CHAPTER II
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For the present study, careful study of selected literature and research have already been required to work in a sense. India compared to other countries in the region, very little research has been done. For these scholars, the study has given a deep thought and study their actions and the creation of great importance that the findings from the valuable methodological indications are received. A brief review of studies related to nutrition knowledge assessment is presented in this chapter.

Adolescents has increasingly become involved in athletics Dvorak et.al., (2008) the last three decades, adolescents Sport Nutrition (SN) have developed a knowledge questionnaire, nutrition education has become an integral part of their training program. The purpose of this study was to evaluate a young player can be used for nutritional intervention in the SN of a valid and reliable questionnaire was developed. The questionnaire consisted of 3 sections:

1) demographics and history of participation in sport;
2) nutrition attitudes and behavior;
3) SN knowledge of a 63 - item true / false / unknown test 5 different subscales (energy source and balance, and training with a meal; macronutrients, micronutrients, hydration, supplements and steroids).

And the establishment of construct validity. (, P <0.05 R = 0.78) 42 A group of students from the University of SN with knowledge of the difference between himself and predictive validity was established by a group of juveniles. Young athletes, 138 male and female adolescent athletes (mean age: 15.6 ± 1.2 y), 42 the second time to verify the reliability of the questionnaire is completed, once completed the questionnaire. The average knowledge score SN 41.7 ± 7.8 (n = 134) said.
Independent of the individual subscales were not reliable, even though the questionnaire's internal consistency, reliability and a 'good' level of 0.74-0.92 display with a narrow 95% confidence interval was 0.86. Stepwise multiple regression of SN (R2 a = 0.16) as predictors of age (P = 0.004) and 'primary source of information on nutrition as parents' (P = 0.002) did. The findings in sports nutrition knowledge questionnaire is a valid and suggest that adolescent athletes reliable tool to assess your knowledge of the SN. However, subscales further development within the individual design needs to be conducted to assess your knowledge. Sports dietitians, coaches, and athletic trainers to assess your knowledge and adolescent athletes SN SN between players and team to test the effectiveness of interventions can be used in the questionnaire.

Sossin that et.al., (2007), weight loss, weight class, dehydration, nutrition training for food were measured beliefs, attitudes, and high school wrestling coach, beliefs, attitudes, and high school wrestling coach, nutrition, resource use, resource use and evaluation, and disorders eating.
Coaches (82%) wrestle themselves very knowledgeable about the sport nutrition, weight loss, and less knowledgeable about vitamin supplements are considered. They are used in a variety of nutrition resources, but only 36% had attended nutrition workshops. Almost all coaches were interested in learning more about specific nutrition topics. Workshops were attended by more experienced coach, nutrition and weight loss and sports nutrition like more information about. The average percentage of correct responses to questions about weight loss 64%, food 59% training, 57% dehydration, the body composition of 52%, and 80% had eating disorders, weight loss and healthy attitude about the average score for the 69%, 34% had training in food, 29% dehydration, body composition, 70%, and 69% of eating disorders. This results in greater knowledge and wrestling coach training seminars to promote healthy attitudes and can be used to develop educational materials.

Zinn C, Schofield G, Wall, (2006), New Zealand premier club rugby coaches, sports nutrition knowledge, a study on the assessment has been conducted. Little about the team you coach athletes on how to disseminate nutrition information is known. In a census survey, New Zealand Premier Rugby Coach (n = 168) transmits the transaction to identify their own nutrition advice, nutrition knowledge and their level, either from the Internet or standard mail psychometrically validated questionnaire (response rate 46%) complete, and the level of knowledge factors. Coach most of their players (83.8%) provided advice. Coach 55.6% of all knowledge questions correctly responded. Independent t-tests showed that nutritional advice is not to give advice to the coach significantly higher score, 56.8%, 48.4% (P = 0.008) obtained. All one-way ANOVA showed significant relationship between coach and qualifications He has knowledge [F (1,166) = 5.28, P = 0.001], rating their own knowledge [F (3,164) = 6.88, P = 0.001] and nutrition training [F (1,166) = 9.83, P = 0.002]. We inadequately rugby coach nutrition advice to athletes and could benefit from more training in nutrition was prepared concluded.
Overdorf - Silgailis (2005), Perception and high school coach 's actual knowledge about issues related to nutrition and weight control are investigated . ( Eating disorders ) for the treatment of individuals with eating disorders Psychologist 's narrations it is difficult to identify how much is spent . In addition , much of the progress of the illness , the more resistance to treatment . Therefore , prevention is critical to reduce the prevalence of this disorder among female athletes . Having the most contact with the athletes , and the persons constituting the first line of defense against this problem , is the coach . Yet, nutrition and proper weight control and information about how these issues should be properly communicated to athletes in training is not often a coach , and as a result may not be part of a coach 's knowledge base . The study conducted by the high school nutrition and weight control, perceived versus actual knowledge about the evaluation was designed.

Girls teams coach ( n = 42 ) . The researchers designed two questionnaires, respectively, were administered . Nutrition and weight control on a variety of issues, perceptions of the first request . Nutrition and weight control had actual knowledge of the quiz . Only 40 percent of the Fed took any formal classes , or above the average rate of five coaches Ninety one percent as their nutrition knowledge . On the actual
quiz, coach only 14 per cent were less than half (40%) were able to identify sources of complex carbohydrates, simple carbohydrates, while the percentage of athletes' diets should be formulated knew. The coach of them all around eleven percent (80%), muscle protein is obtained by eating that when athletes, high protein diet should be considered. In addition, only eight per cent were able to identify low-fat protein sources. In terms of weight control issues, the coach thought to improve performance by 40 percent of the athletes to lose weight, need to lose weight need to lose about 33 per cent was impressed by his team several times on the individual athletes and 28 percent had spoken several times. Athlete of the visual inspection method for monitoring weight loss (37%) instead of the actual size. In addition, 77 percent of the weight loss coach by coach to the possible need for earlier intervention suggests, to reflect an anorectic condition was to exceed 15 per cent. The coach 82 per cent of men and women wrongly think teenagers are the same body image distortions, because they are unaware they are at greater risk for.

Eating disorders among female athletes. In this study, a small sampling coach, nutrition and weight control observation of the lack of congruence between the perceived and actual knowledge of the data, while between eating disorders and prevention must become a reality.

Johnson, Powers, and Dick, 1999; Levenkron, 1982; Mitchell and Eckert research in the last two decades, especially athletes, inappropriate behavior in women and girls (Halmi, Falk, and Schwartz, 1981; eating is a sign of an inordinately high prevalence, 1987; Sundgot-Borgen, 1994). In fact, a 1988 study (Burckes-MILLER & Black) Male Athlete of the general American public has an eating disorder, 40 times more than 15 times and suggested that female athletes are up. Recently, college coaches coaching in the last five years, 48 per cent of the eating disorder (Heffner, Ogles, gold, Marsden, and Johnson, 2003) report a college athlete, with 26%.

Reza Rastmanesh et.al., (2005), physically disabled athletes,
and trends in the nutrition knowledge of the investigation. Sports nutrition and physical problems, learning disabilities Little is known about the needs of athletes. The goal: nutrition education and physical handicaps (APDs) to compare with the nutritional knowledge and attitude of the Iranian athletes. Learn about proper nutrition in the areas of nutrition, for both performance and injury healing is important.

