

## A NEW APPROACH TO PRIMARY AND SECONDARY PREVENTION OF DENTAL DISEASES IN CHEMICAL INDUSTRY WORKERS

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**Relevance:** The question of the negative impact of some industries on the oral cavity remains relevant. The relationship of the high prevalence of non-carious lesions of the teeth, oral mucosa with such production processes as oil and gas production, metallurgy, chemical production, bakery and confectionery production has been proved (Leonova L.E. et al., 2011; Leontiev A.A. et al., 2009; Makeev A.A. et al., 2011). Dental health contributes to the preservation of the ability to work of an important part of the country's population – workers of industrial enterprises, especially since a number of studies convincingly reveal the role of the dental system in the general state of the body.

The presence of high risks of occupational diseases among workers in industry has been proven. This is due to the entry of compounds of elements into the human body through the oral cavity (Lipatov G.Ya., Samylkin A.A., 2010; Adrianovsky V.I., 2015). Industrial workers are characterized by a high prevalence of dental caries and inflammatory periodontal diseases (Abdazimov A.D., 1990; Agafonov Yu.A., 2005; Kabirova M.F., 2013; Blashkova S.L., 2013).

Chemicals of the industrial air environment are detected in the oral fluid, hard tissues of teeth, dental deposits, biopsies of tissue structures (Khavkina E.Yu., 2008; Novikova E.N., 2009; Gazhva S.I., 2010; Olesova V.I. et al., 2012). They aggravate the course of dental caries due to the substitution of calcium ions in hydroxyapatite crystals, chronic inflammation in periodontal tissues, violation of the integrity of the epithelium of the oral mucosa (Agafonov Yu.A., 2005).

However, the influence of chemical factors of industry on the oral cavity of workers, the consequences of these effects has not been fully studied. Given this, the need to continue dental, clinical, functional and microbiological research on this problem has not lost its relevance.

Analyzing the literature data on the impact of occupational factors of various chemical industries on the formation of dental pathology, it can be stated that the prevalence of diseases of hard tissues of teeth, periodontal tissues and oral mucosa in workers of these industries are significantly more common than in the control group, where the influence of chemicals on the organs of the oral cavity is absent. However, there is no assessment of the impact of a complex of harmful substances in combination with unfavorable physical factors of the production environment on the condition of the hard tissues of the teeth, periodontal and oral mucosa. The study of the pathogenetic conditionality of major dental diseases under the action of various industrial and production factors is one of the priorities in dentistry and allows us to develop an effective program for the prevention of major dental diseases.

**The purpose of the study** is development of prevention and improvement of forecasting of dental diseases based on the proposed conceptual approach in chemical industry workers.

To achieve this goal, the following tasks were set:

- a methodology for the survey of chemical industry workers has been developed based on the general methodology proposed by WHO experts;
- determination of the dental status of chemical industry workers;
- identification of risk factors, negative effects on the hard and soft tissues of the oral cavity in chemical industry workers;
- assessment of the state of the oral cavity and determination of the level of dental morbidity among workers in comparison with the population not in contact with industrial harmful factors of the chemical industry;
- development of a conceptually new approach to primary and secondary prevention of dental diseases in chemical industry workers;
- Development of preventive measures to prevent pre-pathological and pathological conditions of the oral cavity of workers.

**The object of the study.** The study will examine 4,150 chemical industry workers aged 25 to 60 years who have had direct contact with chemical elements for several years. All the surveyed will be divided into 3 groups: 1 - group – workshop workers, these are persons exposed to direct exposure to chemical elements; 2-group – locksmiths, plumbers, installers, cleaners, laboratory assistants, persons rarely in contact with chemical compounds; 3- group – industrial administration, who have no contact with chemical elements.

**Subject of research** saliva, a smear from the surfaces of the soft tissues of the oral mucosa, blood will serve.

**Research methods** dental, clinical-functional, ecological-hygienic, microbiological, as well as statistical research methods will be used to solve the tasks and achieve the goals.

The results obtained show that most working women do not have such problems - respectively, "never" -  $46.99 \pm 1.87\%$ , and "very rare" -  $20.70 \pm 1.52$ , if we take into account that  $15.94 \pm 1.37\%$  of working women rarely bother them the problem asked above, we were convinced that 83.64% of all examined ( $n=715$ ) ( $n=598$ ) had no dental health problems. 118 of the respondents (16.36%) stated that they were "often" and "very often" disturbed on this issue. This condition indicates that dental health is alarming in these women, the quality of life has decreased.

If we see individually 10.63% of women who are concerned about dental health as a result of answering the previous question, we have seen them all in 117 women whose dental health is concerned about the second question.

So, all women who felt discomfort in the oral cavity felt discomfort even when they consumed hot-cold drinks, which became the basis for thinking about the alarming, reduced quality of life of their dental health, when both questions were proved to be related. It was also shown that it was correct that a risk group was established according to these indicators [1.3.5.7.9].

