ETHIOPIAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 11, Issue 05, May-2024 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980 2024: 7,662

IN IMPROVING THE QUALITY OF DRINKING WATER BASIC METHODS

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Abstract
One of the most important vital resources for our population is aimed at improving the quality of drinking water, and collected information about the treatment of drinking water and its effects on the human body.

Keywords
Water, water carrots, chlorine, diseases, filtration, coagulant, deodorization, soft water hard water, defluoridation.

INTRODUCTION

Water is considered to be one of the most important life factors for mankind nowadays. It is necessary to clean the water from various impurities and then consume it. We hygienists must control this thing, that is, water contains various diseases, so that it does not endanger humans. Below we will provide information about water purification. Water shortage is the result of the inability to meet the needs of the population and livestock for clean drinking water. Drinking water is necessary for sustaining life and is important for human health. More than 40% of the world's population suffers from a shortage of drinking water. The shortage of drinking water and the problem related to it have been considered as a global problem of our time since the 20th century.

METHODS

All methods used in water purification are divided into 2 groups: a) basic methods; b) auxiliary methods. Basic methods are used in practically any conditions and situations, and additional methods are used in cases where the water body has a specific pollution nature. Water clarification means sedimentation of suspended floating particles in water and water clarification. This method is important for water in open water bodies, especially in the spring and winter months, water formed from rain and snow melt contains a lot of soil particles. Water purification in water distribution facilities is carried out in several stages: 1 - as a result of adding a coagulant to the water to be purified, a porous complex is formed, in the process of its formation and gradual sedimentation, clay particles are formed. binds to itself and clarifies the water; 2 - settling the water - the floating complexes gradually sink to the bottom of the pool; 3 - water filtering - water is passed through special filters in order to fully clarify the water in the basin. Water clarification can be used in certain conditions, that is, in conditions where there are phytoplankton in the water, for which microfiltration of water is required.

RESULTS

Water disinfection means making drinking water free of microorganisms. Physical and chemical decontamination methods have been developed for this purpose. Physical methods - boiling water, treatment with ultraviolet light. This method is not used in the disinfection of large volumes of water, but its efficiency is high, so chemical disinfection methods are more often used in centralized water supply. Chemical disinfection methods - methods such as water chlorination, ozone disinfection. When chlorinating water, chlorine-containing preparations (chlorine lime) are added. When these substances are dissolved in water, atomic chlorine ion is formed. Chlorine has bactericidal properties. During water chlorination, if insufficient amount of chlorine is added to water, its detoxification

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efficiency will not be high, and when excess amount of chlorine is added, organoleptic properties of water will change and water may become carcinogenic.

DISCUSSION

Additional water treatment methods can be used in cases where the water quality indicators do not meet the State Standards for some specific indicators. Such methods include: - deironing of water (aeration of water and subsequent settling and filtering); - deodorization (by aeration or high-dose chlorination and then dechlorination) - softening (using soda lime, softening by cations and by boiling); water desalination (through distillation and ion exchange filters); defluoridation (filtration through aluminum oxide); - deactivation of water - coagulation, tempering, filtration, distillation. Nowadays, it is recommended to use purified drinking water to prevent various diseases.

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