

PERSON IN A CITY: RATIONAL TIME DISTRIBUTION AND HEALTHY FEEDING

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Modern humanity is experiencing numerous health problems due to a number of factors, including malnutrition, inadequate distribution of time, lack of mental and sports activity, deterioration of the ecological situation in general. This article talks about the need to overcome modern "diseases of civilization" with the help of a rational and proper diet, an active lifestyle and the right distribution of time during the day. The idea is being pursued that a healthy and balanced diet is a vital parameter of a modern man. The analysis and recommendations of the diet are presented both temporally and in terms of combining food with each other. These recommendations are presented in tabular and schematic versions with subsequent analysis and conclusions and are useful for people, regardless of gender and age.

Key words: health, proper diet, "diseases of civilization", daily regime, activity, inertia, employment.

[М.Б. Уминская, В.Г. Кузьминов, А.А. Салганов, Н.А. Ключева Человек в городе: рациональное распределение времени и здоровое питание]

Современное человечество испытывает многочисленные проблемы со здоровьем вследствие ряда факторов, в том числе неправильного питания, неверного распределения времени, недостаточности умственной и спортивной активности, ухудшения экологической обстановки в целом. В данной статье говорится о необходимости преодоления современных «болезней цивилизации» с помощью рационального и правильного питания, активного образа жизни и верного распределения времени в течение дня. Проводится идея, что здоровый и сбалансированный рацион является жизненно необходимым параметром современного человека. Представлены анализ и рекомендации режима питания как во временном отношении, так и в плане сочетания между собой продуктов питания. Данные рекомендации представлены в табличных и схематичных вариантах с последующим анализом и выводами и являются полезными для людей, независимо от пола и возраста.

Ключевые слова: здоровье, правильный режим питания, «болезни цивилизации», режим дня, активность, инертность, занятость.

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The present-day life rhythm has sufficiently accelerated. People are under constant mental and emotional strain. They experience intellectual and emotional tiredness not only after a hard day's work, but as the result of mental overstrain, emotional overload connected with redundant stay in social networks, in the internet, excessive watching TV, etc. All this is a cause of still more unstable, nervous state (which is especially characteristic of the modern youth), expressed in increased nervousness, irritability, unmotivated aggressiveness. In a word, the world of people has become less stable. Moreover, of course, this status quo, nervousness, emotionality, mental overstrain are told on the physical condition of people, their state of health [7].

The majority of modern occupations require intense mental activity, emotional and intellectual steadiness, diligence and other human qualities and abilities. The present-day people since their school days are disciplined to perform excessive labor, when young school-age children are given enormous home assignment in all subjects. Being engrossed into work or study, a person just stops to observe life. The virtual world provided by the internet, social network and other computer facilities, offer people certain positive emotions and possibility to forget about the routine for some time.

Nevertheless, the virtual substrate cannot substitute the real world to a man, his real life. As far as the modern life is concerned, it may be defined as the hustle and bustle of a big city. Very few lead a normal stable life to afford a walk or some leisure time thus making life work for them. Quite many Russian pensioners though retired go on working to earn money for their pension is not sufficient for life. It occurs that sooner a man works for his life than life works for him. The modern world lacks positivity, its routine – study, home, family, work are rather substitutions than life itself.

Such status quo could have been taken for stability, least it were not lacking sense in case the work or study do not make people happy. There are individuals discontented with their work, social position, level of education, but these are their personal problems. Substantial is the fact that our contemporaries may be compared with squirrels running round in a cage with no long stopping [8].

Since a man is constantly occupied, he has little time to think about himself, his place in the world, and the meaning of life, etc. People attempt to escape unpleasant emotions they get reflecting over such things in any possible way. Anyhow, there is one positive moment – permanent income. Those having more than one jobs, continuing to work on pension, or having one job only get a fixed income. They acquire certain confidence in the future, they know what they will have to eat, what transport means to move in, whether they will be able to afford travelling, going to the theatre, restaurant, etc.

The present-day world's rhythm makes people feel discomfort caused by emptiness and inanity of their allegedly full life. The phenomenon when prosperous people with high income dream to move to the country to be closer to nature, to lead a leisurely life is widely spread. And they do so when on pension. The reason lies not solely in the ecological problems of modern megapolises, but in the accelerated rhythm when time flies fast, and business does not wait.

Under conditions of time shortage people become to alienate from themselves, their inner hearing deadens, realization of needs and wants lacks adequacy. A person stops to feel positive emotions paying no attention to the life around him, and starts to resemble a programmed robot.

The rigid algorithm of behavior at work, at home, in educational institution, in other public places, the mere sense of being in the rut leads to the situation of discomfort. People are unable at times to properly interpret signals sent by their organism and psyche. They strive to overcome discontent, low mood, weariness because of monotony of occupation by overnutrition, alcohol, TV, computer games and social networks [8].

All this leads to various deceases:

- a. Sleep disorders
- b. Drastic change of mood
- c. Gain of weight
- d. Metabolic problems
- e. Lack of energy
- f. Cardiac rhythm disturbance, blood pressure

If TV, computer, social network have become habitual in our life, correct diet for people of different occupations should be different.

