar) • 4 dried apricot halves (dried fruit should only be consumed sometimes because it is a concentrated source of sugar, increasing of tooth decay)
5 serves (women) or 6 serves (most men) of vegetables	• 1cup of salad vegetables • ½ cup of cooked dried beans or legumes • ½ a potato • ½ cup of other cooked vegetables (broccoli, spinach, carrots)
2½ serves of milk, yogurt, cheese and alternatives	• 1 cup of milk • 2 slices (40g) of cheese • 1 small tub (200g)of yogurt
2-3 serves of meat or meat alternatives	• 65g cooked lean beef, lamb, veal or pork • 80 g cooked chicken • 100 g cooked fish • 1 small can of fish • 2 large eggs • 1 cup of canned beans • 170g tofu • 30g nuts or seeds

4.2) Gender, age and profession

As per the survey report it was found that maximum number of the gender having hold on the gym are males in comparison to women, 80 % males accounted to exercise in gym while only 20 % were females. In both the genders the majority of the population was between the ages of 21 to 26 year which shows that youth is more in comparison to elderly they are seen quite less in numbers. Students from middle - income group are the most among the people of other profession going to gym. Trainers, athletes number in gym is not same as regular people doing gym it is quite less because gym is gaining popularity as more people are becoming health conscious aware. Hence, there is no equilibrium, the number of trainers is decreasing, which has dramatically led to increase in the hiring of trainers .Therefore, there are some people hired as trainers lacking in general knowledge regarding diet intake which significantly causes a negative effect on the health of person .Therefore , it is always suggested to consult a certified health consultant.

Profession having access to gym among the number of people represented by n

Profession	Data (n=100)
Student	44%
Self employed	35%
Trainers or athlete	30%
Business person	1%

4.3) Frequency of gym going

Gym places are seen busy during the whole week apart from Sunday from morning till evening (6 days a week) . Students seen coming to gym as per their convenience at different time. Apart from their busy schedule they do not skip it. In this survey it was reported that some people joined gym few days or month ago while the major section of the people are coming to gym from more than a year.

The maximum time spent by a person on an average is at least 3 hours per day in a gym.

4.4) Reason of going to gym

There is list of reasons given by a person regarding the gym operation. It was reported that main aim of going to gym is to maintain health and body in order to remain healthy. Boys reported going mainly to build up muscles while girls were seen more for lean body, muscle toning. There are few reasons tabulated below.

Reason for joining gym among the number of people represented by n

Reason	Data (n=100)
Medical Reason	2%
Muscle toning	15%
Body Building	35%
Gain or lose weight	38%

4.5) Low Carbohydrate diets

Low carbohydrate diets have been a strategy for weight loss. Today, there continues to be an interest in low carb approaches. While all low carbohydrate approaches reduce the overall intake of carbohydrates, there is no clear consensus on what defines a low- carb diet. There are three macronutrients- carbohydrates (4kcal/gm), fat (9 kcal/gm), and protein (4kcal/gm) found in food. Therefore, studies have defined low-carbohydrate as a percent of daily macronutrient intake or total daily carbohydrate load. We will define it here as:

A) Very Low carbohydrate (> 10% carbohydrates) or 20-50 gm/ day
B) Low carbohydrate (>26% carbohydrates) or less than 130gm/day
C) Moderate carbohydrate (26%-44%)
D) High carbohydrate (45% or greater)

Functions

- Low carb approaches stem primarily from the hypothesis that lowering insulin, a critical hormone that produces an anabolic, fat-storing state, improves cardiometabolic function, and induces weight loss.
- Carbohydrate insulin model approach has been recently called.
- Studies have been shown low carb approaches to be superior to other dietary approaches in producing rapid weight loss for the first 6-12 months.
- One Hypothesis of why low-carb approaches produce rapid weight loss compared to other hypoglycemia. This increase in satiety and less rebound hypoglycemia then reduces hunger and overall food intake and produces a caloric deficit.
- Another Hypothesis contends that low carb diets can produce a higher metabolic advantage of approximately 200 to 300 more calories burned compared to an iso-caloric high-carb diets.

4.6)Enhancing Healthcare Team Outcomes

After a shared decision-making process with the patient, there are numerous ways to start a patient on a low-carb diet. Low carb nutrition may be advisable for those who desire healthy or athletic performance, weight loss, improvement of glycemic control for type 1 or 2 diabetes, or for a seizure disorder.