APDs are defective, they are trained to assist professionals. Patients or Other Participants: about two APDs (42 APDs intervention group and 30 age-matched and sex-matched control APDs) and 10 coaches have completed the study. Intervention(s): intervention group and their coach APDs in a simplified food guide pyramid, simple concepts about nutrition and weight loss, and nutrition education, including four 3-hour courses were given a booklet. APDs and their coach nutrition education in the control group were not. Main outcome measure(s): Subjects in both quantitative and qualitative elements in nutrition questionnaires completed 2. Nutrition Education Nutrition questionnaires before and after, 30 days apart, were administered at 2 consecutive camps. 88 Likert scale and true-false questions, and was designed specifically for APDs 13 of the 18 open-ended questions, our questionnaires included a demographics section. Each of the 3-day food records completed APD. APDs results in the intervention group significantly higher and knowledge of nutrition education and nutrition subscales of interest to more than the control group. In the study of nutrition knowledge score was moderate, although some specific areas of nutritional deficiency that was identified APDs are useful for health. Nutrition education in our model represented by a coach deregulation was more effective than general instructions. Part findings, our findings Iranian APDs in critical areas to prevent nutrition-related health nutrition suggests that a lack of knowledge

Problems, especially in relation to the nutritional components for disabled athletes.
Jazayeri - Reza Amani, (2004) Nutrition Knowledge, Attitudes and Practices of Bodybuilding Trainers in Ahwaz, Iran. The study aimed to evaluate the nutrition knowledge, attitudes, and practices (KAP) of male and female bodybuilding trainers in Ahwaz, Iran. Using nutritional supplements and ergogenic aids, food groups, and information about the KAP questionnaires, was completed by the trainers. Sixty-three male bodybuilding certified trainers (37.9 ± 2.7 y) and 30 certified female trainers (37.3 ± 8.1 y) were recruited in the city. Male and 47% female trainers' diet program is set for all of their trainees (P < 0.001) and between their diet prescription and their academic degree significantly (P < 0.001) relationship was there. None of the trainers use anabolic hormones such as Nandroline; they only use 50% of the hormones themselves, while 62% of the male trainers' trainees are advised to hormones. The trainers, 96.8% and 88.2% know water minerals are essential nutrients did not know did not know, and more than 90% fat and sugar as food groups that did not realize that. The training courses and training, educational level is positively related to their principles. All the trainers are more theoretical and applied nutrition education needs.

Topics: Certified male (n = 63) and female (n = 30) bodybuilding trainers of all clubs in the city were questioned. Male and female subjects, average age 37.9 ± 2.7 years and 37.3 ± 8.1 years, were respectively. Subjects did not return for their participation. The majority of subjects (37.6%) Bachelor of Science, 30.2% BA (Bachelor of Arts) or BSc (Bachelor of Science) is held, and 32.2% did not have a PhD degree. 32.3% have not participated in the topic, educational workshops and the remaining 67.7% participated in the training. Trainers' request for consent letters in of about 75% rate of return, as a result, were sent to their homes or clubs. Action: a descriptive cross-sectional study, subjects completed self-administered questionnaires that were so. The 3 known bodybuilding trainers subjects published questionnaires. The questionnaires were completed at the club or home, anywhere in the trainers would prefer to complete. Subjects of the correct answer (the
questions with the correct answer to the multiple choice questions was 62.5 %), multiple choice questions with more than one response option checked the answers of the questions were excluded from the analysis. Using this criterion for exclusion, none of response were excluded.

Development of the questionnaire: 45 questions with 122 responses were choices. The KAP questionnaires hormones, sport drinks, water and multi-vitamins help of recommendation, academic degrees, diet prescription, essential nutrients, food groups, nutrients contained questions about the calorie content.

supplementation. Statistical chi square analysis and ANOVA were used for analysis. P value less than 0.05 considered assignificant point. Results trainers and 65.6 %, respectively, in 63 essential nutrients such as protein and carbohydrates showed realized, but 96.8 % of them did:

Results: Knowledge: All statistical analysis performed with window (SPSSInc, Chicago version 10) was used for the SPSS 88.2 %, minerals and essential nutrients as the water I did not realize. Subjects, 64.5 % in comparison with 3.2% for sugar, bread and meat as food groups recognized.

Wong et.al., (2004), training coaches and athletes of the major cities in China's food related knowledge and attitude assessment, nutrition knowledge and Athletes and Hong Kong, Beijing, and Shanghai has conducted a study on trends in the coach dehydration, and nutrition education the value of. Methods: Participants in Hong Kong (HK), Shanghai (SH), and Beijing (bread) from a total of 2415 coaches and athletes. For coaches, selected national governing body recognized by at least one game was based on his formal training qualifications. Physical education teachers were coaching without proper qualification. For
athletes, only 14 years of age were included in the above. Selection Hong Kong Sports Development Board for at least 4 years, characterized by at least one goal in the game was based on their participation. Sport nutrition knowledge based on scientific literature and a four-page, 39-item questionnaire, was developed. The questionnaire included demographic, which was split into three parts.

Information, sports nutrition knowledge, and sports drink consumption and nutrition practices. Reliability and factor analysis of the questionnaire was to ensure quality. Content and face validity, layout, format, and can read the questionnaire was assessed by experts. Data collection was conducted between July 2001 and December 2001. Results: All results in three cities, more than 80% of respondents (83.5% ; SH : HK 86.8% ; BJ : 90.2%) agreed to the importance of proper nutrition to improve athletic performance show. However, less than 30% of participants in all three locations (: 26.0%; BJ : 14.5%22.9% HK SH) had ample opportunities to obtain information on specific sports nutrition agreed. The results obtained in these cities nutrition knowledge (33.99%) may have led to concerns about the low quality. However, HK From the respondents (page < .05) SH And to more than bread. Respondents HK The more exercise (87.0%) consumed a high-carbohydrate diet, the SH And after exercise with high protein or vitamin content of bread into the body of food (SH : 77.2%, and BJ : 85.3%) of respondents from the majority. Fluid replacement after exercise are the main drink of the water, sports drink heavily used by respondents in the three cities. Athletes three cities, the most important source of nutrition information as a coach has. Conclusions: These results, however, HK, SH And BJ In a survey of five players and a coach on the most appropriate sports nutrition, athletic performance indicates the importance of the recognition of their nutrition

Knowledge was inadequate and did not reflect their dietary practice their belief.
Claim Murphy - Yvonne Jeanes, (2003) Nutrition knowledge and food intake of young professional football players have been undertaken on the study were taken off the competitive season. The findings, football players, an average of 23.6 ± 15.3 1.2 M2 kg with a body mass index and body fat than ± 3 per cent of the controls were significantly lighter. They also significantly fewer calories than controls (10.26 vs. 13.89 + 1.8 + 0.7 MJ per day), and soccer players are less than the recommended dose. Fat and protein intakes were adequate, although both groups increased their carbohydrate intake can benefit. Had little effect on dietary intake of nutrition knowledge. However, the soccer club resided in hostels than the players lived in his ancestral home (p <0.05) more carbohydrates and less fat consumption was significantly higher energy intakes. Originality of their knowledge to the younger players in the implementation of their own food nutrition need that was identified. In particular, they need to increase their nutritional intake inline with

Recommendations, optimize their playing ability and they need to develop in order to provide energy. The football club is especially true for people living away from the probe.

improve both health and sports performance is widely accepted that role, because the game has been given to the importance of nutrition. However, sources in sports nutrition knowledge, beliefs and practices are different. Sports Dietitian or nutritionist to work within any sports organization and a positive contribution to the result, for the best work of each artist that real and practical strategies to develop and monitor athletes their family in the work the coaches and Support staff could should. Currently, youth development and review comprehensive and integrated nutrition services, early intervention, the performance advantage of the practical application of nutrition, the current key issues are examined.

Sports competitions questions from the original, but what you eat and drink; Matkovic B. et.al., (2002), coach, sport nutrition knowledge assessment, nutrition of athletes for decades, scientists have been interested to improve performance have been raised.

A large extent is scientific proof the athlete's health, body composition, and activity during the energetic pathways to influence dietary habit, as well as the competition or during recovery. Athletes and food groups, calories, and daily meal schedule must be notified. As in previous investigations, especially in athletes from a physical conditioning coach, coaches get the most from their knowledge about nutrition. The main purpose of this study was to determine the level of nutrition knowledge about the coach said. The sample consists of 32 coaches in basketball and skiing Croatia 24. Sports nutrition information about the local and international study was designed based on the results, was tested by means of a questionnaire. Also, coach of the knowledge about the importance of water testing products, competition and recovery before training and games and things about supplements, meal schedule to provide adequate energy level necessary nutrition and nutrition coach, general knowledge about the components of the products made during training and competition, and then dehydration and rehydration were included. Surveys were anonymous, and the obtained data were
analyzed by statistica for Windows statistical software. According to the obtained results, we ski coach basketball and the level of knowledge about nutrition, particularly in the area of nutrient and energy sources, the conclusion is generally satisfactory, but some areas are inadequate. It can be concluded that.

Use the nutrition facts coach for the data sources are not always scientifically justified

Conkle, et.al., (2002) Physical educators and coaches, sports nutrition knowledge, assessment has been carried out. The study current and potential physical educators/coaches (HPEs) sports nutrition knowledge of the area to determine the need for improved education and food and nutrition students (FNSs) and college students with general knowledge HPEs compare the nutritional assessment (Jane). Physical education classes in a common group consists of 20 students. Scale assessment, nutritional supplements, liquid and statements on hydration,
pre-event nutrition, nutritional composition, nutritional terminology, general nutrition, and nutrition opinions. The dependent variable was the sports nutrition knowledge. Frequencies and percentages were calculated for all the items on the scale. The average one-way analysis of variance by group differences were calculated and compared. HPEs tested the ability of the sports nutrition knowledge at the level of the standard. For FNSs significantly higher mean scores were found. Education and information resources for.

