

126 - BENEFITS OF WORKPLACE GYMNASTICS (WG)

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1 – INTRODUCTION

Workplace gymnastics may reduce the incidence of occupational diseases and lesions for repetitive efforts, thereby reducing the number of sick employees in the company. Besides the physical benefits, the voluntary practice of workplace gymnastics leads to psychological benefits, stress relief and increased concentration power, morale and motivation.

Factors such as increased workload, high production speed, repetitive movements, stress, pressure from superiors, etc, are underlying causes of pain in many body segments. Workplace gymnastics along with ergonomic improvements and postural corrections promote symptoms relief, and enables employees to stand their daily workload. (MOREIRA et al, 2005).

Companies have been employing not only workplace gymnastics, but also the concepts of ergonomics and antropometry, studying and correlating work variables such as: height of seats, temperature of the environment, humidity, noise, etc. (HELFENSTEIN, 2001).

Every day, the belief that physical exercise improves life quality of life becomes more deep rooted. This is specially true taking into consideration the improvements in terms of: respiratory functioning; heart muscles development; cholesterol metabolization; endorphines release; and muscle mass. (BASTOS, 2009).

It can be defined as every body movement, of continuous frequency, producing energy expenditure. Every physical exercise is determined by two variables: the amount of energy taken; and the kind of activity one is going to perform. (BASTOS, 2009).

This paper aims at discussing the benefits of workplace gymnastics regarding the role it plays in the prevention of chronic diseases, in creating a physical health awareness, and acting as an intervention factor at the workplace, in the family and in society. Authors aimed at providing information which contribute to the implementation of a workplace gymnastics program in day to day life.

2 – METHODS

The current paper was developed from analyses of doctoral theses, master's dissertations and indexed scientific articles, collected from virtual libraries, periodicals and scientific journals over the period of 1996 to 2009. A detailed search was carried out in order to select indexed articles concerning physical exercises, their benefits and prescription; workplace gymnastics and occupational health through the presence of the descriptors: ergonomics, life quality and physical aptitude.

3 – DEFINITIONS FOR PHYSICAL ACTIVITY, PHYSICAL EXERCISE, PHYSICAL APTITUDE, AND HEALTH

We found many definitions for 'physical activity' in the literature of the field. The definition presented by the Manifesto do Cirurgião Geral dos Estados defines it as any body movement involving energy expenditure above resting levels, including daily activities such as having a shower, getting dressed; or activities related to work such as walking, carrying objects; and leisure activities as sports, dance, etc. Shephard and Balady define physical activity as any body movement produced by the skeletal muscles resulting in energy expenditure, regardless the magnitude of such expenditure. These authors differentiate physical activity from physical exercise by the intention of the movement, considering exercise as being a subset of physical activities, and which is planned, structured and repetitive, having as its purpose the maintenance or the optimization of physical conditioning. (SHEPARD & BALADY, 1999). While the term fitness represent the body's ability to adapt to the demands of physical exertion that the activity need to moderate or vigorous levels, without complete exhaustion. It has also been suggested that physical aptitude would be the capacity of performing physical efforts without excessive fatigue, guaranteeing the survival of the persons in good organic conditions in the environment where they live.

After defining physical activity, exercise and physical aptitude; we make clear the fact that health is not only a state of absence of diseases in the person, but a general state of balance, in terms of the different aspects and systems of the man; biologic, psychological, social, emotional, mental and intellectual, resulting in the sensation of well being. (CRAMER & SPILKER, 1998).

4 – HEALTH AT THE WORKPLACE

The word stress comes from Latin and means adversity or grief. (Rio RP, 1998). Stress may be considered as a set of reactions and changes of an organism, of adaptive, chemical and physiological nature whose goal is maintaining homeostasis. (MIYAMOTO, 1999).

The human being was born to perform global movements. However, the current work conditions, with high repetitiveness and monotony, limit human nature conditioned to a stressful situation (NASCIMENTO & MORAES, 2000). Physical exercise at the workplace is an important instrument for the health and well being of the person. (POLITO & BERGAMASCHI, 2002). The adoption of physical activities programs on the part of companies is beneficial for the company and the employee as well. Healthy people, better profits and higher investment returning are the main results. (MIYAMOTO et al, 1999).

Poor work conditions in terms of the physical environment and materials are stressing factors that cause loss of motivation. A number of companies are now looking for new administrative philosophies in order to meet the needs of their workers, since the well being of the latter the most effective factor leading to productivity (SANTANA, 1997).

The implementation of a workplace gymnastics program aims at preventing labor accidents and occupational lesions, increasing efficiency, improving mood and motivation, as well as making employees aware of the importance of healthy habits, in alignment with specific legislation (PINTO & SOUZA, 2004).

