

STRESS AND SEDENTARINESS IN DAILY LIFE AND KINETIC CONTROL MEANS

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Abstract: Annually, sedentary lifestyle and stress kill about 5.3 million people, 10% respectively of all deaths worldwide. So we applied 100 questionnaires on subjects of different ages, in rural and urban areas, with different business areas in order to highlight the sedentary lifestyle and stress levels at work in terms of actual life. After the centralization of the questionnaires we selected 2 persons C.A. 25 years old and C.M. 48 years old with whom I have implemented a kinetoprophylaxy program at work. They followed an easy program, structured on 15-20 minutes sessions, twice a week at lunch break with relaxation, breathing and stretching exercises. A balanced and healthy diet, a well-structured schedule, more leisure time, more frequent walks and more emphasis on moving lead to diminishing the negative effects of stress.

Introduction:

Annually, sedentary lifestyle kills about 5.3 million people, 10% respectively of all deaths worldwide. An international survey indicates that in the absence of movement, the body is susceptible to developing diabetes, cancer and cardiovascular diseases. Worldwide, studies show that people who die from sedentariness have a number almost equal to that of death due to smoking, which is a worrying thing. [1, 2]

One of the sedentariness reasons is the increasingly advanced means of transportation but also the industrialization and spending as much time watching TV or using various gadgets. 70% of the teenagers spend more than 2 hours / day on TV. [1]

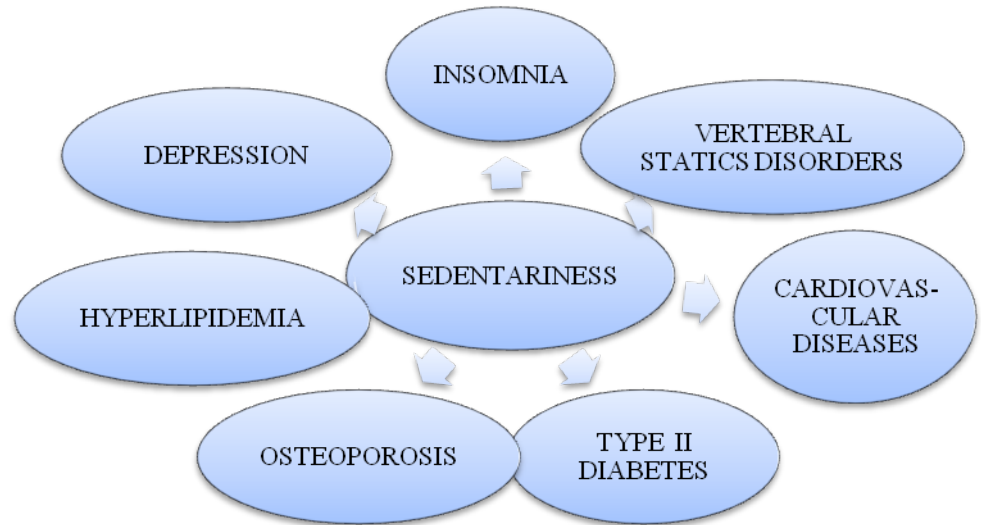


Fig.1 Diseases caused by sedentary

Hippocrates is the first doctor who noticed the relationship between movement, muscles and the value of physical and mental exercise in human life[3]

Kinetotherapy is a therapy that has been applied when suffering appeared, helping the patient to regain his autonomy, to reintegrate in daily life, movement having positive effects on both patient's body and pshyctic.[4]

The body's position is sustained by the passive system (represented by the spine, the pelvis, and the superior and inferior members) and the active system represented by the neuro-muscular system. We do nowadays our jobs by standing or sitting, only with our hands, without moving other parts of our body. While our attention, concentration and nervous tension increase our moves become more limited.[5,6] The scale of standing jobs is extremely high, the number of the working hours lead to fatigue and in this way our efficiency decreases. In order to prevent these effects we recommend movement at the office, relaxation and gymnastics exercises.[7]

Material and method

The purpose of this paper is to create a study in order to observe the static problems and thereby to help people become aware of the negative effects of the everyday's sedentary environment.