HPEs is inadequate. Currently, interscholastic athletic coaches, student athletes of dietary behaviors are directly on the little control.

Juzwiak, - Lopez, (2001) Teenage Brazilian players, coaches are evaluated by a nutrition knowledge and dietary recommendations. This study aims to work with adolescent athletes and their coaches to describe the recommended dietary practices to assess your knowledge of nutrition. Sao Paulo, Brazil, during the 55 coaches visited the regional competition. The coach of Olympic gymnastics, tennis, swimming and judo events in 22 cities with athletes represented. A 3-section of the questionnaire, demographic characteristics, diet and nutrition recommendations was to obtain information on knowledge. Results All coaches during the pre- and post-training period with no specific strategy, training practices during the normal diet that is recommended. The main objectives of the recommendations for training and muscle mass gain in weight control. Harmful weight control methods Five coaches were recommended by 27%. Pre- and post-competition practices specific diet coach, respectively, 93% and 46%, which was recommended by. No significant differences between sports participants (P = 0.61), the nutrition knowledge questions correctly, 70% (SD = 3.2) responded. The knowledge test is a tendency to overvalue protein, very low fat diet and food myths identified. The findings suggest.

Nutrition Coach training will enhance the importance of developing strategies.
Smith et.al., (2001), Section 1 of nutrition at the University of knowledge, ideas, and coaches and athletic trainers, behavior studied. The purpose of this investigation to the Department of Nutrition at the University of knowledge, ideas, and coaches and trainers in assessment practices. Participants (n = 53), nutrition knowledge, opinions, and efforts to complete the questionnaires. Descriptive statistics and analysis of variance was used to analyze data. Overall, 67% of participants in the nutrition knowledge questions correctly responded. Female athletes coached/trained the participants in the male athletes coached/trained than the respondents tended to score better. With more than 15 years of experience in strength and conditioning coaches and participants other than to participants. Nutrition opinions/communication response nutritional participants' were provided for athletes of all but 6%. Participants athletes' performance as the body weight is more important than body composition. Within the past year, 30% of participants perceived improper diet at least one case. Some of the participants (53%) of the food given allowances more nutritious meals to the athletes on the team sponsored tour can be felt. Thirty percent of participants reported dietitians were available, the percentage of reported use of dietitians. Some coaches and trainers proper nutrition recommendations, but are knowledgeable about registered dietitians or

Qualified sports nutrition professionals regarding nutrition education and counseling of athletes can spend.

Corley et.al., (2001) Nutrition knowledge and college coach, Veterans Administration Medical Center, selisbari, North Carolina has conducted a study on the dietary practices. Purposes of this study, the college coaches to measure nutrition knowledge and dietary practices recommended by the coach to describe a college coach, educational and demographic factors that affect nutrition knowledge, to identify, and used by coaches to identify the main sources of nutrition information. Using a list from the National Directory of College Athletics Questionnaires senior and junior colleges in North Carolina, 296 were sent to the coach.
Coaches were included in the following sports: track and field, cross country, swimming, tennis, basketball, gymnastics, golf, football, and wrestling. Response rate was 36%. Seventy percent of the nutrition knowledge test items were answered correctly, however, only one-third coach for the accuracy of their responses indicated a higher degree of certainty. Nutrition knowledge and sex, age, college, conference, nutrition, win/loss record in the course of work, and no significant relationship between years of coaching experience. Problems reported by college athletic coaches staple food "junk food," the poor diet, and had access to the use of an unbalanced diet. Authors nutrition assessment and criteria for the body to develop coaches, trainers, and dietitians recommend an annual workshop.

College players and the development of training designed to consume. Foodservice employees are also recommended for a special workshop.

Kelkar, et al., (2000) Nutrition knowledge, attitudes and behavior of players 18-25 years old, conducted research on the competitive Indian sportsmen. By purposive sampling technique was selected. The athletes involved in various sports disciplines like. Runners (n = 21), Boxer (n = 21), weightlifters (n = 21) and wrestlers (n = 15). The nutrient intake and body weight with respect to the discipline of sports showed a significant difference. The players from the nutrient intake of protein and iron compared with the recommended daily allowances. With regard to nutrition and the impact on the performance of elite athletes in general were knowledgeable and sophisticated. The trend in the data and colleagues poor players and coaches to mimic their behavior reflects. The players, at least the effort was to gain knowledge about nutrition. Weight category sports (boxing, weightlifting, wrestling) sportsmen 's about weight loss is a vague concept. The increase in trained athletes supplements to meet demand and lack of food and nutritional supplements were required to report. Currently studying nutrition education intervention among Indian players reveals that there is a
shortage.

Frederick-Hawkins (1998) Nutrition knowledge, attitudes, and dietary practices of female college athletes (dancers and track teams) studies

Postmenopausal women with non-athletic college women were measured. The track team members nonathletic group of dancers or a high score on a test of knowledge gained, and his score was slightly higher than in postmenopausal women. Attitude scores for all four groups showed no significant difference. Non-athletes took college courses in nutrition. Nutrition information source track team was the most frequent media reports. Postmenopausal women frequently nutrition information sources as friends, physicians, and the media is a list of the parents of dancers rely on good athletes, learned the most from their college nutrition course.

Marquart-Sobal (1998) 742 muscle development among high school athletes is related to the beliefs and resources to investigate. A majority (73%) believed were important in the development of muscle protein supplements, and many believed carbohydrates (71%) and
vitamin supplements (61%) were also important. Most athletes (84%),
good nutrition could prevent disease later in life. 40% of all steroids for
muscle development were more important than nutrition. The athletes
following resources provide specific information that would be: doctors (86%),
coaches (76%), trainers (68%), parents (38%), teachers (33%), and other athletes (33%).

Landry et al. Al. (1996), nutrition and weight control practices of
317 high school wrestlers and 81 national studies have been undertaken on
Junior Olympic boxing competition were compared. The
adolescent athletes had the same knowledge of nutrition and fasting was
dangerous and should lose weight through proper exercise Dieting and
agreed. However, more than 90% of both groups had lost weight, and
many saunas, rubber suits, and vomiting as the technology was using.
Both groups rated their coach others with their fellow team members
about weight control is the most important source of nutrition information.

Theatre dancers and 22 men (mean age 25) were studied women
hematologic assessment. 12 men and 10 women completed all 6 d food
diary. Mean caloric intake of 3000 kcal for men (12,540 J) and for the
women kcal (7106 J) 1700. 122 grams to 60 grams of protein for women
and men on average. The percentage of calories from carbohydrates, 38%
for men and for women was 50%. Intakes below the RDA 25% of
women frequently pyridoxine, folic acid, biotin, and vitamin D was known
for, (13.5 mg) as a means of iron intake was low in calcium intake. All
defects among women than men to be more severe and more frequent
were calculated. Except for four dancers, all took daily supplements
multiple Megavitamin. The dancers' diet was monotonous and
unbalanced decision. Factors contributing to low nutrient intakes among
the female dancers as a percentage of total calories, low calories, lack of
proper nutrition information, red meat and milk avoidance, and low in
carbohydrate intake.
Sossin et al. Al. (1995), beliefs, and 311 New York State HIGH SCHOOL wrestling coach and nutrition tools examined trends in their use. Most coaches (82%) themselves very knowledgeable about wrestling, but sports nutrition, weight loss, and less knowledgeable about vitamin supplements are considered. Coach only 36% had attended a nutrition workshop. Workshops were attended by more experienced coach, nutrition and weight loss and sports nutrition like more information about. Scores of 64% correct answers to questions about weight loss, diet, 59% training, 57% dehydration, the body composition of 52%, 80%, a positive attitude about weight loss and eating disorders scores 69%, the training was meant to mean the food was 34%, 29% dehydration, body composition, 70%, and 69% of eating disorders.

The most rapid weight loss coach, endurance, power, performance, and health impacts that are considered. About 91% wrestlers coach, bread, rice, believing their intake should be limited, and potatoes as opposed to fats. Most coaches (93%) FLUSHING, cramps, headaches, rapid pulse, weakness, and dehydration phetinga signs that are properly considered. Many coaches (67%) are considered to be used for wrestlers in their weight loss advice. 95% wrestlers during the season it is unacceptable to use this practice when the coach believes that binge eating (75%) and is a concern.