Office workers deserve special attention since they have their own notion for correct diet. One of the most substantial prerequisites for longevity is correct nutrition. A man can preserve perfect outlook and health if he minds his way of life and character of food he eats [5, 68].

It should be noted that various snacks, sandwiches, pastry, etc. in combination with large amounts of coffee and sedentary way of life of office, education, medical workers, etc. may cause health problems, overweight and psychological discomfort [6].

The life-style of office workers is predominantly sedentary. This category work a lot with a computer, gadgets and think about their carrier growth. People of the kind need the food to increase their mental ability, namely, indices of attention, memory, speed of thinking, reaction, etc. More than the others they need a useful, full, hearty breakfast to include products like gruels, cereals, eggs, cottage cheese as well as milk and sour milk products. This ration is a condition of proper digestion, and will support the worker for a long time since many such products are assimilated for long. Examples are milk gruel, curds with bananas dressed with cream, oat grain porridge, etc.

Breakfast ought to be combined with a cup of cocoa or coffee. In the day time a cup of tea for vivacity is recommended.

The basis of the ration of sedentary workers should consist of fruits, vegetables, fish, lean meat, grains (rice, buckwheat). The following variant may serve as an example: salad (containing possibly chicken meat), rice with a slice of boiled chicken or beef fillet and tea, which will help to be active in the afternoon. Use of meat during lunch is important since it improves metabolism [6].

The category of sportsmen should be singled out. Their activity is directly related to considerable expenditure of energies to be periodically restored owing to a certain food ration. Their nutrition is more complex, that means it should include not only proteins in the form of meat products but useful products saturated with vitamins and minerals the use of which influences the work capacity of sportsmen [2, c. 5].

It must be emphasized though, that content of carbohydrates should not exceed 60 percent of the total quantity of energy supplied to the organism with food. Use of products saturated with carbohydrates during day and night should be on average 10 grams for 10 kilos of the weight of a sportsman (i.e. from 500 to 1000 grams). This round-the-clock ration includes simple sugars (sucrose, fructose, glucose) as well as starch and cellulose.

Percentage of their use varies depending on the character of the forthcoming physical activity.

If the activity of a sportsman is rather intense but relatively short, simple sugars should dominate in food, for instance, in the form of fruit juices, drinks, jelly. If the activity is long-term but rather modest and variable, the complex in line with simple sugars should include compound polymeric carbohydrates (i.e. starch, cellulose) [2, c.11].

Fats is another source of energy in an organism.

The portion of fats varies from 20 to 30 per cent of the total of the consumed quantity of energy. Fats are used not only as a substrate of energy transformations but they are indispensable in cell membrane construction as well as some hormones and ferments, which catalyze key reactions of organism's metabolism [2, c.12].

The portion of proteins in the sportsman's ration bottoms out compared to the above-mentioned indexes, and averages not more than 10-15 percent of energy gained from food. It depends though on the activity of a sportsman. If he is engaged in bodybuilding, the portion of proteins grows significantly. If it is an active sport, for instance long distance running, box, carbohydrates, fats and proteins prevail.

Sportsman should take into consideration that function of proteins may not be reducible to energy need satisfaction. Proteins are the basic building material of man's organism, which has to grow and maintain structural integrity of essential organs and tissues. Proteins are as well necessary for building digestive enzymes participating in formation of antibodies in the organism protection immune system. Proteins are polymeric compounds consisting of amino acids [1, c.230].

If we consider the working man in general, with no reference to profession, the following recommendation as to variety of products in the ration should be given [5, c.75]:

1. Milk and sour milk products;
2. Eggs, meat, fowl, fish;
3. Groats, bakery, pasta, pastry;
4. Fats;
5. Vegetables;
6. Fruits, berries, juices.

If there is a choice – thick but rare nutrition or medium or small portions at a time, it's better to choose the second variant. If a working man pays proper attention to products in his ration, he should mind distribution of calories during a day.

It is advisable to plot a schedule (order) of nutrition, which prevents stomach from overstraining and helps to distribute utility of products properly. Gradually the organism will get used to the order (schedule) of nutrition. If before a man was tempted by the desire to violate the schedule, little by little he will get into the habit of following the procedure, and his cenesthesia and health will be much better. It is not recommended to disturb the established schedule average in thickness, if a person missed the opportunity to have lunch, he would better not have a double dipper in the evening, it is better to have a hearty breakfast. An approximate schedule is given in Table 1 [9].

Table 1 – Recommended dietary pattern

Period of time	Blanket recommendation
Breakfast from 8 to 9 a.m.	It is necessary to use more carbohydrates, less proteins
Lunch from 12 to 14 p.m.	It is necessary to place the emphasis on rich dishes like soups, second meat dishes, bird dishes, salads.
Mid-afternoon snack from 16 to 17 p.m.	Desist from fat food (floury and pastry)
Supper from 19 to 20 p.m.	Include into the ration fatless fish, stewed vegetables, sour milk products (kefir)

Foods are combined and digested differently. For example, meat and milk are digested relatively slow, and require much energy for processing. Others, for instance kefir, almost instantly get from the stomach into the bowels. To prevent overstraining of the organism it is necessary to combine foods, which are consumed jointly, and thus provide for correct nutrition. Food compatibility is shown in table 2 [9].

