

# GENERAL REQUIREMENTS FOR THE ORGANIZATION OF WORK AND REST REGIME WHEN WORKING WITH PC

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#### **Abstract**

Requirements for the organization of work and rest regime when working with VDT and PC. Modes of work and rest when working with a PC (personal electronic computers) and VDT (video display terminals) should be organized depending on the type and category of labor activity.

## Introduction

The types of labor activity are divided into 3 groups:

group A - work on reading information from the screen of a VDT or PC with a preliminary request;

group B - work on entering information;

group B - creative work in the mode of dialogue with a computer.

The characteristics of breaks depending on the duration of the work shift and the group of work activities are given. When performing work during a work shift related to different types of work activities, the main work with a PC should be taken as one that takes at least 50% of the time during a work shift or work day.

For types of labor activity, 3 categories of severity and intensity of work of a PC are established, which are determined:

for group A - by the total number of readable characters per work shift, but not more than 60,000 characters per shift;



for group B - by the total number of read or input characters per work shift, but not more than 40,000 characters per shift;

for group B - by the total time of direct work with VDT and PC per work shift, but not more than 6 hours per shift.

For teachers of higher and secondary specialized educational institutions, teachers of general education schools, the duration of work in display classrooms and classrooms of informatics and computer technology is not more than 4 hours a day. For engineers serving the educational process in classrooms (classrooms) with VDT and PC, the duration of work should not exceed 6 hours a day. The duration of the lunch break is determined by the current labor legislation and the Internal Labor Regulations of the enterprise (organization, institution). Regulated breaks should be established throughout the work shift to ensure optimal performance and health for professional users.

The time of regulated breaks during a work shift should be set depending on its duration, type and category of work activity. The data are shown in the table.

Table - Time of regulated breaks depending on the duration of the work shift, type and category of labor activity with VDT and PC

Category of work with VDT or PC	Load level per work shift for types of work with VDT			Total time of regulated breaks, min	
	group A, number of characters	group B, number of characters	group B, number of characters	with an 8 hour shift	with a 12 hour shift
I	up to 20,000	up to 15000	up to 2.0	30	70
II	up to 40,000	up to 30,000	up to 4.0	50	90
III	up to 60,000	up to 40,000	up to 6.0	70	120

The duration of continuous operation with a VDT without a regulated break should not exceed 2 hours. When working with VDT and PC during the night shift (from



22 to 6 hours), regardless of the category and type of work, the duration of regulated breaks should be increased by 60 minutes. With an 8-hour work shift and work on VDT and PC, regulated breaks should be set:

- for category I work 2 hours after the start of the work shift and 2 hours after the lunch break, each 15 minutes long;
- for the II category of work after 2 hours from the beginning of the work shift and after 1.5 2 hours after the lunch break, each 15 minutes long or 10 minutes long every hour of work;
- for the III category of work after 1.5 2 hours from the beginning of the work shift and after 1.5 2 hours after the lunch break, each 20 minutes long or 15 minutes long every hour of work.

With a 12-hour work shift, regulated breaks should be established in the first 8 hours of work in the same way as breaks for an 8-hour work shift, and during the last 4 hours of work, regardless of the category and type of work, every hour for 15 minutes. During regulated breaks in order to reduce neuro-emotional stress, fatigue of the visual analyzer, eliminate the influence of hypodynamia and hypokinesia, prevent the development of poznotonic fatigue, it is advisable to perform complexes of exercises.

In order to reduce the negative influence of monotony, it is advisable to use the alternation of operations of meaningful text and numerical data (change in the content of work), alternation of text editing and data entry (change in the content of the work).

In cases of visual discomfort and other unfavorable subjective sensations in those working with VDT and PC, despite the observance of sanitary and hygienic, ergonomic requirements, work and rest regimes, an individual approach should be used in limiting the time of work with VDT and PC, correction of the duration of breaks for rest or carry out a change of activity for another, not related to the use of VDT and PC. Those working on VDT and PC with a high level of tension during regulated breaks and at the end of the working day are shown psychological relief in specially equipped rooms (psychological relief room).

Requirements for the organization of the mode of operation with VDT and PC for students of higher educational institutions. The duration of work on the VDT and PC of students during training sessions is determined by the course of study, the



nature (data entry, programming, debugging programs, editing, etc.) and the complexity of the tasks performed, as well as the technical data of the VDT or PC and their resolution.

For first-year students, the optimal time for training sessions when working with a VDT or a PC is 1 hour, for senior students - 2 hours, with the obligatory observance of a break of 15-20 minutes between two academic hours. It is allowed to increase the time of training sessions with VDT and PC for first-year students up to 2 hours, and for senior students - up to 3 academic hours, provided that the duration of training sessions in the display class (audience) does not exceed 50% of the time of direct work on the VDT or a PC and subject to preventive measures: exercises for the eyes, exercise and exercise pause. To prevent the development of overwork, the mandatory measures are:

- carrying out exercises for the eyes every 20 25 minutes of work for the VDT and PC;
- arrangement of breaks after each academic hour of classes, regardless of the educational process, lasting at least 15 minutes;
- connecting the timer to a VDT and a PC or a centralized shutdown of the information glow on the screens of video monitors in order to ensure the standardized operating time on a VDT or a PC;
- during breaks, through ventilation of rooms with a VDT or PC with the obligatory exit of students from it;
  - exercise pause during exercise breaks for 3 4 minutes;
- carrying out physical exercises for 1 2 minutes to relieve local fatigue, which should be performed individually when the initial signs of fatigue appear;
  - replacement of exercise complexes once every 2 3 weeks.

Physical culture breaks should be carried out under the guidance of a physical education worker, teacher, or centrally using information on the local radio against the background of moderately sounding pleasant music.

When scheduling training sessions with VDT and PC, the following requirements must be met:

- to exclude long breaks of one hour between paired academic hours allocated for classes with VDT and PC;



- not to allow for senior students to combine the third and fourth pairs of training sessions with VDT and PC;
- not to conduct training sessions with VDT and PC for senior students after 17 hours of the third and fourth pair of lessons;
- training sessions of senior students with VDT and PC in exceptional cases are allowed in the period from 17 to 20 hours with the obligatory shift of training sessions in the schedule for the first or second pair of lessons; the motor regime of students and the pace of work on a VDT or PC should be free.

During the period of practical training or work in a student unit (in summer), the time of direct work with a VDT or a PC for first-year students should not exceed 3 hours, for senior students - 4 hours, subject to preventive measures as during training sessions.

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