Massad et al. Al. (1995), knowledge and nutritional supplements among 509 high school athletes use performance assessment factors. Knowledge scores for women Subjects > one-third protein drinks were considered a higher mean Protein found on the nutritional benefits of food offered. Scientific evidence Contry, athletes Argentina almost 50% increase in the production of human growth hormone is considered. About one-third of athletes in a subject animal glandular material as half of the B vitamins scientifically tested and are safe to use significant amounts of testosterone, and provides nutritional supplements sold at health food stores (bull testicles) would be a source of energy. More about the use of nutritional supplements was associated with less knowledge.
Keller - Grubbs et al. Al., (1994), a nutrition education program for Female Cross Country runners on first and then the University of changes in nutrition knowledge and dietary intake was assessed. A small group format, presentations, handouts, and group discussions are used to communicate through the following topics: carbohydrates, fats, proteins, live food groups, iron status, fluid and dehydration, amenorrhea, calcium intake and its effect on bone mass, and pathogenic. Weight Control. Nutrition knowledge compared to controls with a mean pre-test to post-test score of the experimental group (n = 9) increased significantly. No significant change in the thiamin, dietary fiber, and saturated fat compared to 21 nutrients such.

Crossing RB et al. (1994) conducted a study of 348 coaches, 179 athletic trainers, and the United States throughout the 2977 high school and college athletes settings of a nutrition survey reported that more than 70%.

Trainers, athletic trainers certified by the National Athletic Association has taken courses in nutrition and nutrition information they felt should be given to the athletes. Only 27% had a formal course in nutrition coach, despite the fact that half of them said that they should give athletes nutritional education. Nutrition education was less than 25%, although Noncertified athletic trainers (81%), they are considered to be on a diet counselor athletes. Coaches and trainers certified and uncertified prime nutrition for all athletes to report concerns as a liquid. On the other hand, athletes worry about body weight and vitamin A, is the third largest liquid intake. Athletes reported by sources of nutrition information printed or electronic media, followed by parents (77% by the first or second), said. When asked about their familiarity with athletes, and three daily nutritional guidelines, were used. Most (68%) athletes daily diet guidelines are very familiar with, and uses 71% of the daily guidelines. Athletes were asked to define their nutrition guide, because the guidelines were actually used, if it is difficult to judge. In addition, these guidelines were formulated for athletes. Athletes in football and
baseball players, wrestlers and swimmers rely on trainers, nutrition coaches for information relied on by the state were not without their event.

Douglas - Douglas (1994) 943 male and female high school athletes of the nutrition knowledge and food practices testing on an average score of 55% on 18 different nutritional questions.41 has been dealt with in a.

The study, sports teams, cross country and track and field team members, other participants in sports nutrition knowledge than most high school athletes on the high picks. Participated in their sport for a long period of time, the athletes had higher nutrition knowledge scores. In addition, when asked to rate their source of nutrition information, most of the parents, popular books and magazines. Only 10% of medical staff is ranked first. Home economics classes in school science courses and 50% of students were ranked first as sources of nutrition information. Only 15% of students as a coach is number one source of information about sports nutrition.

Campbel - Mac Fadyen (1994) found a low level of general knowledge of nutrition and sports nutrition in the 101 competitive
swimmers (age 13 to 20) is a nutrition knowledge survey. Most balanced meals all the time, balanced diet without supplements before the competition does not give additional strength, and each (41%), iron supplements should be eating steak, top performance was enough to be believed. Nearly half, however, everyone should take supplements said, the extra energy is derived from vitamin supplements, vitamin E supplements of milk drinking, improve performance and performance on the day of the event, and protein supplements improve performance.

Hornick et al. Al., (1994), a physical education class enrolled 68 male and female adolescents, age 15-18 years, the sports nutrition and ergogenic aid use of a 2-month evaluation of the effects of nutrition education program. No significant changes occurred in nutrition education. Notable vitamins/minerals, muscle BUILDING PRODUCTS, protein and amino acid supplements in the fall, and salt tablets were the sports nutrition education program. Family (35%) coach/teacher (24%) and friends (14%), followed by the most frequently reported source of nutrition information. Author of parents, teacher and coach sports nutrition education strategy involving more that there is a need for the conclusion.

Steen - 24-h food recall preseason, 4-d food records, midseason, and three to four weeks after the last match with a reported LD two college wrestling teams (42 wrestlers age 18-23 years) and MCKINNEY (1992) collected data. Thirteen percent of the wrestlers to the "average person" did not meet the RDA for calories and protein intakes were 15% lower. Including supplements, men 25% vitamin C, thiamin, and less than two-thirds of the RDA for iron component. More than half of the pyridoxine, two-thirds of the RDA for zinc and magnesium, while almost half of the vitamin A was low. Percentages of calories from fat, protein and carbohydrate consumption was lower than recommended when more than is recommended for athletes. All but five percent of the subjects who used alcohol during the season.
Food and fluid intake low and sometimes nothing was taken by mouth for two days before a match.

HICKSON et al. Al., (1991) preseason conditioning and fall race season, 18 members of the men's intercollegiate soccer team has investigated. The athletes' preseason intake observed over three consecutive weeks, and was recorded at the University Cafe training table. During the competitive season, players from two to three weeks on the food intake record. Preseason calories during the 4492 kcal (18,777 J) / d and 3346 kcal (13,986 J) / D said. During Preseason, protein, fat and total calories per cent to 33 %, and 52 % from carbohydrate, 14 % did. During the competitive season, calories, 17 % protein, 37 % fat, 46 % carbohydrate and was divided. Meaning four of six vitamins and minerals intake exceeded the RDA during the preseason and competitive season than the RDA 97% of the zinc. Carbohydrate intake to the recommended optimal level of sports performance may be lower. The team won the NCAA Division I Championship, the authors do not have a high carbohydrate intake soccer competitions, winning only factor to consider.

Corely, G. et al. Al., (1990), the study of nutrition knowledge and dietary recommendations to identify sizes, and coaches' sources of nutrition information found in North Carolina, surveyed more than 100 college coaches. A false / true nutrition test were answered correctly by 70 %.

only one -third of the coach's answers were true and accurate. Most (82 %), but 48 % never took a course in nutrition coach college pre-game meal planned. The coach (80 %) to an athlete's diet, proper carbohydrates, fats, proteins, and knew relatively little about. Most coaches "junk food" to eat bad food was a problem. Three coaches in college nutrition courses urged to enter their athletes. Vitamin / mineral supplements (60 %), carbohydrate loading (male coaches, 40 %), protein supplements (20 %), fluid restriction (male coaches, 12 %), and milk ban (male coach 24 %) of the coaches' recommendations all
the more nutrition indicated that education was necessary. Coach their nutritional information books, physician advice, professional journals and the popular press indicates that it came from. Dietitians or nutritionists coach was consulted by only 2%. Coach of the authors' depth of knowledge to improve the nutrition of nutrition workshop is recommended.

Benson et al. Al. , ( 1990 ), 92 schools in six different professional female adolescent ballet dancers ( age 12 to 17 ) of the foods analyzed. 700 food data base program analysis with the dancers, the 3 d food record the results of several dancers folacin, calcium, iron, and zinc and less than two-thirds of the RDA suggested use. Dancers, about 50% of the RDA of iron intakes were less than two-thirds. Low intake of other nutrients, vitamin e, pyridoxine and magnesium are included. Average calories 1890 kcal ( 7900 J ) / d, but the dancers to 50% less than 1800 kcal ( 7524 J ) / d, and 11% eat less than 1200 kcal ( 5016 J ) / d ate. Calories from protein, 34.6%, 15.6% from fat, and 49.8% was from carbohydrate. Over half of the girls protein and fat calories from 40% to more than one-fourth derived more than 20% of calories derived. Approximately 60% of subjects in the mineral or vitamin supplement, but rarely supplement the dancers' nutritional deficiencies were covered. Many dancers Vitamin A, B, and
no deficiencies were clear when the C supplements to meet the RDA took more than two times.

Ellsworth et al. Al., (1990), 13 male (age 18-28 years) and 14 female (15-31 years), members of the U.S. Nordic ski team has investigated the nutritional intake. 3-D record four sets of training and competition (and 4 joint Nordic events for men cross country skiing for women and 9 men) were collected for a period of 3-4 months during the year. Food intake, and weighed at the third session of the state, they are low-fat, high carbohydrate diet, noted in the margin, and vitamin C, thiamin, riboflavin, Niacin, and more than the average RDA for calcium. Women and three out of four recording sessions had low intakes of iron. Female skiers' Average calcium intake met the RDA, although, at the last session skiers 40% eat less than 800 mg calcium.

