

## 175 - PHYSICAL APTITUDE LEVEL OF THE CIVIL LIFE-GUARDS FROM BALNEÁRIO ARROIO DO SILVA/SC IN THE SUMMER OF 2005/2006.

TIAGO HENRIQUE NAKES SALIB, JONI MARCIO DE FARIAS  
Universidade do Extremo Sul Catarinense Unesc, Criciúma, Santa Catarina, Brasil.  
[tiagueras@hotmail.com](mailto:tiagueras@hotmail.com) / [jmf@unesc.net](mailto:jmf@unesc.net)

### Theoretical referencial.

In the life-guards training for a summering operation, it is necessary they have a good physical condition so that the aims of the program can be reached in this short time, therefore according to Talyshjow (1973) and Sheibe (1979) apud Barbanti (1999), the great amount of training and the recovering time are related between themselves, influencing each other.

Hernandes Júnior (2000) points out that the attainment of the physical and development parameters capacities of them, due to the training process, is very important for the planning process of training; and that the values gotten through the different tests serve for the lapsing of the overloads of training, with this, getting the control of the effects of this on athlete body.

Physical aptitude can be understood as a dynamic state of energy and vitality that not only allows to each one the daily tasks, the active occupations of the leisure hours and face unexpected emergencies without extreme fatigue, but also preventing the beginning of hypokinetics functions while functioning in the top of the intellectual capacity and feeling a joy in living. Bouchard et al (1990), apud Guedes and Guedes (1995).

The performance of an athlete or a participant of regular physical activities is the addition of factors (largenesses), such as, physical constitution, aerobics or anaerobics capacities and metabolic powers, ambient and psychosocial influences, specific techniques and tactics abilities for the chosen sport. "The success of any training program depends on too many variable" (LEITE, 2000).

In this work it was preferred to evaluate the anthropometrics parameters, which are used to objective determination of aspects related to the development of the human body, as well as determining the existing relations between physical and performance (PETROSKI, 1999).

The functional parameters which are directly related with the professional activity of the life-guards, therefore in accordance to LEITE (2000), the functional parameters can be defined as: cardio respiratory, being aerobic and anaerobic.

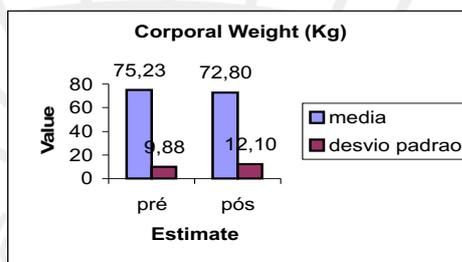
Another important parameter for the life-guards was also evaluated which are the motor parameters, that the accomplishment of this work, it was chosen to describe the motor parameters according to the necessary ones for the function, which for Hollmann and Hittinger apud Pellegrinotti (1997), classify the motor capacities as being basic the speed, force and resistance.

The motor capacities are very important for a general physical conditioning, therefore if the person is well physically conditioned in his motor qualities, he can improve the adjustments of the other physical qualities that are still unbalanced. As example, the good hip flexibility, it can improve the speed of the race due the improvement of the step amplitude (PINTO, 1977).

### Data Discuss

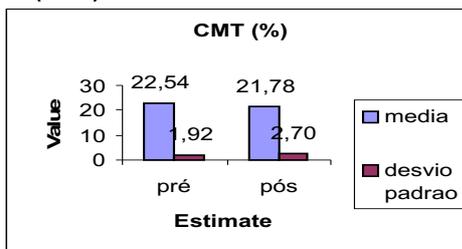
In order to identify the modifications had in the training, it was determined in graphs the values the pre-test and the post-test with a Diversion Standard (DS) average, followed by the necessary considerations.

**Figure 1 Corporal Weight Total Value**



It is evident that the individual must have an ideal corporal weight, mainly in health terms. When it's talked about somebody who needs to be well to perform his professional activity, this is more evident, however is a variable used in this work only as identification and not as an ideal weight classifier.

