

The Effect Of Taking Doses (Creatine) On The Development Of Pulse And Achievement Indicators In 100m Swimmers Appeared To The Youth Group

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Abstract

The research aims to investigate the effect of taking doses of the food supplement creatine on the development of pulse and achievement indices for swimmers of 100m afternoon. The research was conducted on a sample of the national team, whose number was (6). The exploratory experiment was conducted on three swimmers from outside the main research sample, and after providing all the necessary supplies and needs to carry out the research, the two researchers, in cooperation with the team coach, proceeded to conduct the pre-test, which includes measuring the pulse index before the effort in the 100m swim back and after the effort and after 2 minutes after the end of the test That is, the two researchers administered doses of creatine to the research sample and after the completion of the dosing, the post-test was performed, the data were collected and treated statistically. The necessity of giving a nutritional supplement creatine, because of its importance in developing pulse indicators, which leads to improved achievement.

Keywords: *training / swimming stilt*

1. INTRODUCTION

Speed swimmers are distinguished in the 100m swimming event that showed their urgent need for the fractions of a second and tenths in order to reach the achievement of high achievement ... as many of the high achievement athletes took anabolic steroids, psychostimulants and nutritional supplements during the various training stages under the supervision of a specialist and was under laboratory and psychological experiments Accurate globally ... and because most high achieving athletes are distinguished by a strict health, physical and nutritional culture that cannot be overlooked by athletes, so the importance of research lies in knowing the extent of the effect of creatine doses on pulse indicators and the extent of development on the athlete's need for these supplements, which may contribute to the development of the level Athlete, physical abilities and achievement for short distance events in Olympic swimming, especially 100m backstroke. The topic of sports nutrition is one of the topics that have received wide attention in research and studies in the sports field in general, and according to the type of sports performance because of its positive effects in the integration of cases of representative construction of various body systems and the recovery of forces after exposure to cases of demolition as a result of sports training, whether violent or Medium severity. That is why giving some nutritional supplements according to the needs that the athlete needs, is a regulated process that gives positive returns in cases of reconstruction and recovery of strength for athletes.

2. RESEARCH PROBLEM

The high level of athletic achievement and the fall of records year after year depended in one of its aspects on the rolling and scientific progression of the training loads of the athletes, and this of course prompted a large number of researchers and scientists to study methods that raise their physical abilities and obtain means that secure the desired development with the least possible effects. Therefore, many athletes went to search for an alternative, and nutritional supplements are one of these alternatives in raising the level of the indicators of the body's functional apparatus and thus achieving a better level of achievement, and through the experience of the field researcher, being a specialist in the field of swimming training, he noted in recent years the lack of interest in the nutritional aspect and poor nutrition. The athlete, especially the 100m swimmer, appeared, which affected the pulse indicators and thus did not achieve the required digital level.

research aims

- To know the effect of taking a food supplement (creatine) on the pulse indicators on the research sample

- To know the effect of taking a food supplement (creatine) on the achievement of 100 AD that appeared on the research sample

Research hypotheses

1- There were significant differences in favor of the experimental group in the effect of the creatine food supplement on the pulse indicators on the research sample.

2- There are significant differences in favor of the experimental group in the effect of the food supplement (creatine) in the level of achievement on the research sample.

Research areas

The human field: a sample of the Iraqi national team swimmers in the 100m swim for the youth category.

Spatial area: the Olympic indoor swimming pool.

The temporal domain: from 1/8/2019 - 7/3/2019

3. RESEARCH METHODOLOGY

The two researchers used the experimental method for its relevance to the nature of the research and because the experimental method is suitability to the nature of the research problem, and experimentation is an approved or controlled expression for the specific conditions of an accident and observing the changes resulting from the accident itself and its interpretation 1: 237 and because this approach accurately matches its results, the researcher followed the design of the control and experimental groups with the pre and post tests. For the purpose of comparison, so that these two groups "are equivalent in their properties in all respects, except for the experimental variable that affects the experimental group. The experiment may include more than one independent variable and more than one dependent variable, and the experiment allows the observation of new facts that were not previously expected or were not. Its parameters have been clarified, and the extent of its conformity with the applicable purpose is determined 96: 2

4. THE RESEARCH SAMPLE

The research sample included swimmers of the Iraqi national team who were deliberately selected and numbered (6) swimmers as a sample for the research because they practice a 100m backstroke that fits the idea of the research. Homogeneity of the research sample.