Calories for men (49-76 kcal [205-318 J]/kg BW) and high (42-71 kcal [176-297 J]/kg BW) for women. For skiers calorie needs 90 kcal (376 J)/kg BW was calculated to be the only two men have been at that level of caloric consumption. Energy from nutrients per calorie of protein for both men and women ranged from 13 to 14%

34-43% of calories from fat for men, and 34-11% for women, and for men, 40-52% of calories from carbohydrates and 42-50% for women. Alcohol for men and for women 4.5% to 3% of calories provided. Intake of 1210 mg of cholesterol for men and from 655 to 369, which is far above any dietary guidelines for women 736 mg of cholesterol. Fat consumption is increasing and the need for improved training table menu at the suggestion that eating habits at home, compared to the carbohydrate intake is decreased on the training table.

Campbell - Make Fadyen (1990) 101 Canadian juvenile male and female competitive swimmers assessment of the dietary practices. They grouped the swimmers - to 16-year-olds, 16-15-year-olds, and 100 meters on two events or one event can meet standards set in the time, the 20-year-olds to 50 meters or more. The three-day food records
collected and Canadian Dietary Standard Revision Committee for the 1975 Canadian dietary standards were compared. The average intake of calories and nutrients of 3-D for the Canadian Dietary Standard recommendations met all ages and for both boys and girls, although some swimmers less than the recommended amount of calories, iron, and vitamins is to eat the calories and nutrients than a high percentage of all age and Home away from home were consumed by sex groups. Almost the same percentage of calories and nutrients as breakfast and evening snacks provided. In some cases, this was true character. Total calorie and nutrient intake of 40 % or more by dinner and evening snacks were served. More swimmers took supplements during training.

Competition than before. The supplements of vitamin C, vitamin E, iron, and B-complex vitamins are included. Pre-game meal most frequently eaten food grains and carbohydrates in food.

Burke – Reed (1989) 25 Australian male triathletes (age 19-46) and self-reported, as described in the diet. During training, diet histories, food intake and food frequency techniques were used to collect data. Twenty subjects completed 7 d food diary. Skin fold and other anthropometric measurements were made and blood samples were taken.
to measure iron status. Athletes, they completed (e.g., Ironman) 9-17 hours to complete the event lasts an average of 3 hours used during the food fresh and dried fruit triathlons, cookies, sandwiches, water, electrolyte drinks, soft drinks, suggested that the running with the liquid during the cycling phase, and cookies in the 2-5% glucose/fructose-polymer drinks. Foods used during the training week (per day) include: breads/grains, fruits/vegetables, starchy, high-sugar foods five parts, and other food groups from one to three servings of nine servings 18 servings. Was more than 80% of men reported carbohydrate loading before a 2-4 d. Training of food energy intake of 4095 kcal (17,117 J)/d (59 kcal/Kcal [247 J]/kg BW/d) to 59.5% from carbohydrate, protein (2 g/kg BW) was from the 13%, from fat 27%, and 0.5% from alcohol. Two of five vitamins and minerals in Australia, was on nutrient recommendations. Iron intake 30 mg (three times recommended), and all iron calculated to be.

Conditions were normal size. The triathletes to increase calorie snacks and often had multiple meals. All triathletes reported drinking extra fluids at a pre-event meal and all but the two men had a high carbohydrate diet. All subjects had recognized the importance of fluid before and during triathlons.

STUDIES RELATED TO VARIOUS GAMES

Dureha (1984) offensive and defensive hockey players selected tolerance with anthropometric variables, agility, speed, explosive strength, motor fitness components compared with a selected one of the studies. Gwalior to fifty male college students were selected as subjects of study, the selected motor fitness components and selected anthropometric variables, no significant difference between offensive and defensive hockey players was.

Sharratt et(1986) freestyle wrestlers are used for the prescription of
individual training programs, which conducted a study to provide a baseline physical data. Canadian wrestlers from other countries in the same physical profile of elite wrestlers, usually found. The maximum aerobic power.

Values comparable to that previously reported, and anaerobic capacity and upper body strength than other elite athletes is lower than the values reported.

Sidhu et al. (1989) 1987 in hockey, football, basketball and volleyball players at the national level physique police investigation and volleyball and football players, hockey players are significantly more endomorphic than is stated. Hockey and football players of all categories were ectomorphic least.

Fry and Morten (1991) selected paddlers and non-selected paddlers conducted a study to determine the kinanthropometric profile, select the paddlers significant, (standing and sitting height) were higher in the non-selected paddlers larger than the upper hand and arm girths. Chest girth, biacromial width and no significant difference between the two groups was the sum of skinfolds.

Day et al. (1993), Indian National Kabaddi players conducted a study to assess the morphological and physiological characteristics. 25 National Kabaddi players, mean age 27.91 years, were selected as subjects. Their physical characteristics, body fat, lean body mass and somatotype were investigated. Strength, maximal oxygen uptake capacity and anaerobic capacity and related cardiorespiratory parameters, oxygen pulse, equivalent, maximum pulmonary ventilation, maximum heart rate, physical characteristics, breathing, included access to. Kabaddi players average body fat percentage in the general population than in the sedentary. His physique endomorphic mesomorph was found. Physical characteristics, percentage of body fat, somatotype, maximal oxygen uptake capacity and anaerobic capacity and other cardiorespiratory
parameters were compared with other national counterparts.

Krawczyk et al. (1997), 300 athletes representing various sports somatotypes evaluation. 28 volleyballers, 54 rowers, 20 light weight rowers, 51 Greco-Roman wrestlers, 35 freestyle wrestlers, 66 judokas, 32 boxers, 14 karate fighters (19-32 year olds). Analyzed as subjects over a period of 2 years. As a control group, 198 students and physically aged 19-21 years were selected randomly to build. Body build factors are studied and the results obtained from the European Championships or the Olympic Games was compared with international partners within populations were compared. As a result, most of the players showed that certain groups.

somatotype case is different, the variation within the group is less than the control group. When compared with other groups of elite athletes in the world, the study subjects were somewhat less mesomorphy and higher endo or ectomorphy component.

Gabbett (2000) the physiological and anthropometric characteristics of amateur rugby league players check. Thirty five amateur rugby league players were measured for height, body mass, percentage body fat, muscular strength, speed and maximum aerobic capacity. 10 m and 40 m sprint, vertical jump, body fat percentage, and the multistage fitness test results than the 20-42% previously reported for professional rugby league players were poor. Further, compared to the praise of the 40-meter sprint and a significantly lower body mass was significantly higher speed. Percentage body fat, vertical jump, 10 m sprint and maximum aerobic power values were not significantly different between the front and backs. By comparison with professional rugby league players, amateur rugby league players in the training of team training session and personal training session a week about 30 minutes, taking less than three hours a week with players, was 30-53% lower. The training time devoted to the development of muscular power, speed and aerobic fitness did not differ significantly between the front and backs.

Mermier et al. (2000) The physiological and anthropometric
crucial to recognize the influence of sport climbing. 10 to 44 years of experience in a variety of skill levels and forty-four climbers (24 men and 20 women) were evaluated. For each subject, the anthropometric variables, height, weight, leg length, arm span, % body fat and physical variables of the knee and shoulder extension, knee flexion, and finger pincer grip strength, bent arm hang, grip endurance, hip and shoulder flexibility and upper and lower body strength and anaerobic. Principal components analysis of the process as a result of three factors were extracted. The composition of each component was the most influential of the state variables based training, anthropometric and flexibility were labeled. Multiple regression results of the training component of the unique performance climbing 58.9% in the total variance explained indicated. The anthropometric and flexibility components, respectively, 0.3% and 1.8% explained variance in climbing performance. It may be influenced by the distance in ascending conclusion was that trainable variables are explained by a single factor. More importantly, the findings of a climber needed to excel in the sport of rock climbing should be specific anthropometric characteristics that do not support the belief.