**Figure 2 Corporal Mass Table (CMT)**

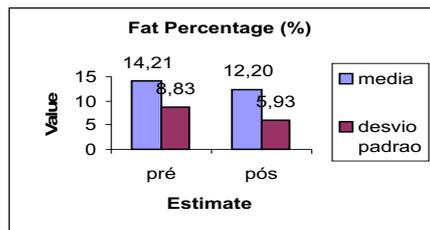


When the CMT is evaluated (graphical 2), it is observed a decrease between the pre-test to the post-test, however taking in account the diversion standard we have same value, it means that while some individuals decreased their CMT, other ones increased it. In the pre-test, the average of the results was 22.54%, while in the post-test it was 21,78, no longer, in the DS it was 1.92% in the pre and 2.7% in the post. Remembering that this value is in percentage. The CMT must be intensely analyzed, therefore if the individuals are very above or below of the recommendable parameters for the health of the life-guards, however this cannot be taken in account as an ideal physique, due to the variable CMT be used as a population measure.

According to Health World-wide Organization (HWO) apud Nahas (2003), the recommendable level for this

population, with this age level, varies from 18,5% - 24,9%. These informations mean that the life-guards are with the correct CMT indicated for their age

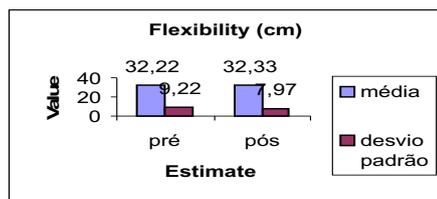
**Figure 3 Fat Percentage**



In graph 3, it is checked that it had a decrease in the fat percentage between the pre and the post test, in these conditions we verify that all the individuals are in the recommendable level, the average values were 14,21% in the pre-test and 12.2% in the post-test, while the DS moved back and forward from 8,83 to 5,53%.

One of the consequences of the raised fat percentage can be the localization of the fat, that according to Nahas (2003), the risk of illnesses is bigger for people who accumulate fat in the abdominal region (central).

**Figure 4 Flexibility**

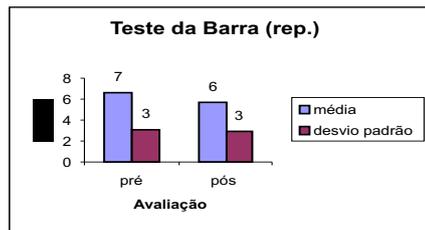


As it can verified in graph 4, there was a stability in the flexibility of the individuals, in the pre-test the average was 32,22 cm and in the post-test was 32,33 cm, however in the DS it was 9,22 cm in the first estimate and 7,97 cm in the second one.

According to Nahas (2003), the recommendable level is between 29-38 cm. Due to the lack of exercises that stimulates the flexibility, it had a stabilization, however they are in the level that is recommendable.

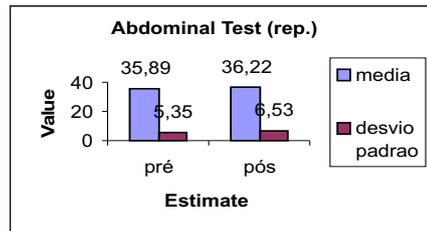
The flexibility is a very important factor to the life-guards play their work in an efficient form, therefore in many moments they use the elasticity to execute the rescue maneuvers.

**Figure 5 Bar test**



In the bar test there was a reduction, we have to take in account the daily work of 12 hours, which without no doubt consumes the individuals physically. The daily trainings offered by the instructors almost didn't get this characteristic, and some life-guards used to practice neuromuscular activities before the entering in the corporation, with the non-availability time they interrupted this process. The average values were in 7 repetitions in the pre-test and 6 repetitions in the post-test, the DS was the same in both tests with the value of 3 repetitions. The power of the top members is very demanded by the life-guards, therefore to swim and to bring the victim until the proper place for the maneuvers the individuals constantly make use of this resource.

