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Effects of Inspiratory Muscle Training on Yo-Yo Test Score of Young Team Handball Players

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Abstract- Inspiratory muscle training (IMT) has been extensively investigated over the past two decades. Inspiratory muscle training has been shown to improve both strength and endurance. The effect of these improvements on whole body exercise performance remains controversial.

The purpose: of this study was to determine the effects of 6 weeks inspiratory muscle training (IMT) on Yo-Yo intermittent recover test level 1, endurance and o2max for male Olympic handball players to asses PowerBreath, designed to improve fitness and maximise performance.

Method: A six-week controlled study of IMT was undertaken in healthy male Olympic handball players. Twenty-one participants (mean age 16 years old) were essentially selected to one group. The participants performed the device of PowerBreathe Plus (MR) Level 2, five times weekly at weeks ‘‘30 breaths, twice a day’’. The participants continued with the Powerbreathe IMT over the intervening six-weeks. Two days before the training schedule with the PowerBreathe training, each participant performed the Yo-Yo intermittent recover test and two days after the study all participants repeated the test to investigate the improvement of the study.

Results: The endurance ability was significantly increased, ($p<0.01$) significant improvement following inspiratory muscle training. A paired-samples t-test was conducted to compare the score of YO-YOIR1 after all participants attempted in both sessions. There was a significant difference in the scores for before measurement of Yo-YoIR1 (M=1409.52, SD=446.12) and after measurement of YO-YOIR1 (M=1520.00, SD=406.15) conditions; [t (20) = -4.822, $p\leq 0.001$], o2max conditions: [t (20) -7.298, $p\leq 0.001$]. These results suggest that IMT really does have an effect on Yo-Yo IR1 scores, endurance and o2max. Specifically, our results suggest that when young athlete of Olympic handball game train with IMT device, the endurance of players increases. However we cannot rule out a learning effect for the Yo-Yo test and training effect due to improved fitness as result of Olympic handball training competitions.

Conclusion: The main results of this study indicated that 6 weeks inspiratory muscle training (IMT) improves the intermittent recovery, endurance and o2max performance in highly trained young Olympic handball players..

Keywords- *Inspiratory muscle training, Yo-Yo test, Endurance, VO2mav, Team Handbal*

I. INTRODUCTION

Inspiratory muscle preparing (IMT) has been far reaching, especially in a clinical setting, since Delhez et al. (1966) showed that the breathing muscles could be reinforced by particular preparing. Various advances have been portrayed consequently (Anderson et al., 1979; Nickerson and Keens 1982;Pardy& Rochester 1992). The inspiratory muscle preparing (IMT) which has been widely examined over recent decades, is utilized as a part of request to build the respiratory muscle work and anticipate or postpone the stomach weakness that happens all through the high force practice (Johnson et al., 1993). IMT may improve exercise capacity. Because, it delays or prevents the respiratory muscle weariness (IMF) and its effect on blood stream redistribution in addition; builds the effectiveness and instigates the blood

stream need of respiratory muscles alongside the activity (Romer and Dempsey, 2004). Furthermore; decreases the vasoconstriction (Mostoufi et al., 1998; Somers et al., 1992). There have been many studies conducted over for 30 years related to inspiratory muscle training (IMT). Although several studies stated that IMT caused improvement in exercise performance and pulmonary functions, some studies claimed that IMT did not affect the performance and ventilatory functions. Since, most of the studies used small sample sizes and limited number of studies utilized convenient control and or placebo groups (Sheel, 2002). Major portion of the mechanisms that underlying the improvements in exercise performance are still unknown and controversial issue (Boutellier, 1992; Gigliotti et al., 2006).However, little is known about the possible effect of IMT on during short term, high intensity intermittent exercise, because the athletes' recovery time attenuated in a prior study (Nicks et al., 2006).

In the present study, our general purpose was to determine the effects of inspiratory muscle training on Yo-YoIR1 score and endurance performance of young male Olympic handball players.

A. Handball

Handball is an intermittent sport played over 2x30 minutes, qualities required from the players are mainly reported being endurance capacity, sprint performance, jumping ability and throwing velocity. Additionally, due to high intensity activities during the game, with short rest periods in between, anaerobic endurance capacity is also vital (Kruger, Pilat,Uckert,Frech&Mooren, 2014).In adolescent Olympic handball players (age 15) distance covered during a game is somewhat shorter, on average (SD, standard deviation) 1777 ± 264 with a range between (1500-2611) meter during 2x25 minute games where 4 % of the distance covered during the game is sprinting, 8% high intensity running, 59 % jogging and 29 % walking (Chelly, Hermassi, Aouadi, Khalifa, Van Den Tillaar, &Chamari, 2011). Although Chellyet al. observed a lower lactate accumulation after the game then after the first half, when comparing the second half to the first half. Shorter distance, less high speed running, fewer technical actions and lower mean HR was observed for the second half compared with the first half. Also less time spent above 85 % of maximal HR in the second half was observed. Altogether this indicates that Olympic handball is a fatiguing sport in which lactic acid-tolerance and aerobic capacity is beneficial (Chellyet al., 2011).

Olympic handball, sprinting is repeated several times during the game, repeated sprints reduce the contribution from anaerobic glycogenolysis compared to one single sprint bout but still creates greater levels of muscle lactate concentrations. The reduction in anaerobic glycogenolysis can be explained by increased aerobic metabolism (Spencer et al., 2005).

According to Stølen, Chamari, Castagna and Wisløff (2005) lactate concentrations is lower in soccer players with a high V̇ O2max, this is due to a better aerobic response but also a better PCr regeneration. On the other hand, Glaister (2005) reported conflicting evidence about endurance training and lactate clearance and concerning endurance training and multiple sprint performance. However, a better V̇ O2max most likely contributes to a better resistance to fatigue during repeated sprint (Glaister, 2005). The duration of rest periods in between sprints is also highly influential, for example a six second sprint with 60 seconds recovery can be performed ten times but when reduced to 30 seconds recovery only five sprints can be performed (Spencer et al., 2005). In Olympic handball, recovery time between high intensity activities has been observed with an interval of > 90 s for 34 %, 61-90 s for 11%, 31-60 s for 20 % and 0-30 s for 34 % of the high intensity activities (Póvoas et al., 2012).

Handball players thus requires both aerobic and anaerobic metabolism, Olympic handball is also a fatiguing sport creating lactate which highly influence the performance during the game. In the work of assessing handball players one can therefore use many different testing procedures depending on which energy system the coach wants to test.

It is clerly that IMT are completely settled incompliance with the standard of overload,at a level that is steady with astrength/continuance reaction, this wouldeventually prompt weakness if the framework were not emptied by presenting periods ofrelative rest. These variables show that inaddition to the obsession of weight and flowduring IMT, work/rest proportions ought to likewise befixed to guarantee that a genuine preparing load is applied.

Accordingly, the PowerBreathe Plus fitness device (HaB International Ltd., Warwickshire, UK) training system has been shown to be the most effective way to train the inspiratory muscles. 'Web of (PB) training of the inspiratory muscles is the most effective method to improve health and oxygen transport and athletes' performance. Also, clinical trials have revealed some positive effects of this respiration device on athletic performance (Edwards et al, 2008)'.

B. Yo-Yo Intermittent Recovery

The intermittent recovery test (IR) tests has two levels, IR1 and IR2 which are both relevant and

widely used in sports that require intermittent abilities such as soccer and Olympic handball since they are very sport specific. However, even though both tests significantly correlate with V̇O2max, IR1 ($p < 0.05$, $r = 0.70$) and IR2 ($p < 0.05$, $r = 0.58$) Bangsbo et al. (2008) does not consider the IR tests as an accurately prediction of V̇O2max .The IR1 test is more suited to test the endurance capacity in an individual and has a slower start and an overall longer test time (about 5 min) then the IR2 test (Bangsboet al., 2008; Souhailet al., 2010). The IR1 test is also reliable in soccer and handball players aged 16 years (Deprez, Coutts, Lenoir, Fransen, Pion, Philippaerts&Vaeyens, 2014). Furthermore in soccer, sport specific test has become more popular since it can separate different levelled soccer players better then V̇O2max (Wells, Edwards, Winter, Fysh&Drust, 2012). Souhail et al., (2010) found a correlation of $r = 0.88$ between distance covered during a team handball game and Yo-Yo IR1 performance in meter covered ($r2 = 0.77$, $p < 0.01$) in adolescents (age 14) male Olympic handball players. In the study by Souhail et al., (2010) players covered 1921 ± 170 (1507-2478) meter during match play and 1831 ± 373 (1440-2440) meter during the IR1 test indicating the test could be used in adolescent Olympic handball players (Souhail et al., 2010). Due to the stronger correlation to V̇O2max for the IR1 than the IR2 test but still testing repeated intense exercise along with the proven correlation to distance covered during a handball game, the IR1 test is used in this study.

II. METHODS

Ethical approval for this study was obtained from the Local Research Ethics Committee for Physical Education School at University of Sulaimani .Healthy volunteers whose Olympic handball players in Sulaimani club (21 male, mean age 16 years old) Participants gave written consent before enrolling in the study and was allocated to training group. Participants continued with their regular exercise training programmes and were required to keep a diary throughout the study in which both the frequency and duration of training were recorded. These were monitored informally by research staff. All data were collected between 10 July2014 and 30 August 2014. Each participant attempt in two session of Yo-Yo IR1 test before and after measurement for evaluating their endurance and Yo-YoIR1 score level after conducting the experiment by using PowerBreath training device, in the present study was conducted one group with pre-test and post-test design:

A. Physical Characteristics:

Prior to the first session, participants were advised to fast for at least one hour, and all the conditions and requirements of the experiment were met by sending every participant an information sheet via email two days before the experiment. Physical measurements of weight, height, neck, waist and hip were taken during the first session using a measuring tape and a weight scale table (1).

TABLE I. PHYSICAL CHARACTERISTICS OF THE PARTICIPANTS

	Age	Height	Weight	Hip	Waist	Neck	BMI
Mean	16	176.952	63.952	78.619	76.524	35.810	20.433
SD	1.095	6.289	6.706	5.143	5.192	2.272	2.011

B. Research Design

In this study used one group with pre-test and post-test design. The participants continued their regular training and 6 weeks PowerBreath(Plus fitness device HaB International Ltd., Warwickshire, UK) Figure 1, and after six weeks of IMT training completed participants were measurement again to see whether there are any differences with the Yo-Yo IR1 test.

Figure 1. PowerBreath(Plus fitness device HaB International Ltd., Warwickshire, UK)

C. Measurement of Intermittent Recovery Performance

In order to measure participants' (Yo-Yo IR1 test) was used. The test composed of repeated 20 x 20 m shuttle runs at a progressively increased velocity monitored by audio signals from audio players. Between the each run participants had a 10 seconds active recovery phase with 5 x 5 m jogging. When the participants failed to complete

shuttle two times in time, the distance covered at that point is recorded and represented the measurement result. The measurement was implemented on outdoor artificial turf which was 2-m-wide and 20-m-long running lane marked by cones and another cone was placed 5 m behind of the finish line for the active recovery phase. Before the measurement all participants conducted warm-up and they were accustomed to the test one time (Krustrupet al., 2003). Each participant attempt in two session of Yo-Yo IR1, before and after measurement for evaluating their endurance level and Yo-Yo score after conducting the experiment by using PowerBreath device.

Following the maximal measurements, participants were requested to perform inspiratory muscle training (IMT) composed of thirty maximal breathing cycles each lasted 3 seconds two times daily (PowerBreathe Plus (MR) Level 2) ,this intensity levels represent a percentage of participants estimated load that you will be training which is (light or %50) of participants capability Table 2, five days (each week increasing the load), at a frequencyof once or twice per day, for 5–7 days per week (McConnell &Romer, 2004) throughout the six weeks (total 30 training session). The IMT treatment performed before (30 repetitions) there has been formula published for estimating o2max (ml/min/kg) from the Yo-Yo IR1 and IR2 test results (Bangsbo et al., 2008) and utilize this equation (Yo-Yo IR1 test: o2max (mL/min/kg) = IR1 distance (meter) × 0.0084 + 36.4). The participants' attended regular training under the supervision of their coach and the researcher. During the duration of the study participants were asked not to increase or decrease their training regimen.

TABLE II. 1POWERBREATHE INTENSITY LEVELS

Percentage of estimated Strength Index	V. Light (Level 1)	Light (Level 2)	Moderate (Level 3)	Heavy (Level 4)	V. Heavy (Level 5)
	40%	50%	60%	70%	80%

III. RESULTS

All participants completed after and before measurements, twenty-one players with a mean age of 16 (range between: 16-18) years old and mean (SD) weight of 63.9 ± 6.7(range: 52.5 – 71.0) kg participated in the study, mean and standard deviation values are shown in Table 1 .The endurance ability was significantly increased, ($p<0.01$) significant improvement following inspiratory muscle training. A paired-samples t-test was conducted to compare the score of Yo-YoIR1 after all participants attempted in for both measurements. There was a significant difference in the scores for before-measurement of Yo-YoIR1 (M=1409.52, SD=446.12) and after measurement of Yo-YoIR1 (M=1520.00, SD=406.15) conditions; [$t(20) = -4.822$, $p \leq 0.001$]. A paired-samples t-test was conducted to compare pre and after measurement of V̇o2max. There was a significant difference in the scores for before measurement (M=1409.52, SD=446.12) and after measurement (M=1870.47, SD=535.59) $p \leq 0.001$. These results suggest that IMT really does have an effect on V̇o2max, mean standard deviation values are shown in Table (3). These results suggest that IMT really does have an effect on Yo-YoIR1 scores and V̇o2max. Specifically, our results suggest that when young athlete of Olympic handball game train with IMT device, the endurance of players increases.

TABLE III. BEFORE AND AFTER MEASUREMENTS FOR YO-YOIR1 AND O2MAX TABLE 2

Participants No.	Measurement session	Yo-YoIR1(Mean-SD)	V̇o2max
21	Before measurement	1409.52±446.12	1409.52±446.12
21	After measurement	1520.00±406.15	1870.47 ±535.59

IV. DISCUSSION

There have been many studies conducted about the topic of inspiratory muscle training (IMT). However, they were mainly related to endurance activities (i.e. cycling, rowing, running etc.) and there is insufficient literature on Olympic handball. Because of this gap in the literature, the main purpose in the present study was to clarify the six week IMT effect on Yo-Yo IR1 scores of young handball players. Results of the present study were discussed in the framework of 6 weeks IMT treatment and the participants of active young handball players. In order to investigate the effectiveness of 6 weeks IMT treatment, participants were requested to perform IMT for 6 weeks. There were twenty-one young Olympic handball players selected as one group. The main findings of the present study indicated that the endurance performance after the conducting the experience of IMT Yo-Yo IR1 score improved significantly after 6 weeks also o2max level.

There were several limitations of this study. Firstly, the Yo-Yo intermittent recovery test level 1 was used in order to assess the endurance performance of the participants as performed in

(Castagna et al., 2006) study. However, the Yo-Yo tests reliability and association with a 20-m shuttle run and o2max (Thomas, Dawson, and Goodman, (2006)). Secondly, the participation ratio of the participant's regular training was followed during the period of the study by the information that was obtained from their coaches and managers. A small sample size was used due to the limitation of the instruments. Moreover, the maximum inspiratory pressure (MIP) and maximum expiratory pressure (MEP) that are the good indicators of respiratory muscle strength (Gething et al., 2004; Guenette et al., 2006) was not assessed in this study.

There was a significant improvement in the (Yo-Yo scores, endurance performance and o2max) with (%12). Parallel to our study, Nicks and his colleagues (2006) observed a significant improvement in intermittent recovery performance (16.7 % ± 17.2 %) with IMT. Observing the similar results in endurance performance may have been related to applying the almost same IMT period and regimen. Our study was in agreement with that of Romeret al el., (2002) in terms of the similar improvements in recovery time after inspiratory muscle training.

On the other hand, MIP and PIF performances which did not measured in this investigation of the participants in the experimental group improved significantly in Romer's study. They also measured blood lactate level of the participants and found a significant attenuation. Actually this attenuation in blood lactate level might be an evidence for improvement in exercise and recovery performance capacity in intermittent sports caused by RMT treatment. Because. IMT may defer or increment adornment muscle work which prompts improvement in breathing effectiveness and in this way less vitality utilization for breathing and providing blood to the locomotors muscles (Boutellier, 1998; Dempsey, 1986; Johnson et al., 1993; Romer et al., 2002).If the blood-lactates level of the participants measured there would be the same decrease in this parameter. In addition to this, as participants were adolescent athletes (16 to 18 years) in the current study, it is feasible that growth might have been one of the factors in the observed improvements in pulmonary functions. However, the duration of the study (i.e. 6 weeks) was short relatively and could not affect the results (Wells et al., 2005). Concerning one of the main purposes of the current study was to determining the effectiveness of 6 weeks IMT training on intermittent recovery performance. Yo-Yo IR1 was used (Bangsbo et al., 2008) in order to assess the participants' ability to recover from repeated exercise (i.e. recovery performance). According to results of the present study, 6 weeks IMT treatment improved the (endurance and o2max performance) of young male Olympic handball players. The important reason for observing significant results in intermittent recovery performance and endurance could be the using the right test (Yo-Yo intermittent recovery test level 1) to evaluate this parameter. The Yo-Yo IR1 reflects the real game conditions than laboratory test (Bangsbo et al., 2008). Since, intermittent recovery performance was improved in a present study. It indicates the effectiveness of IMT treatment on recovery performance.

V. Conclusions

The main results of this study indicated that 6 weeks inspiratory muscle training (IMT) improves the endurance and o2max performance in highly trained young Olympic handball players. In other words, this study provides new evidence of intermittent recovery performance enhancements in young Olympic handball players after IMT treatment.

VI. Recommendations

1) Well controlled further studies are required in this topic in order to explain the physiological mechanisms by which alterations in respiratory muscle function improve intermittent recovery performance.
2) While conducting IMT studies, more parameters of pulmonary functions need to be rigorously investigated than in the current study.
3) Larger sample sizes are needed and also the gender issue can be taking into consideration.
4) Not to use well trained athletes are important in order to see the effect of IMT more clearly in future studies, Since, the well-trained athletes are already train their pulmonary muscle etc.
5) In order to determine which IMT treatment affects the performance better, Implementation of various kind of IMT treatment with longer periods than performed in present study may be another recommendation for further investigations.

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The special power of the arms and their relation to the performance of the side throw of players of the Diyala Football Club

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Abstract- The work of the researchers in the first section included a presentation of the introduction, importance, problem, purpose and imposition of the research. The third part included the procedures for determining the sample from the origin of the 27-player Diyala football club. The tests were chosen by the researchers on some experts, The researchers applied the tests to a group of players to make sure that the tests were suitable. After conducting the research tests, the researchers analyzed their data using the spss program. They were presented in the fourth section, analyzed and discussed, and the researchers found that there is a significant correlation between statistically significant For the arms and the side throw of the football team of the emerging club Diyala football football, and recommended the researchers to emphasize the use of Special Force training for the arms of the importance in raising the level of performance of the side throw of football.

Keywords*: power, arms, performance, Diyala Football Club*

I. SEARCH DEFINITION

A. Introduction and Importance of Research:

Physical strength requirements have become more important in football is not trained to cope with the modern methods of playing all the requirements, but for the application of high technical levels. This is why the access came to a good level of ability of preparation gives it the potential to deliver the highest performance during the half-time because of physical preparation and two obligations key sectors first is the overall development and the public for a motor and the other to complete the special motor capacity required by the game of football, and is the physical capabilities of functional skills and variables an important factor in achieving overall fitness integration, one of the basic elements of the match, if the weakness of this capacity leads to poor performance level and then not being able to keep up with modern playing requirements, which requires strong performance in defense and attack, and the physical abilities that enable player of the performance of the basic skills in all circumstances, this interdependence between capacity puts the player in case qualify for achievement and therefore need the game to such capabilities length of game time from 90 to 120 minutes or more, and these capabilities are focused on by most of the coaches based on the training of soccer players and through which gets the squad differentiation of their opponents all during the match, and here lies the importance of research that capacity for the biggest role to overcome the run of play and possession of the ball and with its own force of arms "is the muscle power of the most important physical and motor abilities affect the level of performance in various sporting activities " (Khazraji and Khazraji .2011: 42)

Which have great importance in the performance of the fixed cases, which is used in which players stronger forearms own through which they are getting the ball into areas not expect the opponent to hit it, including when performing lateral throw for most colleagues in the playground may be close to the goal inside the penalty area or when the acquisition of goalkeeper on the ball to return it to one of his players from the applicants in

the yard of an opponent to become a good position to attack the apostate and rapid.

B. Research Problem:

There are many scientific research in the football game focused on the most different physical and skill capabilities, and reminds researchers extent of the development level of this game we are now seeing levels of performance in football is impressive and the thrill of pleasure, and according to the opinions of specialists and trainers and academics show that the strength of the arms, did not impair important they deserve in training and that from here reflected the research problem of learning to the athletes of the specialized school for the care of sports talent in Diyala.

- Aim of the research:

To identify the relationship between the strength of the arms and the performance side football pitch.

- The imposition of research:

There is significant correlation Reverse statistically significant differences between the degree of strength of the arms and throw side football team emerging Diyala Sports Club football relationship.

- Areas of research :

Temporal sphere and human sphere: an emerging Diyala Sports Club for football team, from 12/10/2015 to 20/01/2016, playground of Diyala Sports Club for football team.

C. Research Methodology and field procedures:

1) Research Methodology

The researcher used the descriptive approach two methods of descriptive and relational ties to the suitability and the nature of research.

2) Society and the research sample:

Included community Find All players Diyala and Sports Club Football, which numbered 68 players were selected junior category for ages under 16 and officially registered within the statements of the Iraqi Central Football Federation for the sports season from 2015 to 2016 and the number (27) which represents the ratio (39.70%) of the research community.

3) Homogeneity of the sample in growth indicators:

For the purpose of making sure that the growth indicators for the players all appropriate under discussion and to prevent the influences that affect the results of the experiment in terms of the differences existing require homogeneity of the sample through the normal distribution curve, as researchers used the torsion coefficient of indicators of growth Act. (Length, mass, age)

TABLE I. IT SHOWS THE HOMOGENEITY OF THE SAMPLE IN GROWTH INDICATORS (HEIGHT, WEIGHT, AGE)

T	Growth indicators	Measuring unit	Arithmetic mean	Standard deviation±	Mediator	Torsion modulus
1	Length	sm	164	6.50	165	0.46 -
2	Bloc	kgm	47.11	7.11	45	0.89 +
3	Age	Year	15.22	0.64	15.5	1.30 -

The table shows (1) that the research sample homogeneous growth indicators (height, mass, age) as she was twisting respectively coefficient values (-0.46, 0.89, -1.30) all of which are sandwiched between ±3 values as it "whenever the values torsion coefficient sandwiched between (±3) indicates that the grades that distributed Aatdalia if either increased or decreased about it, the meaning of this is that there is a defect in the selection of the sample. (Allawi and Radwan 0.2000: 151)

4) Methods and tools used in the research .

