

**72 - BENEFITS OF MASSAGE ON MUAY THAI ATHLETES RECOVERY IN PRE AND POST COMBAT**MIRIAM BAPTISTA VITORIANO DA SILVA;  
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**INTRODUCTION**

According to Falkenbach (2005) fighting has always been the way by which humans defended and won their interests. Whether in defense of animal attacks, in pre-history, or against the human being throughout their experience. Always in search of their physical, economy, or psychological integrity.

As for DELP (2005), in sports, the combat have always had great audience because arouses the interest and curiosity of most people. The Muay Thai is a complex sport and can differentiate according to the teaching method applied and it is noticed by the difference in training between Thailand and Brazil.

According to DE DOMENICO (2007), the massage has gained popularity in the sport since the 1980s with increasing age in physical activities. Massage in sports is the use of mobilization of soft tissues (conjunctive) to increase the performance of individuals who place themselves in situations of physical ordeal. Physical ordeal is that there is proof to the public. The athlete should receive daily massage, if possible during the competition.

CASSAR (2001) cites that the athlete often has muscle fatigue when a muscle is overused disturbing the physiological process of the same. The massage will be very effective, improving circulation to the muscles, removing any accumulation of metabolites and supplies the muscles with nutrients and oxygenated blood.

Muay Thai is a martial art and a method of self-defense with different rules from other martial arts. In Muay-Thai, none part of the body remains inactive, physical strength and intellect are necessary qualities that every fighter must possess. (KRAITUS, 1988, quoted by DELP, 2005).

According to DELP (2005) it is a traditional martial art developed hundreds of years ago. The athlete needs strength, speed, agility and coordination. The Muay Thai uses punches with fists, elbows, knees and shins or feet, also called the fight of the eight arms. Fighters fight wearing shorts, the bandage that serves to secure the wrists and hands, the glove (same or similar to the Boxing gloves), a mouthguard that has the function of protecting the impact in protecting the mout, teeth and the brain, the shell to protect the genitals and the use of anklets.

Silva & Martins (2011) says that the Muay Thai athlete flexibility is a major factor in achieving the most hits performed. Muscle strength is an essential element in the realization of the movements. The athlete greatly enhances his strength and the development of superior muscles.

The stress is present in all kinds of media; is a subject that particularly interests the people who live in large urban centers. Living in the big city is to live with stress all the time. It can be both positive and negative manifestation to humans when subjected to new situations that makes them react physically and mentally. NESSI (2010).

As for ANDRADE & CLIFFORD (2001). Although there is no direct link between the autonomic nervous system and skeletal muscle, suggesting an increase in muscle tension at rest is one of the effects of stress and activation of the sympathetic nervous system.

The definition from the French language dictionary states: "action of pressing, kneading with your hands or with a machine, different body parts, to provide flexibility, remove fatigue, pain, etc.". (Dufour 2001).

Massage can be defined as an orderly and rhythmic compression of the body, or part of it, in order to obtain therapeutic effects. (GUIRRO & GUIRRO, 2007).

As for DE DOMENICO (2007) massage is an ancient healing art, and there is growing evidence of its effectiveness in treating patients with a wide variety of traumatic states and diseases.

According to GUIRRO & GUIRRO (2004) a local mechanic massage exerts effect due to the direct action of pressure on the massaged segment.

Physiological effects of massage supported by study:

- General and local muscle relaxation;
- Elimination of catabolic;
- Decreased muscle fatigue;
- Relief of pain;
- Increased flexibility and tissue extensibility;
- Increased joint mobility;
- Increased sebum secretion;
- Stimulation of visceral functions;
- Stimulation of autonomic functions.

According to ANDRADE & CLIFFORD (2001) massage techniques to reduce muscle tension at rest are among the most valuable to treat the effects of short and long-term stress and the quality and quantity of the movement, they have clear options to return the body to homeostasis after periods of stress.

For Dufour (2001) often searching for a sedative action, or in conjunction with therapeutic setting, or within the healthy lifestyle in exhausted people.

In addition De DOMENICO (2007) says that the treatment by massage is a pleasant way of therapy. The general state of relaxation and stress relief, possibly together with the reduction of pain have an effect of inducing a feeling of wellness in the patient or athlete.

The Sports Massage, throughout history, people have always known that a certain type of touch helped them recover from workouts and injuries. The application of sports massage requires knowledge of basic principles, such principles must be understood by the professionals so they can determine the purpose of the massage and then apply the appropriate techniques to achieve it. The massage acts on the pains of the athlete, but is indicated only when there is no injury, but mostly, the contrary to prevent injuries. McGillicuddy (2011).

