



МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ ТА ЛІНГВОДИДАКТИКИ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

## **МАТЕРІАЛИ**

### **XVIII ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ СТУДЕНТІВ, АСПІРАНТІВ ТА ВИКЛАДАЧІВ ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ ТА ЛІНГВОДИДАКТИКИ**

**«TO MAKE THE WORLD SMARTER AND SAFER»**

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2024**



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY STATE UNIVERSITY  
DEPARTMENT OF FOREIGN LANGUAGES AND  
LINGUODIDACTICS  
FOREIGN LANGUAGE TEACHING CENTRE

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**"TO MAKE THE WORLD SMARTER AND SAFER"**

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**To Make the World Smarter and Safer:** Матеріали XVIII всеукраїнської науково-практичної конференції студентів, аспірантів та викладачів Лінгвістичного навчально-методичного центру кафедри іноземних мов та лінгводидактики СумДУ (25-26 квітня 2024 р.) / за заг. ред. професора Таценко Н.В. – Суми : СумДУ, 2024. – 168 с.

У матеріалах подані тези XVIII Всеукраїнської науково-практичної конференції студентів, аспірантів та викладачів Лінгвістичного навчально-методичного центру кафедри іноземних мов та лінгводидактики СумДУ. До збірника ввійшли наукові дослідження, присвячені актуальним проблемам сучасних інноваційних технологій та процесів у науці, техніці та різних сферах людської діяльності.

Для молодих науковців, викладачів і студентів усіх факультетів.

**Редакційна колегія:**

Таценко Наталія Віталіївна, д-р філол. наук, професор, завідувач кафедри іноземних мов та лінгводидактики Сумського державного університету

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***За зміст статей і правильність цитування  
відповідальність несе автор***

considerations surrounding DNA technology necessitate responsible use and ongoing societal dialogue.

In conclusion, the discovery and understanding of DNA have had a profound impact on various scientific disciplines. From unraveling the secrets of inheritance to enabling medical breakthroughs and technological innovations, DNA stands as a cornerstone in our quest to comprehend and manipulate the fundamental processes of life. As our understanding of DNA continues to deepen, its potential applications are likely to expand, offering new avenues for advancements in science, medicine, and technology.

### BRONCHITIS, ITS TREATMENT AND PREVENTION

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Bronchitis is a disease that causes inflammation of the connecting part of the lungs and trachea - the bronchi. Bronchi become inflamed under the influence of various viruses. The cause of the disease can also be secondary infections, exposure to the respiratory system of toxins, dust, smoke and other foreign particles. As a result, tissues become inflamed, causing significant complications in the functioning of the respiratory tract. Bronchitis is most dangerous for older people, smokers and people with chronic pathologies of the heart and lungs. There are chronic and acute forms of bronchitis. They differ in symptoms, course and treatment. The main symptom of bronchitis is a cough sometimes attacks of coughing, especially in the morning with discharge of mucous-purulent sputum. The aggravation of the disease proceeds with an increase in cough and a rise in temperature. When auscultating the lungs, dry rales are more often detected. It can be dry or wet, a cough with a large amount of green sputum is characteristic of bacterial bronchitis, cough without mucus secretion is a sign of a viral and atypical form of the disease.

Acute bronchitis in the initial stages is easily confused with a cold. Most often, the disease is caused by a respiratory viral

infection, develops in the cold season and is accompanied by a cough, at first dry, then wet with sputum. Mucus can have a white, yellow or green tint. Acute bronchitis is often accompanied by high body temperature, runny nose. The average duration of the disease is 3 weeks, simple consequences of the disease can be observed for a long time up to 8 weeks.

The main symptoms of the acute form of the disease include a sharp increase in temperature, fatigue, apathy, increased sweating, chills, hard breathing, wheezing. chills, shortness of breath, wheezing, shortness of breath, and chest pain. shortness of breath and pain felt in the chest.

Chronic bronchitis involves a long course of the disease with periodic exacerbations and outbreaks in the acute form. Chronic bronchitis is also accompanied by a cough, the cause of which is a violation of the functions of the respiratory system and an increase in the release of viscous secretions. With an acute form of bronchitis, the cause of coughing is inflammation of the respiratory tract.

Another list of symptoms helps to determine the chronic form of bronchitis: wet cough with secretions; confused breathing during physical activity; temperature increase (optional).

With chronic bronchitis, the symptoms of the disease can change in different exacerbations.

Bronchitis, depending on violations in the work of the bronchi, causes non-obstructive breathing which does not become difficult and is disturbed only during the acute phase. Obstructive breathing becomes difficult due to spasm of the smooth muscles of the bronchial walls, in adults this disorder increases over time and is chronic, and in children it is characteristic only for the acute period.

Ways of infection with bronchitis

With infectious bronchitis, in most cases, infection occurs by airborne droplets. In case of non-observance of hygiene rules and lack of habit of washing hands, the causative agent that provokes inflammation can be transmitted by contact and household means.