The intended research tools, "the means by which the researcher can collect data and resolve his problem to achieve the goals Find whatever those tools and samples of data and devices." (Mahjoub, 1988: 133(Sources and scientific references.-

- Statistical programs (spss)
- Skill tests
- Data collection and discharge forms
- Soccer legal number (5)
- Pigments for pl*anning tests space*
- *A tape measure (30 m)*
- *Wooden chair*
- *Medical football talents (2 kg)*
- Leather belt

5) To determine the appropriate tests to search

The researchers select the appropriate tests to search, and through the presentation of questionnaire extension (1) a set of special tests own force of arms and side throw was selected test with a relative importance of the largest identified by experts extension that (2), which will display a description of the tests, as follows.

- Test the accuracy and the ability of the side-throw

The goal of the test: measuring accuracy and the ability to put the ball any distance in any area of the pitch in a legal way in football.

Tools required: (5) balls legal feet Tape Measure.

*Testing procedures: t*he player stands behind the start line and with the ball and then threw the ball over the head. Given three attempts for each player and the best record attempt

Date: it is calculated the distance between the lateral line and the point of the fall of the ball.

6) Test Medical throws a ball weighing 2 kg hands of sitting on the chair position.

The goal of the test: measuring muscle strength arms.

Instruments and tools: Medical ball weighing 2 kg, a tape measure, a chair with a leather belt to install trunk chair.

Performance way: lab sits on the chair of medical and ball-mounted hands above the head and torso adjacent to the edge of the chair, put the belt around the trunk of the laboratory and holding the back in a way the court for the purpose of preventing the laboratory of movement forward in the course of throwing the ball for hands to be throwing the ball the process of hands without the use of the trunk, given to each three attempts laboratory and recorded the best.

Date: calculates the distance between the front edge of the chair and the nearest point when touching the ball on the ground.

7) Exploratory experience:

Exploratory experiment "is an initial pilot study conducted by a researcher at a small sample before carrying out his research in order to choose the research methods and tools" (thorns and Saleh 2004: 86)

The researchers conducted a reconnaissance experience in the day on Thursday 1/7/2016 on a sample of (8) players from non-research sample where the application of the tests used in research in order to identify the appropriate tools and safety tests, and the time required to conduct.

8) Home experience

The researchers conducted a major experiment at three o'clock in the afternoon on Saturday, which falls (01/09/2016), where the sample was take to the pitch for testing (the bow side football and strength for the arms) where the division of labor team see Annex (3) into two parts, the first section throw side being tested and the second section being tested strength of the arms in the place reserved for him after they finished the first test was conducted where players sample warm-up for a free (5) minutes .

9) Statistical methods

The researchers used statistical Pouch (SPSS) to analyze the search data. (Kanani 2009: 137)

D. Showing results analyzed and discussed

1) Analysis of results of statistical tests processors

The following Table 2, which shows done by researchers from the data and the results of strength tests of the arms side and throw the ambition of youth club Diyala Sports football analysis, in order to verify the aim of the research turned out to be the arithmetic mean to test the strength of the arms (6.25) and standard deviation (0.97), and between the arithmetic mean of the test side throw a football to members of the research sample (25.03) and standard deviation (2.70) and the value of (t) calculated (0.82), the largest of Tabulated value amount value (0.32) under a degree of freedom (25) and the level of significance (0.05) .

TABLE II. SHOWS THE ARITHMETIC MEAN,THE STANDARD DEVIATION AND THE VALUE OF THE CORRELATION COEFFICIENT (R) OF SEARCH RESULTS

Significance	R	Standard deviation	Arithmetic mean	Measuring unit	Find variables
Moral*	0.82	0.97	6.25	Meter / cm	A test of strength (throwing / 2 Medical ball kg(
		2.70	25.03	Meter / cm	Throw test side

* The calculated value of the correlation coefficient greater than Tabulated value of (0.32) degree of freedom (25) at the level of (0.05).

2) Discuss the results :

After that the researchers introduced a private the results of the statistical treatments on the

results of the applicable tests the table on the research sample, will discuss those results are as follows, as it turned out to be the arithmetic mean of the test the strength Baldhirain for members of the research sample (6.25) and a standard deviation of (0.97), which Aukd on a high incidence in the strength of the arms when compared with players juniors ore did not exercise training, either the arithmetic mean of the test-throw side football for members of the research sample (25.03) and standard deviation (2.70) and then compare the two tests using Pearson correlation coefficient by researchers amounted (t) calculated (0.82), the largest of Tabulated value amount value (0.32) under a degree of freedom (25) and level (0.05), which indicates the presence of significant correlation Reverse between the degree of strength of the arms and throw side football relationship and this is what proves to achieve the goal and superimposed, which proved that there is a significant correlation Reverse statistically significant relationship between the degree of strength of the arms and throw side football team emerging Diyala Sports Club football.

This was confirmed by (Khazraji and Khazraji .2011: 64) "play muscle strength kinds significant role in improving the performance and achievement and is considered one of the determining factors for the performance of rapid movements Many scientific studies have demonstrated the importance of developing and improving muscle strength and explosive, most notably the development of private power in the working muscles in the performance of rapid movements . Blame researchers for this result that the players junior team Club Diyala sports of football they have a level relative to the strength of the arms, which affected the performance of the side performed well throw as most of the players had thrown the ball from outside the lateral line of the stadium and overcome the fall of the ball half the width of the pitch and so because half the width of the pitch is (22.5 m) the more power arms have increased the player increased the ball fall distance of the throw from the lateral line, and sees (Madamgh) "that the muscle strength of the arms play a big role in determining the level of performance in many sports competitions, so I care about many coaches the development of this important physical trait "(Madamgh 0.2008: 619), as agreed (Ghurairy)" that the muscle ability recipe vehicle power and speed together as owning a player to the degree of muscle strength is not alone sufficient guarantee for effective performance in the difference Games , but for the good implementation of the skills the player must possess the physical characteristics as well as the rest of the other physical attributes. "(Ghurairy 2010: 51)

E. Conclusions and recommendations

1) Conclusions :

Through the findings from the study, researchers concluded the following:

- That there is a significant correlation Reverse statistically significant relationship between the degree of strength of the arms and throw side football team emerging Diyala Sports Club football.
- The strength of the special arms of great importance in the performance side football pitch for juniors.

2) Recommendations

- Emphasis on the use of train special force of arms to its importance in raising the level of performance of the side throw a football .
- The need for part of the training module to train the special power of the arms of football players by coaches because of their effect on the performance side throw mode.

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APPENDEXES

Questionnaire

Esquire
good greeting The intention to conduct a study on (the impact strength of the arms in the performance side throw players Diyala and Sports Club football) and because of your expertise and efficiency of scientific So please if you could access to the tests prescribed, and your choice of test appropriate for measuring skill is put a sign in front of the appropriate test thankful for your cooperation with us.
Expert name:
Jurisdiction:
Signature:
Place of work: - researchers

Classification skills	T	Test	Importance	Notes
Special arms force	1	Medical Weight throw the ball (3 kg)		
	2	Medical Weight throw the ball (2 kg)		
	3	Medical Weight throw the ball (1 kg)		
Throw side football	1	Measurement accuracy and the ability of the side to throw the farthest distance from the lateral line		
	2	Measuring the side-throw accuracy in three boxes, a (3.5. 7)		

TABLE II. TESTS TO IDENTIFY EXPERTS

Workplace	Jurisdiction	Name	Degree
College of Physical Education / University of Diyala	Tests	Bashar galeb shehiib	Prof. Dr.
College of Basic Education / University of Diyala	Learning / Football	Adel abaes theib	Prof. Dr.
College of Physical Education / University of Diyala	Training / Football	Theyia hmood	Prof. Dr.
College of Physical Education / University of Diyala	Psychology /Football	Ahmed ramziin	Prof. Dr.
college of Basic Education / University of Diyala	Training / Football	Qosay hitem	Prof. Dr.

TABLE III. ASSISTANT TEAM NAMES

T	Name	Workplace and competence
1	Theyia hmood	College of Physical Education / University of Diyala
2	Tareek hamaed	Master Life / coach Diyala Club Breeding
3	Mgdid gaizee	Master of Physical Education / Ministry of Education

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The Influence of Special Training Exercises in a Way High Intensity Interval in some Variables Function and Blood Electrolytes and the Level of Achievement of Effective 400 M for the Players of Iraq Youth Team

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Abstract- In this research study the effect of a special training exercises in some function variables and strays and the level of completion of 400 M for the players of Iraq Youth Team. The researcher experimental approach to suitability nature of the problem is the existence of Deficiency of planning modern scientific training based on a laboratory analysis to assess objectively delimiters Position state of hostility before and after the performance of the exercises and the extent of the effect of exercise on the vital organs of the feud. Sample was chosen search deliberate manner, represented By runners effectiveness of the 400-meter youth, since the training took 12 weeks and by the second units every week , showed the conclusions that the exceeds of the immune ability of white blood cells, with a high level of concentration of plasma proteins (albumin and globulin) to maintain the balance of fluids in the body and maintain osmotic pressure, with a decrease in the concentration of the Cations (sodium, potassium) and negative ions (chloride and bicarbonate), which contributed to maintaining the balance of the internal environment of the sample individuals.

Keywords- *Special Training Programm*

I. THE DEFINITION OF RESEARCH

A. Introduction of research and its importance

The aim of the sports training is to improve the various bases and factors that play an active role in the development of the sports level of the various sports. One of these foundations is the training methods used, which are the basic foundation for the promotion of various physical and physiological characteristics of the players, whether in individual games or individual games. level skill for them, and athletics is one of the games that are directly affected by physical numbers as a basis for the development of the technically gifted side after the various conditions associated with the performance of the application of skill and according to the rules of the game, as well as the direct impact on the pain Functional bulletins that are other have a direct impact on the performance level runners.

Because each method or method of training has a different effect on the level of performance of the runners in all aspects of physical, skill and functional, so the specialists in sports medicine and spare no effort to know the acute and chronic impact of physical effort and linked to the processes of change in the functioning of the vital organs of the body and called The term adaptation of functional and finding the appropriate practical interpretation from the point of view of the science of mathematical physics and life chemistry and thus to create a real scientific understanding of the training process in different dimensions, because "the impact of training in functional devices related to the type of training, To adapt the career to each type of training leads to increased readiness of the body or devices on that type of training, that this fact confirms the existence of qualitative adaptation and not absolute for the functional devices, the changes that get these devices vary from each other depending on the type of effort and

training method, Various exercises in the weekly training cycle, the effectiveness of the basic physiological laws take special importance, and that the use of this type of training in a standardized manner may achieve the integration of the work of organic organs and work unit, which is reflected in ensuring the high level of special handling of players, and hence The physiological effects of physical exertion related to the type of training, the method and the level of training doses, and the functional changes that may be caused by any other body system, and its effect on the vitality of blood vessels and their effect on the effectiveness of biological processes, Musculoskeletal, as these variables enter within the physiological adaptations occurring in response to the impact of physical exercises and according to the type of training, stress, times and repetitions used, these functional indicators in athletics are not acquired by the importance of time through the use of training B and competition, so one of the most important objectives of physical training in the effectiveness of 400 meters is to develop and accelerate the possibility of working Oxygen and oxygen and mixed, for the purpose of continuing to perform the distinctive effort by force and speed throughout the time of competition.

The importance of this research lies in the development and implementation of exercises in the form of high-intensity infant training and knowledge of its impact on some functional variables and blood flow to the enemy 400 meters, which will enable us to know the level

Career development of the characteristics of functional indicators, and this is what helps us turn to understand the foundations of these changes and tell us therefore on how to develop training curricula and introduce the necessary changes for the purpose of creating major energy systems, and then develop the level of achievement of the hostile 400 meters down to the level of sports optimal, since the practice of sports training consistently and regularly lead to physiological changes represent different body organs and systems, which leads to the development of the foundations Biological and biochemical athlete used to raise the level of endurance to a large extent on the functional hardware compatibility level as well as at the level of Table Knapp, causing psychological guidance to the same volitional characteristics of the individual, as it is in special endurance athletics short-distance determinant of the level of achievement, and in other activities is a determining factor for the level of training, and so is the research problem in the palaces of planning

The successful process of training in all sports, especially athletics despite the evolution in the indices of international and Arab, but the sport of athletics in our country is still below the level of ambition may be one of the causes neglect of the scientific method by linking sports training to other sciences as a science physiology which can through which knowledge of the changes that may occur to the body organs sports by conducting laboratory analyzes before and after physical effort to enable professionals appropriate training curricula functional state of the athlete to reach the best achievements of the Arab or global.

B. Research goals

- The number of exercises in a special way to train high-intensity to develop the achievement ran 400 meters.
- To identify the effect of special exercises in the method of high-intensity menstrual training in some variables function and blood flow and completion of running 400 meters.

1) Research hypotheses

There are significant differences between tribal tests and dimensionality of research variables (under study) for members of the research sample for the benefit of posteriori tests.

2) Research areas

The human field: hostile Iraqi youth team Athletics for the effectiveness of 400 meters for the sports season 20144-2015.

Time domain: Duration from 27/8/2014 to 12/4/2015.

Spatial Field: Field and Field Track, College of Physical Education and Mathematical Sciences Stadium Baghdad University.

Laboratories: Baghdad Palestine Street

Al-Huda Laboratory for Analytical Analysis, Akram Al - Azzawi Laboratory for Biochemical and Pathological Analysis.

II. RESEARCH METHODOLOGY AND FIELD PROCEDURES

1) Research Methodology: I use the experimental approach to suit the nature of the research problem.

2) Research community

The research sample was selected in a deliberate manner. The sample of the research included an enemy of 400 meters and ages (18-20 years) representing the Iraqi youth team for the 2014-2015 sports season. The number of members of the research community is 10.

The pilot experiment, and thus the number of members of the research sample (7) runners, they carried out the special exercises, and the sample of the research from the community accounted for a percentage of 70%.

3) Tools for gathering information and aid.

4) Tools for gathering information.

- Observation

Observation is one of the important methods of collecting data in research and depends on the accurate observation of the phenomena studied by using the appropriate scientific means (Allawi, Rathb, 1999,175: 1)

- Means and tools of assistance.

_ Arab and foreign sources.
_ Registration form
_ Electronic stopwatch type Casio (number 2).
_ Playground Square and Square
_ Computer type (HP).
_ Plastic injection (syringes) 25, size 5 sissi.
_ Blood transfusions for the number of (20).
_ Bottles containing an anticoagulant (EDTA).
_ Medical cotton and sterile materials
_ Tonics to connect the arm
_ Cooler case
_ Centrifuged blood separation device at 5000 cycles / minute
_ White blood cells (Monasset and granule)
_ A device to measure the concentration of positive ions and negative ions Starlet analyzer .

5) Steps to conduct the search

- Experimental Design

The experimental design includes one experimental group that undergoes a pre-test to determine its status prior to the introduction of the experimental variable. The group then presents the experimental variable, namely, special exercises for 12 weeks, two training units per week, the duration of the training module (35D-75D) Dimension, the difference between the results of the tribal and remote test results from its impact on the experimental variable..

- Exploration Experience

The researcher conducted his exploratory experiment on27/8/2014 at 4:00 pm in the arena and field of the College of Physical Education and Mathematical Sciences / University of Baghdad on a sample consisting of runners from the original research community. The aim of the experiment was to determine the suitability of the test for the sample of the research and the extent of the sample's response to the tests and the length of time required to perform the tests and exercises in terms of intensity, size and comfort between the frequencies and totals through A training unit was carried out, as well as the tasks and duties of the assistant team and the medical staff, which drew blood samples and laboratory measurements of the research variables under study. After conducting the warm-up process for the sample of the experiment, In the special forms and has achieved the pilot experiment aimed at overcoming the difficulties that may occur in the main experiment.

- Tribal Tests

Pre-test tests were conducted for 400 meters running at 4 pm on Wednesday, 3/9/2014, after 5-sysi blood samples were taken to measure the white blood cell monosite , granule and red blood cell count for hemoglobin, blood plasma proteins (albumin, globulin), ions Sodium and potassium positive charge and chloride ions and bicarbonate negative charge by the specialized medical staff, after warm-up of the members of the research sample, the test was carried out running 400 meters and calculating the time taken.

- Experimental Methodology:

The researcher prepared special exercises for an activity running 400 meters as shown in Appendix 1, based on his experience and scientific experience, as well as scientific and physiological sources. The duration of the exercise was 12 weeks, with two training units per week and on Sunday and Wednesday. Specially to withstand the speed of performance.

- Post-tests

After the special exercises were implemented within the limited duration, the researcher carried out remote tests similar to the tribal tests in terms of spatial and temporal conditions and the sequence of tests on Wednesday, 3/12/2011 and in the field arena and field College of Physical Education and 3-5 Statistical means

_ The researcher used a package of SPSS.

_ View and analyze the results and discuss them.

This section includes a presentation of the results and their analysis and discussion according to the data obtained after the completion of the exercise of the exercises on the members of the research sample. These results were analyzed in the light of the statistical laws used in research and suitable for them. The objectives and hypotheses of the research through the

Applied procedures undertaken by the researcher to connect to these results and then discuss them in the light of the frame of reference.

Show table (1) the results of measurements of variables function and electrolytes blood sample individuals, that there are significant differences between tribal measurements and dimensionality and for dimensional measurements differences, after a comparison between the value of (t) calculated, which is greater than the value of (v) Tabulated for each of the variables (proteins plasma albumin and Hemoglobin and the rate of red blood cells for Hemoglobin) while the non-function of moral variables (pellets Monosite and granular white blood .

TABLE I. THE STATISTICAL PARAMETERS AND THE CALCULATED AND TABULAR VALUE OF (T) AND THE LEVEL OF SIGNIFICANCE OF THE FUNCTION AND BLOOD MEASUREMENTS OF THE INDIVIDUALS OF THE RESEARCH SAMPLE ARE SHOWN

Variables	Measure Unit	Tribal		Post		average of A. M	SUM Of A.M	Calculated	Table	Signify
		A. M	S. D	A. M	A .M					
Monosite	gram / deciliter	0.285	0.037	0.357	0.190	0.071	0.071	1000	2.477	Not significant
Granular	gram / deciliter	4.157	1.414	2.957	1.184	1.200	0.571	2.100		Not significant
Red blood cell count for hemochlobin	gram / deciliter	26.514	2.190	22.914	2.600	3.600	1.237	2.910		Significant
Albumin Gram	Gram / L	38.185	2.794	39.771	2.636	1.585	0.383	4.138		Significant
Globulin Gram	Gram / L	39.185	3.962	40.327	3.488	1.071	0.276	3.873		Significant
Sodium Ions Na +	Gram / L	136.428	1.511	136.714	1.253	0.285	0.521	0.548		Not significant
Potassium Ions K +	Gram / L	3.942	0.263	4.114	0.234	0.171	0.0981	1.981		Not significant
Chloride Ions	Gram / L	99.281	3.866	98.714	3.251	0.741	2.579	0.277		Not significant
Bicarbonate ions	Gram / L	19.285	1.889	17.857	1.345	1.428	0.782	1.826		Not significant

Level of significance (0.05) under the degree of freedom (7-1) = 6

The researcher attributed the reason for this with regard to the results of white blood cells (Monosite and granular) to the high health status of the research sample, as well as the fact that the effectiveness of the 400-meter maximum physical advantage of pregnancy and under show table (1) the results of measurements of variables function and electrolytes blood sample individuals, that there are significant differences between tribal measurements and density and for dynamic measurements differences, after a comparison between the value of (t) calculated, which is greater than the value of (v) Tabulated for each of the variables (proteins plasma albumin and hemoglobin and the rate of red blood cells for hemoglobin) while the non-function of moral variables (pellets Monosite and granular white blood concentration (blood ions) ions of Sodium cation and potassium negative ions and chloride ions and bicarbonate) to the fact that the value of (t) calculated Smaller than the value of her (v) Tabulated under the degree of freedom (6) and the level of importance (5%) .

The researcher attributed the reason for this with regard to the results of white blood cells (Monosite and granular) to the high health status of the research sample, as well as the fact that the effectiveness of the 400-meter maximum physical advantage of pregnancy.

As well as the health and physical condition of the individuals of the research sample. The research and studies in this field indicate that the hormone Aldosterone, which is produced by the kidney, activates and increases its secretion during physical training, which causes the kidney to retain sodium, by reducing the secretion, (Salama 2009, 236: 2). To explain this, the channels of the sodium channels open and move within the cell axis. Thus, through the de-polarization process, when the effective potentiometers reach their maximum range, the sodium ions become more permeable Potassium permeability for a short period Fu S comfort level, resulting in the rapid return of the voltage difference to the membrane to its resting state (Abdel Moneim et al. 2005, 166: 4).

The reason for the absence of significant differences in the potassium ions between the tribal and remote measurements is that the potassium level in blood is proportional to the periods of muscle contraction and does not depend much on the intensity of the muscular effort (Klafs and Amheim1981, 104-109: 13) The increase in potassium intake increases sodium excretion, to maintain the balance of alkali and acid or to balance and balance the water in the body, as well as to maintain the state of natural alertness of nerves and muscles (Klafs and Amheim1981, 24- 26:13), which deliberately changes between sodium and potassium ions across the cell membrane, noting that there is a high concentration of extracellular sodium ions and potassium ions within the cell, and the energy needed to convert sodium ions to attract potassium ions. This attraction is produced by intracellular processes (Krupp and Tlemey 1986,38-40: 14). Thus, the athlete's body needs a real equilibrium of 1: 1 sodium and potassium Until it reaches maximum muscle strength, for the stimulation of nerve cells (Haffeld 1987,19-193:15).

The reasons for the statistically significant differences between the negative chloride ions are due to the association of the negatively charged chloride ions with the positively charged sodium ions. There is a physiological relationship between them to maintain the water level in the body and to regulate the osmotic pressure and by balancing the extracellular fluid Potassium salts in Al-Adrar (Al-Kubaisi 2003, 22: 5).