Search devices and tools

-A legal closed swimming pool.

- Electronic stopwatch number (6). (1) Fox / Fox whistle
- Electronic balance for measuring weight and height

Tests used in research:

The researcher used the following tests to suit their research procedures. The test description follows.

- Heart rate test before exertion during complete rest for all members of the research sample. Achievement test (100 meters) back swimming and recording performance time.
- Test the pulse rate immediately after the exertion and then after the passage of 2 / d for all the subjects of the research sample.

Measurement of heart rate before exercise, after exertion, and after 2 minutes:

- The name of the test / heart rate test before exertion after exertion and after 2 minutes.

The aim of the test / is to know the number of an athlete's heartbeat before and after the effort.

Description of test performance / The pulse is measured in athletes by feeling the pulse

Using an oximeter device that is placed on the index finger, and then the number of heart beats per minute is calculated

100m backstroke test:

- Test name / 100m backstroke test.
- The aim of the test / measuring the time traveled for 100m backstroke.
- Description of the performance of the test / the tester grasps the edge of the pelvis and takes the starting position for the backstroke
- And start when the start whistle is heard and swim back at the maximum speed for a distance of 100 meters and complete
- Record the time from the moment of the whistle to the start of the pelvic wall

The pretest

On 1/8/2019, the researcher, together with the assistant work team, after preparing all the supplies and capabilities needed by the research sample, conducted the pre-test before conducting the first training unit measuring the pulse index before the effort, and after that the swimmers conducted a 100 swimming pool back test and also the researcher recorded the pulse index after the effort and after 2 minutes have passed from the end of the test.

Training curriculum

- The training program was prepared by specialized trainers and under the supervision of the Iraqi Central Swimming Federation. The researchers did not interfere with the training program and relied on the program prepared by the trainers.

The main experience

The duration of the program, the doses given to the research sample, was two months, starting from 1/8 to 3/7/2019 daily.

These doses of the dietary supplement (creatine) were given to the research sample group as follows: -

The researchers adopted the principle of regular dose in giving nutritional supplements, and this principle depends on taking a regular dose of (25) gm. It is given an hour before the start of the daily training unit, as the amount of creatine taken by one swimmer during the period of the experiment during the week reached 200 grams of creatine

Post tests

On 7/3/2019 at six in the afternoon in the closed Olympic swimming pool, the measurement of the pulse indicators before the effort and the 100m backstroke test was performed, and after the test the pulse index was measured directly and also after 2 minutes had passed from the end of the test, and in the same conditions and the auxiliary work team.

Table (1) shows the results of the tests (pre and post) for the experimental group regarding the research variables

the tests	Pre-test		Post-test		T	Sign
	A	STD	A	STD		
Pulse test before exertion	68.345	3.909	66.867	1.573	3.756	Sign
Achievement test 100m backstroke	1.121	7.219	1.112	4.773	2.857	Sign
Pulse after effort direct	187.347	4.337	185.789	2.237	4.637	Sign
Pulse after effort after 2 / d	128.654	6.202	125.573	6.618	5.187	Sign

Through the results presented in Table (1), he shows us the mean value and standard deviation in the pulse test before the effort for the pre-test was (68.345) and (3,909), and for the post test (66.867) and (1,573), as for the value of (T) The calculated value was (3.756), which is greater than the tabular value (2.35) with a degree of freedom (1-4) and below the significance level (0.05), which indicates the existence of significant differences in favor of the post-test.

While the results of the arithmetic mean and the standard deviation in the achievement test (100 meters) swimming appeared in

For the pre-test it was (1.121) and (7.219), and for the post test (1.112) and (4,773), the calculated value of (T) was (2.857) which is greater than the tabular value (2.35) with a degree of freedom (4-1) and below the level Significance (0.05) indicating the existence of significant differences in favor of the post-test.

As for the mean value and standard deviation in the pulse test immediately after the effort in the pre-test was (187.347) and (4,337), and for the post test (185.789) and (2.237), the calculated value of (T) was (4.637), which is greater than the serious value. (2.35) with a degree of freedom (1-4) and below the level of significance (0,05), which indicates the presence of significant differences in favor of the post-test, as were the results of the arithmetic mean and the standard deviation in the post-effort pulse test after the passage of (2 / d) in the pre-test It was (125,654) and (6,202), and for the post-test (120,573) and (6,618), the calculated value of (T) was (5.187), which is greater than the tabular value (22.35) with a degree of freedom (4-1) and below the level of Significance (0.05) indicating the existence of significant differences in favor of the post-test.