The third question is, "Do you feel discomfort in nutrition caused by dental problems?" the answers given to her by working women were analyzed. It is important that this question is one of the most necessary factors affecting the quality of life, complementing the 2 questions analyzed ahead in the questionnaire.

The results obtained are presented in the form of absolute and relative numbers.

It can be seen that in 68.95% of cases, respondents did not complain about dental health, there was no change in themselves as a life.

Thus, all three questions were identified who complained of the same discomfort. It is noteworthy that dental problems such as discomfort in the oral cavity and discomfort in the jaw, sensation of hot-cold, discomfort in the oral cavity in nutrition are found in 10.63-16.37% of cases, dental health in these working women is alarming, it was found that the quality of life has decreased, the connection between dental health and quality To describe the dependence of dental health and quality of life, it has been proven that criteria such as "physiological bonding" and "pathological bonding" recommended by us can be applied in practical terms in assessing the quality of life of working women employed in production.

The results obtained showed that such a problem was never observed ( $43.92 \pm 1.86\%$ ,  $n=314$ ) and very rarely identified ( $30.91 \pm 1.73\%$ ,  $n=221$ ) working women made up  $\frac{3}{4}$  of all women involved in the study, if we also add to this the female contingent that this problem was rarely disturbed ( $15.94 \pm 1.37\%$ ,  $n=114$ ), 9 out of every 10 working

Only 9.23% of respondents ( $6.01 \pm 0.09\%$ ,  $N=43$  very often  $3.22 \pm 0.66\%$ ,  $N=23$ , respectively) were told that dental problems disturbed them and their sleep. Working women with reduced quality of life due to alarming dental health accounted for 9.23% and became women included in the risk group as a result of previous studies.

Clinically determined in a subjective and objective way, working women with anxious dental health have found confirmation that there will also be changes in the individual psychological state.

The next question that the respondents answered on the questionnaire was "how impressive Will you be as a result of dental problems?", called, the results of the answers are presented [2.4.6.8.10].

1/10 of the respondents answered this question positively, that is, dental problems affected them, brought them out of psychological balance, increased their sensitivity, which in turn interfered with communication with those around him. If 51 surveyed ( $7.13 \pm 0.95\%$ ) have shown that they are often impressive, resulting in jizzakilik, 29 Working Women ( $40.6 \pm 0.74\%$ ) have stated that there will be such cases very often. In other cases, it was very rare ( $13.15 \pm 1.26\%$ ) and rare ( $8.95 \pm 1.05\%$ ,  $n=64$ ) even when working women were either disturbed by these problems or not at all ( $67.83 \pm 1.75\%$ ,  $n=485$ ) or disturbed.

Thus, an analysis of answers to questions related to all three psychological characteristics shows that a total of 7.55% to 11.23% of respondents of those involved in research ( $n=715$ ) answered the questions posed positively, which showed that they had alarming dental health, resulting in a decrease in the quality of life. As a result, the "physiological connection" between dental health and quality of life disappeared, resulting in a "pathological connection". These criteria indicate the need for a new approach to the primary prevention of dental diseases for individuals of this category. The listed criteria, the questionnaire used, are not only an accurate assessment of dental health among working women, but also allow you to assess the degree of its influence on the parameters of their quality of life, the degree of interaction between these indicators, as well as increase labor productivity, since the clearly planned primary preventive basis on their basis has a positive.

The next 4 questions put in the questionnaire depend on characteristics such as treatment effectiveness and family budget "did you and your family members get in the mood for dental diseases and dental problems with their treatment?" Began with the answers to the question "What?".

The trend of responses received on the questionnaire in order to clarify previous clinical and social issues was also observed in these answers, that is, part of the respondents involved in the survey responded positively ("often" -  $8.11 \pm 1.02\%$ ,  $n=58$ ) and "very often" -  $1.12 \pm 0.39\%$ ,  $n=8$ ). The fact that previous positive responses were detected at the level of (from 7.55% to 11.23%) showed that all clinical, psychological, treatment effectiveness, family budget concerns are practically the same and depend on one another [11.12.13.14.15.16.17.18.19].

Even on the answer to this question, 9.23% (n=64) showed that respondents gave a positive answer (often and very often the mood falls) that they had a decrease in the quality of life, in addition to the fact that dental health was alarming. In this answer, too, a proven indicator was observed as a result of previous results - dental health and quality of life are inextricably linked with each other, alarming dental health led to a decrease in the quality of life.

### Conclusion.

Of all the studied (n=715), a total of 16.36% of ining's dental health was found to be alarming, with a reduced quality of life, in which the relationship between dental health and quality of life was studied, the "physiological link" appeared to be weak or non-existent, as well as the "pathological link", which was found to be moderately strong or

A register of working women, whose dental health is alarming and included in the risk group, was created, and Dentists of the Chemical Industry Production Enterprise were given constant supervision and timely treatment recommendations. These activities, in which the allocated "risk group" was held, they achieved a high level of quality of life, in turn, they increased labor productivity.

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