- Determine the patient's desire for either small steps or a rapid induction phase through motivational interviewing and S.M.A.R.T goal setting.
- Limitation of added sugar(sucrose) and refined carbohydrates is critical in the overall improvement of food quality and will generally reach a moderate carbohydrate (less than 45% carbohydrates) level.
- A way to initiate low-carb is through a rapid induction phase of 2 to 4 weeks, with 20 to 50 gms of carbohydrates to induce nutritional ketosis. Ad libitum vegetables that grow above the ground and are lower in carbohydrate content are encouraged. Additionally, carbs should be limited to those found in whole, unprocessed food.

4.7) Carbs and physical/mental performance during intermittent exercise to fatigue

Carbohydrates and Physical or mental performance intermittent during exercise to fatigue has shown several methods. Physically active men (N 5) and women (N 5), experienced in competitive soccer or basketball, completed three practice sessions and two experimental trials of an IHI shuttle running protocol designed to closely stimulate the demands of an actual competitive sporting event such as basketball. The experimental trials consisted of four 15 - min quarters (QTR) of intermittent shuttle running at various percentages of VO2max (walking, jogging, running, sprinting and jumping), separated by a 20 min halftime rest period (HALF) and followed by a shuttle run to fatigue. Various tests of physical and mental function (shuttle run to fatigue, 20 - m maximal sprint, 10 - repetition maximal vertical jumping, whole body motor skill test (MS - Test), profile of mood states (POMS), and Stoop Color - Word Test) were performed throughout the experimental trial. Carbohydrate - electrolyte (CHO) or placebo (P) drinks were consumed before exercise (5 ml: kg 1; 6 % solution) and at

halftime (5 mL kg 1; 18 % solution) . Smaller volumes (3 mL kg 1; 6 % solution) were given after QTR - 1, HALF, QTR - 3, and QTR - 4.

Results: CHO ingestion resulted in a 37 % longer run time to fatigue and faster 20 - m sprint time during QTR - 4 (P 0.05). MS - Test performance was also improved during the latter stages of exercise along with self-reported perceptions of fatigue (subscale of POMS) (P 0.05) in CHO versus P.

5.RESULT

Result of the survey revealed information regarding the age, gender, effects seen after joining gym, duration of exercise per day, types of exercise, which group of people going to gym most profession and the dietary consumption pattern. The related information collected was further compiled, processes and explained in the sections under different sub headings. However, the ratio of vegan to non- vegetarian was same now people are more focused on the balanced diet instead of bending towards a particular diet whether its carbohydrate or other nutrient. Moreover, man are engaged more in the heavy intensity exercise to make biceps, triceps and chest whereas, woman prefer moderate and low intensity exercise to make body lean, for body shaping, and muscle toning.

We also get to know that for each different kind of exercise the carbohydrate intake is given. . There are both food sources of carbohydrates. Healthy sources of carbohydrates include both food sources – animal and plant products as mention in table above. Given examples are fresh fruits, vegetables, corn, potatoes, milk and milk products. Unhealthy sources include soda, white bread, artificial sugar, pastries which are not easy to digest and take time also.

As from my research I learned Carbohydrates main source of energy while we do any gymnastic activity. We need energy for the which comes from carbohydrate. Good carbs help in maintaining a healthy digestive system.

Studies with low carbohydrates diets demonstrate a rapid weight loss, being more pronounced after 3 and 6 months compared to low fat diets. The mechanism for the rapid weight loss with me the low carbohydrate diet is suppressed appetite, first through the high- protein content of the diet, second through the ketogenic nature of the diet with satiety signals for fat being active.

6.DISCUSSION

In the recent study conducted reveals that Carbohydrate is an important energy source during exercise. During short, heavy exercise it may be the only energy source for the working muscle and may be derived exclusively from the glycogen stores within the muscle fibres themselves. During prolonged exercise the magnitude of the contribution that carbohydrates makes to the total fuel consumed depends upon a number of reasons, the intensity of the exercise it, the duration of the exercise and the state of training that the individual has engaged in and the diet previously consumed. Due to the limited storage in the body and the relative ease with which these stores can be manipulated by combinations of diet or training, a knowledge of the dynamics of carbohydrate metabolism is an important component in the arsenal of knowledge for coaches and athletes.
[C Erlanson – Albertsson, 2005], a lots of studies showing using low- carbohydrates diets in the treatment of obesity are reviewed. Mechanism for explaining the reduced appetite are described in relation to knowledge on regulation of appetite for fat and carbohydrate.