The main objectives of the research are:

- ✓ Promoting movement and physical exercise in everyday environment;
- ✓ Raising the awareness of the danger caused by the sedentariness;
- ✓ Correcting the ideal position at the office;
- ✓ Raising the awareness of movement benefits or breathing exercises;
- ✓ Initiating subjects in physical activities, swimming and other leisure activities;
- ✓ Gaining the bio-psycho-social equilibrium;
- ✓ Educating subjects in getting a diet and practicing physical exercises for an optimal health.

The balance between body, spirit and mind is very important in our life, but mostly in fighting against static spinal diseases, stress, sedentariness, obesity and all the other harmful existing conditions. This balance is not acquired by birth, but we must learn how to balance it towards the positive side.

But there are some techniques and exercises that help maintain or acquire it, which we highlighted in a questionnaire applied on 100 subjects of different ages, in rural and urban fields, with different business areas.

After the centralization of the questionnaires we selected 2 people C.A. 25 years old and C.M. 48 years old with whom I implemented a kinetoprophyllaxy program at work. They followed an easy program, structured on 15-20 minute sessions, twice a week at lunch break, with relaxation, breathing or stretching exercises. They worked progressively, from easy to difficult, from simple to complex. After the anamnesis, it has been found that they did not have so far other diseases. Subject C.M. only presents pain in the lumbar spine due to incorrect posture at work.

For a proper implementation of the program, we complied with a series of rules:

- the program was conducted in a relatively short time, it was not wasted time in changing equipment or in moving to a wider location. The exercises were adapted to the existing situation.
- exercises had a custom profile made for those muscle groups that are not used at the office.
- basic training methods were followed in such a way that the subjects were able to carry out their daily activities without pain, would not suffer, not get tired or not to feel overwhelmed.

Each training session began with a short warming up of the musculoskeletal system, some breathing exercises and then some

stretching exercises. Each session ended with views from both sides, opinions and discussions about the effects and benefits of the movement and the time management, so they can get active even 15 minutes a day.

Results and discussions:

After analyzing the data in the questionnaire, I can say that 15.7% of the interviewed subjects live in a sedentary environment; they do not have time to move, while 46.1% exercise only when they have time and only 38.2% have a regular physical activity.

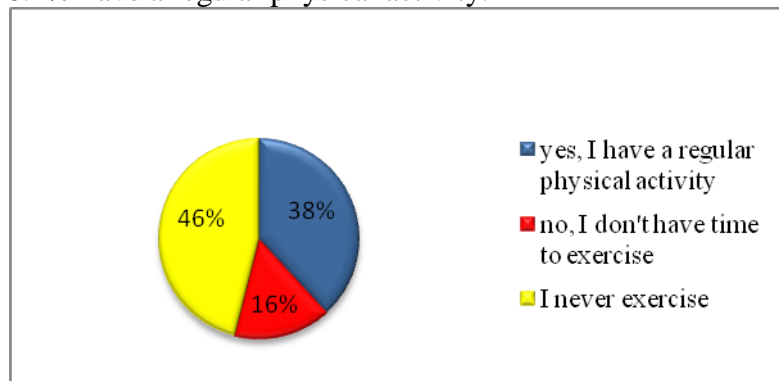


Fig. 2 Weighting physical activity

I also observed that about 40% of the respondents have physical activity an hour or two per week and 30% have a moderate physical activity of 3 – 4 hours per week.

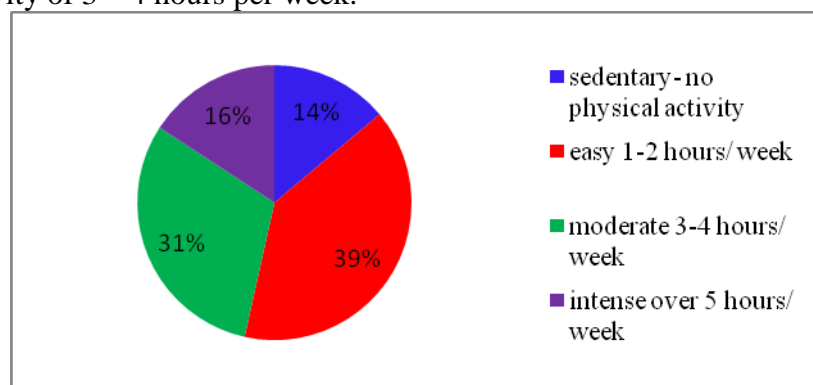


Fig. 3 Physical activity per week

63% of the subjects do not pay special attention to diet but 52% eat daily fruits and vegetables. Those who do not pay special attention to diet, blame lack of time (66,3%), fatigue (28,4%) or work (22,1%).