Montes et al. (2000) Non-soccer players young soccer players with eye-hand and eye-foot visual reaction time, undertook a study to investigate. Subjects 53 young male soccer players and selected as a
control group of 60 young male Hispanic soccer players. Soccer players and non-soccer players in each group of 8 or 9 years old, 10-11 year, and in 12-13 year was split into three categories. Let's eye-hand and eye-foot visual reaction time. The results of the hand and eye to eye reaction time between athletes and non-athletes were among the statistically significant difference. There was no relationship between visual reaction time and age. Eye-hand and eye-foot visual reaction times evaluated were found to be different between the two groups. Fast response time with the soccer players were also differences between soccer and non-soccer players.

Ostojic (2000) and two groups of subjects are selected as the team's top players and non-elite players of the team was split into B, which conducted a study on 32 players. Structural and functional characteristics of elite Serbian soccer players compared with non-elite counterparts. Results from team B players in the team, one of the subjects were older and more experienced team showed that the B-20 during the last minute of the shuttle team, the frequencies of the heart rate was significantly less than the estimated VO2max values in the Test team in the vertical jump height of the lower Score quick estimated percentage of muscle fibers and the team were high as the team results were significantly higher aerobic fitness, anaerobic power and performance results indicate a strong correlation between the squad B is compared to the elite soccer.

Reilly et al. (2000), anthropometric and physiological characteristics of soccer players check. Both youth and adult soccer players of different size material is used to evaluate specific aspects of the work. Midfield players and full-backs in maximum oxygen intakes and intermittent exercise test is best. On the other hand, midfield players have the lowest muscle strength. Despite the obvious differences, adult and elite youth players, their survival and must be interpreted circumspectly recognize talent.

Development programs. A series of anthropometric and
physiological factors related to size and maximum oxygen intake was subject to strong genetic influence, which can be considered. The anthropometric and physiological criteria talented young players as part of a holistic monitoring role that had been concluded.

Frenkl et al. (2001) description of the selected anthropometric and physiological characteristics of the exercise, a study conducted in Hungarian players. Subjects 25 water polo players, 24 and 20 paddlers were modern pentathletes. Results Average height, body mass and body composition were significant differences in symptoms. Great oxygen uptake relative to body mass and water polo players of the modern pentathletes the lowest one was found.

Grant et al. (2001) conducted a study on women in three groups: group 1 comprised 10 elite climbers, recreational climbers, including 10 in group 2 and group 3 included 10 physically active individuals. The finger strength tests (grip strength, finger strength measured on climbing specific device), flexibility, bent arm hang and pull-ups are included. Regression procedure (analysis of covariance), body mass, leg length, height and age were used to test the performance. Finger strength, the elite climbers, the recreational climbers and non-climbers recorded significantly higher values. The right-hand grip strength, the elite climbers, recreational climbers only significantly higher than the recorded values. Results elite climbers, recreational climbers and non-climbers is more than one finger to indicate strength.

Melhim (2001) the practice of Taekwondo, and cardiovascular fitness and general physical abilities to their beneficial effects on aerobic and anaerobic power responses conducted a study. With an average age of 13.8 years were assessed as subjects nineteen Taekwon-Do players. Subjects resting heart rate, aerobic power, anaerobic power and anaerobic capacity was assessed. Significant differences were found in anaerobic power and anaerobic capacity. About specific anaerobic capacity increased by 61.5% and increased by 62% relative to body
weight. Male adolescents in the practice of Taekwon-do, aerobic power, anaerobic power and anaerobic capacity are encouraged, but are not.


29.32% of the total population (854). The following variables: eight skinfolds, six lengths, eight Heights, thirteen girths or perimeters, and nine in diameter were measured. Results showed that the athletes are high, and weigh more than athletes in other studies that span. From ages 10 to 14, reduce the percentage of fat mass, and subcutaneous fat distribution changes occur.

Singh and Koley (2002), a runner seventy, sixty-five long-distance runners, twenty-six high hurdlers and inter-university, national and international level, Indian athletes have tested twenty-four low hurdlers of skinfold thickness. Results and long-distance runners, sprinters and long distance runners and high hurdlers among the most significant difference was seen between the subscapular skinfold. Between sprinters and long distance runners suprailliac skinfold was a statistically significant difference. No significant differences were found between any other groups.

Strudwick et al. (2002), the elite players in two football codes anthropometric and performance characteristics of a study conducted to compare. Subjects 19 professional soccer players and 33 inter-county Gaelic football players. Measurements during the regular season, a Premier League soccer team members were, of the 1999 All-Ireland Gaelic Football players are preparing for the championship, while members of the Mayo team. Gaelic football players, soccer players, compared to the size of the increase was significant. 10 m and 30 m sprints and vertical jump performance in Gaelic football players were superior compared to the soccer group.
Chan et al. (2003) local Taekwon-do club in London, UK. The height, weight, girths, breadths 20 subjects (10 men and 10 women) were measured on a study conducted in 6 sites and skinfold thickness. The sum of skinfolds anatomical reverse ponderal index and the proportional weight and skinfolds expressed in terms of the proportionate amount. A Dunn-Sidak adjusted alpha with t-tests were applied.

Results: No differences were found in somatotype attitudinal distance showed that more women than men were endomorphy rating. No differences were found in meso and ectomorphy components. The six skinfolds women than men had a significantly higher specific amount.

Oxizoglou and Hatzimanouil (2004), to measure the strength, speed and agility of the morphological characteristics and motor abilities of a study conducted to compare.

Select team handball players from Yugoslavia and Greece. Greek athletes were 21 participants and 20 Yugoslavian athletes. The examination of morphological characteristics and strength, speed and agility in accordance with international standards and tools for the measurement capabilities of the motor. Results Yugoslavian players sprint 10 meters above the limbs repeat speed and power of the motor abilities of all morphological characteristics significantly different than Greek players, said. And the agility.

Franchini et al. (2005) conducted a study to test the difference between the elite (the Brazilian National and International medal winner), and non-elite (non-medal winner at the Brazilian National tournament) Judo junior and senior players. The following tests and measurements: skinfold thickness, circumferences, breadths, upper body Wingate test, a special judo fitness test, strength and aerobic capacity, active and passive recovery recovery (rest) after the Battle of lactate, isometric hand-grip strength were carried out. Results elite group of non-elite group is better than the results presented show that. Elite Judo players
and a higher upper body anaerobic power and capacity, high circumferences (especially in the upper body, from the best in the area suggests that muscle mass) and skinfold, hand grip strength and aerobic power and capacity were similar in the present elite and non-elite judo players.

Gorostiaga et al. (2005), body height, body mass, body fat, and free fatty mass, a repetition maximum bench-press, explosive strength, jumping, handball throwing velocity, and wrist power load in relation to physical symptoms such as a study conducted to compare the extensor muscles, 5m and 15m sprint time is running two handball male teams, and running endurance: the elite teams and amateur teams. Elite Team of body height, time is running and running endurance than novice team of body fat, vertical jump, 15m sprint 5 and had the same values. Free body mass elite team group, fatty mass, 1RM (BP) bench-press the muscle power and half sitting and standing and amateur teams in group 3 than in the actions of the lesion gave rise to the high values. Significant correlation of the elite teams and 30 1RM % (BP) and the vertical velocity of the ball during a throw at the end of the personal values of the individual velocity values were found between the amateur team.
Significant correlation at 30% during the 3-step running throw and accelerate the velocity of individual values between individual values, not the elite team, but there were amateur teams.

1RM (BP) and body mass during half-squat actions 100% of the individual values of power. It's more muscular and powerful benefit that conclusion was a handball player. Free fatty absolute maximum strength and muscle mass in part the difference in power may explain the differences observed between groups.

Gabbett (2005) Junior Rugby League players in certain positions and positional playing groups, physiological and anthropometric characteristics of the evaluation. Two hundred and forty junior rugby league players, the players have gained a degree of match fitness and then were taken during the competitive season, standard anthropometry, muscular strength, speed, agility, and an estimated maximum of aerobic power, was rushed to the. Results of physiological and anthropometric differences in a junior rugby league players did not exist among individual playing positions that demonstrate, however, props, heavy, with a skinfold thickness, low speed, agility, and has an estimated maximum aerobic power was higher in other positional playing groups.

Hatzimanouil et al. (2005) somatotype and team sports (water polo, handball, volleyball, football, basketball), known in the literature review about the elite athletes of the anthropometric characteristics and also to clarify the relationship between these characteristics and athletic performance. The research findings of the athletes’ somatotype and anthropometric characteristics are associated with each type of game showed. In addition, high athletic performance and high-altitude, low percentage of body fat and high muscle mass, such as the relationship between physical characteristics were.