DE DOMENICO (2007) says that sports massage has gained popularity since the 1980s with the increased participation of all age groups in aerobic physical activities and increased global views on the sports activity.

GUIRRO & GUIRRO (2004) say that the neuromuscular effects, the maneuvers have beneficial effects of massage after exercise by increasing circulation with faster elimination of waste substances, improve nutrition of myofibrils and eliminate the extravascular fluid, allowing an increasing the excitability and contractility.

Based on studies of massage on the athletes this reaserach aim was acting on the body and mind, providing balance to the massaged person and improving the circulatory, respiratory, muscular, digestive, skeletal, endocrine and lymphatic systems. NESSI (2010).

The massage should be focused on the muscles of the area to be used in stimulating way to this region, which helps prevent unnecessary injuries allowing the athlete to prepare for rapid movements. McGillicuddy (2011).

To Dufour (2001) as the time and its application, massage has the role of maintenance, activation, restoration and repair of the structures involved in the performance required for the sport. This action would prepare the neuromuscular system to sudden and rapid efforts. Therefore the athlete will have a great performance during the combat and decreasing the possibility of injury, restoring balance and sense of wellness.

Farr et al. (cited by DE DOMENICO, 2007) says that massage in sports based on performance enhancement, or in response to injury is applied to achieve various objectives such as promoting relaxation, increase circulation, reduce the formation of adhesions or decrease the pain. Loehr (quoted by DE DOMENICO, 2007) says that the athlete can be benefitted from these effects before competition or between training shifts to control stress inducing factors from the sport.

**METHODOLOGY**

The methodology applied were a comparison of the results of the physical evaluation sheets and evaluation form for massage (McGillicuddy, 2011) and percentages presented in the table on the benefits of the application of 02 sessions of massage anti-stress before and after the combat (competition) in 03 Muay Thai athletes, between 20-45 years old, male and female.

Sequence for Lower Limb Anterior and Posterior Region and Coasts - the Protocol Adapted relieving massage was applied.

**Massage protocol relieving Lower Limb Anterior and Posterior Region and Bac**

1. Slip;
2. Kneading;
3. Pinching;
4. Ulnar Percussion;
5. Vibration;
6. Tourniquet sliding;
7. Slip the digits of the fingers.

**RESULTS AND DISCUSSION**

Aesthetics can help to improve recovery and aid in quality of life and wellbeing of athletes fighting as Muay Thai. Based on the results of the interviewed athletes where questions were 01-05 , and 01 and 05 bit much, given the anti-stress massage and realized they can contribute positively in reducing DOMS and levels of stress caused before combat , beyond muscle relaxation , improved mood and well-being .

In the present study , these benefits were observed according to the form ( McGillicuddy , 2011) applied before and after each workout , 100 % of the volunteers reported improvements in strength, flexibility. PETRY (2012 ) , which also used a similar evaluation methods in their study of street runners can investigate and prove the benefits that the anti-stress massage provides athletes , decrease tension and anxiety in the period preceding the competition

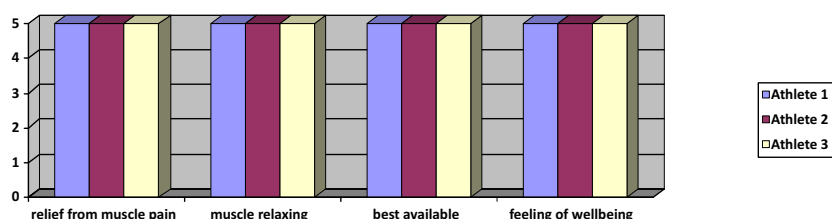
ABAD et al (2010 ) found in their study with 18 subjects evaluated the massage caused no benefit in the recovery of muscle function or the subjective perception of pain , but other authors report that they say need more delayed evaluation that may cause benefits more pronounced. ALBUQUERQUE et al (2013 ) in their study showed cortisol levels in a high performance athlete that can cause anxiety and stress was similar evaluation methods used in the study with athletes practicing athletics , based on laboratory diagnoses was found that the cortisol levels showed high level . In the application of massage satisfactory results and suggest further research.

Among the major reports were presented : after massage was easier to perform stretching exercises and flexibility . Experienced less pain after the massage , felt better in practice the fight . Increased agility , less stressed and more willing.