5 - BENEFITS OF PHYSICAL EXERCISES

There is a strong intensity-response relation between the level of physical aptitude and its protective effect which increases in direct relation with the level of activity. Significant health benefits are obtained from performing daily activities of relatively low intensity, such as walking, climbing stairs, cycling and dancing. Therefore, not only formal programs of physical activities are relevant, but informal activities are also beneficial. Both possibilities should be taken into consideration, since their combination permits attaining a certain level of physical activity. (CARVALHO et al, 1996).

For a better understanding, benefits from the regular practice of physical exercise are listed: improvement of cardiovascular and respiratory functioning; reduction of risk factors of developing: coronary arteries diseases; colon cancer and type 2 diabetes mellitus. It contributes to decrease body fat; maintain or increase muscle mass. It helps to increase: bone mass or prevent its loss (osteoporosis); muscle strength; tendon and ligament resistance; metabolism at rest. The practice of physical exercise also helps to improve immune function; to retard certain aging processes; to increase the sense of well being and self-esteem, and in the recovery from states of depression and anxiety. (BASTOS, 2009).

6 – CLOSING REMARKS

Workplace gymnastics brings not only physical, psychological and social benefits for workers; but also a number of advantages to the company, such as: a better atmosphere at the workplace; better interpersonal relations; risen production in terms of quantity and quality. Thus, physical exercise has become a consensus in promoting health and improving life quality. It also reduces the risk of development of chronic diseases, and acts as a key factor for longevity.

The population has already internalized the idea that physical is part of our lives. The lack of public security, adequate information and education, or even the lack of incentive from families or schools contributes to putting an end to the natural habit of the people: 'doing physical exercises'. Programs encouraging the practice of physical exercises at the workplace are to be boosted by public policies in the light of the many benefits that have been reported by workers.