Slater et al. (2005) features the physique and lightweight rowers, including an assessment of their relationship to competitive success.
Anthropometric measurements of soft 107 rowers (65 males and 45 females) were assessed on. Physique characteristics and the relationship between competitive success was determined. Results in lower body fat, more total body mass and muscle mass was associated with faster 2000 m heat times. The more successful lightweight rowers had lower body fat and more total muscle mass were those that had been concluded.

Sallet et al. (2005) Physical and physiological characteristics and evaluation of professional basketball players playing position and level of play in relation to them. And was significantly higher than at centers results showed that heavy.

Guards and body fat percentage was higher than other groups. Was significantly higher than at the guards. Many physical differences, most notably the size, as a function of their playing positions that exist between players, but these differences were correlated with the level of professional players in the game.

Bayios et al. (2006) The anthropometric profile, Greek elite female basketball body composition and somatotype, volleyball and handball players, and conducted a study to determine the level of competition in relation to the possible differences between the average scores for games compared to. Female Athlete of 518 total, Greek First National League (A1 and A2 division) All members of the basketball, volleyball and handball sports teams took part in the study. Volleyball players, athletes had higher body fat among the three groups and their somatotype lowest values were not classified as balanced endomorph. Basketball players mesomorph - endomorph somatotype characteristics as well, rather than handball players were high and thin. Handball players were all short and body fat and the highest percentage of their somatotype mesomorph - endomorph said. Compared with their counterparts A2 A1 division players were taller and heavier, but at the same time thin, and anthropometric, body composition, and the Greek team at the elite female players somatotype variables that had been
concluded between the different somatotype characteristics. It exhibited high affinity for sports.

Khanna and Manna (2006), Indian National Boxer of the morphological, physiological and biochemical characteristics and to evaluate a study conducted to assess the cardiovascular adaptation. Two separate studies were carried out. 30 junior boxer below 19 yrs, 30 senior boxer of the first study, morphological physiological and biochemical parameters were measured in the 20-25 years. In another study the cardiovascular response to the light weight of < 54 kg, 7 Medium weight of < 64 kg, and 7 Medium heavy weight of < 75 kg, were studied. Results significantly higher than junior size, body mass, lean body mass, body fat and grip strength was the senior boxer and back. If the senior boxer Junior's possession ectomorphic body conformation had a mesomorphic body conformation. Significantly lower aerobic capacity and anaerobic power was measured by a senior with a junior boxer. Significantly higher maximum heart rate and recovery heart rates were seen as a senior.

Compared to the juniors. Significantly higher maximum heart rate were noted during graded exercise with a real boxing. The senior from junior boxer boxer significantly higher hemoglobin, blood urea, uric acid and lactate peak displays. Boxing training, age and level of aerobic and anaerobic component has a significant impact.

Ostojic et al. (2006) Structural and functional characteristics of elite Serbian basketball players and positional players different roles of various physical and physiological profiles to assess whether a study conducted. Five men's basketball team took part in the study and participated in professional first in the National League. During the final week of their initial training for the physical size of the event, 60 players were taken. According to the positional roles, players, guards, front and center were classified as. Compared with both the front and center guards were older and more experienced. Height and weight were
significantly higher than the guards at the centers, higher and further than guards and heavy. And guards at both centers with more body fat. Also, centers and guards at significantly lower compared with the estimated VO2max values. Compared with guards vertical jump power centers were significantly higher.

Gabbett et al. (2007) Rugby League players, anthropometric and physiological characteristics of the diagnostic skills and physical fitness, and determines the relationship between the ability to play rugby league players. Eighty six rugby league players, the size of standard anthropometry (height, body mass and amount of 4 skinfolds), muscular power (vertical jump), speed (10, 20, and 40m sprint), agility (L run) pass, and the estimated maximum aerobic power (multistage fitness test). First grade players in the second grade and third grade players significantly more than the basic passing and ball carrying ability and fatigue, under the conduct of superior skills and defensive skills, and expertise in tax evasion. No significant differences in body mass, skinfold thickness, height, 10, 20, or 40m speed, agility, vertical jump height and the estimated maximum aerobic power was found between levels of play, when all the physiological and anthropometric characteristics were significantly associated with at least 1 measure the ability to play.
Mariko et al. (2007) 6 handball players, basketball players, and Japan, from the University of 7 between 19 and 22 years of age evaluated 8 volleyball players. Results of upper arm girth difference, 3 ball game between the teams on the hands and body fat percent, skinfold thickness was statistically significant. Handball players of the upper arm girth was substantially better than basketball players, volleyball players and high hand and the percentage of fat skinfold thickness was significantly lower than the handball players. The tallest volleyball players and basketball players short.

Vaghetti et al. (2007) 103 surfers, 42 professional male athletes, 11 female athletes to professional, 25 amateur college student athletes and 25 surf a study conducted on practitioners. Professional, amateur players and surfers to surf the practitioners comparing the different ability levels in the auditory and visual span of the reaction was identified. Professional and amateur surfers and surf practitioners audio and visual feedback in the span of the athletes’ performance in relation to the reaction span statistical difference between groups as well as the surfers are. Statistically significant difference between the practitioner against professional male versus female, between practitioners and professional audio and visual reaction time were found. Statistically significant differences for the more experienced ones with lower reaction span to span only visible reaction against amateurs were found among practitioners. The ranking professional female athletes versus a positive correlation between the visual reaction time was found.

Young and Pryor (2007) Performance indicators selected in the elite junior Australian football players to learn the relationship between anthropometric measures and fitness studies. Victorian elite Australian rules football competition under -18 to 485 players, height, body mass, arm span, arm length, standing reach, vertical jump, 5 and 20 m sprint times, agility, VO2max prediction and sit and reach flexibility evaluated said. Observed several significant differences between the selected and
non-selected players said. Property acquired most of the players with lower body mass were significantly shorter and had more acceleration and endurance. A significant number of properties were related to body mass and height were related to the hit-outs. Motion to discriminate between high- and low-vote winner was not just fitness. The top four players Teams had access to a significantly more time was not great but the best measure of fitness.

Veale et al. (2008) A Victorian elite junior Australian rules football Under-18 squad of 54 players were selected for the study was undertaken. Players Anthropometric and physical performance was measured using a battery of standard tests. Results height, weight, 20m sprints, agility and vertical jump height was considered for the mass difference between the selected and non-selected players showed. Vertical jump to conclusions without significant individual test and all other tests of endurance with a medium effect size for the selected and non-selected players Differentiating between the height of the near-significant tendency.

CAMPOS et al. (2009) and the anthropometric profile of young badminton athletes Brazilian junior badminton team to assess motor performance of 20 athletes (10 male athletes and 10 female), conducted a study. Anthropometric measurements of body weight, height, skinfold relaxed hand, contract in hand, thigh, calf, and, humeral, and the circumferences of Femoral bone diameter, thickness of triceps, subscapular, suprailac, abdominal, biceps, thigh and calf were taken from all subjects.

Pelin et al. (2009) 27 American footballers, 26 volleyballers, 31 basketballers, 34 Turkish footballers and tested 35 young non-athletes. Athlete of the physical characteristics were evaluated and compared to each other and non-players. 17 anthropometric values, body mass index and somatotype components were calculated and evaluated. The result of their basketball and volleyball players are no longer with lower limb
length, width, and their small format billiiac American footballers with their larger and more tense values were characterized with footballers. Turkish players when compared to other countries, but players have high endomorphy and lower mesomorphy values that were observed.

Black et al. (2009), anthropometric and fitness characteristics of elite female water polo players, a study was conducted and different competition levels (national and international) and players playing positions (center and perimeter), the difference between the tests. Twenty-six female water polo players in the standard anthropometry (height, body mass and the amount of 7 skinfolds), lower body muscular power (vertical jump in the water), speed (10 m maximum sprint swim), and were assessed for aerobic fitness (multistage shuttle swim test). National team players and National League players were taller and heavier compared with the well-jumping, running, and endurance in swimming abilities. Lower body mass and skinfold levels of perimeter players and a center with a good sprint and endurance athletes in swimming abilities.

Wong et al. (2009) youth football players and the positional difference between the variables studied the relationship between anthropometric and physical appearance. U-14 Seventy male soccer players participated in the study. Body mass shooting at a considerable speed and 30M sprint time was associated with. Body height in the vertical jump height, 10m sprint and 30 million times, Yo Yo - Intermittent short distance endurance and maximum oxygen uptake was associated with in the meantime. Body mass index, significant at the shooting speed, 30 m sprint time, distance Hoff test saliva, Yo Yo - Intermittent short distance tolerance, sub-maximum running costs, VO2max and was associated with a corresponding running time. Significant differences in the physical appearance of positional anthropometry in body mass, height and body mass index were found.