The duration of the period during which a patient with infectious bronchitis is contagious depends on the type of pathogen.

Usually, the risk of infection remains during the entire period of the disease (including in the presence of a residual cough).

The most likely complications of bronchitis are development of obstruction, transformation into a chronic form, pneumonia, asthmatic component (suffocation attacks), heart failure, COPD (chronic obstructive pulmonary disease), deformation of bronchial walls, emphysema of the lungs, pulmonary failure, bronchial asthma, diffuse pneumosclerosis.

The complicated course of bronchiolitis is especially dangerous, with a possible fatal outcome.

A rapid or severe course, aggressive infection with reduced immunity, lack of proper therapy or concomitant pathologies are the most frequent causes of complications after bronchitis.

Laboratory and instrumental methods of diagnosing bronchitis are prescribed to clarify data on the form and type of inflammation of the bronchi, to carry out differential diagnosis.

Diagnosis of bronchitis may include listening and tapping the chest, x-ray, sputum, blood and urine tests in the laboratory. In complicated cases, spirometry, bronchoscopy and CT may be prescribed

Bronchitis treatment tactics are determined by the clinical case and the stage of development of the pathology. In severe cases, hospitalization is recommended. The treatment plan for bronchitis may include various methods such as drug therapy namely antibiotics, antiviral drugs, antifungal agents, expectorants, bronchodilators, antitussives, antipyretics, antihistamines.

Bronchitis treatment continues until the symptoms completely disappear, so its duration is determined individually.

To speed up recovery and prevent complications, it is recommended to observe bed rest during the acute stage of bronchitis. In case of allergic and toxic damage to the bronchi, it is necessary to identify and eliminate the influence of irritants. The patient should spit out sputum, take large volumes of warm liquid, increase the humidity level in the room, ventilate the room often and prevent drafts.

Physiotherapy also helps to improve the results of treatment, and is effective especially for small patients because children's physiotherapy takes into account all the peculiarities of the child's body.

For physiotherapy of bronchitis, the following methods are recommended: taking medication from a nebulizer, inhalation, therapeutic massage, compresses, breathing exercises, physical therapy, etc.

Surgical treatment for bronchitis is usually not required. Sometimes, to eliminate foreign objects that cause bronchitis, or to treat severe forms of chronic bronchitis, such a remedial minimally invasive procedure as bronchoscopy is performed.

Adhering to a diet and the rules of proper nutrition for bronchitis is extremely important to eliminate protein starvation and lack of vitamins. The main principles of the diet for bronchial inflammation include the consumption of fresh fruits and vegetables, chicken broth, fatty types of fish, meat (not fried), cereals; consumption of products with a high level of proteins and vitamins; eating 4-5 times a day; elimination of allergens; abundant drinking (it is better to drink juices, fruit juices, herbal teas, whey, kefir).

It is recommended to follow the principles of rational nutrition both in chronic and acute forms of bronchitis.

As for the curability control it should be taken into consideration that with the right approach, in most cases, all uncomplicated forms of bronchitis can be successfully treated. To control the quality of treatment, such studies as X-ray, CT scan, bronchoscopy, sputum culture, etc. are carried out.

Prevention of bronchitis consists in observing the following rules:

- exclusion of factors provoking the development of inflammation;
- indoor air humidification;
- fight against dustiness at home and at work;
- hardening of the body;
- compliance with the rules of rational nutrition;
- timely treatment of any diseases (especially pathologies of the ENT organs);

regular walks in the fresh air;  
sufficient motor activity;  
avoiding visiting places with a large crowd of people (especially during flu and ARVI epidemics);  
exclusion or minimization of exposure to factors that cause an allergic or toxic reaction (change of work, wearing of respirators, refusal of smoking, etc.);  
compliance with hygiene rules.

When a patient follows all the safety rules of treatment and fulfills the recommendations of his therapist bronchitis will be overcome successfully without any complications

## MODALITY OF THE AUTONOMIC NERVOUS SYSTEM IN MILITARY POPULATION

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The autonomic nervous system (ANS) is a part of the nervous system that is characterized by involuntary and is not controlled by consciousness. It performs a number of functions, such as coordinating the work of internal organs, regulating metabolic and trophic processes, and maintaining homeostasis. The objects of innervation of the ANS are smooth muscle tissue, cardiac muscle, and glands.

The largest changes in the activity of the ANS are provoked by non-specific adaptation of the body, called stress. Under the influence of stress, an adaptation syndrome occurs with the participation of the sympathoadrenal system. A complex reaction typically results in notable changes in behavior and disruptions to both the body's balance (homeostasis) and the mental and physical well-being. In the context of the military population, engagement in military operations and exposure to combat are significant stress-inducing factors that impact the immediate and prolonged stress responses in soldiers, influencing their overall performance and health.

A 2016 study have analysed the effects of chronic stress response were compared between experienced and novice