7 - REFERENCES

- ACSM's Guidelines for Exercise Testing and Prescription. Philadelphia: **Lippincott Williams & Wilkins, 6th edition, 2000.** +
- BARBOSA, E.B.; BORGES, F.D.; DIAS, L.P.; FABRIS, G.; FRIGERI, F.; SALMASO, C. Lesões por esforços repetitivos em digitadores do centro de processamento de dados do Banestado Londrina, Paraná, Brasil. **Rev. Fisioter. Univ. São Paulo** 1997 Jul/Dez; 4(2): 83-91.
- BASTOS, P. Os benefícios do exercício físico. Portugal, 2009. Disponível em: http://educacaofisica.org/joomla/index.php?option=com_content&task=view&id=222&Itemid=2>. Acesso em: 28. ago. 2009.
- BITTAR, A.D.S.; COSTA, C.C.; MONTINI, D.; SOUZA, D.V.; LOPES, J.; BESSA, R.; BAZO, M.L. Influência da intervenção ergonômica e o exercício físico no tratamento do estresse ocupacional. **Reabilitar, São Paulo**, n. 24, p. 35-44, jul./set. 2004.
- BOUCHARD, P.H.; FIROR, W.B.; EDOUARD, J.R.; MCPHERSON, B.D. Exercise, fitness, and health: A consensus of Current Knowledge. **Champaign, Human Kinetics**, 1990:3-28.
- CARVALHO, T.; NÓBREGA, A.C.L.; LAZZOLI, J.K.; MAGNI, J.R.T.; REZENDE, L.; DRUMMOND, F.A.; OLIVEIRA, M.A.B.; DE ROSE, E.H.; ARAÚJO, C.G.S.; TEIXEIRA, J.A.C. Posição oficial da Sociedade Brasileira de Medicina do Esporte: atividade física e saúde. **Rev. Bras. Med. Esport**, Rio de Janeiro, v.2, n.4, p. 79-81, out./dez. 1996.
- CASPERSEN, C.J.; POELL, K.F.; CHRISTENSON, G.M. Physical Activity, Exercise and physical fitness: definitions and distinction for health-related research. **Public Health Rep** 1985; 100:126-31.
- CRAMER, J.A.; SPILKER, B. Quality of Life and Pharmacoeconomics: An Introduction. Philadelphia: **Lippincott-Raven**, 1998.
- DUTRA, F.; FISCHER, A. Uma ISO para a gestão de pessoas: entenda o que o é índice de qualidade na gestão de pessoas. **Guia Exame / Você S/A: as melhores empresas para você** Rio RP. Stress ocupacional. In: Rio RP LER – ciência e lei: **Novos horizontes da saúde e do trabalho**. Belo Horizonte: Health;1998
- FAHEY, T.; INSEL, P.M.; ROTH, W.T. **Fit & Well - Core concepts and Labs in Physical Fitness and Wellness**. Mountain View: Mayfiel, 3th. Edition, 1999.
- FREIRE, J.E.; PERLATTO, A.; MALAGOLLI, G.A. Os benefícios da Ginástica Laboral: um estudo de caso em uma indústria de açúcar e álcool na região canavieira de Ribeirão Preto. In: XXVIII ENCONTRO NACIONAL DE ENGENHARIA DE PRODUÇÃO, 2008, Rio de Janeiro. **A integração de cadeias produtivas com a abordagem da manufatura sustentável**. Rio de Janeiro, 2008. p. 1-14.
- GUEDES, D.P. Atividade Física e Saúde. In: Carvalho T, Guedes DP, Silva JG (orgs.). **Orientações Básicas sobre Atividade Física e Saúde para Profissionais das Áreas de Educação e Saúde**. Brasília: Ministério da Saúde da Educação e do Esporte.
- HELFENSTEIN, J.R. Fascículos de Atualização: lesões por esforços repetitivos (LER/DORT) - **Tratamento e Prevenção**. São Paulo: Merck Sharp & Dohme; 2001.
- JOHNSON, J.M.; BALLIN, S.D. **Surgeon general's report on physical activity and health is hailed as a historic step toward a healthier nation**. *Circulation* 1996; 94:2045.
- MARTINS, P.J.F.; MELLO, M.T.; TUFIK, S. Exercício e sono. **Rev. Bras. Med. Esport**. Rio de Janeiro, v. 7, n.1, p. 28-36, jan./fev. 2001.
- MIYAMOTO, T.S.; SALMASO, C.; MEHANNA, A.; BATISTELA, A.E.; SATO, T.; GREGO, M.L. Fisioterapia preventiva atuando na ergonomia e no estresse no trabalho. **Rev. Fisioter Univ São Paulo** 1999 Jan/Jun; 6(1): 83-91.
- MOREIRA, P.H.C.; CIRELLI, G.; SANTOS, P.R.B. A importância da ginástica laboral na diminuição das algias e melhora da qualidade de vida do trabalhador. **Rev. Fisioterapia Brasil**. Rio de Janeiro, ano 6, n.5, p. 349-353, set./out. 2005.
- NASCIMENTO, N.M.; MORAES, R.A.S. **Atuação fisioterapêutica ergonômica. In: Nascimento NM, Moraes RAS. Fisioterapia nas empresas: saúde x trabalho**. Rio de Janeiro: Taba cultural; 2000. p.22-7.
- PATE, R.R.; PRATT, M.; BLAIR, S.N.; HASKELL, W.L.; MACERA, C.A.; BOUCHARD, C.; et al. **Physical activity and public health - a recommendation from the centers for Disease Control and Prevention and the American College of Sports Medicine**. *JAMA* 1995; 273:402-7
- PINTO, A.C.C.S.; SOUZA, R.C.P. A Ginástica Laboral como ferramenta para a melhoria da qualidade de vida no setor de cozinha em restaurantes. [citado 2004 may 20]. Disponível em URL: <http://www.esp.ufsc.br/ergon/revista>.

POLITO, E.; BERGAMASCHI, E.C. **Ergonomia na empresa**. In: Polito E, Bergamaschi, E C. Ginástica laboral – teoria e pratica. Rio de Janeiro: Sprint; 2002. p.27-35.

SANTANA, A.M.C. **A abordagem ergonômica como proposta para melhoria do trabalho e produtividade em serviços de alimentação**. [Dissertação] Florianópolis: UFSC; 1997.

SHEPHARD, R.J.; BALADY, G. Exercise as cardiovascular therapy. *Circulation* 1999; 99:963-72.

VEIRA, A. **A Ginástica Laboral e os benefícios para o trabalhador**. São Paulo, 2009. Disponível em: <http://www.artigonal.com/esportes-artigos/a-ginastica-laboral-e-os-seus-beneficios-para-o-trabalhador-730299.html>. Acesso em: 31. ago. 2009.

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BENEFITS OF WORKPLACE GYMNASTICS (WG)

ABSTRACT:

Workplace gymnastics brings physical, psychological and social benefits for workers; as well as a number of advantages to the company, such as: a better atmosphere at the workplace; better interpersonal relations; risen production in terms of quantity and quality. Thus, physical exercise has become a consensus in promoting health and improving life quality. It also reduces the risk of development of chronic diseases, and acts as a key factor for longevity. This paper aims at discussing the benefits of workplace gymnastics regarding the role it plays in the prevention of chronic diseases, in creating a physical health awareness, and acting as an intervention factor at the workplace, in the family and in society. Authors aimed at providing information which contribute to the implementation of a workplace gymnastics program in day to day life. The current paper was developed from analyses of doctoral theses, master's dissertations and indexed scientific articles, collected from virtual libraries, periodicals and scientific journals. A detailed search was carried out in order to select indexed articles concerning physical exercises, their benefits and prescription; workplace gymnastics and occupational health through the presence of the descriptors: ergonomics, life quality and physical aptitude.