[SH Black house, 2007], this study was designed to determine the effects of ingesting a carbohydrate solution on affective states and rating of perceived exertion during prolonged intermittent high – intensity exercise. So carbohydrate ingestion during prolonged high-intensity exercise appears to elicit an enhanced perceived activation profile that may impact upon task persistence and performance. This finding is in addition to the physiological and metabolic benefits of the exogenous energy supply.

[Myra A Nimmo, 2000], the result of the current study indicates that moderate alterations in the women, despite some evidence of n alteration in the pattern of the metabolic response to exercise.

7.CONCLUSION AND FUTURE SCOPE

Eat to Win: diet, physical activities, and weight management. Its significantly vital to use physical activity together with as a way of achieving and maintaining a healthy weight. Physical activity will impact on our craving and diet, exercise performance. The fitness and wellbeing sector in India has come back a protracted manner from the times of the native 'akhadas' to wrestling currently being a district to the international athletic consent. However, it is clear from the survey that people is conscious about health and is fitness freak [Amaresh ojha, 2017].

A rapid initial weight loss occurs with a low carbohydrate diet due to a suppressed thermogenesis by the low carbohydrate diet. The safety and efficiency of low- carbohydrates diets have await further studies.

And in take of carbohydrate in given amount will best to build muscle and toning of body while doing gymnastic or other physical activity.

Carbs are hotly debated topic, especially in the weight loss world, due in part to diets such as the Atkins, Dukan and ketogenic diet. The idea that "carbs are bad" has left many people confused about carbohydrates and their importance for our health, including maintaining a healthy weight.

8.REFERENCE

1. Jacobs, I., Westlin, N., Karisson, J., Ramusson, M., Houghton, B.
   Muscle glycogen and diet in elite soccer players 1982;48:297-302.
2. J Bangsbo, L norregaard
   International journal of sports medicine 14 (02), 152-157, 1992
3. Magni Mohr, Jens Jung Nielsen, Jens Bangsbo
   Journal of applied physiology 2011
4. Ralph S Welish, J Mark Davis, Harriet G Williams
   Medicine & Science in sports & Exercise, 2002
5. Charles P Lambert, Micheal G Flynn
   Sports medicine, 2002
6. Clarkae Nancy (2008) Sports nutrition guide book:
7. Fogelholm M (2010) physical activity, fitness and fatness: relations to mortality, morbidity and disease risk factors. A systematic review. Obes Rev 11: 202-221.
8. Jeukendrup A.E., Killer S.C. The myths surrounding pre-exercise carbohydrate feeding. Ann. Nutr.. Metab. 2010;57 (Suppl.2):18-25.doi: 10.1159/000322698.

9. Ludwig, D.S., Willett, W.C., J.S., & Neuhouserm M.L. (2018)
10. Jacobs, Mandy Lynn, "Effects of genuine supplementation on maximal performance and recovery from high-intensity exercise." [2008]. Electronic Theses and Dissertations.
11. Tiwari, P., Agrahari, K., Jaiswal, M., & Singh, A. [2017]. Standardisation and development of different types of energy bars. International Journal of Home Science.
12. Jacobs, I., Westlin, N., Karisson, J., Rasmusson, M., Houghton, B. Muscle glycogen and diet in elite soccer players. European Journal of Applied Physiology 1982;48:297-302.
13. Horowitz, J.F., Coyle, E.F. Metabolic responses to pre-exercise meals containing various carbohydrates and fat. American Journal of clinical Nutrition 1993;58:235-41.
14. Pasoe, D.D., Costill, D.L., Robergs, R.A., Davis, J.A., Fink, W.J., Pearson, D.R. Effects of exercise mode on muscle glycogen restorage during repeated days of exercise. Medicine and science in Sports and Exercise 1990;22:593-598.
15. Kirvan, J.P., Costill, D.L., Mitchell, J,B., Houmard, J,A., Flynn, M.G., Fink, W,J., Beltz, J.D. Carbohydrate balance in competitive runners during successive days of intense training. Journal of Applied physiology 1988;65:2601-2606.