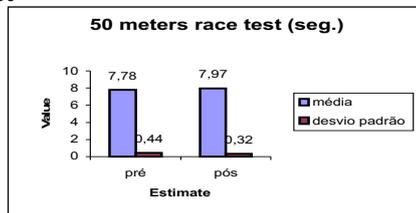
**Figure 6 - Abdominal Test**



In graph 6, we have the abdominal test related, we can affirm that it had an increase in this characteristic, even though it was not worked in the corporation training, some individuals trained it individually during the season. Beyond the abdominal and back force, in this exercise coordination is requested, and perhaps exactly in this factor that some of them had improved. The abdominal region certainly is asked during the rescue, therefore besides helping in the position it assists so that the back is too much forced during the activities. In the pre-test the average values had been in 35,89 repetitions, and in the post-test it was in 36,22 repetitions, while the DS it was in 5,35 repetitions in the first evaluation and 3,53 repetitions in second one.

One of the consequences of the bad functioning of the abdomen is the wrong position, therefore Nahas (2003) classifies that they are in the recommendable level those individuals who execute between 30 to 50 repetitions in 60 seconds.

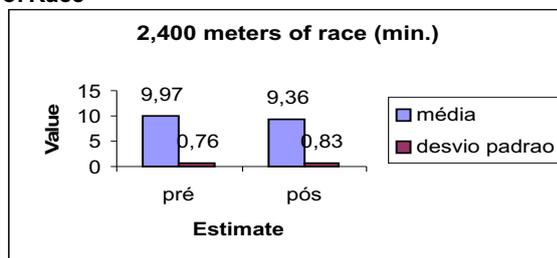
**Figure 7 - 50 Meters Race Test**



Graph 7 demonstrates that after the season the individuals showed an increase in the accomplishment time of the 50 meters way, emphasizing that the training given to the life-guards by the exercise instructors asked more the aerobic capacities. In the victim rescue, just some seconds are necessary to make her situation become worse, therefore it is important how fast the life-guards are, so that in the moment they will perceive "a dragged" victim, they have a good prepare in this condition. The average values had been in 7,78 seconds in the pre-test and 7,97 seconds in the post-test, while the DS it varied from 0,44 seconds in the first test to 0,32 in the second one. The measure of this test is in seconds.

These data had been analyzed according to the classification table of Kiss (1987) which mentions bigger results than 7,5 weak seconds.

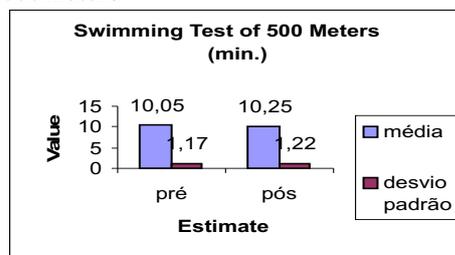
**Figure 8 - 2,400 Meters of Race**



In graph 8 it had an increase in the test time if we compare the first and the second test. One of the best worked capacities by the life-guards in the training was the aerobic, however it had a decrease in this condition. The aerobic capacity is primordial in the life-guards work therefore to move from the point where they are placed until the point where the victim is, many times the life-guards cover for land a long passage, besides having to swim for some meters yet until arriving in the place where there was the occurrence. The average values had been in the pre-test with the value of 9,97 minutes and in the post-test this value falls for 9,36 minutes, while the DS was with 0,76 minutes in first and the 0,83 minutes in the second test.

We observe the aerobic capacity of the individuals that according to classification table of VO<sub>2</sub> Maximo of Nahas (2003) they are in the recommendable condition.

**Figure 9 Swimming Test of 500 Meters**



In graph 9, there was an increase in the time of the way perhaps due to the decrease of the neuromuscular capacity of the individuals perceived in previous data. However they had executed their work in a satisfying way, emphasizing that the executed characteristics had been correctly enlisted, and the most used characteristic in this kind of activity is swimming. The average values had been in 10,5 minutes in the pre-test and 10,25 minutes in the post-test, while the DS was in 1,17 minutes in the first test and 1,32 minutes in the second one.

The data placed above demonstrate a stability of the results, however we need to take in account the physical stress of the life-guards caused by the every-day work of 12 displayed hours under the strong sun and rescues that demand too much energy of them, however, this measure does not have to be considered as definitive, so that there is the necessity of other works with this population.