The reasons for the non-significant differences in the results of the tribal and remote measurements of the bicarbonate ion variable are that the bicarbonate ions are a biological regulator that balances the body fluids. The process of maintaining the concentration of this compound is achieved by re-absorbing the bicarbonate in the kidneys by transferring the hydrogen ion in the blood to the cells (Hco-3), the hydrogen ion cannot reach into the epithelial cells and is transformed into carbonic acid, a concern acid that quickly becomes Co2 + H2o and thus can penetrate Co2 Renal cell fluid and after y as it is combined with water again to be the carbonic acid, which is ionized to produce bicarbonate and hydrogen ion, so that the Hco3 is again re-absorbed into the blood and the hydrogen ionis released in the solution to maintain the concentration of Hco3 within its natural limits (Abdel Fattah 2003, 1: 74-75).

TABLE II. THE STATISTICAL PARAMETERS AND THE CALCULATED AND TABULAR VALUE OF (T) AND THE LEVEL OF SIGNIFICANCE OF THE TRIBAL AND REMOTE MEASUREMENTS OF THE LEVEL OF ACHIEVEMENT OF INDIVIDUALS IN THE RESEARCH SAMPLE

Variables	Measure Unit	Tribal		Post		average of A. M	SUM Of AM	Calculated	Table	Signify
		A.M	S. D	A. M	S. D					
Achievement	Second	53.1	1.3	51.5	0.8	1.5	0.3	4.7	2.4	Significant

The level of significance (0.05) under the degree of freedom (7-1) = 6

Table (2) shows that there are significant differences between the tribal and remote tests in the level of achievement of the individuals of the research sample by comparing the calculated value (t) and the tabular value (T), which is greater than the tabular value under (6) (5%) and in favor of remote tests. This is due to many factors that all participated in achieving the achievement, including the good selection of variables of the current study, and the correlation between each other physically and function, the most recent tangible level of achievement, The womb is high, and this is what he referred to (Ali bin Saleh Al-Harhari, 1994), stated that "the best that the athlete can achieve through training and fatigue resistance and overcome is his ability to produce energy in non-oxygen conditions, which increases his ability and ability to be qualified to overcome difficulties in training and competition, The results of the sport (Harhuri 1994, 300: 8), as well as the adoption of special training for the effectiveness of 400 meters and the performance of extreme or near maximum, and its relationship to speed and associated with an anaerobic energy system led to the physiological adjustment of the inability of oxygen and the accumulation of lactic acid through Exhaustion To the deep energy stored in the muscles to delay the emergence of fatigue, due to the accumulation of lactic acid in the blood, resulting in a decrease in the amount of blood reserve of alkalis leading to an increase in blood quantity, the role played by blood (electrolytes) positive and negative ions, And the balance of water in the body, as well as conservation of the state of natural alertness of the nerves and all these factors are working to achieve achievement, so it can be said that the goals and hypotheses of research have been achieved and on the basis of moral data of the level of achievement.

III. CONCLUSIONS

Within the limits of the results of his study, the following can be drawn:

1) Increase the immune capacity of white blood cells, which led to the high health status of individuals of the research sample because of the implementation of the proposed exercises.
2) As a result of high intensity exercise, there was a high level of concentration of plasma proteins (albumin and globulin) to maintain fluid balance within the body and maintain osmotic pressure.
3) As a result of high intensity exercise, there was a decrease in the concentration of positive ions (sodium, potassium) and negative ions (chloride, bicarbonate), which contributed to maintaining the equilibrium of the internal environment of the individuals of the research sample.

IV. RECOMMENDATIONS

1) Interest in studying the effect of sports effort on the presence of rare elements and electrolytes of blood to follow the role of each of them in athletes, so that they can be compensated by the necessary through laboratory tests.
2) Setting tables for athletes for the permanent consumption of mineral salts by paying attention to the daily supply to compensate for what is lost during the

exercise of high-intensity activities, so as not to affect the sports performance of the players.

3) Make a record for each player in which all the changes in the job during the training season are recorded to evaluate the level of progress and to determine the ability and efficiency of the runners in implementing appropriate training courses.
4) Conduct more studies on other athletics events and other sports activities.
5) Provide devices for measurements of blood function and electrolytes for the faculties of physical education and sports sciences or clubs and sports institutions in order to raise the sports reality.

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The Effect of the Approach of the Kinetic Story in the Development of the Most Important Treatment and Handling Skills for Pre-School Children

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Abstract- The research aimed to prepare an approach of kinetic story to develop the treatment and handling skills for pre-school children as well as identifying the effect of the approach on the development of skills of treatment and taking for pre-school children. This research was conducted on 20/ 9/2014 until 1/2/2015 on a sample of(40) male and female children(5 years old), in Alnoboog kindergarten in the center of Babylon province for the academic year 2014-2015 .They have been divided into two groups by (20) male and female children. Group A is the experimental group which worked on the approach of kinetic story ; and group B is the control group which worked on the followed approach after selecting them randomly by lottery. After that, the researchers identified the tests of skills of treatment and handling through questionnaire distributed among(9) experts and specialists in the field of kinetic learning . Later, the researchers tried an exploratory experiment on a group of (10) children outside the main research sample. The purpose behind this experiment was to find Stability coefficient of the tests under investigation as well as identifying the ability of the working team and the time allowed for the test and all tests and the power of the teaching units which the researchers prepared. After that , the researchers conducted the pre-tests on the experimental and the control groups after conducting parity between them ,then ,applying the approach of kinetic story on the experimental group within the teaching units ,totaling (12) teaching units by (6) weeks and by (30) minutes for each teaching unit .Finally, the researchers conducted the post- tests for the experimental and control groups .After that, the data have been processed using the appropriate statistical methods . The researchers have come with conclusions such as that the use of the approach of kinetic story has a direct and big effect on the children performance ,which led to the development of the skills of treatment and handling under investigation .

Furthermore, the approach of kinetic story achieves the best development .The researcher recommended based on the conclusions to depend on the approach of the kinetic story in the approach of kindergarten and the study of kinetic education designed for children for its positive effect on developing the skills of treatment and handling.

Keywords: *Kinetic Story, Treatment, Pre-School Children*

I. The research Overview

A. The research Introduction and Significance

Childhood Stage is considered to be one of the most important and serious stage in human life since it is a stage of formation and preparation, which draws the features of the child personality and forms its habits and basic skills. It is the first stage in which the first seeds of the personality appear later in the life of the child, which has a clear and sound idea about himself/herself that helps to live in the society and can properly adapt to itself . The subject of raising children and their education has received great attention by educators, scientists and specialists throughout the ages. The children's education has witnessed many developments according to the culture of the society its philosophy and social and economic conditions. The attention to this important category of society is concerned about the future of this society as a whole. The progress of the society is measured by the extent of its interest in children, caring for them, studying the problems that surround them and working to solve them.

The kinetic story is considered to be one of the methods which develops many basic skills, especially the skills of treatment and handling because they are consistent with the nature of children and their abilities and tendencies as well as it achieves a great deal of pleasure , fun , saturation of their tendency to imagination and love of imitation and works on Providing them with experience as well as giving them physical fitness and good textures through making its meaning appropriate movements .

The skills of treatment and handling are of particular importance and are the basis for acquiring many of the various skills associated with various sports activities in the stages of growth, and these skills are the cornerstone of many sports games, so it is necessary to work on developing these skills in an early stage to transfer the child to the stage of mastering these skills for the sake of the subsequent stages of childhood, so it is important that the programs to develop the skills of treatment and handling take the appropriate place in the life of the child.

Hence, the significance of the research lies in the use of the most popular and interesting methods for children in the development of some treatment and handling skills, especially these skills are considered to be an important factor basic which based on many actors in various sports.

B. Problem Statement:

Childhood is an important stage of growth and kinetic development, but it is one of the most important stages of growth in which the first seed for the future personality of the child appears and depends on all subsequent stages. Therefore, attention must be paid to this important stage of the child's life. Scientific plans and various methods that contribute actively to the development of all aspects of his personality because the interest in this stage is an interest in the future of society as a whole.

The researchers have read a number of studies and researches, as well as studying the educational process at this stage; they observed that the methods used in the development of treatment and handling skills are normal methods depending on personal observation and experience, leading to poor development of those skills in children. Based on what has been mentioned above, it is clear for the researchers that there is a problem which is the lack of reliance on scientifically standardized methods by most of those working with this age stage category in the development of treatment and handling skills. Thus, the researchers are interested in finding solutions for this problem through depending on the most lovely methods for the children by using the kinetic story in the teaching curriculum of children to develop some skills of treatment and handling.

C. Research Objectives:

1) Preparing an approach of kinetic story for developing the most important skills of treatment and handling of Pre-School children.

2) Identifying the effect of the approach of kinetic story for developing the most important skills of treatment and handling of Pre-School children.

*D. Research Hypothesis: t*he approach of kinetic story has a positive effect on developing the most important skills of treatment and handling in Pre-school children

E. Research Scopes:

1) Human Scope : Pre-school stage age 5 years in the centre of Babylon province

2) Location Scope :Area and hall of Alnobog kindergarten

3) Time Scope: from 20/9/2014 until 2015

F. Terms Definition

1) Kinetic Story: Translating the events of the story are multiple ; i.e. they play roles during the kinetic story .

2) Skills of treatment and handling: They are the movements which require treating and handling things by limbs such as a hand and a leg as they are conducted by a ball or a racket.etc.) such as (Throwing from the top, catching , leaping ,kicking , hitting .etc…)

II. METHODOLOGY AND FIELD PROCEDURES:

A. *Methodology:* The two researchers used the experimental method in terms of the two equal groups of pre-and post tests.

B. Research community and Sample:

The research community represents the male and female children of Kindergarten at the age of (5) years in the centre of the province of Babylon (75) children. The research Sample should honestly represent the community, therefore, the research sample has been selected randomly as the total number of the main experimental sample was (40) male and female children by (20) children for the experimental group which represents section (A) ,and (20) children represents the control group which represents section (B) whose ratio was (53.33) out of the community .

C. Tools and Devices used in the research:

1) Research Tools : For the sake of obtaining the data and the required: information, the tow researchers used the following tools :

- International and Arabic sources and references.
- Questionnaire of experts and specialists.
- Tests and measurements.

2) The devices used in the research :

- A medical balance to measure body weight.
- Manual electronic calculator type 402kk Enako, number 1
- Electronic stopwatch, number 2.
- Recording video camera, type Sony Hi8, number 1
- A flexible measuring tape to measure the lengths and distance.
- Siren, number 1.
- Balls of various sizes (tennis ball, volleyball).
- Bar, length of 10 m and a width of 5 cm to measure the distance.

TABLE I. SHOWS THE ACCEPTANCE OF THE NOMINATION OF TREATMENT AND HANDLING SKILLS AND TESTS ACCORDING TO THE

N	Skills of Treatment and Handling	Relative Significance	Percentage	Acceptance of Nomination			Tests	Relative Significance	Percentage	Acceptance of Nomination	
				Yes	*No*					Yes	No
1	Shooting	33	73,3%	☆		1	Throwing by one hand from the top of the shoulder	44	97,8%	☆	
						2	Throwing by hands from the back of the head	17	37,8%	☆	☆
2	kicking	33	73,3%	☆		1	kicking the ball from inside the foot	33	73,3%		
						2	Kicking the ball by foot toes	19	42,2%		☆
3	hitting	22	48,9%		☆	1	kicking the ball in one hand beneath	11	24,4%		☆
						2	Kicking the ball in both hands beneath	10	22,2%		
4	Leaping	22	48,9%		☆	1	From the position of stability, the ball is tilted with one hand	19	42,2%		☆
☆						2	From the position of stability, the ball is tilted with two hands	11	24,4%		☆

Table (1) has shown that the number of skills and the nominated tests for application are (2) skills and (2) tests after excluding (2) skills and (6) tests after obtaining less percentage from the decided one (55, 55%) or less relative significance from the decided relative significance (25%).

3) The first exploratory experiment :

The exploratory experiment is one of the most important procedures that the researcher should conduct to identify the positive and negative points to avoid them during conducting

- Chalk.

4) Identifying the most Important skills of Treatment and its Tests:

In order to identify the most important treatment and handling skills and the most important tests for children (5) years old, the researchers nominated a group of skills of treatment and handling, and reached (4) skills. While the tests have reached (8) tests, and were in presented questionnaire form on a group of (9) experts and specialists. After collecting and unloading the data, the skills and tests that obtained relative importance were less than (25) or less than(55.55%) of the percentage as shown in Table (1).

Tests in the future: Based on this , the exploratory experiment has been conducted on sample selected randomly in Alnoboog kindergarten children ,totalling (20) male and female children at the age of (5) years who did not take part in the main experiment on Tuesday on 13/ 10/2014 at 9 am in kindergarten square **.**The objective was as follows :

- Make sure of the suitability of the tools and devices used.
- Identifying the required time to implement each test as well as the total time of tests.
- Make sure of the ability of implementing the tests by the sample individuals of the exploratory experiment.
- Make sure of the safety conditions when conducting the tests.
- Efficiency of the work team.

The two researchers repeated the exploratory experiment after 7 days at 9 am on Tuesday on 20/10/2014 in outer square of Alnoboog kindergarten on the same children and under same conditions, through which, the application of tests have been repeated .Its purpose was to find the basic fundamentals for tests under investigation.

5) The scientific coefficients for tests under investigation :

Validity Coefficient: although the validity of the tests was extracted from the opinions of experts and specialists to measure the skills of treatment and handling, which is called the truthfulness of the content, the researchers extracted the self-honesty of the tests through the square root of the stability coefficient for the purpose of verifying the validity of the tests set and table (2).

- Reliability coefficient:

In order to identify the scope of reliability of the test values used, the researchers used the Pearson correlation coefficient between the results of the implementation and re-implementation of the tests for the treatment and handling skills of selected for the exploratory experiment individuals. After extracting the correlation coefficient, The results of all treatment and handling skills were significant because all calculated(t) values were greater than the t-values of (2.10) at the degree of freedom (18) and the level of significance (0.05) Which shows that the tests have a high degree of Reliability and table (2) shows that .

TABLE II. SHOWS THAT THE SCIENTIFIC COEFFICIENTS (RELIABILITY AND VALIDITY)AND THE CALCULATED VALUES (T) AND THE STATISTICAL INDICATION OF TESTS AND THE MOST IMPORTANT SKILLS OF TREATMENT AND HANDLING.:

no	Scientific coefficients / Tests	Measurement unit	Reliability coefficient	Coefficient of self- validity	The calculated value t	The calculated value t	Significant indication
1	Kicking	Degree	0.82	0.90	4.74	5.84	Significant
2	Shooting	Degree	0.83	0.91	4.93	6.74	Significant

The table value =(2,10)at thermal degree (18) and level of significance (0,05)

6) Pre- Test:

The researchers conducted the post- tests of the treatment and handling skills of the experimental group which reached 20 children at 9:00 am in the outdoor arena of Alnoboog kindergarten on Sunday, 25/10 / 2015), and then the researchers conducted post-tests For the treatment and handling skills of the control group, which reached 20 children at 9:00 am in the outside yard of the same kindergarten on Monday, 26/10/2015, where the following tests were included:

- Test of throwing: The ball with one hand from the top of the shoulder.
- Test of kicking the ball inside the foot.

7) The equivalence of the two research groups:

Prior to the implementation of the program, the researchers sought to verify the equivalence of the two research groups by testing the most important treatment and handling skills as shown in Table 3.

TABLE III. SHOWS THE PARITY OF THE TWO GROUPS OF THE RESEARCH IN THEIR TESTS OF SKILLS OF TREATMENT AND HANDLING IN THE POST-TEST .

Type of statistical indication	Calculated Value t	Control group		Experimental group		Unit of measure	Group / tests	No
		sd	X	sd	X			
Not significant	0,96	0,275	2,78	0,5	3	degree	kicking	1
Not significant	10,24	0,406	3,32	0,35	3.45	degree	shooting	2

Table value =(2,03) at the level of significance (0,05) and thermal degree (38)

8) Application of the program :

After the researchers have completed all the appropriate procedures which preceded the program, they applied the program on the individuals of the experimental group on (1/11/2015) to (15/1/2015) as the program consisted of (12) teaching units for (6) weeks by two teaching units in a week as the two researchers used the kinetic story in the main department only in the teaching unit. Time allowed for each teaching unit is (30) seconds as the teaching units have been applied on (Monday and Wednesday) per week at 9 am . The control group lasted for implementing its own program by two teaching units in a week during Monday and Wednesday by 30 minutes for each unit at 9 :30 am as the kindergarten female teacher applied her own program on the control group individuals .

9) The post-test :

After the completion of applying the teaching program for (6) weeks, the post-test has been conducted on the sample individuals in the same way of the pre-test under the same conditions. The post-test for the skills of treatment and handling has been conducted on the control group on Sunday on 19\1\2015 at 9 a. m, whereas the procedures of the post-test of the experimental group on Monday on (20/1/2015) at 9 am.

10) Statistical Means : The two researchers used the statistical means:

- Percentage
- Pearson correlation coefficient.
- Mean
- Standard deviation.
- Test (t) for two unrelated averages and two equal samples.
- Test (t) of two linked arithmetic averages (corresponding samples).
- Relative importance.

11) The post-test :

After the completion of applying the teaching program for (6) weeks ,the post-test has been conducted on the sample individuals in the same way of the pre-test under the same conditions . The post-test for the skills of treatment and handling has been conducted on the control group on Sunday on 19\1\2015 at 9 a. m, whereas the procedures of the post-test of the experimental group on Monday on (20/1/2015) at 9 a.m .

12) Statistical Menas : The two researchers used the statistical means:

- Percentage
- Pearson correlation coefficient.
- Mean
- Standard deviation.
- Test (t) for two unrelated averages and two equal samples.
- Test (t) of two linked arithmetic averages (corresponding samples).
- Relative importance.

D. Presentation, analysis and discussion of data:

The two researchers presented, analyzed and discussed the obtained data to check the research objectives and its hypotheses in identifying the scope of the effect of kinetic story on developing the most important skills of treatment and handling of pre-school children.

1) Presentation and analysis data of differences between pre-and post tests for the most important skills of treatment and handling for the experimental and control groups.

To identify the significant differences between pre- and post tests for the most important skills of treatment and handling of the control group , the researchers used (T. Test), for Symmetrical samples as shown in Table (4).

TABLE IV. SHOWS THE MEANS AND THE STANDARD DEVIATIONS AND VALUE OF CALCULATED (T) ,TABLE AND THE STATISTICAL INDICATION OF PRE-AND POST TESTS FOR THE MOST IMPORTANT SKILLS OF TREATMENT AND HANDLING OF THE CONTROL GROUP

No.	Statistical landmarks Tests	Unit of measure	Pre-t		Post-t		Value of calculate t	Type of statistical indication
			X	*sd*	*X*	*Sd*		
1	kicking	degree	2.8	0.27	4.1	0.72	1.6	Not significant
2	shooting	degree	3.3	0.40	5.1	0.58	2.8	significant

Table value = 2,09 at the level of significance 0,05 at the degree of freedom 19

Table (4) shows that the means , standard deviations and value of calculated (t) and table between pre- and post test of the control group whose number 20 male and female children as the data were as follows :

- In the test of kicking, the mean was in the pre-test (2.8) with a standard deviation of (0.27), while the mean in the post test (4.1) and the standard deviation of (0.72). The value of (t)), Which is less than the value of (t) tabular at the degree of freedom(19) and the level of significance (0.05), which is (2.09), Indicating there are no significant differences.
- In the test of throwing: - The mean in the pre-test (3.3) and the standard deviation of (0.40), while mean in the post test (5.1) and the standard deviation of (0.58), the value of (t) calculated was (2.8) , Which is greater than the value of (t) tabular at degree of freedom (19) and the level of significance (0.05), which is (2.09), Indicating that there are significant differences in favor of the post-test .

2) Presentation of the results of the differences between the pre- and post tests of the most important treatment and handling skills of the experimental group and analyze them as shown in Table (5).

TABLE V. SHOWS THE MEAN, STANDARD DEVIATIONS, CALCULATED AND TABULAR VALUE AND STATISTICAL SIGNIFICANCE OF THE PRE- AND POST TESTS OF THE MOST IMPORTANT TREATMENT AND HANDLING SKILLS OF THE EXPERIMENTAL GROUP.

No.	Statistical landmarks Tests	Unit of measure	Pre-t		Post-t		Value of calculated	Type of statistical indication
			x	sd	x	Sd		
1	kicking	degree	3	0.5	5.3	0.41	2.87	Significant
2	Throwing	degree	3.4	0.35	6.2	0.52	3.57	Significant

Table value = 2.09 at the level of significance 0.05 at the degree of freedom

Table (5) shows the mean , standard deviations and the calculated and tabular value of the experimental group and pre- tests of the experimental group of (20) male and female children. The results are as follows.

TABLE VI. SHOWS THE MEAN, STANDARD DEVIATIONS, CALCULATED AND TABULAR VALUE AND STATISTICAL SIGNIFICANCE OF THE PRE- AND POST TESTS OF THE MOST IMPORTANT TREATMENT AND HANDLING SKILLS OF THE EXPERIMENTAL GROUP.

No.	Statistical landmarks Tests	Unit of measure	Pre-t		Post-t		Value of calculated	Type of statistical indication
			x	sd	x	Sd		
1	kicking	degree	3	0.5	5.3	0.41	2.87	Significant
2	Throwing	degree	3.4	0.35	6.2	0.52	3.57	Significant

Table value = 2.09 at the level of significance 0.05 at the degree of freedom

- In the test of kicking, the mean was in the pre- test (3) with a standard deviation of (0.5), while the mean in the post test (5.3) and the standard deviation of (0.41). The calculated value (t)), Which is greater than the value of t (tabular) at the degree of freedom (19) and the level of significance (0.05), which is (2.09), Indicating that there are significant differences in favor of the post-test.
- In the test of throwing, the mean was in the pre- test (3.45) and the standard deviation of (0.35), while the mean in the post test (6.2) and the standard deviation of (0.52), the value of (t)), Which is greater than the value of t (tabular) at the degree of freedom (19) and the level of significance (0.05), which is (2.09), Indicating that there are significant differences in favor of the post-test .

3) Presentation of the results of the differences between the two groups in the post-tests for the tests of the most important treatment and handling skills and their analysis:

For the purpose of identifying the significance of the differences in the post- tests of the most important treatment and handling skills between the control and experimental groups, the researchers used t-test between two independent samples as shown in Table 6

Table (6) shows the mean, the standard deviations, the calculated and tabular value (t) of the post tests, and the control and experimental groups (the sample of the research) of 40 male and female children. The data were as follows:

TABLE VII. SHOWS THE MEAN, STANDARD DEVIATIONS, CALCULATED AND TABULAR VALUE AND STATISTICAL SIGNIFICANCE OF POST- TESTS OF THE MOST IMPORTANT TREATMENT AND HANDLING SKILLS OF THE CONTROL AND EXPERIMENTAL GROUPS.