Ziv and Lidor (2009) Physical characteristics, physical
characteristics, throwing velocity and accuracy of studies on a series of (N-23) of the review, and the male handball players, amateur players, experienced players, professional players and players on the national team on the court performance. Five major findings emerged from our review: (1) Elite players and amateur players were heavier than fat-free mass is. (2) men's maximum oxygen uptake was between 50 and 60 m\_kg\_1\_min\_1. (3) accelerates wound elite amateur men compared with men was higher by as much as 9%. (4) a heart rate of 160 beats _min_1 male players during a game can move on. (5) in a game on the court covered a distance of about 4 km Average and depending on playing position between 2 and 5 km, distance

Dupler et al. (2010) within the grade level of high school football players and playing conditions to investigate the difference between the physical and performance. Two thousand three hundred and twenty seven athletes height, weight, 40 yard sprint time, vertical jump, pro agility time and were tested for height. Results in 11th and 12th grades are defensive players, 40yd sprint significantly faster in the pro agility and 9 and all the conditions were in the 10th grade defensive players generate more power than indicated. Similarly, the 11th and 12th grades offensive players in total were significantly faster, and at lower grades than football players.

Erculj et al. Sixty five female basketball players in A, B, and C of the European division were evaluated. Groups were compared using 8 motor tests. The Section C players differ mainly in sections 6 × 5m sprint in salivary A and B. 6 × 5m and 20m sprint sprint Saliva Test discriminatory power was preserved after eliminating the effect of body height.

Gabbett et al. (2010), junior elite and sub-elite rugby league players choose to carry out an investigation to determine the relationship between the physical.

And anthropometric characteristics. Twenty-eight junior elite and
sub-elite rugby league players, 13 junior 10m certified in Grid 1 on 1 up to carry out the exercise. Junior high players in the junior sub-elite players were significantly more skill to carry out. Players in junior high, high, heavy and thin, and the junior sub-elite players more than the direction of motion and muscular strength, speed, change, tended to have. Ability to carry out the strong correlation of the individual acceleration and lower body muscular power.

Hazir (2010) Turkish Super League and Turkish First League 305 professional male soccer players to investigate. Height, weight, and upper arms and ankles flexed girths, tensed biepicondylar breadths of the humerus and femur, and four (triceps, subscapular, supraspinale, and medial calf) Skinfold thickness was measured. Somatotypes Heath-Carter method is estimated. Physical characteristics and somatotype of players playing level results were significantly different between the conditions stated. In both levels, the mesomorph category was dominated by soccer players somatotype, however high-level players playing more mesomorphic, and on the lower level players all playing conditions were less endomorphic and ectomorphic.
Koley and Kashyap (2010), six of 56 from Indian universities, a study conducted on Indian inter-university female cricketers. 101 controls were studied. Fifteen anthropometric characteristics were measured. Results of Indian inter-university female cricketers and controls significant differences between the signal.

Weight all variables (except for height and skinfold biceps) a significant positive correlation with the study, a significant positive correlation for all five skinfold measurements, height and diameter of the blade, except bi-epicondylar study with the variant were found. Similarly, all six circumferential measurements, except for a significantly positive correlation of height with all the variables are known.

Koley and Singh (2010), two physical eleven anthropometric characteristics, the anatomic parameters, and inter-university basketball.
players 18-25 years old Indian sixty (35 men and 25 women) in the assessment of the physical variables. Eleven anthropometric variables, height, weight, body mass index, chest.

Circumference, hip circumference, femur biepicondylar diameter, blade diameter biepicondylar, biceps skinfold, skinfold triceps, subscapular skinfold and calf skinfold, four body composition parameters, percent body fat, percent lean body mass, basal metabolic rate and water percent, of the physical parameters and left hand grip strength and the physical variable heart rate and VO2max were taken on each subject. Male basketball players in high and heavy and female basketball players were slightly taller and lighter than their control counterparts suggested. Between the basketball players and controls all variables (except hip circumference) were seen in the significant between group differences.

Nimphius et al. (2010), strength, power, speed and direction of female softball players conducted a study to assess the relationship between changes. Softball team from the Australian Institute of Sport in ten female softball players jump squats unload the maximum lower body strength, peak force, peak velocity and peak power for the test and are loaded, unloaded countermovement jump height of 1 and 2 on the basis of changes in sprint performance and were dominant and non-dominant direction of the parties. The testing sessions, pre-, mid-, and post 20 week training period. Body weight, relative strength, vertical jump height, relative peak power, relative peak force, peak velocity, speed and direction of change in the relationship between variables, Pearson product moment correlation coefficient for each test session was assessed by. Significant relationship between body weight, speed and direction and relative strength of action and the ability to change speed and direction with the change of the all-time points were all found. Vertical jump height at any time, and no significant relationship between the performance of any size. And the relative strength of the body weight remains constant throughout the season, and the correlation of speed and ability to change direction with a very strong correlation is strong for that conclusion was.
Mirkov et al. (2010) 11 and 14 years of age and 11 years of age also revealed the influence of young soccer players between the anthropometric and physical performance characteristics of a longitudinal study conducted to explore. The Cadet League’s best male players in the annual national squads male body size and composition, flexibility, power, coordination, and agility tests were started at the age of 11. Randomly selected age-matched untrained but physically active boys were also tested.

4 consecutive years. It was also no difference between body size and composition of the two groups. The explosive debate about the power of the medium and partly incompatible differences in relief, at a later emerge. During the age of the test subjects to control the movement of soccer players, agility and coordination appeared to be the most prominent advantage. So explosive muscle strength, agility and coordination elite soccer players age 11-14 years, but as body size and body composition.

Orhan et al. (2010), based on the player's status Turkish Turkcell Super League to a study conducted on twenty four football players. The anthropometrical measurements: triceps, subscapular, supraspinale size and feet and skinfold thickness, diameter bicondylar humerus, femur bicondylar diameter, biceps girth, weight and height measurements were analyzed for the study. No significant difference between the different positions of the players in the team said.

Singh et al. (2010) anthropometric measurements and India, Pakistan and Sri Lanka teams to determine the anatomy of a study conducted at the fifty-three hockey players. Participants height, weight, width and diameter, girths and length, grip strength and skinfold thickness were assessed for. 4 measurements of skinfold thickness and fat percentage was calculated from. No significant differences in height and weight between the three teams that were found. India and Sri Lanka teams Pakistan team, significantly higher than the upper arm length and
diameter of the lateral scapula. India and Pakistan team, the Sri Lanka team, significantly less than the width of the hand and wrist circumference in lean body mass. Team India is significantly less than the other two teams in % body fat.

Singh et al. (2010) anthropometric measurements, body composition and high performer and a low performer high jumpers somatotyping In a study conducted to find differences. Age 18 to 25 years, 20 male university level high jumpers (10 high and 10 low performers presentation) All India Inter University Athletic Meet was assessed in the present study. All subjects height, weight, breadths, girths and skinfold thickness were assessed for. Fat percentage was calculated from the amount.

Skinfold thickness is measured. Low performer high jumpers compared to the results of the artist’s high jumpers had significantly higher height, weight, body mass index, total leg length, total length of the show. Low performer high jumpers significantly higher % body fat and endomorphic saw the introduction of high jumpers also significantly higher compared to the low representation of all three circumferences, both bi-lateral humerus and femur diameter, lean body mass and mesomorphic to the high representation of Over the.

Siahkouhian and Hedayatneja (2010) Iranian elite weightlifters correlation with the performance evaluation of anthropometric and body composition variables. Forty two subjects evaluated. Anthropometric and body composition variables, and weightlifters performance (ie, Snatch, Clean and jerk, front squat, back squat) were measured. Snatch and clean and jerk record results in considerable height, weight, shoulder and chest circumference, lean body mass, body mass index, meeting, showed that correlated with height, we Snatch and clean and jerk record with % fat showed a negative correlation, while WHR values as well. Results of the Snatch and clean and jerk record was significantly correlated with body mass index. The performance and anthropometric and body composition variables weightlifter strong correlation exists.
between the findings that were made.

Relax et al. (2011), and the strength and power characteristics of elite English rugby league players praised the team conducted a study to compare. Test, 20m sprint times, agility, vertical jump, jump, squat 40kg squat isometric, concentric and eccentric isokinetic knee flexion and extension 5, 10 included.