About 62% of the subjects think they have a partially chaotic life, 31 % say they have an ordered life and the rest of 7% think they are totally chaotic.

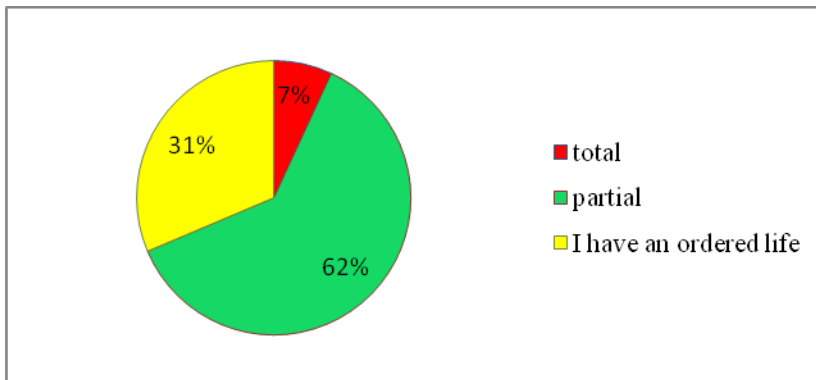
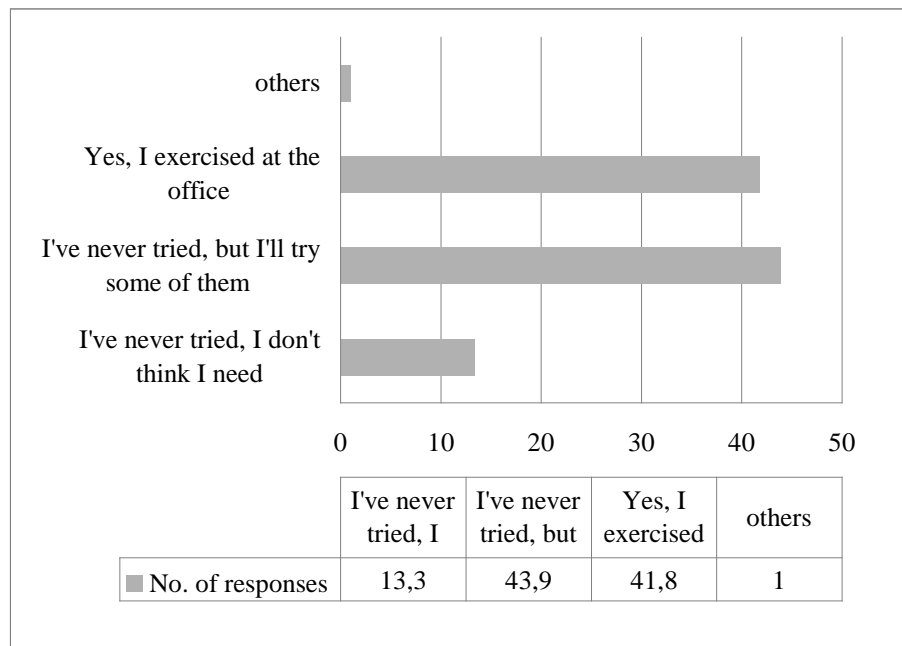


Fig.4 Daily lifestyle

On a scale of 1 to 5, 55% said that stress affects them 3/5, 20% said that stress affects them 2/5 and 9% said that stress affects them 5/5 and only 11% are not affected by stress.

An open answer question related to the daily stress and sedentary management in a company was raised among the subjects. The respondents gave the following answers: five of them said that music would be an opportunity to prevent stress, two replied that team sports would relax them, others stated that doing nothing, eliminating deadlines and 5-10 minutes short breaks every hour are good ways to eliminate stress. Some employees suggested they would practice sport, would like to receive subscriptions at the gym, pool or have some special recreation rooms. Another person replied that he wished to feel the team spirit at the office and that the best way to combat stress would be to treat the others nice, in order to feel better. Another category of subjects want to do yoga, sports, walks, team activities, play tennis, billiards or having a massage.