All athletes have a low sense of well-being before the massage 20 % , after showing a great feeling 100 % . The feeling of relaxation before too was low 30 % , the result was great after reaching 100 % . The stress associated with anxiety before training and fighting was top 80 % , dropping to 10 % after massage and Muscle aches , present before training at 80 % dropped to 20 % .

	Pre Massage	After Massage
Feeling of Weellbing	20%	100%
Muscular Relaxation	30%	100%
Stresse	80%	10%
Muscle Aches	80%	20%

All athletes have a low sense of well-being before the massage , after showing a great feeling . The feeling of relaxation before too was low after the result was great



**CONCLUSION**

Through this study we can conclude that the anti-stress massage performed 15 minutes before training in order to warm up and 30 minutes after training with the goal of relaxation, was effective in decreasing perceived muscle soreness, feeling of well being, increased relaxation after massage, decreased stress and increased sense of well being. For women, it was reported stress relief decrease PMS symptoms, anxiety and muscle definition. In this study concludes the importance of anti-stress massage and the need for further studies and indications of massage to be included as a resource manual for help in training elite athletes Muay Thai.

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**BENEFITS OF MASSAGE ON MUAY THAI ATHLETES RECOVERY IN PRE AND POST COMBAT****ABSTRACT**

Muay Thai is a martial art and a method of self-defense with rules different from other martial arts. Muay-Thai in any part of the body remains inactive, physical strength and intellect are qualities necessary that every fighter must possess. (KRAITUS, 1988, quoted by DELP, 2005). The anti-stress massage is a manual technique that touches methodical aims therapeutic action, aid in the elimination of catabolic the body's relaxation benefits, acting mainly in the circulation and into the venous and lymphatic return. (NESSI, 2010). The massage acts on the pains of the athlete, but is indicated only when there is no injury, but mostly, the contrary to prevent injuries. (McGillicuddy, 2011). CASSAR (2001) cites that the athlete often muscle fatigue occurs when a muscle is overused disturbing the physiological process of the same. This work aims to verify the benefits of anti-stress massage adapted for athletes 20-45 years male and female before and after fights (competition) Muay-Thai. Through two sessions of Massage Sequence for Lower Limb Anterior and Posterior Region and Coasts in each volunteer. Each massage session was performed 15 minutes of massage pre-training and 30 minutes post-treinamento. Todos athletes showed high stress and anxiety before the massage, as well as muscle aches, after the stress is less than 20% while the pain also decreased since the feeling of well-being was low before the massage, after showing a sense of well-being 100%. The feeling of relaxation before too was low after the result was great. We conclude that massage can greatly benefit the athletes, but needs further study in the medium and long term.

**KEYWORDS:** stress relieving massage. muay thai. wrestling.

**LES BIENFAITS DU MASSAGE DANS LA RÉCUPÉRATION DE SOULAGEMENT AVANT ET APRÈS LUTTE****MUAY THAI POUR LES ATHLÈTES****RÉSUMÉ**

Muay Thai est un art martial et une méthode d'auto - défense avec des règles différentes des autres arts martiaux. Muay -Thai dans toute partie du corps reste inactif, la force physique et l'intelligence sont des qualités nécessaires que chaque combattant doit posséder. ( KRAITUS, 1988, cité par DELP, 2005). Le massage anti-stress est une technique manuelle qui touche méthodique vise action thérapeutique, aide à l'élimination des cataboliques avantages de relaxation de l'organisme, agissant principalement dans la circulation et dans le retour veineux et lymphatique. ( NESSI, 2010). Le massage agit sur les douleurs de l'athlète, mais il est indiqué que lorsqu'il n'y a pas de blessure, mais la plupart du temps, au contraire à prévenir les blessures. ( McGillicuddy, 2011). CASSAR (2001) cite que l'athlète souvent la fatigue musculaire se produit quand un muscle est galvaudé perturber le processus physiologique de la même. Ce travail vise à vérifier les avantages de massage anti-stress adapté pour les athlètes 20-45 ans, hommes et femmes avant et après les combats ( compétition ) Muay -Thai. Grâce à deux séances de massage séquence pour les membres inférieurs antérieur et postérieur Région et les côtes de chaque bénéficiaire.