KEY WORDS: Physical exercises; workplace gymnastics; life quality.

BÉNÉFICES DES EXERCICES PHYSIQUES ET DE LA GYMNASTIQUE AU TRAVAIL

RÉSUMÉ:

Les bénéfices de la gymnastique au travail sont d'ordre physique, psychologique et social pour le travailleur, tout en ayant plusieurs avantages pour l'entreprise, tels que : amélioration de l'environnement de travail, bonnes relations interpersonnelles ; créant ainsi une plus grande et une meilleure production. L'exercice est unanimement reconnu pour le développement de la santé et l'amélioration de la qualité de vie, diminuant ainsi les risques de développement de maladies chroniques et agissant comme facteur clé pour accroître la longévité. Cette étude a pour objet de discuter les bienfaits de la gymnastique au travail et de l'exercice physique dans la prévention et la prise de conscience de ces maladies et dans l'intervention sur les milieux de travail, familial et social ; visant à donner à travers une révision bibliographique des informations qui rendent possible une meilleure intégration de cette pratique dans le quotidien. Ce travail a été réalisé à partir de thèses de doctorat, mémoires de master et articles scientifiques indexés, rencontrés dans des bibliothèques virtuelles, des périodiques et des revues scientifiques. Une recherche fine a été réalisée dans le but de sélectionner des articles indexés en relation avec l'exercice physique, ses bienfaits et recommandations ; la gymnastique au travail et la santé du travailleur par le biais de la présence des descripteurs d'ergonomie, de la qualité de vie et de l'aptitude physique.

MOTS-CLÉ : Exercices physiques ; gymnastique laborale ; qualité de vie.

BENEFICIOS DE LOS EJERCICIOS Y GIMNASIA LABORAL

RESUMEN:

Los beneficios de la gimnasia laboral son de carácter físico, psicológico y social para el trabajador, existiendo diversas ventajas para la empresa como: mejoría del entorno laboral , buenas relaciones interpersonales; generando mayor y mejor producción. El ejercicio se convirtió en una unanimidad en la promoción de la salud y mejoría de la calidad de vida, disminuyendo los riesgos de desarrollo de enfermedades crónicas y actuando como factor llave en el aumento de la longevidad. Este estudio tienen como propósito discutir los beneficios de la gimnasia laboral y del ejercicio físico en su prevención, concientización e intervención en el ambiente de trabajo, familiar y social; buscando proporcionar a través de una revisión bibliográfica informaciones que posibiliten una mejor incorporación al cotidiano. El presente trabajo fue desarrollado a partir de tesis de doctorado, disertaciones de maestría y artículos científicos indexados, recopilados en bibliotecas virtuales, periódicos y revistas científicas. Fue realizada una búsqueda refinada con la finalidad de seleccionar artículos indexados relacionados al ejercicio físico, sus beneficios y prescripción; gimnasia laboral y salud del trabajador mediante la presencia de los descriptores de ergonomía, calidad de vida y aptitud física.

PALABRAS LLAVES: Ejercicios físicos; gimnasia laboral; calidad de vida.

BENEFÍCIOS DOS EXERCÍCIOS FÍSICOS E GINÁSTICA LABORAL

RESUMO:

Os benefícios da ginástica laboral são de caráter físico, psicológico e social para o trabalhador, havendo diversas vantagens para a empresa como: melhoria do meio ambiente de trabalho, boas relações interpessoais; gerando maior e melhor produção. O exercício tornou-se uma unanimidade na promoção da saúde e melhora da qualidade de vida, diminuindo os riscos de desenvolvimento de doenças crônicas e atuando como fator-chave para aumentar a longevidade. Este estudo tem como

propósito discutir os benefícios da ginástica laboral e do exercício físico na sua prevenção, conscientização e intervenção no ambiente de trabalho, familiar e social; visando proporcionar através de uma revisão bibliográfica informações que possibilitem uma melhor incorporação no cotidiano. O presente trabalho foi desenvolvido a partir de teses de doutorado, dissertações de mestrado e artigos científicos indexados, coletados em bibliotecas virtuais, periódicos e revistas científicas. Foi realizada uma busca refinada com a finalidade de selecionar artigos indexados relacionados ao exercício físico, seus benefícios e prescrição; ginástica laboral e saúde do trabalhador mediante a presença dos descritores de ergonomia, qualidade de vida e aptidão física.

PALAVRAS-CHAVE: Exercícios físicos; ginástica laboral; qualidade de vida.

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