Table (2) shows the results of the tests (pre and post) for the control group in the research variables

the tests	Pre-test		Post-test		T	Sign
	A	STD	A	STD		
Pulse test before exertion	68.865	2.984	68.779	3.366	1.987	Non-Sign
Achievement test 100m backstroke	1.134	1.726	1.129	4.608	2.470	Sign
Pulse after effort direct	188.132	4.899	186.693	5.191	2.783	Sign

Pulse after effort after 2 / d	129.586	5.956	127.175	5.376	3.654	Sign
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Through the results presented in Table (2), he shows us the value of the arithmetic mean and the standard deviation in the pulse test before the effort for the pre-test was (68.865) and (2.984), and for the post test (68.779) and (3.366), the calculated value of (T) was (1.987). It is smaller than the tabular value (2.35) with a degree of freedom (1-4) and below the level of significance (0.05), which indicates that there are no significant differences in favor of the post-test.

While the results of the arithmetic mean and the standard deviation in the achievement test (100 meters) swimming appeared in

For the pre-test it was (1.134) and (1.726), and for the post test (1.129) and (4.608), the calculated value of (T) was (2.470) which is greater than the tabular value (2.35) with a degree of freedom (1-4) and below the level of significance (0.05), indicating that there are significant differences in favor of the post-test.

As for the mean value and standard deviation in the pulse test immediately after the voltage in the pre-test was (188.132) and (4.899), and for the post test (186.693) and (5.191), the calculated value of (T) was (2.783), which is greater than the original value (2.35) with a degree of freedom (1-4) and below the level of significance (0.05), which indicates the existence of significant differences in favor of the post-test.

The results of the arithmetic mean and standard deviation in the pulse test after the effort after the passage of (2 / d) in the pre-test were (129.586) and (5.956), and for the post test (127.175) and (5.376), the calculated value of (T) was (3.654) It is greater than the tabular value (2.35) with a degree of freedom (1-4) and below the level of significance (0.05), which indicates the existence of significant differences in favor of the post-test.

Table (3) shows the arithmetic mean, standard deviations, and the calculated value of (T) for the post-test and for the experimental and control groups.

the tests	Experimental group		Control group		T	Sign
	A	STD	A	STD		
Pulse test before exertion	66.867	1.573	68.779	3.366	2.428	Sign
Achievement test 100m backstroke	1.112	4.773	1.129	4.608	2.196	Sign
Pulse after effort direct	185.789	4.237	186.693	5.191	3.846	Sign
Pulse after effort after 2 / d	125.573	6.618	127.175	5.376	2.475	Sign

We notice through Table (3) for the dimensional tests that there is a significant effect in the test of the pulse before the effort and for the two groups, and this is evident through the arithmetic mean of the two tests, as the arithmetic mean of the experimental group reached (66,867), while the arithmetic mean of the control group reached (68,779). (T) the computed reached (2,428), which is greater than the tabular value (1.94), with a degree of freedom (6), and below the level of significance (0.05), indicating the presence of significant differences in favor of the post test and the experimental group. It is also noticed that there is a significant effect in the achievement test in 100m backstroke swimming and for the two groups, and this is evident through the arithmetic mean of the two tests, as the arithmetic mean of the experimental group reached (1,112), while the arithmetic mean of the control group reached (1,129). The computed reached (2,196), which is greater than the tabular value

(1.94) and with a degree of freedom (6). It is also noticed that there is a significant effect on the improvement of the pulse test after the effort and for the two groups, and this is evident through the arithmetic mean of the two tests as it reached the arithmetic mean of the experimental group (185,798) The arithmetic mean of the control group was (186,693). As for the calculated value of the (T) test, it reached (3,846), which is greater than the tabular value (1.94) with a degree of freedom (6) and below the level of significance (0.05), which indicates The presence of significant differences in favor of the post-test and the experimental group. It is also noticed that there is a significant effect on the improvement of the post-effort pulse test after the passage of (2 / d) for the two groups. This is evident through the arithmetic meanings of the two tests, as the arithmetic mean of the experimental group reached (125,573). For the control group (127,175), the value of (T) test is a Calculated, it reached (2,475), which is greater than the tabular value (1.94) and with a degree of freedom (6) and below the level of significance (0.05), which indicates the presence of significant differences in favor of the post test and the experimental group.