No	Statistical landmarks Tests	Units of measure	Experimental group		Control group		Value t calculated	Type of statistical indication
			X	sd	X	sd		
1	Kicking	degree	5.3	0.41	4.12	0.72	6.18	Significant
2	throwing	degree	6.2	0.52	5.15	0.58	5.83	Significant

Tabular value = 2.03 at significance level 0.05 and freedom degree 38

- In the test of kicking, the mean was in the post-test of the experimental group (5.3) and by a standard deviation of (0.41), while the mean in the post-test of the control group (4.12) and the standard deviation of 0.72, Calculated as (6.18), which is greater than the value of (t) tabular at the degree of freedom (38) and the level of significance (0.05), which is (2.03). Indicating significant differences in favour of the experimental test of the experimental group.
- In the test of Throwing, the mean was in the post-test of the experimental group (6.2) and by a standard deviation of (0.52), while the mean in the post-test of the control group (5.15) and the standard deviation of 0.58, (5.83), which is greater than the value of (t) tabular at the degree of freedom (38) and the level of significance (0.05), which is (2.03). Indicating there are significant differences in favor of the experimental test of the experimental group.

III. DISCUSSION THE RESULTS OF THE TESTS OF THE MOST IMPORTANT TREATMENT AND HANDLING SKILLS OF THE CONTROL AND EXPERIMENTAL GROUPS:

In the discussion of the results of the research presented and analyzed in Tables 4 and 5 for the pre and post tests and the control and experimental groups, there were significant differences in favor of the post tests in the skills (kicking and throwing) of the experimental group. In the control group there were slight differences in favor of post- test .There is no difference in the skill of kicking. This is evident through the differences in the mean of the two tests. This

indicates that the use of the kinetic story has an effect on the development of these skills. The researchers attributed the reason for the great development of the throwing skill to the two groups ,control and experimental, due to the rapid mobility of children, as well as that "children at this stage are keen to integrate into any motor activity, especially those that require the movement of large muscles," 1 We find them more integrated in the performance of such activities and this has helped to develop the skill of throwing , and with regard to the control group the researchers attributed the reason for that development to the contents of the kindergarten curriculum of games and exercises which contributed to provide an opportunity for children to exercise and play, which led to the development of skill. As for the skill of kicking, the researchers attribute the reason for non- development to the lack of kindergarten programs of this type of skills or lack of use by kindergarten female teacher.

In our discussion of the results presented and analyzed in Table (6) for post tests of the most important treatment and handling skills of the control and experimental groups, there were significant differences for the benefit of the experimental group. This means that the use of the kinetic story program has achieved a better development than the kindergarten education curriculum followed by kindergarten female teacher.

The reason for this development is the effectiveness of the program used. It contributed through a good and systematic lesson in making the child in a constant movement as well as caring for the children and encouraging them as the encouragement is important in stirring up the atmosphere of fun and happiness and has a great impact on the movement performance with a sense of freedom and security. Osama Kamel Rateb emphasized The importance of encouraging children to actively participate in kinetic activity programs and successfully performing practice experiences to help children practice without fear or to create negative attitudes towards their abilities as well as emphasizing attention to activities focused on the development of the arms, shoulders and upper body of the child of this stage.

The researchers also attribute the reason for this development to the number of repetitions to develop this skill as it was given the right time for practice and repetition in order to ensure access to the development of walking skill. Shammat emphasizes that teachers or trainers should encourage learners to perform as many exercises as possible as much as possible"

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions: In the light of the results of the tests, their analysis and discussion, the researchers have come with the following conclusions.

1) The use of the approach of kinetic story, has a direct impact on the effectiveness of children's performance, which led to the development of treatment skills and address the subject of research.

2) The results achieved by the tests proved the validity of the educational units prepared by the researchers through the clear development in the most important treatment and handling skills.

3) The approach of the kinetic story has developed better than the kindergarten approach and thus achieved the goals and objectives.

4) The skills of treatment and handling (kicking, throwing) do not receive sufficient attention during the application of the sport lesson in kindergarten.

B. Recommendations: Based on the findings of the researchers, they recommended that :

1) Adopting the approach of the kinetic story in the lesson of kinetic education in the period devoted to the study because of its positive impact in the development of the most important treatment and handling skills of children.

2) The need to pay attention to the development of treatment and handling skills for this age (early childhood), through the development of the approach for this special purpose.

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The Effect of Cognitive Exercises in Kinetic Sense in the Terms of Herman Scale Learnnig Kirvo Skill on the Parallel Device in Artistic Gymnastics for Students

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Abstract-The current era is witnessing a cognitive and technological evolution in all areas of life. The emergence of global attention to the products of brain research and the emergence of a series of discoveries in this area, and in this development is imperative to have a strategy to enable the learner to learn and master the skills of sports in order to develop its preparations and potential and ability in response to his tendencies and interest. The importance of the research is to identify the effect of cognitive exercises in the sense of Hermann scale in learning the skill of Kirvo on the parallel device in the technical gymnastics of the students, and the researchers used the experimental method with the design of equal groups on the sample of (34) students from the second stage in the College of Physical Education and Sports Sciences, randomly selected from (140) students from, and through the statistical treatments, the researchers found that the exercises sense sense of sense in the sense of the Herman scale of great importance in learning the skill of Kirvo and the technical gymnastic for the students. The researchers recommended the use of sensory sense exercises in terms of the Hermann scale because they proved effective in the current study in learning the skill of the Kirvo on the parallel device in the technical gymnastics for the students.

Keywords- *cognitive exercises, kinetic sense, Kirvo skill, artistic gymnastics*

I. INTRODUCTION:

The current era witnessing a technological and knowledgment evolution in all areas of life and the emergence of global interest in the brain research outputs, and the persistence of the emergence of a series of discoveries in this area, which resulted in the birth of many theories and ideas. According to this development, the topic of brain dominance in the research and investigation by researchers in a serious attempt to understand the methods and thinking patterns. Individual's treatment is based on the knowledgment and the skills that they are learning. The individual's success and progress depends on what goes on in the brain and cognitive preferences type used in various aspects of his life.

Gymnastics is one of the important sports task since it is the cornerstone of all other math types, because they earn the player flexibility, strength and agility. The nature of this game in terms of speed, performance and versatility, it requires from the practitioners to skill performance and coordination nervous system to access the motor acts planning cruise and good performance. Since the brain is the organ that controls the actions of man and his outbursts and plays a special role in behaviour, mental, cognitive processes of thinking, remember, talk, learn, and practice games and other. Hence the importance of research to identify the influence of sense perception exercises move in terms of Herman to learn 'Kirovo' skill in artistic gymnastics parallel device for students.

A. Research problem:

The researchers noticed that the problem lies in the lack of clearly defined patterns of cerebral dominance and not using exercises appropriate to the type of dominance among students made them to focus on the

left side than the right side, thus, placing these exercises and selected is the decisive factor in learning the skill of Kirvo, weak literacy of teachers brain dominance that characterizes each student, non-significant attention during the educational units which need curricula help professionals in appropriate future curriculum development, with education care and guidance, students can develop their ability to get better in the future.

B. Research objectives:

1) Divide the sample into groups by (Herman) for students of the third phase _ College of Physical Education and Sports Sciences.
2) Preparation of sense perception exercises movement in terms of Herman to learn Kirvo skill in an artistic gymnastics parallel device as a sample for the research.
3) Learn about the influence of sense perception exercises kinaesthetic learning skill Kirvo on an artistic gymnastics parallel as a sample for the research.
4) Identify priority for the experimental groups in learning Kirvo skill on parallel device.

II. PRESUMABLY RESEARCH:

1) Workout aware kinaesthetic sense has a great positive effect on learning the skill of Kirvo on an artistic gymnastics parallel for the students. There were statistically significant differences between experimental groups in test post in Kirvo skill on a dimensional parallel device for the research sample.
2) Previous studies: Ned Herman study (Ned Herrmann, 1989), (Cerebral sovereignty patterns to individuals and institutions in the United States).
3) Objective: this study aimed to identify patterns of cerebral sovereignty to individuals and institutions in the United States.
4) The standard used and the sample: sample volume (500,000) from all sectors of society in multiple countries and nationalities. Herman tool have been used for sovereignty for cerebral sovereignty (HBDI). To extract the results, Ned Herman used a descriptive statistics using percentages to arrange the patterns of cerebral sovereignty.
5) Conclusion: the results show that (90%) of individuals have one style is prevalent with the rest of the secondary preferences of other styles of sovereignty.

III. RESEARCH METHODOLOGY FIELD PROCEDURES:

A. Research Methodology:

The researchers used experimental method dependent on designing equal randomized groups which contains a pre-test and post-test, fit it in the nature of problem to be solved.

B. Research Community and Its Specified Sample:

Research community defines with the students of the College of Physical education and sports sciences-Diyala University- third stage, (140) students for the year of: 2016-2017.

C. Research Sample:

The sample was selected randomly, (34) students make up (24%) of the original's community, (140) students after applying Herman scale has been divided into four groups, the first trial (a) (9) students, and the second (b) numbered (10) students, and the third (c) numbered (8) students, 4 (d) (7) students.

D. Research Tools:

1) Devices for measuring the mass.

- Leather tape measure (20 m) to measure length. Duct tape length (2 m).
- Two computers type laptop (DELL) Chinese origin.
- Camcorder type Sony's (Chinese origin).
- Ground movement mat measured (12 x 12).
- Various measurements and rises carpets numbered (6).
- A wooden glove numbered (4) high (10 cm) and length (120).

2) Methods of Collecting Information:

- Arabic and foreign sources and references.
- Observation and experimentation.
- Tests and measurements.

The researchers used Herman for cerebral domination for (Ibrahim Rawashda 2010) which includes dividing the sample into four groups (a-b-c-d), which is the preferred thinking style paragraphs for each student, each a group of paragraphs sort of answer and the student answered to reveal his favourite domination.

E. Skill Tests:

Skill tests have been identified as calculated, based on the degree of kinetic performance of the skill and performance degree is evaluated for each skill by four arbitrators or referees where skill of ten degrees.

F. Exploratory Experience:

In order to identify the most important obstacles that they might face when implementing major experience and ensure the validity tests and clear paragraphs measure and calculate the time that the samples take to answer the paragraphs, the scale and extent of sample interaction in its implementation to ensure reliable results, the researchers conducted an exploratory experiment at 10 a.m. on Sunday (12/3/2016) to 10 students selected randomly from the research community.

G. Scientific Foundations For The Scale:

In order to learn the scientific foundations of measure used after the researchers informed on many sources and studies, it turns out that the Iraqi environment standard has been used in many studies as well as use similar samples and it is clear and understandable.

H. Pre- tests:

Before starting pre-tests, induction unit was given to all respondents to identify the primary form of skill and how then are the respondent testing variables under study at 9:00 a.m. Sunday (19/3/2016) for the four experimental groups with the help of assistant team and under the supervision of the researchers.

I. The Equal Sample:

"In order for the researchers to show that the difference is an experimental factor, the control and experimental groups must be fully equal in all their circumstances except for the experimental variable that affects the experimental group" (Risan Kharbit Majid, 1987). In order to achieve this, the researchers performed a parity between the four experimental groups. The results showed that there were no significant differences between the four groups, confirming the parity between them as shown in Table (1).

TABLE I. PARITY BETWEEN THE FOUR EXPERIMENTAL GROUPS SHOWS THE SKILL OF KIRVO ON A PARALLEL DEVICE VALUE (F) CALCULATED, THE TABULAR AND THE STATISTICAL REFERENCE

Skills	Source of Contrast	Total squares	Degree of freedom	Average squares	Values F Calculated	Values F Gandolaof	Significance of differences
Kirvo	Between	0.544	3	0.181	0.685	2.922	Not significant
	Inside	7.927	30	0.264			

When the degree of freedom (3,30) and the probability of error ratio (05.0).

J. The Curriculum:

The researchers set up the curriculum in terms of Herman to participate in learning the skill of Kirovo on the parallel device of artistic gymnastic depending on the curriculum, taking into account scientific foundations preparation and application of this approach, and the diversity of educational and exercise within the unit follow the principle of progression from easy to hard, so the student feels bored and monotony, and included the curriculum (6) teaching units for (6) weeks from (20/3/2016)-(24/4/2016) by learning one unit per week in a time of 70 minutes to the main part of the total educational unit of time (90) minutes, look for a supplement (1) taking into account the general things involving educational unit (main section/final section). The researchers have adjusted the extraneous variables underway that may affect key experience of history and measurement tools and selecting personnel experiment and break some individuals complement experience, as well as scientific researchers of the secretariat required to give a true picture when the implementation of the platform, has coincided with the implementation of the platform for religious events and holidays compensation that on other days.

K. Foundations of Skills Assessment:

The test was filmed on a disk (CD) by webcam (Sony) and presented to four arbitrators who are experienced and competent with a company of a specific forms of each test to record test scores for each student, for the purpose of evaluating skills based on the full sample personnel, and an assessment of each skill (10) marks so delete the highest and lowest score to the average degree of the students divided (2) to exit the final class for each student.

L. Post-tests:

After completion of the curriculum period, tests were conducted for the variables under study at 9:00 a.m. on Thursday (25/4/2016) for the four experimental groups and the help of the assistant staff under the supervision of researchers.

M. Statistical means:

The researchers used statistical pouch (SPSS) in extracting the research results.

IV. SECTION FOUR: PRESENTATION AND ANALYSIS OF RESULTS AND DISCUSSION:

A. View and Analyze The Test Results for Fingerprinting Experimental Skill Tests Totals and Discussion

TABLE II. ARITHMETIC STATICS AND STANDARD DEVIATIONS OF PRE-TEST AND POST-TEST FOR THE FOUR EXPERIMENTAL GROUPS ACCORDING TO THE TYPE OF CEREBRAL DOMINANCE OF THE SKILL OF KIRVO ON A PARALLEL HARDWARE.

Experimental Groups	The dominance of the brin 's thinking	Sample size	Measurement degree	Tribal		My back	
				S-	P	S-	P
The First group	(A)	(9)	Degree	1.555	0.527	6.888	1.691
The second group	(B)	(10)	Degree	1.6	0.516	7.8	1.475
Group III	(C)	(8)	Degree	1.375	0.517	6.000	1.069
Group IV	(D)	(7)	Degree	1.285	0.487	6.428	0.786

The presentation and analysis of results of arithmetic statics and standard deviations and the value of (t) calculated and indexed denote differences between test results of fingerprinting totals four experimental groups in the skill of Kirvo on parallel hardware.

Aggregates Experimental	Dominance Brain thinking	Size the sample	Q	P	T Values		Indication Differences
					Calculated	*Table*	
First Group	(A)	(9)	5.333	2.5	6.402	2.306	moral
The second group	(B)	(10)	6.2	2.622	7.478	2.262	moral
Group III	(C)	(8)	4.625	2.267	5.744	2.365	moral
Group IV	(D)	(7)	5.142	1.476	9.216	2.447	moral

Table (3) arithmetic community teams and standard deviations for the Kirvo skill for the four experimental groups and the calculated value (t) is greater than the value of (t) tabled indicating the moral differences between fingerprinting tests in parallel device for the Kirvo skill and four experimental groups and fit for the post-tests. The researchers considered that it is normal that is progress in learning. The strategic planning exercise which inevitably leads to learn "the primary objective of the curriculum is the acquisition of new skills and develop it, and the evolution of mastery in advance because learning is the way in which information or skills or abilities, whether as a result of experience or practice or training are obtained"(Mamdouh Abdel Fattah, 1997, p 479).

B. View and Analyze The Test Results After Four of The Experimental Groups for The Kirvo Skill and Its Discussion.

TABLE III. SHOWS THE RESULTS OF THE ANALYSIS OF VARIANCE BETWEEN THE FOUR EXPERIMENTAL GROUPS ACCORDING TO THE TYPE OF CEREBRAL DOMINANCE IN THE PRE-TESTS FOR THE SKILL OF KIRVO ON PARALLEL HARDWARE.

Variables	Source of Contrast	The total m Rabat	Degree of freedom	Average The squares	Values F Calculated	The value of F Table	Indication Differences
Skill of Kirvo	Between Groups	16.061	3	5.353	2.9626	2.9223	Moral
	Inside Groups	54.204	30	1.806			

Value (F) Tabulated (at 0.05) and the degree of freedom (3,30).

The table shows the calculated (F) value greater than indexed value which indicates statistically significant differences between the four experimental groups in the post-tests. For the purpose of identifying the fact that differences between the four experimental groups and the best one in the four dimensional tests of the skill of Kirvo on the parallel device, test are less moral differences (L.S.D) as shown in the table (4).

TABLE IV. SHOWS THE RESULTS OF THE TEST (L.S.D) FOR CHECKING A VALUE OF THE LESS MORAL DIFFERENCE BETWEEN THE FOUR EXPERIMENTAL GROUPS ACCORDING TO THE TYPE OF DOMINANT BRAIN THINKING IN KIRVO SKILL

T	Aggregates by the dominance of brain thinking	Computational circles	Community teams	Value (LSD)	Statistical significance
1	Group (A) Group (B)	6.888- 7.8	0.912	1.762	Not significant
2	Group (A) Group (C)	6.888-6.000	0.888		Not significant
3	Group (A) Group (D)	6.888-6.428	0.46		Not significant
4	Group (B) Group (C)	7.8- 6,000	1.8		moral
5	Group (B) Group (D)	7.8- 6.428	1.372		Not significant
6	Group (D) Group (C)	6.428-6.000	0.428		Not significant

The above table results show a moral difference between the four experimental groups to group (b) more than one group (D, C, A) in the skill of (Kirvo), and that the conclusion reached in this research indicate that a large proportion of learning is for students with mental

institution, operational and organizational competence of brain dominance thinking style (B) at the expense of analytical and logical mental competence which is a specialty for the brain dominance thinking style (a free and creative mindset) that are the purview of brain dominance thinking style (B) social and mental competence of brain dominance thinking style (C).

The researchers attributed the reason to learn brain dominance thinking students group (B) with a greater range (C, D, A), indicates that the lecturers based teaching process are styled dominance thinking brain (B) because they have learned that how are thus tagged it to their students as they view art students study consecutively with their use of logical sequence and their management to lesson firmly and display of skill and implement them the details within the course content without going out on the lesson and show examples or images on them, reflected on the students in using the same pattern of cerebral domination which they had received education through it.

Al- Hammadi (2001), noted that "educational method that raised with the majority of the students in the world is a method which the skills creativity is sterile reflections and imagination are reduced, and that most experienced method children is lived by the students at home with their parents and in school with their teachers "(Ali Hammadi, 1999, p.73).

V. Conclusions and Recommendations.

A. Key Findings Included:

1) The cognitive methods and cognitive a perception has a great role in how individuals are thinking and thus, to choose disciplines, practices, and approaches that suit them and develop their skills, their movements and knowledge.
2) The appropriation of the Herman scale for the physical education cognitive exercises useful sense move that led to learn Kirvo skill in artistic gymnastics parallel device for all the study groups.
3) To exercise common sense-perception by activist researchers have had a deep impact on learning the skill of (Kirvo on a parallel device) for each study groups.

B. Recommendations:

1) The current study emphasizes the necessity of definition and to identify it to the teachers in physical education colleges dominate the thinking brain to their role and importance in achieving better results in learning sports skills.
2) Enlighten student's cerebral dominance patterns which they have, and the positive and negative aspects of each style of patterns so that they can choose the appropriate method in learning and to perceive a future picture through it, and made them able to understand their ways of thinking.
3) Conduct a study similar to the current study for other samples and other sports.
4) Adoption of the stomach exercises prepared by the researchers in learning skills of (Kirov on the parallel device) being proved effective in the current study.

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APPENDIXES

APPENDIX 1 Model educational unit of the first week Module: The first educational unit time: 90

Section	The device	Explanation of Exercise User	Organization	Gadgets	Notes
Preparatory	Legal parallel	Warm - up for (15 d) and after (likely standing on the hands)		Parallel device	To emphasize the integrity of the body
		Likely to stand on hands pay to one of the arms and build on casual one		Legal parallel	Emphasis on hands
President	Befallen and G Legal	Sense of movement to build on the parallel body to fall back to perform a small cycle with an emphasis on the work of a simple angle in the hip joint and get off on the ground		Legal parallel	Emphasis on hands and torso
		Exercise the former with the same emphasis on access to the level of the shoulders parallel or higher Ardta them			Focus on the shoulders
	Trampoline	Stand on the two men and falling back on the back and as a result of the reaction of the player's performance trampoline back rolling to stand on your hands.		Trampoline	Focus on the feet
	My throat height 1.20 m	Hung up on the throat and the two men on the ground and then jump and perform background cycle with an emphasis on the work of a simple angle in the hip joint.		My throat	Focus on hands
Final		Calm for exercises (5 d)			

APPENDIX 2 Herman measure (the dominance of the brain's thinking), Dr. Ibrahim Rawashdeh

the number	Category	**Paragraphs**	Yeah	No
1	A	Data and information collection		
2	C	Search for personal meanings by using the way the question "why".		
3	B	The acquisition of skills through the practical application of the content of the book.		
4	D	Study new topics and search for a holistic understanding of (the image as a whole) of the facts and its development without attention to detail.		
5	C	The use of sensory experiences to stimulate members sensual when human – such as moving things feeling out and touch.		
6	B	The study in a sequential manner step by step.		
7	D	Leadership and participation activities autonomously.		
8	A	Dealing with the facts and turn them into numerical relationships and building numbers.		
9	B	Problem - solving pre - defined and fixed ways instead of looking for new ways.		
10	C	Learning by tactile sense, tools and devices.		
11	D	Questions to use images of things that are not felt like if you ask (if ... what happens?).		
12	A	Study - related cases of technical matters (scientific and engineering applications).		
13	C	Visit of different cultures, regions in order to get to know new people .		
14	B	Organization of a clear plan and a timetable and implemented according to the plan.		
15	D	Use of visual aids during the talk.		
16	A	Rely on facts when making decisions and evaluate ideas.		
17	D	To consider other alternatives before accepting answer correct.		
18	C	Take notes about the feelings of others and their values in the daily record.		
19	A	Exploration for the largest number of possible answers to the problem		
20	B	Analysis of different ideas and facts to molecules and examine the appropriate association.		
21	D	Work in a safe and stable environment without resorting to risk when solving problems.		