Chaque séance de massage a été réalisée 15 minutes de massage pré-formation et 30 minutes athlètes de treinamento. Todos poste a montré une forte stress et l'anxiété avant le massage , ainsi que des douleurs musculaires , après le stress est inférieure à 20 % , tandis que la douleur a également diminué depuis le sentiment de bien-être était faible avant le massage , après avoir montré un sens de bien-être de 100 % . La sensation de détente avant de trop était faible après le résultat était excellent . Nous concluons que le massage peut grandement bénéficier les athlètes , mais doit être étudiée dans le moyen et long terme

**MOTS-CLÉS:** massage, relaxation, muay thai, lutte.

#### **BENEFICIOS DEL MASAJE ANTI ESTRES EM LA RECUPERACION PRE Y POS LUCHA DE ATLETAS DE MUAY**

##### **THAI**

##### **RESUMEN**

Muay Thai es un arte marcial y un método de auto-defensa con reglas diferentes a otras artes marciales. Muay-Thai en cualquier parte del cuerpo permanece inactivo, la fuerza física y el intelecto son cualidades necesarias que cada luchador debe poseer. (KRAITUS, 1988, citado por DELP, 2005). El masaje anti-estrés es una técnica manual que toca metódica pretende acción terapéutica, la ayuda en la eliminación de catabólicos beneficios de relajación del cuerpo, actuando principalmente en la circulación y en el retorno venoso y linfático. (NESSI, 2010). El masaje actúa sobre los dolores del atleta, pero sólo se indica cuando no hay lesión, pero sobre todo, por el contrario para evitar lesiones. (McGillicuddy, 2011). CASSAR (2001) cita que el atleta menudo fatiga muscular se produce cuando un músculo es usado en exceso perturbar el proceso fisiológico de la misma. Este trabajo tiene como objetivo verificar los beneficios del masaje anti-estrés adaptado para los atletas de 20-45 años hombres y mujeres antes y después de las peleas (competencia) de Muay-Thai. A través de dos sesiones de secuencia de masaje para Miembro Inferior Anterior y Posterior Región y Costas en cada voluntario. Cada sesión de masaje se realizó 15 minutos de masaje pre-entrenamiento y 30 minutos posteriores a la treinamento. Todos atletas mostraron alta tensión y la ansiedad antes del masaje, así como dolores musculares, después de que el estrés es inferior al 20%, mientras que el dolor también disminuyó ya que la sensación de bienestar era baja antes del masaje, después de mostrar un sentido de bienestar 100%. La sensación de relajación antes también fue baja después de que el resultado fue genial. Llegamos a la conclusión de que el masaje puede beneficiar en gran medida a los atletas, pero necesita de mayor estudio en el medio y largo plazo.

**PALABRA CLAVE:** masaje antiestres, muay thai, lucha

#### **BENEFÍCIOS DA MASSAGEM ANTIESTRESSE NA RECUPERAÇÃO PRÉ E PÓS LUTA DE ATLETAS DE MUAY**

##### **THAI**

##### **RESUMO**

Muay-Thai é uma arte marcial e um método de auto-defesa com regras diferentes das outras artes marciais. No Muay-Thai nenhuma parte do corpo permanece inativa, força física e o intelecto são qualidades necessárias que cada lutador deve possuir. (KRAITUS, 1988, citado por DELP, 2005). A massagem antiestresse é uma técnica manual de toques metódicos que tem por finalidade ação terapêutica, ajuda na eliminação de catabólicos do organismo, benefícios de relaxamento, agindo na circulação e principalmente no retorno venoso e linfático. (NESSI, 2010). A massagem age nas dores do atleta, mas é indicada não só quando se tem lesão e sim principalmente, ao contrário para prevenir as lesões. (MCGILLICUDDY, 2011). CASSAR (2001) cita que no atleta muitas vezes ocorre a fadiga muscular, quando um músculo foi excessivamente usado perturbando o processo fisiológico do mesmo. Este trabalho tem o objetivo de verificar os benefícios da massagem antiestresse adaptada em atletas de 20 a 45 anos do sexo masculino e feminino antes e pós luta (competição) de Muay-Thai. Através de 2 sessões de Massagem Sequência para Membros Inferiores Anterior e Posterior e Região Costas em cada voluntario. Cada sessão de massagem foi realizado 15 minutos de massagem pré-treinamento e 30 minutos pós-treinamento. Todos os atletas apresentaram alto estresse e ansiedade antes da massagem, assim como dores musculares, após o estresse é menor de 20% enquanto a dores também diminuíram, já a sensação de bem estar antes da massagem era baixa, mostrando após uma sensação de 100% de bem estar. A sensação de Relaxamento antes também mostrou-se baixa, após foi ótimo o resultado. Concluímos que a massagem pode beneficiar muito os atletas, porém precisa de mais estudos a médio e longo prazo.

**PALAVRAS-CHAVE:** massagem antiestresse, muay thai, luta.