There are significant differences in the dimension tests for the two groups (experimental and control) in the research variables. (The pulse test before the exertion - the achievement test of 100m backstroke - the pulse immediately after the exertion - a test for the post-exertion pulse after the passage of (2 d) for the benefit of the experimental group, and the researcher attributes that the reason for the results of the mechanism regarding pulse rate is that the practice of regular sports training and taking doses Adequate creatine supplement, which has a significant effect on improving swimmer's ability, led to an adaptation in the circulatory system, and that this adaptation can be explained by the fact that the vocabulary of the training curriculum and the nutritional supplement led to an increase in the volume of cardiac output as a result of an increase in the size of the stroke. The stroke resulted in an increase in the volume of the cardiac cavity, which is the best adaptation towards the improvement of the efficiency of the heart and circulatory system, and this was reflected in the development of the functional state of the heart, which the results of the two groups indicated, which is the trend of the heart rate towards a decrease, as a result of the increase in the volume of cardiac output in each beat Heart, exercise and regular supplement intake, which the experimental group members underwent, had a major role in the development of these indicators, which work to strengthen the heart and stimulate it to work efficiently and economically during Work or rest, this is what was indicated by (Muhammad Hassan Allawi and Abu Al-Ela Ahmed Abdel Fattah) "The heart rate is considered one of the most important factors for regulating the volume of cardiac impulse, whether during the performance of a physical pregnancy of low intensity or high intensity, and the heart rate was studied when performing various loads. Physicality in terms of intensity and performance time, and the higher the individual's physical competence, the lower the heart rate, and this shows the athlete's advantage, as he not only gives more production, but also more economics, 266: 3, and this is what was confirmed by (Yusef Lazem Prash) that the physical exercise program has exciting results On the heart and the circulatory system, after a period of training, a slow heart rate will occur at rest, and this is why it becomes more effective as the size of the beat increases, if fewer strokes are needed to push the required amount of blood, and the heart rate will return more quickly to the normal state after activity 175 4: The researcher believes that the development of the heart muscle in terms of pulse rate, stroke size and cardiac output is important in the physical activity practiced, as the swimmer needs high energy and a short time, and this is achieved through improved metabolism, some of which contributed to the dietary supplement with training The legalization, as it led to an improvement in blood functions, perhaps the most important of which is the function of breathing and elimination of waste, as the first function contributes to the effectiveness of supplying the body with oxygen

with it, and this agrees with (Muhammad Othman) that "the practice of sports training leads to an increase in the thickness of the heart muscle, and from Then increase his strength, and increase the volume of blood rushed from him in one stroke. In swimming, the pulse rate and blood volume paid before and after the effort play a major role in determining the swimmer's heart fitness through constant exercise that is positively reflected in the activity and strength of the heart and the work of the muscles that derive their strength from The amount of blood pushed from the heart, which is one of the important indicators in evaluating the training state and athletic level, and thus achieving achievement 24: 5

5. CONCLUSIONS

In light of the scientific results and facts that the researcher has reached in his research, he concluded the following.

- 1- The dietary supplement (creatine) has a great effect on improving the performance of 100m swimmers, which appeared to the youth group
- 2- Improving the ratio of this supplement in the swimmer's body had a positive effect in developing the level of performance through energy sources that had an effect on athletic achievement.
- 3- The duration of the experiment was sufficient to develop the functional apparatus of the swimmer's body by taking doses of the creatine supplement
- 4- The use of regular doses of creatine supplement improved the swimmer's pulse index, which reflected positively on achievement.

Recommendations

In light of the researcher's conclusions, he recommends the following:

- 1- Directing the attention of coaches and swimmers in various short-distance swimming activities to conducting periodic laboratory and field examinations in order to reach results through which we can develop functional indicators
- 2- Directing swimmers to all other different activities to take doses of the creatine supplement and because of its benefits in improving the level of achievement
- 3- Conducting other studies on nutritional components and supplements to know their effect on the athlete's health and level of achievement

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