22	A	Read the textbook and some other references.		
23	C	Research and discussion Aljmaian.		
24	D	Held a brainstorming to stimulate the mind, and attention to the ideas of unexpected sessions.		
25	C	The study of ancient classical music, and the formation of musical tones.		
26	C	Case studies and issues of concern to people.		
27	B	Manual mode (booklet) on how the course of a particular program.		
28	A	Visits to different places as factories, to discuss issues related to new technologies.		
29	A	Study the problem in depth and work to resolve them.		
30	C	Relying on emotion more than logic to solve problems.		
31	D	All test views and ways of thinking at the same time.		
32	A	Search references and sources of information in order to obtain real and realistic information.		
33	C	Listen to the talk, which includes details.		
34	A	Detection possibilities (potential) hidden.		
35	B	Look at the problems logical and rational manner.		
36	D	Read the introduction to the book to understand what is meant by the author.		
37	A	Do practices and exercises frequently with attention to detail.		
38	C	Relying on facts and logical thinking to deduce ideas.		
39	B	Listen to others and share ideas.		
40	A	Thinking directions (removal) different when solving problems.		
41	C	Deal with real things instead of dealing with things may occur in the future.		
42	D	Follow the instructions in the completion of the work, rather than trying to accomplish in new ways.		
43	A	Thinking about creating links between the present and the future.		
44	B	Test hypotheses and procedures to detect errors.		
45	D	Use a variety of different ways to do things, rather than always work the same way.		
46	B	Frequent examination of the implementation of the plan in accordance with the preset.		
47	D	Use symbolic language such as sign hands or legs or face hints.		
48	B	A timetable for the implementation of the plans, and walk according to the plan without paying attention to the humanitarian aspect.		
49	C	Organize facts and arrange them in categories.		
50	B	Relying on intuition more than reality and inspiration (Facts) or logic.		
51	B	To identify the points of view of others and respect for human and appreciate more things.		
52	D	Training continuously and repeatedly in order to apply new skills.		
53	C	Study of cases concerned with orientation towards the future and discussed.		
54	B	Study cases related to financial matters analytically.		
55	D	Interest procedures when writing the report on the experimental results.		
56	A	The development of hypotheses and then test the correctness or reasonableness.		
57	B	Rearrange ideas and information in order to get new ideas.		
58	A	Teach others how to learn.		
59	D	Interest topics, ideas and addressed without attention to issues related to people.		
60	C	Relying on videos or CD-ROM or visual display, because it gives a greater understanding of the subject through body language more than the audio tape recording.		

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The Effect of Plastic Exercises and the Opposite Method in Developing Explosive Capability, Lost Speed and Achievement of Young Spearmen

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Abstract-The important of This study coming from the preparation exercises style plastic and the opposite for developing explosive power of the legs, arms and reduce lost speed as much as possible between the approximately running and the marksman five steps as well as improving the achievement of the javelin throwers youth.

Through experience, the researchers noticed that there is a problem lies in the lack of interest in most of the trainers using various scientific training methods in developing explosive power of the legs, arms and speed own during a short sprint and linked to the five steps before the shooting, which had a negative impact on their levels in achieving the best achievement, so the researchers felt the use of (stylistic plastics and the opposite) in developing explosive power in addition to working as much as possible to reduce the lost speed during the change that occurs in the body lay in the development of the steps and through the focal time whether it be through the front pivot and rear pivot or through payment done by the player time.

The goal of research is to identify the effect of exercise stomach manner (ballistic and the opposite) in developing explosive power lost speed and the completion of the archer's young javelin, as well as to identify the priority of two modes (ballistic and the opposite) in developing explosive power lost speed and completion of archer's spear youth.

The researchers used a two experimental groups experimental design for suitability nature of the studied problem, have been identified community Find my players Karbala young province of the effectiveness of spear's throw (12) players, was chosen as the sample-style comprehensive inventory and then they diving them evenly into two experimental randomly and by 6 players to each Collection.

The researchers came out with the most important conclusions are:

That both methods in order to develop explosive power and reduce the lost speed and thus improve the achievement of the javelin throwers youth.

- Preference style the opposite reduce lost speed and improve the achievement of the javelin throwers youth

Keywords- *Explosive capacity, Lost speed, Achievement*

I. DEFINITION OF RESEARCH

A. Introduction and importance of research

The aim of the sports training is to raise the level of achievement whether it is skillful or physical, and in sports and sports activities. The levels of the various sports activities are presented as a result of the use of modern training methods and methods through organized and well-structured training based on scientific foundations, to the highest level of sports tournaments.

That the development of athletics in recent years has turned towards the achievement of the record, which

requires a work of skill and physical strength, and the effectiveness of throwing javelin of events that require the type of exercises to develop speed for their importance during the performance in addition to the development of explosive capacity, which is what we find in plastic exercises and the opposite method Which aims at developing qualities, developing abilities and achieving ideal achievement.

The researchers consider that the development of these elements more contribution to achieve achievement in addition to the element of speed is an important elements that play an effective role in the effectiveness of throwing javelin and this speed is the horizontal speed of the player in the approximate rides as well as vertical speed as well as the outcome of speed and work during the training of In order to achieve the correct orientation and programmed for the purpose of developing the speed factor in the shooters where speed is one of the most important factors affecting the horizontal distance.

Therefore, the importance of this study in the preparation of exercises in the plastic style and the reverse to develop speed and reduce the speed lost as much as possible between the approximate exercise of the Rami and the five steps in addition to developing the explosive capability of men and arms and the achievement of young spearmen.

B. Research Problem:

The effectiveness of javelin has special requirements and the development of physical abilities is the most important because it is the basis in the development of achievement and the rest of the other throwing activities, the performance and achievement depends on the application of the technical aspects in an integrated manner as well as the development of physical capabilities, both during the rough and the last five steps of the final stage and confirmation The speed of the approach and the timing of the throwing and development correctly as speed is one of the important qualities that contribute to the achievement of a large extent, especially the primary horizontal speed obtained by the Rami during the approach phase and the most important must die BL by javelin thrower in addition to his strength through the development of the explosive power of arms and legs so shall prepare exercises commensurate with the development of these surveyed variables, and through the researchers experience noted lack of interest in most of the trainers using various scientific training methods in the development of the explosive power of the two men, arms and speed own during a short sprint and linking them to the five steps before the shooting, which had a negative impact on the levels in achieving a better achievement, so the researchers felt the use of my technique and the opposite plastic in the preparation of exercises aimed at developing explosive capability in addition to working as much as your pain N reduce the lost speed during the change that occurs in the body mode and in the development steps as well as through building time whether it is through the front pivot back and build or through the payment by player time.

C. Research Objectives:

1) The preparation of exercises in the ballistic method and the opposite in the development of explosive capacity and speed lost and the achievement of young spearmen.

2) To understand the effect of exercise in the method (ballistic and opposite) in the development of explosive capacity and speed lost and the achievement of young spearmen.

3) Identify the superiority of the two methods (ballistic and opposite) in developing the explosive ability and speed lost and the achievement of young spearmen.

D. Research hypotheses:

There are statistically significant differences between the tribal and remote tests in the development of explosive capacity and lost speed and the achievement of young spearmen and for the test of the post.

There are statistical differences in the tests of dimension to develop the explosive capacity and speed lost and the completion of young spearmen for the benefit of the group using the ballistic style.

E. Research Areas:

1) Human Field: Young spearmen of the clubs of the province of Karbala holy athletics for the sports season 2015-2016.

2) Time domain: for the period from 2/11/2015 to 15/02/2016

3) Sphere: Karbala Sports Club Stadium in Athletics and College of Physical Education and Sports Sciences - Karbala University.

II. THEORETICAL AND PREVIOUS STUDIES

Theoretical studies

A. Plastic Style:

There are many training methods that trainers can build a training program to develop the level of players. There is always a difference in the opinions of experts, specialists and researchers in determining the appropriate training methods for players to reach the best physical and skill levels, resulting in the emergence of

many modern methods of exercise, Plastic or ballistic resistance training, a form of power training and also called explosive power exercises.

The word "Ballistic" refers to the acceleration of weight and its release into the air. Ballistic exercises jump from squatting with a certain resistance, a movement that is performed by the muscles and in a quantity of movement Specific, this isThe type of exercise forces the athlete's body to mobilize and stimulate the active muscle fibers. This is a very important feature because the working muscle fibers must have great potential for development when performing force training. "Ahmed Farouk Khalaf (2003) defines plastic exercises as "the ability of muscles to perform movements as quickly as possible with moderate to moderate resistance (30-50%) of the highest level of sport, including lightweight and medium weight lifting exercises at separate high speeds".

Michael and others pointed out that light and moderate weight training of 30-50% of the athlete's high speed ability affects various parts of the force and speed curves. The main goal of the exercise on light and medium weights is to increase the explosive output rate, while the exercise Which is the use of heavy weights is to develop the maximum strength of athletes, and the exercise, which is characterized by high speed to the speed of the performance of the athlete to a large extent more than the traditional exercise, which uses heavy weights ().

Talha Hossam El-Din et al., 1997) states that power training related to the torsion and shortening cycle, such as plastic, is designed to achieve direct development of muscular capacity and thus improve performance. There is no single system to determine ideal pregnancy in this type of exercise, so they often use body weight as a resistance in his exercises. The ideal strategy in this case is to combine the plastic and plumetric exercise with the performance of the plumetric exercise, but with the use of external weights to increase muscle capacity.

Abdel-Fattah and Ahmed Nasr 2003 said: "It is possible to benefit from plastic exercise especially in sports that require shooting, jumping and beating. These games require plastic movements and include explosive ability during full motion. Ballistic movement is defined as muscle movement, By the amount of movement (acceleration) of the parties ".

The explosive movement, which produces the athlete the largest amount of strength and the highest possible speed must be the weight of resistance used lightly, and to train the athlete on this movement as soon as possible to achieve the goal of training, and most experts and researchers believe that the ideal resistance weight that can be used in an exercise The plastic exercise ranges between 30-45% of the maximum weight limit that can be lifted by the athlete once, and the plastic exercise activates the movement of the athlete trains the muscle to work quickly by stimulating the muscle fibers to the speed of contractions and is more useful for the performance of the athlete because most sports movements are explosive on In contrast to traditional exercise, the weight that focuses on the strength of the muscle more than the speed of muscle contraction .

B. Ballistic movement has three phases.

1) The first phase:

- The decentralized contraction of the working muscle and its movement is with Newton, R.U., Kraemer, W.J., and Hakkinen, K. Effects of ballistic training on preseason preparation of elite volleyball players. Medicine & Science in Sports & Exercise1999, P, 323-330.
- Ahmed Farouk Khalaf: Effect of a training program on some physical and skill variables for basketball players, the scientific journal, Faculty of Physical Education, Helwan University, Egypt, no. 2003, p.40.
- Michael H stone: Stevens, Margaret E stone, brain K schilling and Kyle C pierce, athletic performance development, strength and conditioning, volume 20 number, December, 1998, p. 25.
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- Basim Hassan Ghazi: The Effect of Ballistic Exercises in Developing Explosive Power and the Speed of Performance of Some Skills for Volleyball Youth Athletes, PhD Thesis, Faculty of Physical Education, Babel University, 2009, p. 25.
- Ali Mohamed Talaat: Effect of the use of ballistic resistance training on some physical and skill variables for basketball players, Master Thesis, Helwan University, Faculty of Physical Education for Boys, Pyramids, Department of Sports Training, Egypt, 2003, p.

2) Inverse:

The training methods are varied and varied. They do not exist arbitrarily, but exist according to the needs of them.

One of these methods is the opposite method and the principle of its work is in contrast to the muscular work of the joint, namely the working muscles and the opposite muscles, which means that the muscle working when the

muscle contraction of the opposite muscle to work properly, or if the muscle is not reversed the opposite will act as a blocker to work The working muscle, which affects the strength of constriction and speed, in addition to be balanced between them in certain percentages to show the best performance and avoid injury during the performance.

And this method addresses this problem by giving exercises a constant contraction of the working muscle, which develops the maximum strength of the fact that this type of contractions gives the strongest contraction and muscle tension, which causes them to fatigue quickly, followed by a momentary shift of work for the working muscle and the opposite becomes the opposite and opposite working from During the collapse of the explosion and very fast in addition to external help for the contraction of speeding performance, which gives signals to the brain that the performance faster than the ability of the athlete, especially that the opposite muscle is weak resistance being tired and therefore fully spread, The nervous system to draw a new motor program commensurate with this performance and thus will develop speed and ability.

3) Explosive capacity

Explosive ability is one of the physical abilities that must be enjoyed by the athlete and at all levels and both sexes are necessary to start the rapid Arches and in the jump and jump and also in the games of the difference as they are very important in throwing and kicking and quick launch as well as throwing, has known many experts and specialists' Explosive ability, according to his opinion and concept.

- Bassem Hassan Ghazi: The Effect of Ballistic Exercises in Developing Explosive Power and the Speed of Performance of Some Skills for Volleyball Youth Athletes, PhD Thesis, Faculty of Physical Education, Babel University, 2009, p. 25.
- Ali Mohamed Talaat: Effect of the use of ballistic resistance training on some physical and skill variables for basketball players, Master Thesis, Helwan University, Faculty of Physical Education for Boys, Pyramids, Department of Sports Training, Egypt, 2003, p.
- Hussein Hassoun et al.: The effect of the opposite technique in developing the explosive ability and the skill of aiming from jumping high for youth in handball, research published in Al-Muthanna University Journal, 2013, p. 5.
- Johnson and Nelson (1979) defined it as "the ability to produce maximum capacity as quickly as possible". " It is the ability of muscle groups to detonate the maximum capacity as quickly as possible," said Qais Naji and Bastoise Ahmed (1987).
- Yasser Dabour (1997) sees it as "overcoming power less than maximum but at maximum speed".
- Bastoise Ahmed (1999) points out that it is "the highest dynamic ability that can be produced by muscle or muscle group once".
- Essam Abdul Khaleq (2005) defines it as "the ability of the individual to make the ultimate energy end in a single breakthrough work, and here the work of muscular capacity is related to speed".

From the above, it is clear to us that explosive action works through the relationship of the work of muscular ability with speed, resulting in the maximum muscle contraction at high speed and for one time only.

Speed of the player before the five steps and speed lost:

This stage, which precedes the last five steps, is one of the important stages of the player in the javelin throwing. This stage is characterized by relaxation and non-contraction. The player takes the form of the gradient as quickly as this stage begins with a scramble and then running in a consensual manner that differs from what it is in the five steps. Before the five steps, speed plays an important and effective role.

This stage requires a lot of precision, care and compatibility, and is one of the longest stages of javelin because of the need for the player to the ideal speed and the first steps of the approach (introductory) to continue or gradual and then take steps after that form and special specifications called preparation.

In the opinion of Qassim Weiman, the task of the first part of the approach to the beginning of the last five steps is increasing speed and the distance of this part of the (8 -12) step relaxed and the speed of the best shooters to (8-8.5 m/s), so show the importance of approaching where appeared There is an important correlation between the maximum speed and the distance of the throw. The maximum distance of the pitch is 85 m. The distance of the approach is 26 m - 36 m so the maximum speed can be obtained from the beginning of the approach (18 m - 28 m) Rider depends on the maximum speed you intend to reach in light of his abilities and level.

- Johnson, B.L and Nelson, J.K; Practical Measurements For Evaluation In Physical Education; Minnesota, Burgess Publishing Company, 1979, pp200.
- Qais Naji and Bastoise Ahmed: tests and principles of statistics in sports, Baghdad, Press Higher Education, 1987, p. 342
- Yasser Dabour: Handball attack, Alexandria, origin of knowledge, 1995, p. 117.

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- Essam Abdel Khalek: Mathematical Training theories - applications, I 12, Alexandria, the origin of knowledge, 2005, p.
- Wissam Shalal Mohammed: A Comparative Analytical Study between the Heroes of Iraq and the Heroes of Asia in Some Kinetic Variables and the Rate of Lost Speed and its Relationship to Achievement in Javelin Effectiveness, Master Thesis, Faculty of Physical Education, Qadisiyah University, 2008.

TABLE I. SHOWS HOMOGENEITY AMONG THE SAMPLE OF THE RESEARCH

Statistical landmarks / Variables	The experimental unit	The first experimental		The second level Significance		Level of significance	Type of significance
		A.M	*S.D*	*A.M*	*S.D*		
Explosive capacity	Watt	73.38	6.353	72.42	4.98	0.075	None significant
Lost speed	Second	1.528	0.051	1.571	0.53	0.081	None significant
Achievement	Meter	58.61	3.815	58.32	3.54	0.067	None significant

TABLE II. SHOWS THE EQUIVALENCE OF THE TWO RESEARCH GROUPS IN THE VARIABLES EXAMINED

Group	Tribal Test	Dealing Experimental	Remote Tests
First Experiment	Measurement of explosive power and lost speed and completion of the effectiveness of javelin	Exercises using the method of plastic	Measurement of explosive power and speed lost and the completion of the effectiveness of throwing javelin
Second experiment		Exercises using the opposite technique	

All the player has gained speed at this stage must be harnessed and employed well to serve the process of throwing after the five steps, which in turn follow the first phase in which speed is acquired, but the reality shows that there is a loss of speed occurs in these five steps, and The more coaches and players can minimize the loss, the better the score and the better the distance.

III. RESEARCH METHODOLOGY AND FIELD PROCEDURES

A. Research Methodology;

The experimental design of the two experimental groups was used to suit the nature of the problem studied. Below is the experimental design used in the research.

B. Research community and eye:

The researchers identified the research community in Karbala young people for the effectiveness of throwing the spear (12) players, and the sample was chosen in a comprehensive inventory method and then randomly divided them into two experimental groups with 6 players per group.

To illustrate the homogeneity of the sample of the research sample, the variables of the studied study were measured in addition to the variables of height, weight and age of training because they have a relation with the research variables under study, through the extraction of the torsion coefficient, as shown in Table (2).

Table (2) shows that the torsion coefficient of the variables (height, weight, training age, explosive capacity, lost speed, and achievement) is limited to (1±), indicating the homogeneity of the research sample in these variables.

In order to control the research variables that affect the experiment and to start from the starting point one, the researcher worked to find the equivalence of the two groups of search results of tribal tests using T for independent samples, as shown in Table (3).

TABLE III. SHOWS THE COMPUTATIONAL CIRCLES, STANDARD DEVIATIONS, THE CALCULATED VALUE (T), AND THE SIGNIFICANCE OF THE EXPERIMENTAL GROUPS IN THE TRIBAL AND REMOTE TESTS

Statistical landmarks / Variables	Unit of measurement	Arithmetic mean	Standard deviation	Mediator	Torsion coefficient
Long	Cm	171	6.78	172.05	-0.563
Wieght	kg	53.6	5.81	52.5	0.610
Training Age	Month	20	4.02	19.3	0.744
Explosive capacity test	Watt	73.44	6.791	73.39	-0.621
Lost speed	Second	1.384	0.496	1.391	-0.709
Achievement	Meter	58.742	4.483	57.975	0.457

Table (3) shows that the values of the significance levels were higher than the significance level (0,05) and for all the research variables at the size of sample (12). Thus, the differences are insignificant between the two research groups.

C. Means of collecting information, tools and devices used in research:

1) Research tools:
2) Observation:
3) Testing and measurement:
4) Tools and devices used:
   - Spears weighing 800 g.
   - Measuring tape.
   - Elastic tapes of different lengths.
   - Different medical balls weights**.**
   - Iron chair.
   - Whistle.
   - Software analysis kinetic.
   - Medical Scale for Measurement of Length and Weight Type (Seca) Number (1).
   - Camera frequency of 600 images per second type (Canon) number (2).
   - DELL Laptop.

D. Field research procedures

Determination of tests for the studied research variables

The appropriate tests for the variables under study (Explosive ability, lost speed and achievement) were determined by the researchers after studying the scientific sources.

E. Characterization of tests

1) Test explosive capacity:

The first test: throwing the medical ball from sitting on the chair:

Purpose of the test: Measure the explosive power of the arms.

Test requirements: medical balls weighing (3 kg), iron chair, belt 2, camera, measuring tape, referee, recorder, whistle, space area not less than 30 m and width (5 m).

Test description: The laboratory sits on the chair and feet flat on the ground, connecting both hips and chest with a belt, under these conditions only the arms are throwing the ball, the ball behind the head and hold both hands and praise the elbow, and when the referee gives the start signal) The lab swings the arms to the imam strongly and as quickly as possible to throw the medical ball as far as possible. The researchers photographed the performance of the test to extract the time for use in the explosive power law to calculate it with watt.

Registration: gives each lab three attempts and calculate the best attempt, was adopted to measure the ability of the explosive, according to the following law ().

$$\text{Explosive power} = \frac{\text{Block arm and ball x Accelerate the ground x distance completed}}{\text{Time}}$$

2) Test the lost speed and achievement

The researchers photographed the (20 m), the last of the field approaching adult (30 m) as it has been divided the 20 m final into two parts, the first section which is 10 m to know the speed gained by up to Bowler from approaching the second of the section (10) m, which ends at the end of the field throwing arc and the distance are the five distance the last steps to get to know the speed at which lose Bowler, through the use Kamrtin, where he developed the first camera on after (12 m) from the field throwing a proper distance to cover the first ten meters where high camera (120 cm) from the ground and the second camera is placed at a distance (12 m) from the field to cover the shooting Ten final meters, a five-step distance and height (120 cm), was a measure of the drawing in a short sprint, after which the researchers filmed the Straighten sample all, by setting (6) attempts for each player, and was calculated best achievement for them and count the lost speed that was photographed.

3) Experimental experiment**:**

TABLE IV. SHOWS THE COMPUTATIONAL CIRCLES, STANDARD DEVIATIONS, THE CALCULATED VALUE (T), AND THE SIGNIFICANCE OF THE EXPERIMENTAL GROUPS IN THE TRIBAL AND REMOTE TESTS

Significance Type	Significance Level	Value T Calculated	Post		Tribal		Group	Variables
			S. D	AM	S. D	AM		
Significance	0.00	7.1	4.87	125.1	6.35	73.3	Experimental 1	Explosive Capacity
Significance	0.00	5.2	5.60	120.8	4.98	72.4	Experimental 2	
Significance	0.04	5.97	0.59	1.386	0.51	1.53	Experimental 1	Lost Speed
Significance	0.00	6.88	0.60	1.161	0.53	1.57	Experimental 2	
Significance	0.00	4.83	4.02	59.74	3.81	58.6	Experimental 1	Achievement
Significance	0.00	5.17	4.36	60.54	3.54	58.5	Experimental 2	

The researchers conducted an exploratory experiment on Thursday, 11.05.2015, as the researchers applied this experiment on a group of players and the number (4) players from the research sample was intended to:

- How to deal with the camera and control the placement of parts and arranged on the path of the rapprochement to throw.
- Identify the obstacles that appear during the use of tests to make the necessary adjustments to avoid them during the test.
- Determine the appropriate length of the players and counting the rest periods for all the exercises used and the two groups.
- To identify the needs of tests and exercises used and how to apply them and the time it takes to put the devices and tools used.

