

## 170 - ANALYSIS OF THE CORONARY DISEASE RISK IN FEMALE FEDERAL CIVIL SERVANTS OF NOVA IGUAÇU – RJ, YOGA'S PRACTICING AND NON-PRACTICING USING THE ASSOCIATION WITH WAIST-HIP RATIO (WHR).

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### INTRODUCTION

We hear with increasing frequency that physical activity provides many benefits to the health of a person, which is in fact true. Today the quest for physical exercise is no longer just for beauty and is now also used to improve the quality of life and health promotion. However, not all individuals have become adept at these practices, thus forming a large mass of the population can be classified as sedentary. The sedentary lifestyle is not a desirable condition since the risk to health.

To MCARDLE (2008), individuals who do not practice any physical activity of moderate-vigorous intensity are more likely to develop metabolic syndrome, compared with those who practice about 150 minutes a week.

Included in the metabolic syndrome, obesity is a disease that is closely linked to the rise of coronary problems, and physical inactivity is one of the main products for an individual will become obese. It could perhaps say that the number of inactive people grow more and more because of the high technology that happens worldwide, as they are more accommodating and more resources to carry out activities that previously only possible with some expenditure of energy, change the TV channel is an example, before it was necessary to get up and go to the device, now just a click of the remote control and that is it.

Based on the ideology of physical activity versus sedentary lifestyle the study aims to evaluate the coronary risk of female federal civil servants by WHR, and these women are divided into two groups: yoga's practicing and non-practicing. The research is justified because it can serve as a warning and encouragement for women who do not practice this activity, should be certified a negative result on the same risk of developing some type of coronary disease.

### THEORETICAL REFERENCE

#### Coronary Diseases

The coronary heart disease can be classified as those affecting the heart or cardiovascular system.

MCARDLE (2003) cited in Monteiro (2009), says that coronary artery disease, are usually degenerative changes in internal or inner lining of arteries that supply the caliber heart muscle.

VARELA (2004) explains that in developed countries is already a perceptible increase in the mortality rate of women resulting from acute myocardial infarction. He claims that these deaths may be related mainly to changes in behavior and bad habits such as smoking, eating poorly, drug use and physical inactivity.

DANTAS (2004) says that in Brazil, obesity is considered as an larger question more than hunger, and chronic diseases and premature mortality are linked to excess body fat.

According to MONTEIRO (2009), prevention is the smart alternative when the goal is to reduce the risk of developing any heart disease. It also explains that maintaining healthy habits and physical activity are ways to prevent the possible occurrence of these diseases.

GOLDMAN (2001) says that overweight people have greater chances of having hypertension and cardiovascular risks, and explains that weight loss is directly linked to lowering blood pressure, and potentially a more effective among non-pharmacological.

To analyze the risks of the emergence of some type of coronary disease in individuals, we can use the waist-hip ratio.

To CARNIVAL (2004), the RCQ is one of the main index perimeters that indicate the risk of developing any heart disease, by assessing the centralized fat.

### YOGA AND BENEFITS

LAGE (2006) explains the Yoga is a philosophical and practical system that relies on methods to unify the different elements of human psychic side where the practitioner uses the techniques trying to eliminate their agitation, maintaining a harmonic field of itself.

WARRIER (1997) cited in PINHEIRO (2007), explains that Yoga and is a type of exercise or physical activity, is also a philosophy of the East that brings together the psychological, physical and organic human being through the mind

There are different types of Yoga, the more the main focus are to analyze the benefits that this practice provides in relation to obesity and coronary problems.

At first Yoga is not presented as the main activity to promote weight loss, but if we look physiologically its possible see a performance that even indirect aid in weight loss and prevention of coronary heart disease.

VASCONCELOS (2006), explains that yoga can improve force and muscle flexibility, and also help to control physiological variables such as blood pressure, metabolic rate, respiratory rate, and contribute to improved quality of life.

Inside the Yoga we have Ásanas, which are the postures and Pranayamas, which corresponds to the breath.

According A'CARIA (2001) the positions represent a scientific system of exercises that would maintain physical health stimulate the circulation and massaging the internal organs.

Analyzing the breathing exercises, Kupfer (1998), explains that these exercises increase lung capacity, improve cardiovascular function, helps in weight reduction, and improving digestion.

The Yoga's methods are also sought to soften the effects of stress caused on a daily basis due to several factors.

BALLONE (2003) defines stress as a physiological event caused both from the standpoint of physical and emotional. This state cannot be good for our body, among numerous physiological responses we have the example of the production of the hormone cortisol, which in excess, cause undesirable effects.

LUZ (2006) explains that cortisol is a hormone synthesized by the adrenal glands, the result of a stressful situation. He says that cortisol is known as the stress hormone.

SOARES (2006) explains that the excess cortisol can cause a decrease in the activity of hGH and testosterone in the body, lost of body mass, accumulation of abdominal fat, lower glucose utilization, reduced immunity, loss of memory, learning

difficulties and osteoporosis.

**METHODOLOGY**

The study was developed through field research, and descriptive type according to Thomas and Nelson (2002).