### Conclusion

This work had as its aim to consider the level of physical aptitude of the civil life-guards, analyzing the antropometrics, functional and motor standards, it presents the following conclusions.

When analyzing separately the life-guards, some had improved his performance, some had stabilized and others until had lost conditioning in some parameters of the physical aptitude.

In this study the physical consuming must be taken in account the physical stress, therefore beyond the daily working hours of 12 hours, the individuals are almost all the season displayed to the sun, needing much energy to carry through the rescue of the victims.

In the force test (bar), there was a decrease in the results, in the pre-test, the average was in 7 repetitions, while in the post-test this value lowered for 6 repetitions. Probably this value changed due to the life-guards are, in the pre-test, preparing themselves for the entering in the corporation, and after they had been picked up, they quit the exercises because they had no free time.

In the aerobic aptitude test done through the 2.400 meters test, they had an improvement. In the first test they had an average of 9,97 minutes and in the post-test they had shown an average of 9,36 minutes, and they were physically stressed by the effort during all the summer operation.

The corporal weight is a factor that had improvement, in the pre-test this value was with the average of 75,23 kg, while in the post-test these values had lowered for 72,08 kg, proving that the individuals had had a stress. Another important factor, taken in account is the individuals appearance, therefore the swimmers see the life-guards as a physical body model.

The majority of the life-guards pointed out in this study are surfer, when swimming is mentioned it needs to be taken in account. Before the first test they had had some lessons of swimming to correct the wrong movements gotten by the surf practice that mainly asks the movements with the top members, forgetting the down ones which are very important so that they have speed and movement coordination. Moreover, before the season they used to practice surf every day, which increases the resistance, so that during the summer operation this practical is damaged by the non-free time, what leads to a reduction in the values which in the pre-test had been in 10,5 minutes and in the post one was for 10,25.

Not only the importance of the election process of the life-guards is concluded with this work, but mainly the work that the same ones carry through for the continuity and improvement in the physical aptitude levels, being able to lock up the season in

better condition, consequently more able to play their function.

#### Referências Bibliográficas

- BARBANTI, Valdir José. **Aptidão física** - um convite a saúde. São Paulo: Manole, 1990. 146 p.
- GUEDES, Dartagnan P; GUEDES, Joana E.R.P. **Exercício físico na promoção da saúde**. Londrina: Mediograf., 1995. 138 p.
- HERNADES, Junior; Benito Daniel Olmos. **Treinamento desportivo**. Rio de Janeiro: Sprint, 2000. 247 p.
- LEITE, Paulo Fernando: **Aptidão Física** Esporte e Saúde. 3 ed. São Paulo: Robe, 2000. 280 p.
- NAHAS, Markus Vinicius. **Atividade física, saúde e qualidade de vida** - conceitos e sugestões para um estilo de vida ativo. 3. ed. Londrina PR: Midiograf, 2003. 278 p.
- PELLEGRINOTTI, Idico Luiz. **As capacidades motoras no esporte** - Treinamento Desportivo. São Paulo: Guarulhos, 1997. 153 p.
- PETROSKI, Édio L. **Antropometria** - técnicas e padronizações. Porto Alegre: Pallotti, 1999. 144 p.
- PINTO, José R. **Caderno de biometria** - V. 1, 3. ed. Rio de Janeiro: Ladébio, 1977. 193 p.
- RODRIGUES, Carlos E.C., CARNAVAL, Paulo E. **Musculação** - teoria e prática. Rio de Janeiro: Sprint., 1985. 206 p.