4) Tribal Testing

The researchers conducted the tribal test on Wednesday 11/11/2015 at the Karbala Stadium.

5) Main experience

The exercises were started on Saturday 14/11/2014 for eight weeks and three units per week. The exercises were completed on Wednesday, 6/1/2016, according to the following:

- The date of starting the exercise on Saturday, 14/11/2015.
- Exercises were applied in the special numbers stage.
- The duration of the experiment was set at (8) weeks divided into (24) training units at the rate of three units per week.
- The researchers used intensity ranging from 90-100%.
- The researchers used the repetitive training method.
- The date of the end of the experiment on Wednesday, 6/1/2016.

6) Post-test

TABLE V. THE SIGNIFICANCE OF THE DIFFERENCES BETWEEN THE RESULTS OF THE MEASUREMENT OF THE REMOTE TESTS OF THE TWO EXPERIMENTAL GROUPS

The Test	Unit of measurement	Group T1		Group T2		Value T Calculated	Significant Level	Significant Difference
		A.M	*S.D*	*A.M*	*S. D*			
Explosive capacity	Watt	125.14	4.871	12.08	5.60	1.85	0.06	None SIGNIFICANT
The lost speed	Second	1.386	0.598	1.161	0.601	4.68	0.01	SIGNIFICANT
Achievement	Meter	59.478	4.026	60.543	4.361	3.79	0.02	SIGNIFICANT

Below the significance level (0.05), the sample size (12)

The post-test of the research sample was conducted on Saturday, 9/1/2016. After the completion of the period of field application of the training curriculum units, the researchers emphasized the same conditions used in the tribal test in terms of time, place, tools,

F. Statistical means

The researchers used the statistical bag SPSS and extracted the following:

Arithmetic mean, median, standard deviation, torsion factor, t) for the corresponding and independent samples Section IV.

IV. PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

A. Presentation and analysis of the results of the measurement and discussion of the tribal and remote tests of the two research groups

Experimental:

The exercises were started on Saturday 14/11/2014 for eight weeks and three units per week. The exercises were completed on Wednesday, 6/1/2016, according to the following:

The date of starting the exercise on Saturday, 14/11/2015.

1) Exercises were applied in the special numbers stage.
2) The duration of the experiment was set at (8) weeks divided into (24) training units at the rate of three units per week.
3) The researchers used intensity ranged from 90-100%
4) The researchers used the repetitive training method
5) The date of the end of the experiment on Wednesday, 6/1/2016.

And the five steps before the firing process because of the use of ballistic and reverse methods that have worked to improve achievement, and this indicates a positive relationship between the level of achievement in the effectiveness of throwing javelin and the explosive capacity and the amount of speed lost before throwing, and this is confirmed by (Wissam Shalal) On the speed gained in the stage leading up to the five steps, reduces the time of loss (contact time) in the last five steps, where it has a positive effect on achievement.

B. Presentation and analysis of the results of the measurement and discussion of the remote tests of the two research groups

Table 5 shows the computational dynamics, standard deviations and the significance of the differences

between the results of the tests of the two experimental groups. When reviewing the results of the tests, we find that there are significant differences between the measurement of the remote tests and the interest of the second experimental group of the lost velocity variables. Less than 0,05. This corresponds to the second hypothesis of the research, except for the explosive potential variable. There were no significant differences between the two groups, although there were differences between the two centers and for the benefit of the first group.

The researchers attributed the reason to the fact that the training exercises of the opposite method used by the second experimental group contributed to the development of the variables under study by the development of the strength of contractions of the special muscle groups, as well as to improve the efficiency of the work of the nervous system by increasing the burden on this device, In muscles by mobilizing the largest number of muscle fibers, which leads to increased efficiency of the nervous system in the transmission of nerve impulses by the motor units found in each muscle fiber and thus exercises explosive power of the arms improved the ability of the weighted Eyes strongly and quickly without tension in Adilathma increased muscle strength produced in addition to the speed of muscular contractions, and this was confirmed by Abbas Abdel Fattah-Wissam Shallal: A source mentioned above, p. 64.

For (torrent) "The muscle strength development accompanied by several important functional aspects such as increased neural activity by recruiting the largest possible number of motor units in addition to the synchronized contraction of these units with increased susceptibility of neural excitation in the muscle cells" (), and also confirms (Abul-Ela) that he also said, "increasing the degree of muscular contraction due to the increase of motor neurons signal, this increase does not simply mean the involvement of new mobility units, but also increase the frequency of nerve signals small motor units speed" ().

That the work style opposite the muscle balance and strength and an increase in speed with the work of consensus in the work Baladilp working themselves as well as between them and the muscles opposite with had a significant impact on the work of the nervous system, the fact that the work of the nervous system is divided into two parts, namely improving internal compatibility between the muscle fibers itself and improve the external compatibility between the muscles that are working and opposite of the work as it should be (the muscle is equipped to carry out these contractions in terms of its ability to contract and rapid departure, which is heavily dependent on the compatibility between the work units of motor nerve and reflections inside the biceps And the ability of a muscle to contract the highest speed and also have the ability of the muscle to relax and rubber is an important factor to ease high speed and good performance.

As for the explosive power variable there were differences in the experimental group first but did not live up to the moral, the fact that the members of this group had developed better than the second group but the differences were not significant, the fact that the style ballistic dramatically working on developing explosive power.

V. Conclusions and Recommendations

A. Conclusions:

The researchers have come to some conclusions that can be summed up as follows:

1) Ballistic exercise exercises are better than the opposite style exercises in developing the explosive ability of javelin players but not by a big difference.
2) The practice of the reverse mode is preferable in reducing the speed lost during the approach to players throwing javelin.
3) The opposite approach has the advantage in improving the achievement of players throwing javelin.

B. Recommendations

Researchers recommend the following:

1) Emphasize the trainers to take advantage of the use of the opposite method.
2) The need to conduct research and similar studies on age groups, events and other physical elements.

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- Abu El-Ela Ahmed Abdel-Fattah: Biology of Sports and Sports Health, Cairo, Dar Al-Fikr Al-Arabi for Printing and Publishing, 2000, p.
- Amr Al-Sukkar: The Fencing Guide, Cairo, Dar Al-Maarifah University, 1993, p. 144.

3) Emphasize the use of the opposite method in the stages of preparation for the development of physical and motor abilities and circulation to players clubs and teams in Iraq in the game of throwing javelin and other games.

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Effect of Training Curriculum in Terms of Heart Rate to Develop Endurance, Special Tolerance and some Functional Abilities of Football Players

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Abstract- We have attracted a football game, which is now characterized by speed, power and excitement, millions of players have been or trained researchers or scientists and the fact that the best level that can be achieved according integration of physical, technical, tactical, physiological and psychological capabilities and interconnected with each other, as to Avaidh the availability of capacity for other Kdrhh account from the aforementioned capabilities, as well as the fact that a football game where the player group of disparate performance movements lead, and according to those changes, the energy systems used to change is the other, and during the follow-up to the Iraqi League, organized by the Iraqi Central Football Federation, and the fact that one of the researchers fitness trainer Club for the manufacture of one of the Premier League teams for football season 2015/2016, we have noted the presence of a drop in the level of performance of the players the league, so it felt a researcher studying this problem by using Osalb modern training (pulse mode) within a training curriculum on a sample of Premier League clubs in football and put appropriate solutions.

Based on what progress has been felt the two searches' designs training curriculum in terms of the pulse through a scientific approach to his goal endurance private and endurance development (bearing speed, bearing force) which gives the player the ability to resist fatigue resulting from the special loads, and to maintain the level of performance as much as possible and to prevent the falling level as well as Bunting depressing oxygenic ability and long anaerobic Wall (vo2max), and hopes to researchers through which contribute to add some training information for coaches belonging to exercise football game by adopting a style of performance upgrades to the players, which have been designed on the scientific foundations of by adopting pulse mainly to the intensity of exercise and rest interfaces and comfort between the groups for the development of physical abilities under study, while the included targets research to identify the impact of the training curriculum in terms of the pulse in the development of endurance and the private endurance (Mtaulp speed, Mtaulp force) the players Premier League football, the researchers postulated the existence of significant differences between the results of the tests and tribal posterior the research sample members in the development of your endurance and stamina and the ability oxygenic and anaerobic long and the (vo2max) and in favour of a posterior tests.

The research has consisted of the human domain which consisted of (20) for the player of the Premier League soccer football season 2015-2016, and temporal area for the period from 01/08/2015 until 10/01/2015, and field stadium represents the spatial industry and Sports Club. Conclusions and recommendations:

CONCLUSIONS:

1) The training curriculum in terms of pulse used positive impact in the development of endurance and endurance (speed, carrying power) in the members of the research sample.
2) For the training curriculum in terms of pulse used positive impact in the development of long-term power of the members of the research sample.
3) For the training curriculum in terms of pulse used positive impact in the development of oxygen capacity in the members of the research sample.
4) The training curriculum in terms of pulse used positive effect in the development of vo2max in the members of the research sample.

Keywords- *Monthly training, terms of heart rate, functional abilities*

I. INTRODUCTION:

The game of football, which has become characterized by speed, strength and excitement, millions of players were trained or researchers or scientists and the best level that can be achieved in accordance with the integration of physical capabilities and technical and planning, physiological and psychological and interrelated with each other, as it benefits from the ability to calculate the other capacity Of the aforementioned capabilities, as well as that the game of football in which the player performs a variety of movements vary performance, and depending on those changes, the energy systems used are also changing, and through the follow-up to the Iraqi league organized by the Iraqi Central Football Federation, As one of the researchers fitness coach club for the manufacture of one of the Premier League teams for the 2015/2016 season, we noticed a decline in the level of performance of the players of the league, so the researcher saw the study of this problem through the use of new training training (pulse method) in the training curriculum on a sample of Premier League football clubs and develop appropriate solutions to them.

Based on the above, the researchers saw the design of a training curriculum in terms of pulse through a scientific approach aimed at developing endurance and endurance (bearing speed, carrying power), which gives the player the ability to resist fatigue caused by special loads, and maintain the level of performance as possible and prevent falling levels As well as study its effect on the ability of oxygen and longoxic and long (vo2max), and the researchers hope to contribute to the addition of some training information for trainers concerning the training of football game by adopting a method to raise the level of performance of players, which was designed on the basis of The objectives of the research were to identify the impact of the training curriculum in terms of pulse in the development of endurance and endurance (speed handling, power handling) in the players of the Premier League football, and I assume The researchers found significant differences between the results of the tribal and remote tests in the subjects of the research sample in the development of endurance and endurance, and the special oxygen and long oxygen and (vo2max) and for the tests of dimension.

The areas of research were the human field which consists of (20) players of the Premier League football for the football season 2015-2016, and the area of Zamzani for the period from 1/8/2015 until 1/10/2015, and the spatial area represented at the Stadium of the Sports Industry Club.

II. METHODOLOGY OF RESEARCH AND FIELD PROCEDURES:

A. Research Methodology:

The researchers used the experimental approach to suit the nature of the research

B. Research Sample:

The research sample included (20) players from the Football Industry Association participating in the Premier League football for the 2015/2016 football season. They were selected in a deliberate manner and a percentage of 18% of the original society was formed.,

C. Devices and tools used:

- Arabic and foreign sources, - Bluetooth heart rate meter, - 50 meter measurement tape, - Stopwatch, - Timer clock, - Number of 20, - Number of spears (10), - 20 cm (8), - Non-oxygenation measuring device (vertical jump for 60 seconds), auxiliary team, statistical means.

D. Identification of variables and the nomination of their tests:

The variables have been determined in the light of references and sources as well as the researchers' experience and as follows:

1) Physical tests:
   - Test run (300) meters from the high start
   - Jogging test by jumping 200 meters from the high start

2) Functional tests*:*
   - Vertical jump test for 60 seconds
   - Test ran 2414 meters

3) Description of tests used:
   - First: Test ran (300) meters from the high start (Mohammad Abadi Abd, 2003, p. 28):

Purpose of the test: measure the bearing speed.

Test requirements: A legal course for athletics The beginning of a distance of (300) meters is determined so that the end at the end of the (400) meters, hours of timing, absolute, temporary.

Test description: The laboratory stands at the starting line of the stand position and takes the standby mode and when the start whistle is heard, it starts at full speed to the finish line.

Recording: The time taken to cut the distance is recorded to the nearest 1/100 pm.

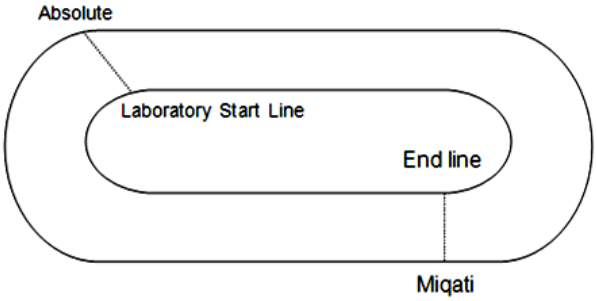

Figure 1. The test shows running (300) meters from the high start

- Second: Jogging test by jumping 200 meters
- from the high start (Mohammad Abadi Abd, 2003, p. 29)

Purpose of the test: Measure the carrying force.

Test requirements: Field running no less than (250) meters, timing hours, absolute timers.

Test description: The laboratory stands behind the starting line and the feet are slightly spaced and parallel. A search touches the footstrap of the starting line from the outside. The laboratory then takes the preparation position (flexing the knees slightly and tilting the trunk forward with the arms weighted back). Along the trunk to push the ground with feet firmly to jump on one foot and exchange the other foot and so on to the end of the distance.

Recording: The time taken to cut the distance is recorded to the nearest 1/100 pm.

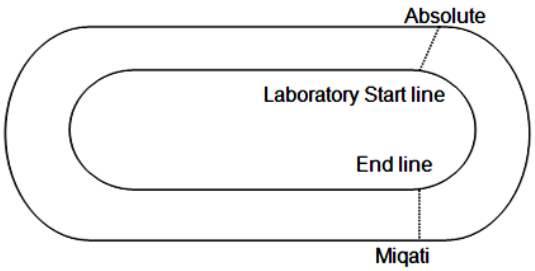

Figure 2. The jogging test shows a jump of 200 meters from the high start

- Third**:** vertical jump test for 60 seconds (Abo Ela Abdel Fattah and Mohamed Sobhi Hassanein, 1997, p. 228).

Test Objective: Measurement of long oxygenation capacity.

Description of the test: In this test, the laboratory will continue to jump vertical as high as possible within a period of 60 seconds, using a fixed voltage measuring device that was manufactured by Iraqi experts, and was used in the doctoral thesis (Saad Menem Sheikhly).
The device can measure the flight time electronically, record each time of the jump and collect the time for the bites within 60 seconds. The laboratory should be continuously established within 60 seconds, with the knees resting 90 degrees and the hands along the side of the thighs

Registration: Capacity is calculated by the following equation:

$$\text{Mechanical Capacity (W / kg)} = \frac{9.8 \times \text{Total flying time during jumps is} \times 60}{4 \times \text{number of jumps within 60 seconds}}$$

TABLE I. TILT TEST AND HALF 2414 METERS TO DETERMINE THE MAXIMUM RELATIVE OXYGEN CONSUMPTION (GENE M.ADAMS, 1990, P22-25).

Time of test distance minute	VO_2 max mL/(kg-min)	Time of test distance minute	VO^2 max mL/(kg-min)
7.31	75	13.00-12.31	39
8.00-7.31	72	13.30-13.01	37
8.30-8.01	67	14.00-13.31	36
9.00-8.31	62	14.30-14.01	34
9.30-9.01	58	15.00-14.31	33
10.00-9.31	55	15.30-15.01	31
10.30-10.01	52	16.00-15.31	30
11.00-10.31	49	16.30-16.01	28
11.30-11.01	46	17.00-16.31	27
12.00-11.31	44	17.30-17.01	26
12.30-12.01	41	18.00-17.31	25

(60-total flight time during all jumps)

- Fourth: Test runs 2414 meters (Gene M. Adams, 1990, p22-25).

Test Objective: Oxygen measurement.

Test description: The laboratory runs at a distance of 2414 meters. The timing starts from the start of the starting line at the direction of the absolute and after the distance indicated above the clock is stopped, the test is collective and one time.

Registration: Time is calculated by the minute and its parts.

In Table 4 we can deduce the maximum oxygen consumption (VO2Max) relative to each player in the research sample.

4) Exploration experiment

It was conducted reconnaissance experiment on 28/07/2015 at four pm in the industry stadium on a sample consisting of four players from the research community the original, which was excluded from the research sample, and the presence of assistant team, for three days, distributed on tests for two days and the implementation of the vocabulary of the curriculum for a day.

5) Field research procedures:

A. Tribal Tests:

The tribal tests were conducted at 4 pm on 2/8/2015

B. Curriculum:

The preparation of a training curriculum on according to the heart rate in determining exercise intensity and duration of intra rest and between the aggregates and the purpose was to develop endurance (endurance) of the ability of your endurance (Mtaulh speed Mtaulh power), which in turn claim to develop the level of performance, as it was designed exercises including commensurate with the kinetic performance of football, the fact that the preparation of these exercises in the form of occurrences of the process and then totals, and applied these exercises the department head of the unit training during the preparation public and private period by six days a week and by eight weeks, starting from 08/05/2015 until 5/10 / 2015, and the duration of the main section in the Training Unit (30 to 45 minutes), as the exercise is designed according to the method of training interval (low intensity and medium intensity)

C. Post-tests:

Was conducted posteriori tests are similar tribal tests in terms of spatial and temporal conditions and a sequence of tests by two days 7-8 / 10/2015.

D. Statistical means: the statistical bag (SPSS)

III. PRESENTATION AND ANALYSIS OF THE RESULTS AND DISCUSSED:

The researchers presented the results of tribal tests and dimensionality of the research sample and obtained, and Table 2 shows the results, which show the statistical parameters of the variables under study, as well as the value of (t) calculated and tabular.

TABLE II. THE STATISTICAL PARAMETERS SHOW THE RESULTS STUDIED IN THE STUDY

Statistical landmarks Variables	Arithmetic mean	standard deviation	Interactions	Total squares of the differences	T Value		Significance
					Calculated	*Table*	
Processing	9.887	1.007	1.592	0.05	7.067	3.182	moral
	8.295	0.051.					
Speed Relay	42.05	1.190	2.86	0.027	17.104		moral
	39.2	1.107					
Power Relay	40.05	0.944	1.95	0.088	22.131		moral
	38.1	0.967					
Oxygen capacity	12.45	1.05	3.05	0.034	16.521		moral
	9.4	0.994					
Long Oxygen Capacity	7.7	0.684	1.4	0.028	8.304		moral
	6.3	0.656					
Vo2max	41.95	1.145	9.1	0.536	12.43		moral
	51.05	3.252					

It is clear from Table (2) that there are significant differences between the results of the tribal and remote tests and all the variables under and for the tests of the dimension, confirming these results to "the physiological changes of the body vary depending on the type of motor activity and the type of pregnancy" (Nahed Ali Mohamed Ali and Kamelia Mohamed Abdo, 1987, p. 910), regular training leads to physiological changes in all functions of the organs of the players, especially the functions of the heart and circulatory system, well trained people can adapt to the changes in the functioning of the body organs as a result of muscle effort and continue to perform this effort and these changes The increase in the number of heart beats and the increase in the number of breathing times (Abul-Ela Abdel-Fattah, 1982, p. 146), as well as the fact that the researchers attributed the reason for these differences to the interval of rest identified by the return of the heart rate to (120-130d / d) (The size of the blow) will be at the highest amount of blood pressure within this rate of heart beat, which confirms that the members of the research sample on the convenience of the typical interface between the repetitions and thus the performance of all the requirements of the training module with high efficiency, Which helped these exercises to improve and develop the speed tolerance of Ain people The research shows that drastic drills that are very close to the extreme intensity of the athlete improve the ability of the central nervous system to deliver the nerve signals of the muscle and the effectiveness of these signals and in turn to alert the muscle to contractions despite the circumstances. Increase the accumulation of lactic acid in muscles and blood (Abul-Ela Ahmed Abdel-Fattah, p. 195).

As for the differences in the results of the strength test, researchers attribute this to the fact that the regularity of the special endurance exercises increases the efficiency of the concentration of oxidizing enzymes and the size and number of energy houses (mitochondria) which are related to the energy production system which in turn helps to maintain the highest possible efficiency to continue In the performance of physical effort along the race, as the muscle fibers begin to adapt to the type of voltage through the frequencies at large rates (Talha Hossam Eddin, 1994, p. 41).

As for the differences in the results of a test, the researchers attribute this to the fact that the oxygen capacity is determined by the maximum oxygen consumption during the physical effort that the player can consume within one minute, as it describes its oxygen potential, and the greater the oxygen consumption the player could perform the greatest physical effort possible, This is what Qasim Hassan Hussein 1985 (p. 125) pointed out, "that oxygen reception per minute is one of the most important criteria for permanent training that achieves construction in a football game" (Qasem Hassan Hussein, 1985). "A

footballer sometimes walks The other is sometimes proved to be in it Requires the skin to achieve this diversity of movement "(Mohamed Sobhi Hassanein, 1995 p. 301).

The results of this study are consistent with the results of the previous studies. The study of Abu El-Ela, quoting Hamdi Ahmed Ali and Ghazi Al-Sayyid Yousef, showed that "increasing the size of the blow is related to increased hypoxia consumption" (Hamdi Ahmed Ali and Ghazi Yusuf, 1990 p. That the players of the research sample fell under a continuous physical effort 2414 meters ran and this effort requires a rhythmic repetition of contraction and muscle relaxation, allowing the passage of blood to muscle cells Faisal has the oxygen consumed as a result of the effort.

KARPOVICH & SNNING, quoting Hamdi Ahmed Ali and Ghazi Yusuf, pointed out that "the physical loads of the individual during exercise cause functional changes in the vital organs as the functional rates are increased to the extent that these devices can adapt to Physical loads, although these effects vary in varying degrees depending on the amount of intensity "(Hamdi Ahmed Ali and Ghazi Yusuf, 1990, p. 38), in general the probability of completion of the player will depend heavily on its maximum capacity to absorb oxygen, the greater the amount of oxygen that can be processed In a time unit All of them are fully achievable "(Qasem Hassan Hussein, 1990, p. 136).