**SAMPLE**

The study shows 31 female federal civil servants, with ages ranging between 29 and 61 years, 17 of them yoga's practicing and 14 non-practicing.

**PROCEDURES**

We were made an application for authorization of the supervisory public agency that booked a date to the data collected. To analyze the WHR were measured the waist and hip of the sample, who were dressed appropriately for the process. To sort the data was also necessary to know their ages. All were informed that the data's use would be exclusively for scientific purposes and that no names would be revealed.

**MATERIALS**

To collect data, we used an anthropometric tape of Sanny kind and a notebook.

**RESULTS**

Picture 1 – Classification of the employees that not practicing physical activity.

	Waist (cm)	Hip (cm)	Age	RWH	Classification
A	92	108	54	0,85	Hig
B	96	104	61	0,92	Very High
C	109	113	53	0,96	Very High
D	94	111	51	0,84	High
E	86	104	55	0,82	High
F	93	105	54	0,88	Very High
G	89	112	53	0,79	Moderate
H	93	112	49	0,83	High
I	101	113	57	0,89	Very High
J	109	133	48	0,81	High
L	108	117	57	0,92	Very High
M	137	134	47	1,02	Very High
N	129	124	50	1,04	Very High
O	115	119	50	0,96	Very High

Picture 2 – Classification of the employees that practising physical activity.

	Waist	Hip	Age	RWH	Classification
A	89	106	51	0,83	High
B	77	101	54	0,76	Moderate
C	79	99	45	0,79	Moderate
D	78	100	51	0,78	Moderate
E	67	100	29	0,67	Low
F	97	108	53	0,89	Very High
G	81	103	52	0,78	Moderate
H	97	121	53	0,80	Moderate
I	80	106	49	0,75	Moderate
J	79	102	45	0,77	Moderate
L	119	122	61	0,97	Very High
M	71	100	57	0,71	Low
N	81	105	42	0,77	Moderate
O	76	98	46	0,77	Moderate
P	86	112	55	0,76	Moderate
Q	93	102	46	0,91	Very High
R	90	111	40	0,81	High

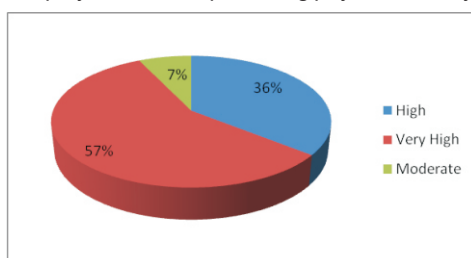
Picture 3 – Feminine Classification.

FEMININE CALSSIFICATION				
AGE	LOW	MODERATE	HIGH	VERY HIGH
20 a 29	<0,71	0,71 a 0,77	0,78 a 0,82	>0,82
30 a 39	<0,72	0,72 a 0,78	0,79 a 0,84	>0,84
40 a 49	<0,73	0,73 a 0,79	0,80 a 0,87	>0,87
50 a 59	<0,74	0,74 a 0,81	0,82 a 0,88	>0,88
60 a 69	<0,76	0,76 a 0,83	0,84 a 0,90	>0,90

Fonte: Bray & Gray (Guedes e Guedes 2006)

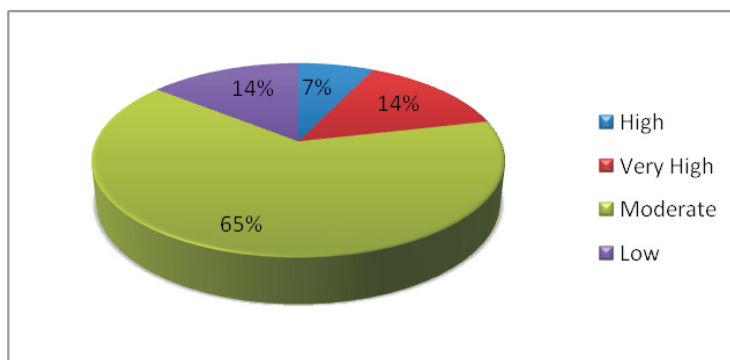
For one better analysis of the data, the results had also been express graphically, as show the graphs 1 and 2.

Graph 1 – Classification of the employees that not practicing physical activity.



source: the author

Graph 2 – Classification of the employees that practising physical activity.



Source: the author

Being based on the table of classification as Guedes and Guedes (2006) we can realize a high number of women not practicing of Yoga with risks classified as very high if compared with the practitioners is noticed who had presented lesser risks very. It is also noticed that no not practicing women presented risk classified as low, this classification exist in the group that carries out physical activity.

### CONCLUSION

With the study it is possible to conclude that the employees who adopt the practical one of the Yoga had presented minors risks to develop some coronary disease with only 14% of them presenting risks classified as Very High and 7% with High Risk, while the not practicing ones had presented 57% of risks classified as Very High and 36% with High Risk.

One suggests that more research are made having aimed at to identify the risks of coronary disease in different populations and the benefits of the Yoga in relation to the coronary disease and their effects in the individuals.