#### Universidade do Extremo Sul Catarinense - Unesc

##### TIAGO HENRIQUE NAKES SALIB

Universidade do Extremo Sul Catarinense - Unesc  
Av. Universitária 1105  
Bairro Universitário  
Setor: GEPeS Grupo de Extensão e Pesquisa em Saúde.  
E-mail: tiaguera@hotmail.com  
Fone: (48) 3431-2572

##### JONI MARCIO DE FARIAS

Universidade do Extremo Sul Catarinense - Unesc  
Av. Universitária 1105  
Bairro Universitário  
Setor: GEPeS Grupo de Extensão e Pesquisa em Saúde.  
jmf@unesc.net  
Fone: (48) 3431-2572 / 9978-1088

#### PHYSICAL APTITUDE LEVEL OF THE CIVIL LIFE-GUARDS FROM BALNEÁRIO ARROIO DO SILVA/SC IN THE SUMMER OF 2005/2006.

##### Summary

The importance of the physical aptitude level of the life-guards comes in result of the responsibility which is given to them, the life of human beings. The study identified the physical and functional conditions of the civil life-guards from the city of Balneário Arroio do Silva that had worked in the summering operation of 2005/2006. The sample of the study was constituted by 9 civil life-guards, with ages between 18 to 25 years, male people, chosen by chance. The data collection was carried through in Golden Park sporting complex, which is located in the general road that leads to Balneário Arroio do Silva. The assessment included the following information: a) personal data; b) anthropometric evaluation; c) functional evaluation; d) motor evaluation. It can be observed in the analysis of the final data which really express the reality of the life-guards. The corporal weight of the life-guards had a reduction of 2,43 kg in average; the Corporal Mass Table (CMT) had a 0,76% reduction; these results follow in the fat percentage, with a reduction of 2,01% of fat; the flexibility level was practically remained in the pre and post test; in the bar test, it had a reduction of one repetition; the abdominal test had the increase in the number of repetitions of 0,33 in average; in the 50 meters test the individuals had an increase of 0,11 seconds; in the 2.400 meters test, it had a reduction in the time of 0,61 seconds; in the 500 meters swimming test, it had a time improvement of 0,25 seconds. It is evident in this work that some physical qualities had been improved, rather due to their professional activity than to their preparatory training for the exercise of professional activity.

**Word-key:** Lifeguard, physical fitness level, sport training.

#### EL NIVEL DE LA APTITUD FÍSICO DE LOS VIDA-GUARDIAS CIVILES DE BALNEÁRIO ARROIO HACE SILVA/SC POR EL VERANO DE 2005/2006.

##### El resumen

La importancia del nivel de la aptitud físico de la vida-guardia entra en el resultado de la responsabilidad que se da a ellos, la vida de seres humanos. El estudio identificado las condiciones físicas y funcionales de la vida-guardia civil de la ciudad de Balneário Arroio hace Silva que había trabajado en el funcionamiento del verano de 2005/2006. La muestra del estudio se constituyó por 9 vida-guardias civiles, con las edades entre 18 a 25 años, las personas masculinas, escogidas por casualidad. La colección de los datos se llevó a cabo en el Parque Dorado complejo deportivo que se localiza en el camino general que lleva a Balneário Arroio haga Silva. La valoración incluyó la información siguiente: un) los datos personales; b) la evaluación del antropometría; c) la evaluación funcional; d) la evaluación de motor. Puede observarse en el análisis de los últimos datos que muy exprese la realidad de la vida-guardia. El peso corpóreo de los vida-guardias tenía una reducción de 2,43 kg en el promedio; la Mesa de Masa Corpórea (CMT) tenía una 0,76% reducción; estos resultados siguen en el porcentaje gordo, con una reducción de 2,01% de grasa; el nivel de flexibilidad se permanecía prácticamente en el por y prueba del poste; en la prueba de la barra, tenía una reducción de una repetición; la prueba abdominal tenía el aumento en el número de repeticiones de 0,33 en el promedio; en la 50 metros prueba los individuos tenían un aumento de 0,11 segundos; en la 2.400 metros prueba, tenía una reducción por el tiempo de 0,61 segundos; en la 500 metros prueba que nada, tenía una mejora de tiempo de 0,25 segundos. Es evidente en este trabajo que un poco de calidades físicas había sido mejorado, bastante debido a su actividad profesional que a su entrenamiento preparatorio para el ejercicio de actividad profesional.