The question "Do you practice physical relaxation exercises at the office?" 41,8% answered that they did, 43,9% of the respondents said that they had never tried relaxation exercises at the office, but they would try and 13,3% said they didn't need any.



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g. 5 Exercise at the office

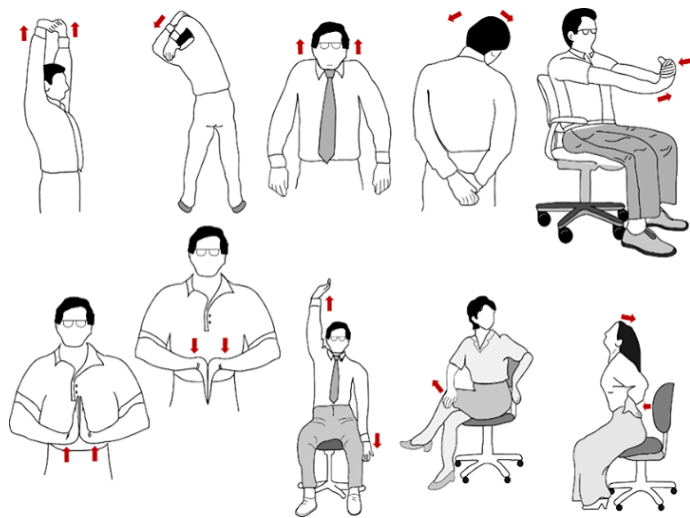


Fig. 6 Stretching exercises at the office

(www.google.ro/exercitii+la+birou&w=655&bihource=lnms&tbm)

After having presented a few exercises at the office, the subjects say they would try them with the first occasion and they think that these exercises are beneficial.

After the analysis and discussions carried out with the two subjects we worked kinetoprophylactic exercises with, the subjects declared that they felt better, that the work program is carried lighter, lower back pain has stopped appearing, time passes quickly, the day ends in a nice way, there are not so stressed out mentally and physically and they feel much better than before the exercises [8].

After a few kinetoprophylactic sessions, where the subject C.A. exercised balancing on Bobath ball, he changed his office chair with it, because he felt better and had a correct and more comfortable position.

Conclusions

Following this study, some conclusions were revealed:

- a balanced and healthy diet, a well-organized program, more leisure time, more frequent walks and more emphasis on moving diminish the negative effects of stress[9];
- employees of companies with an average sedentary environment do not realize the severity of their problems, which are often caused by sitting at desk for hours.
- through questionnaires and kinetoprophylaxy exercises they were able to acknowledge and to maintain the correct position at work,
- surveyed people try to adopt a balanced lifestyle and exercise as often as possible
- static problems are common in sedentary environment and therefore information regarding the correct position at the office have brought a real benefit in combating static disorders and in the occurrence of static physical deficiencies.

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STRESUL SI SEDINTARISMUL IN VIATA COTIDIANĂ SI MIJLOACE KINETICE DE COMBATERE

Cuvinte cheie: kinetoprofilaxie, stres, sedentarism, activitate fizică

Rezumat: Anual, sedentarismul si stresul ucide aproximativ 5,3 milioane de persoane respectiv, 10 % din totalul deceselor de la nivel mondial. Astfel am aplicat 100 de chestionare pe subiecți de vârste diferite, din mediul urban și rural, cu domenii de activitate diferite, pentru a evidenta nivelul sedentarismului si al stresului la locul de munca in conditiile vietii actuale. Dupa centralizarea chestionarelor am selectat 2 persoane C. A. de 25 ani și C.M. de 48 de ani pe care am alicat un program de kinetoprofilaxie la locul de muncă. Acestia au urmat un program lejer, structurat pe sedințe de câte 15-20 de minute, de două ori pe săptămână în pauza de masă, cu exerciții de relaxare, de respirație si stretching.

O dietă cât mai echilibrată și sănătoasă, un program bine stabilit, mai mult timp liber, plimbări mai dese și mai mult accent pe mișcare duce la diminuarea efectelor negative ale stresului.