According to the schedule of maximum oxygen consumption of international athletes in some sports, prepared by Mohamed Ali Qatt, quoting Green 1991 physiological tests for athletes of higher levels, he pointed out that the maximum value of the relative oxygen consumption of football players ranging between 40-60 ml / kg / Since the members of the research sample were the arithmetic mean for their maximum oxygen consumption (41.16 milliliters / kg / min), it is clear to us that this indicator falls below the minimum levels (Muhammad Ali Ahmed Al-Qatt, 1999, p. 20).

Because the process of training football is a long-term process and has its specificity and the basic dependence is to improve the fitness of players, although fitness is not the main objective, that this factor is crucial to the development of other factors, fitness means the adaptation of the physical functions to suit a wide range of external and internal requirements Which affect the individual, that this adaptation is appropriate and relevant to the performance, that modern football requires a high level of physical fitness and skill, which require physical and functional requirements, which requires a wide training curriculum to strengthen capabilities and (Saad Munim Shaikhli, 2000, p. 137). As the training process is aimed at "functional development of the body in order to adapt it by regular training to the high requirements of performing a work" (Essam Abdel Khalek, 1999, p. 13) This analysis can identify the strengths and weaknesses of the athlete, as well as the possibility of proper planning of the competitive performance model that matches the potential and circumstances of the player.

IV. CONCLUSIONS AND RECOMMENDATIONS:

A. Conclusion

1) The training curriculum in terms of pulse used positive impact in the development of endurance and endurance (speed, carrying power) in the members of the research sample.
2) For the training curriculum in terms of pulse used positive impact in the development of long-term power of the members of the research sample.
3) For the training curriculum in terms of pulse used positive impact in the development of oxygen capacity in the members of the research sample.
4) The training curriculum in terms of pulse used positive effect in the development of vo2max in the members of the research sample.

B. Recommendations:

1) Adopting the curriculum designed by the researcher in the training and development of physical qualities under study.
2) The training can be adopted in two ways (time, pulse) in the development of the maximum speed of your endurance (bearing speed, carrying power).

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The Effect of Football Referees on the Level of Concentration of some Biochemical Variables and Functional Indicators

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Abstract- The bio-chemical variables have active influence, The higher level of sodium, potassium an calcium solids in blood, which influence in reach of orders in right and fast to the side that order reach to in human body, So the higher level of sugar in blood have impact on the mentality operations to reach orders, cholesterol, protein (L.D.H) and protein (L. D. L), as well as some Functional remarks have an active influence in determine, The speed and time of reaction, The bio-chemical variables which took place inside the referee as a results of the test, with the functional remarks, give are market about the medical and physical case because he have physical work, The aim of the study:.

1) To know the level of changes from the sugar in blood, urine, cholesterol, protein (H. D. L) and protein (L.D.L), The level of concentration of calcium, sodium and potassium solids in bloods of person under the research.
2) To know the level of changes which result from the functional remarks, which came from (palpitate, blood pressure)of person under the research .
3) The researcher was use the experiment Method on the international referees which they depend from the FIFA for the Football season 2010/2011, they are four referees.

We concluded that

1) The test has positive influence. So it increas the concentration level of protein (H.D.L), and urine in blood.
2) The test has positive influence. So it decrees the concentration of sugar in blood, and protein (L.P.L) in blood.
3) There is positive impact from doing tests on the results of persons under search which results in increase of concentration level of calcium, potassium and sodium salads in blood.
4) There are positive e impact from doing tests on the results of persons under search which results in increase of palpitate blood pressure..

Keywords- *referee, biochemical, functional indicators*

I. IDENTIFICATION OF RESEARCH

A. Introduction and Importance of Research:

The field of arbitration in the game of football is an important element to the success and development of the level of this game, because it needs individuals to suit their characteristics and nature of the work they do while driving the game, as the rulers are the main element to take out the game as required, so the referee must have the appropriate properties to Ensuring that his success in the performance of his role, because there are many factors that affect the decisions of the government, including specifically the fitness and knowledge of the laws of the game, which are important elements and must be available when the referee enabling him to perform his duty to be pictured lead the game satisfactorily and well , And because the changes in the biochemical effect of the high level of salts of sodium, potassium and calcium in the blood affects the delivery of the signals properly and quickly to the direction to be directed to the induction within the body, as well as high blood sugar level affects the other mental processes in the delivery of the orders, cholesterol, High-density lipoprotein H. D. L and L density Density. (Ien D.s., connor ,19981, p17) showed that the absolute measurement of cholesterol levels in the human blood is not very significant unless it is associated with the determination of the cholesterol levels, which has made the modern trend of blood analysis for the purpose of determining the cholesterol levels to be always

associated with With good grade H. D. L and bad L. D, and that the human body is based on cells of the liver function as a specialized device to investigate the presence of cholesterol and the low fat L-Lt. But these cells are not fixed from one person to another as a result of genetic factors, food and the nature of life, which affect the decline in the number of these sensory cells, which reduces the ability of the liver to get rid of cholesterol and low-density lipoproteins L. As well as some functional indicators that also have an effective effect on the determination of motor speed and reaction time, namely heart rate and systolic and diastolic blood pressure. The biochemical variables that occur within the body of the test as well as the functional indicators are also indicative of The state of medical and physical judgment because of physical exertion, which generates a sense of muscle fatigue as well as a sense of muscle pain and other pain that accompany the performance of the test because of increased acidity of both muscles and blood, which accumulate a lot of salts, enzymes, acids and some hormones , That the body of governance through these changes and biochemical reactions for the purpose of delaying and fighting fatigue as a natural factor in the weakening of physical fitness, so the researcher examined the study and determine the impact of the test of football referees and develop appropriate solutions.

B. Research Problem:

The functional adaptation of any action changes and adapts the nerve and sensory pathways of the nervous and musculoskeletal systems. To perform the task in which the motor pathway deepens within the brain, which requires functional changes depending on the possibility of judgment, there is variation in the response to motor velocity and reaction time to perform a function by functional indicators , Which should know the physiological and biochemical effects of the physical effort and associated with the test of the referees of football, and may be changes in the components of different blood and variable rates as happens to any other body organs, and enter these variables within the physiological adaptations And biochemical developments in reaction (mechanical body's response) to the effect that followed the physical test.

Therefore, the researcher measured some biochemical variables (blood glucose, urea, cholesterol, high density lipoprotein (HDL), and concentration of mineral salts (calcium, potassium and sodium), as well as some functional indicators, heart rate, systolic blood pressure and diastolic), the international football referees held after the rate adopted by the international Football Federation physical test and identify what Heya for changes as a result of physical effort exerted.

C. Research Objectives:

1) Determine the level of changes in blood sugar, urea, cholesterol, high density lipoprotein (H.D.L), Ld (L.D.L) and the concentration of mineral salts (calcium, potassium, and sodium) in the blood of the research sample.
2) Level knowledge of the resulting changes in the functional indicators of b (heart rate, systolic blood pressure and diastolic) for the research sample.

D. Research hypotheses:

1) There were significant differences between the results of the levels of concentration of urea, cholesterol, and high - density lipoproteins (H.D.L) and the concentration of mineral salts (calcium, potassium and sodium) in the blood in the tribal and remote measurements as a result of physical effort and for the dimension measurements of the members of the research sample.
2) There were significant differences between the results of significant measurements of heart rate, systolic blood pressure and diastolic measurements in the tribal and dimensionality as a result of physical effort in favour of posterior measurements for members of the research sample.
3) There are significant differences between the results of blood sugar, cholesterol and low blood density (L.D.L) in the blood in the tribal and remote measurements as a result of physical effort and for the measurements of tribal members of the research sample.

E. Research Areas:

1) Human field: 4 rule of international accredited in the International Football Federation.
2) Temporal area 1/2/2010 and until 1/2/2011
3) Spatial domain: International People's Stadium.

F. Terminology:

- Biochemical variables: Which are all the variables that get inside the human from the burns and interactions within the muscle and cells and internal organs and the strength of the muscles and the amount of oxygen in circulation (Wajih Mahjoub,1990,p183)
- High-density proteins (HDLs): A complex fatty substance of high density lipoprotein.
- Low-density proteins (LDL): a complex fatty protein substance with low density.

II. THEORETICAL STUDIES AND SIMILAR STUDIES

A. Theoretical studies:

1) Physical tests of football referees:

These tests, which were designed by the International Federation of Football and the national federations, should follow in the rehabilitation of their rulers for the adoption of lead in the championship and league games, and if not pass the provision of these tests is not approved for that season, which includes the following tests:

- Run fast 40 meters in a time of 6.2 seconds and repeat that test 6 times and rest between them is to walk back to this starting point in terms of the rule of the arena, the auxiliary rule, the time of cutting distance of 40 meters is 6 seconds and the same number of repetitions of 6 times.
- Running continuously for a distance of 150 meters with a time of 30 seconds and rest is to walk 50 meters in 40 seconds and repeat 20 times this test without stopping by 10 courses around a track running 400 meters this time to rule the arena, but the auxiliary rule difference here only in time of rest Which is 45 seconds.
- Note If the referee fails to achieve the time required in the test given to him one attempt that can be returned in the event of failure to achieve the time required the second time excluded from the test and that includes the test speed 40 meters and the pace of 150 meters.

And that the tests were adopted by the International Federation of the season of football 2006/2007, and has been changed the vocabulary of the test so that the referee to keep up with the modern play, while before that period used the test of the referees of soccer referees, which includes 200 meters × 2 frequency with a time of 35 seconds And running continuously for 12 minutes non-stop in order to cut a distance at a minimum of 2700 meters during that period, and if the referee does not pass that distance does not have the right to lead any game at the level of the league or tournaments, the real goal of changing the test is to rehabilitate the referees to lead a match foot sound and correct manner to match the requirements of play To talk of speed and power and move for the duration of the game by all players.

A. variables biochemical life in the blood:

- Cholesterol:

It is important vehicles to compensate for the body's need of vital and physiological aspects and the increase of this article means the following (Wajih Mahjoub ,1990,p23):

- Help accumulation in the blood vessels in the narrow blood passages.
- Lead to serious heart problems.
- Lead to cancer of the rectum and macrophages, breast and prostate, especially solid fat.

Cholesterol is found in fatty foods, especially animals such as egg yolk, liver and kidney, and is also manufactured in the body because it is important in the formation of acid yellow necessary for digestion and absorption of fat, and the liver is the main element of the industry in the yellow gland in the form of cholesterol or colic, Other tissues, such as adrenal glands, skin and testicles, and the primary material of the industry is acetic acid, it is noted that the liver adds cholesterol to the blood and at the same time removes it from the blood (Wajih Mahjoub ,1990,p23) .

The concentration of cholesterol in the blood has been shown to change significantly, but the normal rate is 200 mg%, although its presence in the body is necessary but increase it is the most serious, and it is necessary to distinguish between two types of LDL LDL, which has the ability to deposit within the arteries (Durstine, J . L, William Hoskel, 1994, p.478), and HDL cholesterol, The changes in HDL are obtained through training. The function of this protein is concentrated in the carrying of cholesterol during the reverse transfer process, which involves the movement of HDL cholesterol from the peripheral tissue to the liver, which is destroyed and taken to the digestive system as a yellow substance (Adrian E, Etal, 1994, p201).

Although HDL has multiple origins, it continuously interacts with cholesterol and various enzymes throughout the blood circulation. The result is a constant flow and transformation of the HDL structure as well as the total transfer of cholesterol from peripheral vessels and tissues to the liver to be disposed of as yellow matter. Five days.

Recent studies have shown that endurance training leads to increased concentration of HDL and other studies have shown that there is a steady increase in the concentration of HDL (20% - 30%) for athletes who exercise endurance compared with their non-athletes.

The cause of atherosclerosis and narrowing to the deposition of cholesterol on the wall of the arteries and this is in several stages, atherosclerosis begins when the cholesterol is deposited on the inner wall of the artery, later on the platelets begin to deposit on the fatty openings on the wall of the artery and thus narrowing the artery, The platelet deposits become fragile and refractive at any moment. When broken, they become plaques in the bloodstream as they are able to move until they reach the smallest arterial duct and therefore a clot can occur. These deposits in the carotid artery can also grow to the point that they clog Completely irrigated artery "(Ibrahim Rahma & Yousef Kamash,2000,p42).

- Sugar:

Sugar is called the simplest type of carbohydrate sugars and it participates in all aspects of life in the cell by demolitions Catabolism, sugars give the energy that the organism maintains its life, and therefore must remain

the level of sugar in the blood constant at all times as it is the main source of fuel for Of the brain, which is concentrated between 80-120 mg mg per milliliter of blood, and important blood characteristics are to maintain that ratio because of the need of the basic nervous system of sugar glucose, and since any physical effort needs energy (calories), which are relied on through Carbohydrate as a source In the form of sugar, glucose in the muscles, and if the entry extends the liver muscle by blood glucose glucose and when the production of liver glucose, the proportion of dependence on fat is gradually increasing and this helps to protect the level of sugar in the blood, it is striking that insulin is a double effect in the organization Concentration in the blood.

- Urine

It is mainly produced from the ammonia resulting from the degradation of amino acids by a series of reactions called the carbase cycle. If the main material is derived from protein metabolism, the blood contains urea as a result of the degradation of the proteins and the normal kidneys are pronounced. This substance should be between 0.2 - 0.5 g from the one-degree of blood.

- Mineral salts:

Mineral salts are an essential and important part of the body, and the body needs small amounts to maintain health and sustain life. It is different from other elements as inorganic elements. Many mineral salts perform vital processes of great importance to the body. In addition, "the human body needs seven basic elements to maintain normal physiological functions. These elements are: Calcium, and PU Calcium, sodium, phosphorus, magnesium, sulfur and chlorine" (Mohammed Salim Saleh & Abdul Rahim Ashee, 1982,p360-362)These substances are chemically effective because they have negative and positive charges that affect their biological behavior, especially their absorption by the digestive system and their transfer to the body in the blood and fluids. In the process of building and functions of the body, and it enters into the formulations of many of the body's vital compounds such as enzymes, hormones and vitamins are renewed with other chemical formations such as calcium phosphate in bone and iron in the digestion within the hemochlobin or exist alone as it is In the free calcium found in the body fluids. These salts are also used to sterilize the wounds found in the human body itself. Mineral salts form about 5% of the body weight, due to the importance of mineral salts to the body. Variables are as follows:

- Entering the structure of the body cells in terms of (skeletal structure, calcium teeth, phosphorus build red blood cells, hemoclobin).
- An important syntactic part of many nutrients and compounds such as vitamins and amino acids.
- Regulates and balances body fluids.
- Used as regulated elements of acidity and fluid level.
- Heartbeat regulation.
- Control muscle contraction (sodium, potassium).
- Helps not to clot (calcium).
- Used in the transmission of nerve signals.
- Entering the synthesis of various enzymes.
- Entering the synthesis of hormones (iodine, thyroid hormone).
- It is important in the breathing process.
- Dominates the processes of oxidation and power generation.

- Mineral salts types:

Mineral salts are divided into two types, each of which has its important function and its special effect on the body. These two types are:

Type 1: Contains (calcium, sodium, iron, phosphorus).

(Calcium, liver, brain, lettuce, sapang, bananas, grapes, beans, black honey, etc.) as well as milk and its derivatives and eggs which are one of the richest substances in calcium, Which is "the most elements of the body exposed to the lack of and because of the difficulty of absorption in the intestines and the great variability of the ability of individuals to benefit from it, as the salts of calcium more solubility in the acidic environment, the areas of the food channel with high acidity is the appropriate place to absorb Bima grass foods calcium deposition and make absorption slow, While vitamin D facilitates absorption of calcium ion The concentration of calcium ions in the plasma is about 10 mg per 100 ml, about half of which is in the ionic state and the other half is in a union with the proteins. The concentration of calcium in the blood is determined by the thyroid glands called parathormone. Calcium from bone to blood (Mohammed Salim Saleh & Abdul Rahim Ashee, 1982,p360-362).

(1200-2000) mg / kg) when the training load is increased. It is important to be involved in the formation of bones and teeth, as well as to contribute to the performance of the heart muscle to its functions, and the nervous stimulation of nerve and muscle tissue, responsible for muscle contraction, activation of some enzymes, And the permeability of cell walls and control of the heart and calcium ion are essential functions in all life activities is involved in the transfer of nerve as the main positive and estimated the amount of total calcium in the body about 2% of body weight, that is about 99% of the ratio of calcium stock in the skeleton and about 1% Found in blood and tissues The level of calcium is regulated by some hormones(Rushdi Fattouh,

1988,p242). Parathyroid hormone is released when the blood calcium level decreases. It works to stimulate the cells of bone damage to release calcium in the blood and increase its absorption from the intestinal tract(Abdul Majeed Al Shaer & Rushdi Qatash, 2000,p30).

- Sodium and potassium: Sodium, potassium and chlorine are linked to each other in a strong relationship to the interdependence of their functions in the body, since they rely on each other to become integrated functions are very important in general and athletes in particular, each becoming sodium chloride and potassium chloride, 15 g sodium chloride, (3-4) g potassium chloride, and this amount increases when practicing the training.

Sources of sodium and potassium (orange and other citrus fruits, in the form of juice from the richest natural sources, fresh vegetables, manna, tomatoes, strawberries, bananas) are important for the absorption of sugars in the intestine and are responsible for muscle contraction, , As well as regulating the pH of the blood and various body fluids, but their harm is caused by the increase to increase the amount of water in the blood and in the tissues resulting in high blood pressure, and affect the heart muscle.

The sodium plays a key role in the regulation of the Azurian pressure and water balance. The lack of the body causes many physiological conditions such as severe sweating, diarrhea, extreme fatigue and chronic kidney failure. The increase in food may lead to high blood pressure, heart hypertrophy and sodium. On the acidity and basal of the body, sodium ions have a base effect that has an effect on the speed of muscle irritation and arrhythmia)Wajih Mahjoub, 1995, p32), The high sodium deficiency may result in a decrease in its extracellular concentration. For athletes, Therefore, intake of salt tablets and electrolyte drinks is common among athletes (Ibrahim Rahmah and Yousef Kamash, 2000,p66)

- Potassium is found inside the cell and is the most positive ion in the cell. It is a salts of electrophysiological nature. It helps the body regulate electrons at cell walls, maintain acid base balance, balance fluid in the body and play an important role in cell function and in the transmission of muscular nervous stimulation (Electrolyte) and also involved in the packaging of protein and klykogens. Potassium is also important in converting blood sugar to clikogen (sugar stored in muscle and liver). Therefore, any deficiency in potassium leads to a deficiency in stock starch that nourishes biting The lack of potassium leads to extreme fatigue and muscle weakness, which is the first sign of that deficiency. The most important cause of potassium deficiency is the loss of fluids through sweating, diarrhea or excessive circulation, athletes who exercise regularly or who work in The hot climate loses up to 3 g of potassium per day by breathing, sweating and migraines.

- Phosphorus: The individual needs between (1000-1600) mg / day and enough that one egg per day or a glass of milk, and increases in the athletes of (1200 - 2000) mg / day, absorbs phosphorus in the form of phosphate easily organic in the intestines if the ocean acidic "The concentration of phosphorus in the blood is 40 mg%, the bulk of it in the form of organic phosphate within the erythrocytes and the rest in the form of phosphates in the plasma. This latter form is clinically important, that phosphorus metabolism is closely linked with calcium metabolism regulated by the parathormon , And absorption of both calcium and phosphorus is affected by the amount of the other found in the The higher the calcium in the food inhibits the absorption of phosphorus and vice versa, and on the other hand, the high concentration of one in the blood leads to a decrease in the concentration of the other (Mohammed Salim Saleh and Abdul Rahim Asheer,1982,p361), There are animal meat, poultry meat, liver, kidneys, fish, some fats, eggs, milk and its derivatives, lentils, almonds, etc.). Its benefits are in the metabolism of carbohydrates and proteins. In the nervous system, muscle and enzyme activity, it is an essential element in the structure of tissues and skeletons, teeth, muscles, and nerves. It is harmful in its presence in large quantities that reduces the absorption of calcium, as well as weakens muscle weakness, weakens the formation of genetic material, and the formation of mucous membranes.

Type 2: It contains (sulfur, chlorine, iodine, zinc, magnesium, fluorine, cobalt, manganese, etc.), and the human body needs small amounts of the second type and that the body can be satisfied with a small percentage of it.

- A balanced meal for the athlete provides his needs of salt, except for those who exercise in the hot weather. A glass of orange juice, tomato or salted milk is sufficient to rebalance the salts in the body. The shortage of salts during exercise or competition due to some muscle contractions is not recommended. The salt during exercise, because the concentration of salt is not less, but increases during the exercise, which loses in such a case is liquids.