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### ANALYSIS OF THE CORONARY DISEASE RISK IN FEMALE FEDERAL CIVIL SERVANTS OF NOVA IGUAÇU – RJ, YOGA'S PRACTICING AND NOM-PRACTICING USING THE ASSOCIATION WITH WAIST-HIP RATIO (WHR).

#### ABSTRACT

The number of deaths due the coronary heart disease is increasingly growing every day. The Beginning of these diseases can happen for several reasons, one of them is obesity. Physical activities like Yoga and maintain healthy habits may be valid to prevent these diseases in our lives. The study aims to analyze the coronary heart risk of female federal civil servants yoga's practicing and nom-practicing by WHR. We measured the waist and hip of 31 women, age group ranges from 29 to 61 years. The results show that the women that practice yoga have a lower risk of developing some type of heart disease compared with those women who do not practice this activity.

**KEYWORDS:** Coronary heart disease risk, Female federal civil servants, Yoga.

**ANALYSE DES RISQUES CORONARIENNES DANS LES FEMMES FONCTIONNAIRES PUBLIQUES FÉDÉRALES DE LA VILLE DE NOVA IGUAÇU - RIO DE JANEIRO, PRATICIENS ET NON PRATIQUANTES DE YOGA, À TRAVERS LA RELATION CEINTURE HANCHE (RCH).****RÉSUMÉ**

Chaque fois croître le nombre de mort causée pour lès maladies coronariennes. Le bourgeonnement de ces maladies peut se produire dû à plusieurs raisons, um d'elles est l'obésité. Pratiquer dès activités physiques comme yoga et maintenir habitudes saines peuvent être ressources de prévention valables pour que ces maladies ne se présentent pas pendant notre vie. L'étude a eu comme objectif analyser lès risques coronaire de femmes fonctionnaires publiques qui pratique et qui ne pratique pas yoga à travers (RCH). On été examinés lès périmètres de la ceinture et de le hanche de trente et un femmes, avec le band étaire qui varie de vinte et neuf à soixante un ans. Les résultats démontrent qui les fonctionnaires pratiquantes de yoga présentent les mineurs risques de développer quelque type de maladie coronarienne en comparant avec les fonctionnaires qui ne pratiquent pas l'activité.

**MOT DE PASSE:** risques coronaire, fonctionnaires publiques, yoga.

**ANÁLISIS DE RIESGOS DE ENFERMEDADES CORONARIAS EN MUJERES FUNCIONARIAS PÚBLICAS FEDERALES DE LA CIUDAD DE NOVA IGUAÇU - RJ, PRACTICANTES Y NO PRACTICANTES DE YOGA, POR LA RELACIÓN DE LA CINTURA - CADERA (RCC).****RESUMEN**

Cada vez más, hay um creciente número de muertes por enfermedades coronarias. La aparición de estas enfermedades puede ocurrir por varias razones, una de ellas, es la obesidad. Práctica de actividades físicas como yoga y mantener prácticas saludables pueden ser un medio válido de la prevención de estas enfermedades que no están presentes en nuestras vidas. El estudio tuvo como objetivo analizar el riesgo coronario de las mujeres funcionarias publicas practicantes y no practicantes de Yoga por la RCC. Se midió la cintura y la cadera de 31 mujeres, rango de edad que va desde 29 hasta 61 años. Los resultados muestran que las practicantes de Yoga tienen un menor riesgo de desarrollar algún tipo de enfermedad cardiaca en comparación con aquellas que no practican esta actividad.

**PALABRAS – CLAVE:** Enfermedades coronarias, funcionarias publicas, Yoga.

**ANÁLISE DOS RISCOS CORONARIANOS EM MULHERES FUNCIONÁRIAS PÚBLICAS FEDERAIS DA CIDADE DE NOVA IGUAÇU – RJ, PRATICANTES E NÃO PRATICANTES DE YOGA, ATRAVÉS DA RELAÇÃO CINTURA QUADRIL (RCQ).****RESUMO**

Cada vez mais cresce o número de mortes devido às doenças coronarianas. O surgimento dessas doenças pode ocorrer devido a vários motivos, um deles é a obesidade. Praticar atividades físicas como Yoga e manter hábitos saudáveis podem ser recursos de prevenção válidos para que essas doenças não se apresentem durante nossa vida. O estudo teve como objetivo analisar os riscos coronarianos de mulheres funcionárias públicas praticantes e não praticantes de Yoga através da RCQ. Foram aferidos os perímetros da cintura e do quadril de 31 mulheres, com faixa etária que varia de 29 a 61 anos. Os resultados demonstram que as funcionárias praticantes de Yoga apresentam menores riscos de desenvolverem algum tipo de doença coronariana se comparadas com as funcionárias que não praticam a atividade.

**PALAVRAS-CHAVE:** Riscos Coronarianos, Funcionárias Públicas, Yoga.

PUBLICAÇÃO NO FIEP BULLETIN ON-LINE: <http://www.fiepbulletin.net/80/a2/170>