**Palabra-importante:** El salvavidas, salud el entrenamiento nivelado, deportivo.

**LE NIVEAU DE L'APTITUDE PHYSIQUE DE LA VIE CIVILE GARDE DE BALNEARIO ARROIO FAITES SILVA/SC EN ETE DE 2005/2006.****Le résumé**

L'importance du niveau de l'aptitude physique des vie gardes entre dans résultat de la responsabilité qui est donnée à leur, la vie d'êtres humains. L'étude identifiée les conditions physiques et utilitaires des vie gardes civils de la ville de Balneário Arroio fait Silva qui avait travaillé dans l'opération du summering de 2005/2006. L'échantillon de l'étude a été constitué par 9 vie civile garde, avec âges entre 18 à 25 années, gens virils, choisis par hasard. La collection du données a été portée à travers dans Parc D'or complexe de sport qui est localisé dans la route générale qui mène à Balneário Arroio faites Silva. L'estimation a inclus l'information suivante: un) données personnel; b) évaluation de l'anthropometric; c) évaluation utilitaire; d) évaluation du moteur. Il peut être observé dans l'analyse du dernier données qui vraiment exprimez la réalité des vie gardes. Le poids corporel des vie gardes avait une réduction de 2,43 kg dans moyenne; la Table De masse Corporelle (CMT) avait une 0,76% réduction; ces résultats suivent dans le gros pourcentage, avec une réduction de 2,01% de graisse,; le niveau de la flexibilité est été resté dans pratiquement le par et épreuve après; dans l'épreuve de la barre, il avait une réduction d'une répétition; l'épreuve abdominale avait l'augmentation dans le nombre de répétitions de 0,33 dans moyenne; dans l'épreuve de 50 mètres les individus avaient une augmentation de 0,11 secondes; dans l'épreuve de 2.400 mètres, il avait une réduction dans le temps de 0,61 secondes; dans l'épreuve de la nage de 500 mètres, il avait une amélioration du temps de 0,25 secondes. C'est évident dans ce travail que quelques qualités physiques avaient été améliorées, plutôt dûes à leur activité professionnelle qu'à leur formation préparatoire pour l'exercice d'activité professionnelle.

La mot clef: Garde du corps, niveau de la mise en forme, formation du sport.

**NIVEL DE APTIDÃO FÍSICA DOS SALVA-VIDAS CIVIS DO BALNEÁRIO ARROIO DO SILVA - SC NA TEMPORADA DE VERÃO 2005/2006****Resumo**

A importância do nível de aptidão física dos salva-vidas vem em decorrência da responsabilidade que é repassada a eles, a vida de humanos. O estudo identificou as condições físicas e funcionais dos salva-vidas civis do município de Balneário Arroio do Silva que trabalharam na operação veraneio 2005/2006. A amostra do estudo foi constituído por 9 salva-vidas civis, com idades entre 18 a 25 anos, do sexo masculino, escolhida aleatoriamente. A coleta dos dados foi realizada no complexo esportivo Golden Park, situado na estrada geral que dá acesso ao Balneário Arroio do Silva. A avaliação incluiu as seguintes informações: a) dados pessoais; b) avaliação antropométrica; c) avaliação funcional; d) avaliação motora. Pode-se observar na análise dos dados resultados que expressam exatamente a realidade dos salva-vidas. O peso corporal dos salva-vidas teve uma diminuição de 2.43kg em média; o IMC teve uma diminuição de 0,76%; estes resultados acompanham no percentual de gordura, com uma diminuição de 2,01% de gordura; o nível de flexibilidade praticamente se manteve no pré e pós-teste; no teste da barra teve uma diminuição de uma repetição; o teste de abdominal teve o aumento no número de repetições de 0,33 em média; no teste de 50 metros os indivíduos tiveram um aumento de 0,11 segundos; o teste de 2,400mts houve uma diminuição no tempo de 0,61 segundos; no teste de 500mts de natação houve uma melhora no tempo de 0,25 segundos. Fica evidente neste trabalho que algumas qualidades físicas foram melhoradas, com uma influencia muito maior de sua atividade profissional do que de seus treinamentos preparatórios para o exercício de sua atividade profissional.

**Palavras-chave:** Salva-vidas, nível de aptidão física, treinamento desportivo.