- As some athletes lose as long-distance athletes, football players, iron boxing more than what the normal person loses, and causes excessive sweating and increased decay of erythrocytes.
- Functional indicators:
- Heart rate:
- It is a term called "the rhythmic changes of the arterial wall due to the blood flowing from the left ventricle during contraction"(Muzaffar Abdullah Shafiq, 1983,p361). It is measured using several methods, including "the method of hearing, the method of physiology, the recording of the ECG"(Abul-Ela Abdel-Fattah and Mohamed Sobhi Hassanein,1997,p60-62) Functional heart Regularity is the real evidence of what the heart pump of blood in one minute, and on this basis was adopted heart rate in medical tests to assess the overall physical fitness and heart and blood circulation in particular.
- The changes in the heart rate during physical exertion and immediately after it are one of the real indicators of the viability of the heart and circulatory system. The increase that occurs during the effort and the time of return to normal state quickly after the end of the effort directly is a distinct relationship to the body of the athlete and a clear indication of the return of the heart and circulatory system physical effort "(Ahmed Naji Mahmoud,1988,p25), as there is a clear difference to the effect of regular physical training on the heart rate, and this is indicated by Abul-Ela and Mohammad Hassan Allawi that" sports training has a clear effect on the pulse of the heart rate even at rest "(Abul-Ela Abdel-Fattah & Mohamed Sobhi Hassanein,1997,p234), Fmadelh rest time for someone wit Yadi "ranges between 60-80 blow/min" (Rafea Saleh Fathi Al Kubais,1993,p28), the "heart beat rate of athletes at rest up to 37 strike/min)"Ahmed Naji Mahmoud,1988,p26).
- During physical exertion, there is a positive correlation between heart rate and physical exertion, which quickly disappears as the effect of the physical exertion disappears and the period of return to normal by the end of the physical exertion directly determines the adequacy of the heart and circulation due to regular training according to scientific methods. "The heart rate of trained individuals is restored to normal faster after physical exertion than the heart rate of untrained individuals," (Mohamed Hassan Allawi & Abu Ela Ahmed Abdel Fattah,1984, p33), he said. "It is important to study the pulse and observe its speed, regularity, and range. Changes that occur as a result of the performance of physical load " (Mohamed Hassan Allawi & Abu Ela Ahmed Abdel Fattah,1984, p266).
- Blood Pressure: is the "force that the blood sheds on the unit area of the wall of the blood vessel" (Sabah Ismail Al Samurai,1986,5) or "the force within the circulatory system" (Mohamed Hassan Allawi & Abu Ela Ahmed Abdel Fattah,1984, p248), when the left ventricle increases pressure to the maximum to become a high pressure area to move to a less pressure area namely the arteries Which increases the resistance of blood flow "to ensure the stability of blood flow in the capillaries so as to give the opportunity to complete the exchange of gases and provide food for the tissues through the capillaries" (Mohamed Hassan Allawi & Abu Ela Ahmed Abdel Fattah,1984, p249), and then blood to the veins and then pour back into the right atrium of the heart and that process is due to differences pressure in each other , Pressure is characterized by two types of systolic pressure male nose and diastolic pressure, which occurs due to the relaxation of the left ventricle as low blood pressure to the minimum where the pressure fluctuations in the capillaries or less to the minimum, and systolic pressure to the extent of work done by the heart and strength that works, while diastolic pressure refers to the continuous load, which should be the heart works against him (Risan Khreibat Majid,1988,p90) also noted Abul-Ela and Mohammad Hassan Allawi (Abo El Ola Abdel Fattah & Mohamed Sobhy Hassanein,1997,p261-262) he is measuring blood pressure from the easy and common methods for the study of the circulatory system, sports training leads to high blood pressure during the performance of physical pregnancy, This increase appears directly at the beginning of the physical moving load with no diastolic pressure change or occurrence of very simple changes compared to pressure systolic and is affected by high blood pressure in the course of training by various factors, including age, type of physical training and the amount of common muscle in muscular work as well as put the body in the course of the performance of physical activity it as high blood pressure increases when the same physical load performance Baldhirain what is if he performed the two men, as well as "different percentages of high or low blood pressure notes linked to the type of athlete customization" (Mohamed Hassan Allawi & Abu Ela Ahmed Abdel Fattah,1984, p271), and that these changes are related to the extent that the level of increase payment heart And the lack of resistance to blood flow, as well as at the expense of increasing the heart rate at the

expense of increasing the size of the strike "is known to increase blood pressure in the case of exercise, and in the case of increased pressure from below average so that he can overcome the resistance that occurs in the blood vessels" (Hassan Ahmed El Shafei,1977,p46).

B. Previous studies:

1) In a study carried out by Yousef Mohammed Kamel (1988) (the effect of physical load on the level of certain salts in the blood of athletes).

The aim of the study was to identify the physical pregnancy at the level of some salts in the blood (sodium, potassium, magnesium, iron, copper) in athletes.

The researcher used the experimental method on a sample of football players, basketball and aircraft in Sharkia governorate, and concluded the following:.

- That the physical pregnancy rationed led to a lack of concentration of sodium, potassium and iron.
- That the physical pregnancy regulation led to increase the level of concentration of copper in the blood in the research sample.

2) In a study carried out by Ashraf Mohamed Wehbe (1991), the effect of maximum physical load is the concentration of sodium, potassium, and hydrogen salts in the blood.

The study aimed to:

- Recognize the effect of physical pregnancy on some physiological indicators of (pulse and blood pressure).
- To identify the effect of physical pregnancy on some of the biochemical variables of (level of sodium, potassium and hydrogen in the blood).

He concluded the following:

- The occurrence of a slight increase in D. level of concentration of sodium and potassium.
- A decrease in the blood pH of the group that took an extra amount of sodium chloride.
- The occurrence of high D level of potassium concentration and no change in the blood pH of the group, which took 1 g of sodium chloride.
- The occurrence of non-D increase in the level of potassium concentration and lower blood pH of the third group, which took 2 g of sodium chloride.

III. METHODOLOGY AND FIELD PROCEDURES:

A. Research Methodology:

The researcher used the descriptive method in the survey method to suit the nature of the research.

- Research Sample:

Was chosen as the rulers of 4 Doolin accredited to the FIFA football season 2010/2011 random way, and formed a percentage amount of 35.714% of the original research community and the 14 ruling.

- Data collection methods:

_ Devices:

_ Blood pressure monitor and heart rate.

_ Blood extraction device number (8).

_ Lancidopator to protect blood from clotting.

_ Centrifuge .

_ Fractometer analysis of the cholesterol analysis of blood and its quality.

- Tools:

_ Arab and foreign sources.

_ Working team (4) medical assistant.

_ Medical headset number (4(.

_ Test tubes to save blood samples number (8).

_ A platform to put the blood in the tubes and measure it by centimeters.

_ Medical Cotten.

_ White alcohol for cleansing.

_ 3 cm 3 plastic syringes (syringes) for single use to take blood samples.

_ Statistical means.

- Selection of variables and measurements used:

The researcher adopted variables testing and measurements concerned (references and sources) as well as conducting (interviews) with experts and specialists, as has been selected biochemical variables and salts in the blood which is the most important, as well as the selection of functional indicators that play Dourahama and as follows:.

- Indicators of functional indicators under study include:

_ Measuring heart rate.

_ Measurement of systolic and diastolic blood pressure.

- Measurements of biochemical variables under study include:
- Measure Mistoyalskr blood urea and cholesterol-(mainland fatty acids and proteins and high-density H.D.L mainland and fatty proteins density of low-lying L.D.L) in the blood.
- Measuring blood salinity concentration (calcium, potassium, sodium).
- Method of reading measurements:

Was conducted tribal measurements in the case of rest before a warm-up for the purpose of testing the rulers of football, including heart rate, systolic blood pressure and diastolic by using a device intended for this purpose, which is an electronic, and then has the collection and examination of blood samples procedures by (4) medical assistant was withdrawn samples of blood before the tests, it reached the amount of blood sample (10) Mlilleter of each member of the sample from sitting use injection Ablasticah once 3 cm 3 mode, and then the pipes are numbered, and then underwent research sample tests prescribed for referees by the international Football Federation members, Upon completion of the test M pull the same amount mentioned above, to keep those quantities Boisath special tubes under the temperature of 370, to be then transferred those samples to the laboratory for the purpose of analysis to measure the variables under study.

- *Statistical means (Qais Naji Abdul Jabbar,1990,p145-211):*

- The arithmetic mean.
- Standard deviation.
- Test (T) for the corresponding samples.

IV. PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS:

A. Present, analyze and discuss the results of the biochemical variables under study for the research sample:

The researcher presented the results of the tribal and remote measurements obtained by the researcher and Table (1) shows the results obtained in the tribal and remote tests of the research sample, which show the computational environment and the standard deviation of the biochemical variables under study, as well as the value of (t) calculated and tabular.

TABLE I. THE STATISTICAL PARAMETERS SHOW THE BIOCHEMICAL VARIABLES UNDER STUDY FOR THE RESEARCH SAMPLE

Statistical landmarks / Variables	Arithmetic mean	standard deviation	Interactions	Total squares of the differences	T Value		Significance
					Calculated	*Table*	
Blood sugar	81	0.875	9	17	7.561	*3.182	Moral
	73	1.5					
Urea	42.5	1.5	2	1	6.928		Moral
	44.5	1.75					
Cholesterol	530.5	4	73	371	13.123		moral
	456	6.75					
H.D.L	53.5	2.375	10.2	63	4.582		moral
	63	1.5					
L.D.L	148.5	3.25	10	15	8.944		moral
	137.5	4.375					
Calcium salts	7.5	0.5	2	1	6.928		moral
	9.5	0.75					
Potassium salts	4	5.875	12	0.166	4.898		moral
	6.5	1.55					
Sodium salts	129	1.75	6	13	5.767		moral
	135	1.5					

* Value (T) tabular under the degree of freedom 3 and the ratio of line 5%

Table (1) shows the calculated value of (T) obtained by the researcher from the results of the tribal and remote measurements of the biochemical variables, as well as the value of (T) of the table under the degree of freedom 3 and the probability of error 5% of (3.182) The mean value of (T) calculated (7.561), which is greater than the value (T) of the index of blood sugar because of low blood sugar level, and attributed the researcher the reason for the participation of sugar in the supply The muscles are powered by a decrease in blood concentration The blood glucose level is associated with the amount of carbohydrate in food as well as the role of the liver in regulating it. The liver stores a large amount of the stored muscle in the muscle. It can not directly supply blood glucose, but after the processes of the synthesis and the production of lactic acid, The blood that carries it to the liver as it turns to glucose and return to the blood again (Marsh WH , Fingerhnt, 1995,p624), and control the rate of glucose in the blood by a number of hormones, the most important insulin, which is produced from beta-B cells in the pancreas and when the decrease or lack of insulin production breaks the representation of the kidney This is reflected in the fact that muscle dysfunction leads to no changes in the blood glucose level and there is no consumption of glucose by the muscles(Bahaa El Din Salama,199,p3). Which means that the glycogen breakdown does not increase to glucose. Thus, the amount of glucose released from the liver depends on the intensity and duration of physical

exercise and on the number of muscles working in different parts (Salman Ahmed Al Janabi,1984,p530).

And the value of (T) calculated (6.928), which is greater than the value of (T) of the above table for the level of urea blood because of high level, and the researcher explains why the rise or increase the level of urea concentration in blood to be a waste of biochemical analysis in the blood because of the performance of physical effort, And the increase may cause disturbances in the work of the cell, which leads to the difficulty of transporting food and oxygen to the cells causing their stress and non-functional functions well, so Urea is a toxic substance in the body and the body is thrown through the blood (Rushdi Fattouh Abdel Fattah, 1988,p375).

In terms of blood cholesterol, the value of (T) was calculated (13.123), which is greater than the value of (T) table above because of the low level of cholesterol, and the researcher attributed this natural decline in natural ratios to the participation of cholesterol as a source of energy during training has proved scientific research Continuing pregnancy training leads to a decrease in the level of cholesterol in the blood with its effect on lipid metabolism as well as its effect on carbohydrates body (Hussein Al-Ramahi,1994,p30), Endurance works to lower the level of cholesterol in a way that is not cause for concern because it is used as an energy source during the performance of sports activity in training and competition. Stroll is an important source of energy during stress-based athletic activity. Fatty acids work to supply the body with ATP needs in long-term loads(Fadel Sultan Sharida, 1990,p87), leading to lower blood cholesterol. Physical exertion, whether short or long, affects the level Cholesterol in the blood The physical effort for a long time and high level of severity lead to a reduction in the amount of cholesterol in the blood and also increase the level of cholesterol in athletes as the age of training and the reason for this lack of sports training to increase oxidation in the body (Hussein Al-Ramahi,1994,p93).

While the value of (T) calculated (4.582) for high-density lipoproteins, which is greater than the value of (T) table, and the results shown there is a high level of high-density lipoprotein (HDL), and this increase is positive. Previous research has shown that the practice of training in general leads To increase the proportion of high-density lipoproteins (HDL) due to the impact of the effort, as increasing the concentration of HDL is a factor in reducing the incidence of heart disease and arteriosclerosis for its effectiveness in the transfer of cholesterol from deposition in tissues and blood vessels to the liver to be broken and secreted with yellow matter (Hamed al-Takrouri and Khader al-Masri, 1994,p147).

The low density proteins were calculated (8.944), which is greater than the tabular value, due to a decrease in the level of low-density lipoprotein (LDL), which is a positive indicator. The lower the proportion of low-density lipoproteins in the blood, Will accelerate the process of transferring cholesterol from the tissues to the liver and then the cholesterol is lowered and taken out to the body as a yellow substance, which is reinforced by what Adnan Saleh Nabhan said. Athletes who exercise games related to speed (oxygen ability) or (endurance) They have a lower level of LDL (Adnan Saleh Nabhan, 1997,37).

These results are consistent with the fact that physical activity has an effect on the possibility of increasing the rate of high-density lipoproteins (HDLs) at the expense of reducing the rate of proteins (Castelli 1979,p227. Arklins 1979,p354. Ien D.s. connor 1981,p426. and Mann 1985,p534) LDL, and that these results are consistent with the mechanism of (Walt Mann, 1980,p324) that sports activity has an effect on the reduction of the protein-lipid complex in the body. Therefore, "(David,2002,p180)after eating the fat, it reaches the intestines without digestion except for a small part of the triglyceride Glyceride, the fat is digested in the Twelve by the enzyme Libyase pancreatic and this enzyme does not affect the fat, but in the form of an emulsion which breaks the large fat pellets into small pellets because the activity of the enzyme Lbizz depends on the pellets of fat emulsified as the processes are emulsification of fats by salts of yellow, Sodium, so removing the pancreas and its disease leads to the formation of large fat stools and the absorption of fat in the intestines of the small intestine in the way of effective transport and then go to the lymph vessels in the portal vein and then to the liver (Yousef Kamash,2006,p88-89), while confirming (Fisher Smith and others 1998, p108) Level of Hormone-dense proteins (HDL) indicate that muscle insufficiency leads to a decrease in oxygen, which in turn leads to the secretion of the hormone erythrodipitin from the kidneys and increase the secretion of red blood cells, which leads to the increased production of the enzyme HDL

The results of the mineral salinity measurements in the tribal and remote measurements were (3.182), which is smaller than the calculated value of (6.928) for the level of calcium in the blood due to its low blood level. As for potassium blood, (4,898), which is greater than the value of (T) table, because of the high level of potassium in blood, while the concentration of sodium ion was the value of (t) calculated (5,767) sodium, which is greater than the value of (T) and that these findings are consistent with the results of (Mahmoud Saad Yahya study and others,1984,p443) and study (Wilkerson, 1982.P1529-1539) in terms of a lack of concentration of salts Alsoda The results of the Tumasek study, which included (Uribe Hamouda El-Maghraby and Mohamed Ibrahim Shehata,1989,p1085) have focused on the concentration of potassium salts in the blood. The results of the study confirmed the increase in the percentage of potassium in the blood after initiation Physical exertion. This is confirmed by the scientific sources that the gradual increase in the intensity of pregnancy will

increase the activity of enzymes, which in turn increases the amount of organic substances and mineral salts that act as stimulants for the work of enzymes helping to increase the consumption of calcification when the lack of Which will be reflected in increased muscle contractility for longer periods during high-intensity pregnancy. Also, the effect of potassium ratio on the movement and completion of muscular function is that the muscle stimulation when performing muscular action is caused by the release of potassium from liquid into cells into liquid Which causes a difference in the voltage of the muscle as a result of the transfer of this effort inside the cell to stimulate the muscle to work (Qassem Hassan Hussein,p28), as well as the rise of potassium works to regulate the acidity and body base during muscle work as well as balancing fluids in the body and which are affected by the public effort Which leads to an increase in acidity as a result of increasing the proportion of lactic acid in the muscles and blood. The researcher attributed the reason to the effect of potassium in the process of the representation of the calcification, which is the boundary between the work of oxygen and oxygen as it decomposes Oxygena and Oxygenin, which negatively affected the concentration of potassium potassium plays an important role in helping to perform functions such as enzymatic formation glycogen process and turn it into sugar (Fawzia Abdullah,1983,p139), the researcher attributed the cause of the influence of physical effort made by the research sample during the test on the concentration of sodium in the blood and increase its focus after the efforts of Which resulted in the loss of the amount of fluid through sweating that exceeds the amount of salt lost by salts, due to the release of sodium salt with sweating, causing a decrease in sodium salt as ion Sodium is a key factor in controlling the release of water from the body. In this effect, sodium has an effect on the circulatory system and the circulation of water in the body. The exchange between sodium and calcium through cell walls makes the cell more permeable to substances(J.C.P.Williams P.N. sperryn, 1976,p85), the impact of the operations of the Kink This was confirmed by (R.H.strauss.,1974,p143).

The calcium sees the researcher that the reason for this is due to the high level of intensity of pregnancy, which indicates that there is a high physical efforts carried out by the research sample and this is in line with what came by scientific sources that the high physical effort works on the deposition of calcium in the bones involved in physical effort, which increases Of its density and then its resistance to external hardness (Ammar Abdel Rahman Qaba,1989,p168), as well as to rely primarily on the decomposition of Oxygene and Oxygensia by special enzymes, which was reflected in the increase in the amount of calcium as the effect of calcium on the work of enzymes as the amount of calcium increased by training, which stimulates the work of Enzymes help in energy production and this increase is necessary to invest in the work of a series of enzymes in the muscle (Qassem Hassan Hussein,1995,p28).

Therefore increase the mineral salts after physical effort due to increased acidity of blood due to increase the proportion of potassium salts in the blood as well as sodium salts, which leads to a set of variables in muscles resulting in weakness of muscle contraction and the speed of muscle fatigue due to the effect of acidity of blood on the strength of muscle contraction of the increase The acidity of the blood leads to a lack of close contact between Mayosin and actin muscle proteins, which leads to the contraction of the contribution of both troponin and triomacin and thus shows signs of muscle fatigue in the form of a decline in physical performance (Ganong , W,1993,p114), as well as the increase in the size of cells This is due to the increased blood viscosity of the blood vessels, which results in the difficulty of transferring food and oxygen to the cells.

B. Presentation, analysis and discussion of the results Functional indicators under study for the research sample:

The results of the measurements of the functional indicators under study were shown in Table (2). The calculated value (T) obtained by the researcher from the results of the tribal and remote measurements of the heart rate is 175,059, which is greater than the tabular value of (3.182) under the degree of freedom (3) and the probability of error of 5% in favor of dimensionality measurements, and cherishes the researcher reason to the fact that regular training adapted to functionally occurs in the organs of the body and between these organs of the circulatory system, where indicated or spherical (Okroy.J.A.and others,1992) the effect of different voltage strongly for a long time affects the variables "This is confirmed by (Risan Khreibt, 1995) that regular sports training works on Z adaptation of the circulatory system "(Risan Khreibt, 1995,p7), and the researcher believes that the heart rate change is an important barometer of the need for the body and the heart of oxygen, and on the whole, the heart rate"rises during the effort to 190 blow / min and then back down after exercise Faisal normal only after about 3 minutes "(Ibrahim al-Basri,1976,p204), which indicates that the effort during the test serve as a good indicator is recognized through the improvement in the functional state of the body, as the rates of less than 140 strike / min is not a good indicator for the development of functional efficiency and maximum strikes for athletes heroes ranging From 150-180 strokes / min (Riad Ali Al-Rawi et al,1988,p1291).

TABLE II. THE STATISTICAL PARAMETERS SHOW THE FUNCTIONAL INDICATORS UNDER STUDY FOR THE RESEARCH SAMPLE

Statistical landmarks / Variables	Arithmetic mean	standard deviation	Interactions	Total squares of the differences	T Value		Significance
					Calculated	Table	
Heart rate	66.5	2	113	5	175.059	3.182	moral
	179.5	1.25					
Systolic blood pressure	119.5	1	32	36	18.475		moral
	152	3					
Diastolic blood pressure	69	2.25	12	2	29.393		moral
	56.2	2.25					

* Value (T) tabular under the degree of freedom 3 and the ratio of line 5%

We can also deduce from the same table the results of the systolic blood pressure index. The calculated value of (t) was 18.475, which is greater than the tabular value of (3.182). We also show significant differences between the results of the diastolic blood pressure The value of (t) calculated (29,393), which is greater than the value of (t) tabular (3.182) under the degree of freedom (3) and the possibility of error 5%.

The results agree with the statements of both CASSDY 1965 and Karl KARL 1969, quoting (Abbas Ali Adab,1989,p89) that systolic blood pressure rises when performing a muscle effort and depends on the relationship between systolic blood pressure and muscle work on the duration of training and the intensity and speed of performance, as confirmed by the results of recent studies to the blood pressure of the athletes it will be normal if ranged between 105 to 130 mm / Hg for systolic pressure and 60 to 89 mm / Hg for diastolic (Muzaffar Abdullah Shafiq, 1983, p. 81), and this reveals an increase in systolic pressure after the effort of what it was before the effort, attributed the researcher cause That increase is due to the increase in heart drive Q (Mohammed Nasreddine Radwan, 1998, p.73) and this is the difference P "very necessary in order to increase pressure saturation perfusion pressure any saturation of the working muscles with blood and recent research indicates that this blood pressure control during the physical effort is through the sympathetic nervous system" (Hazaa Mohammed al-Haza'a, 1997, p.97), and this rise is a natural physiological phenomenon.

The height corresponds to a decrease in the diastolic pressure after the effort compared to what it was before the effort, and the researcher agrees with this with Hazza Mohammed al-Hazza, "the performance of physical effort, especially if this effort above the average, we note an increase in systolic pressure systolic The increase in systolic arterial pressure during violent physical exertion is the result of a significant increase in blood flow in the blood vessels, an increase in the output of the heart"(Hazaa Mohammed al-Haza'a, 1997, p.98),This is confirmed by Adel Jamal and Hussam Rafqi Mahmoud Abdul Khaliq as" Systolic pressure may increase By practicing sports To 180-190 mm / Hg. In this case, the pressure rises rapidly at the start of training and continue to rise until 8 minutes and then fall gradually and moderately to return to the normal level after training to what it was before (Adel Jamal & Houssam Rafki Mahmoud Abdul Khaliq, 1986 p. 176).

This indicates that the body during physical exertion will increase its need for oxygen to meet its requirements. This need increases the heart rate by increasing the heart rate while increasing the volume of blood paid in a single stroke, and then shows a rise in systolic blood pressure accompanied by a slight increase Marked in diastolic blood pressure.

V.CONCLUSIONS AND RECOMMENDATIONS:

A. Conclusions:

The researcher concluded what follows:

1) Tests have a positive effect, which resulted in low cholesterol and high proportion of high-density lipoprotein (HDL) and increased concentration of urea level in the blood.
2) The tests have a positive effect, which resulted in reducing the level of concentration of sugar level and low proportion of low-density lipoproteins (LDL) in the blood.
3) There is a positive effect of the tests on the results of the members of the research sample, causing an increase in the concentration of mineral salts (calcium, potassium, sodium) under study in the blood.
4) There is a positive effect of the tests in increasing heart rate and systolic blood pressure in the members of the research sample.

B. Recommendations:

The researcher recommends the following:

1) Expanding the study of the causes of muscular pain by eliminating the negatives resulting from it by giving a dietary method.
2) Raising referees to drink enough water to contain salts before and after the test.
3) 3-to conduct similar research so that the researcher addresses the extent of the impact of tests on the rest of the components of blood and its effects on the body.
4) 4-Establishment of special laboratories in the field of sports because of their positive effects in the awareness of trainers and athletes to identify the level of biochemical variables that result from the physical effort to avoid the negative aspects of them.

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