Table 2 – Food compatibility

Good compatibility – G	Normal compatibility – N																	Bad compatibility – B																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Meat, fish, fowl (lentern)	1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Corn, legumes	2	B	N	G	G	B	N	B	B	G	G	B	B	B	B	G	B	B	B	B	G	B	B	B	B	B	B	B	B	B	B	B	B	
Butter, cream	3	B	N	N	B	B	G	G	B	G	G	N	B	N	B	N	B	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Sour cream	4	B	G	N	N	B	G	G	N	G	G	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Oil	5	B	G	B	N	B	G	G	N	G	G	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Sugar	6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Pastry	7	B	N	G	G	G	B	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Bread, cereals, potato	8	B	B	G	G	G	B	B	N	G	N	B	N	G	B	N	G	B	B	N	B	B	B	B	B	B	B	B	B	B	B	B	B	
Sour fruit, tomato	9	B	B	B	N	N	B	B	N	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Sweet fruit, dried fruit	10	G	G	G	G	G	G	G	G	G	G	N	B	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
Green vegetables, non-amyloid	11	N	G	G	G	G	B	G	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Milk	12	B	B	B	B	B	B	B	B	N	B	N	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Curds, sour milk products	13	B	B	B	B	B	B	B	N	G	G	G	B	N	G	B	G	B	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Cheese, brynza (sheep milk cheese)	14	B	B	N	B	B	B	N	G	B	G	G	B	G	N	B	N	B	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Eggs	15	B	B	B	B	B	B	B	B	B	B	G	N	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Nuts	16	B	G	B	G	G	B	N	G	N	G	G	B	G	N	B	N	B	N	B	N	B	N	B	N	B	N	B	N	B	N	B	N	
Melon	17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	

A working person as people in general should learn to properly plan the working day so that to allocate the maximum time for rest after a hard working day, so that the organism's strain does not exceed the standard of labor activity. Below is a picture with a table representing time distribution [10].

Table 3 – Time distribution matrix

Crisis sector	Results	Quality of life sector	Results
<ul style="list-style-type: none"> ✓ Critical situations ✓ Urgent problems ✓ Stiff deadline projects ✓ High priority urgent matters requiring immediate participation 	<ul style="list-style-type: none"> ✓ Crisis management ✓ Stress, emotional strain ✓ Psychological burning out ✓ Fire extinguishing, eternal fight ✓ Destruction of life 	<ul style="list-style-type: none"> ✓ Prevention ✓ Value clarification ✓ Planning ✓ Recreation ✓ Search for opportunities ✓ Tie strengthening 	<ul style="list-style-type: none"> ✓ Perspective vision ✓ Efficiency ✓ Expediency ✓ Balance ✓ Satisfaction ✓ Crisis reduction ✓ Life control
Urgent + Important		Non-urgent + Unimportant	

I	II
III	IV

URGENT + NOT IMPORTANT		NOT URGENT + NOT IMPORTANT	
Crisis sector indication	Results	Degradation sector	Results
<ul style="list-style-type: none"> ✓ Pressure of those around ✓ Daily disturbers and distractions ✓ Realization of wishes and goals of others ✓ Some customary forms of activity 	<ul style="list-style-type: none"> ✓ Short-term focus ✓ Victim sensation ✓ Chameleon reputation ✓ Idea of uselessness of goals and plans 	<ul style="list-style-type: none"> ✓ Loss of time ✓ Confusion ✓ Waste-time trifles ✓ Idleness ✓ Drug addiction 	<ul style="list-style-type: none"> ✓ Irresponsibility ✓ Dependence on surroundings and drugs ✓ Accumulation of negative emotions ✓ Destruction of life

One of the possible recommendations is a pocketbook, which a person carries to work recording actions and the time of their accomplishment. Thus, he or she learns to distribute the working time and the day as a whole. To live according to the plan during working days is a prerequisite for success. This recommendation will help to create a positive impression in the eyes of superiors, set an example for his or her colleagues (who because of improper distribution of their resources – powers, abilities, time fail to accomplish certain business, missions, works), and move up the carrier ladder.

A healthy and well-balanced ration is a vital parameter of a person striving to keep his health up to the mark. People in the present-day world began to pay attention to their ration and review it from the point of view of usefulness, bearing in mind that food substantially influences the organism growth. Food provides power and energy for full development, especially in case the ration is arranged correctly. It may be asserted, though, with a certain degree of certainty that a human's health is 70 percent dependent on nutrition. Food is often a source of disease (for example, as a result of frequency of use of this or that food and method of its cooking).

Hypercholesterolia, obesity, caries, diabetes, fat disbolism, hypertonia, constipation – this is an incomplete list of the so-called civilizational diseases caused by improper nutrition. It should be remembered also that with the help of certain products it is possible to get rid of many diseases [11].

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