

BENEFITS AND SIDE EFFECTS OF MEDICATIONS

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Abstract: *This article discusses the benefits of medications and the potential negative effects they may have. It explains how medications help improve human health and treat various diseases, as well as the possible adverse effects they can cause in the body, such as allergic reactions, digestive system disturbances, metabolic changes, and psychological impacts. The article emphasizes the importance of taking medications based on medical prescriptions and the necessary precautions to minimize negative effects.*

Key words: *Medications, Benefits, Adverse effects, Disease treatment, Antibiotics, Pain relief, Allergic reactions, Digestive system, Metabolism, Psychological effects, Medication safety, Drug effects, Doctor supervision, Tolerance and resistance, Treatment strategies, Medical interventions, Changes and risks.*

Introduction. For many people, taking medications is a regular part of their daily routine, and these medications are used to treat illnesses and improve their health. While medications can help you feel better and get better, it's important to know that all medications, both prescription and over-the-counter, have benefits and risks. The benefits of medications include beneficial effects, such as lowering blood pressure, treating an infection, or relieving pain. The risks of medications are the chance that unwanted or unexpected things will happen to you when you use them. The risks can range from less serious things, such as an upset stomach or liver damage, to more serious things, such as a heart attack or stroke.

The development of science (age physiology, molecular biology, immunochemistry and genetics), the rapid development of pediatrics in the last decades of the last century made it possible to reconsider the problem of pharmacotherapy in pediatrics. It is now known that while the adult organism is a self-regulating biological system with stable functioning of most organs and systems, the main feature of the child's organism is the constant change of physiological processes. In addition, each of the life support systems has several critical periods in its postnatal development, associated with a period of maximum growth or the establishment of function, or both processes at the same time. For example, a critical period for the child's cardiovascular system is from 10 to 15 years, for the endocrine system - the first week of life and from 13 to 18 years, for the respiratory system - the first 18 months of life. But in general, the most intensive changes in the most important organs and systems that ensure the stability of the internal environment of the body occur in the first three years

of life. They are most significant in the first year of life, undergo the greatest changes in the first month of life, and in the neonatal period - in the first 6 days of life, and each day of this period has its own homeostatic characteristics. Along with chronological age, the gestational age also plays a large role. The degree of prematurity can affect the effect of administered drugs, the likelihood and nature of side effects.

Medicines are important for maintaining human health and treating various diseases. They have been used in many medical fields for years as scientific achievements. However, any medicine can not only be useful, but sometimes also cause negative effects. Therefore, when taking medicines, it is necessary to take into account their benefits, as well as their side effects.

RESULTS: Medicines play an important role in improving human health and treating various diseases. For example, antibiotics are effective in treating bacterial infections and stopping their spread. Analgesics are used to reduce pain, which can be caused by surgical procedures or other physical injuries. Chemotherapy drugs are used to treat cancer, drugs used for cardiovascular diseases are used to control blood pressure, and insulin is used to treat diabetes to improve quality of life.

Medicines are not always only beneficial. They also have negative effects. Some medicines can cause allergic reactions in the body, such as skin rashes or difficulty breathing. Medicines that affect the digestive system can cause problems such as nausea, intestinal disorders, or diarrhea. Some medicines affect the body's metabolic processes, which can increase blood sugar levels or increase cholesterol. Other medicines can affect the mood, causing anxiety or depression. Caution is very important when taking medicines. Each drug should be taken only as directed by a doctor and in the prescribed dosage. The doctor will select the most appropriate combination of drugs, taking into account the patient's condition, his history and other diseases. Sometimes drugs can interact, so it is necessary to consult a doctor before taking several drugs at the same time. Also, long-term use of some drugs can cause side effects, so the treatment process should be constantly monitored.

To get the most out of your medications, they should be used in a balanced manner under your doctor's supervision. When prescribing medications, doctors monitor their patients closely, assessing their health, response to the medications, and side effects. A balanced treatment approach also increases the effectiveness of medications and reduces adverse effects. Patients should take their medications only as prescribed and report any changes to their doctor promptly.

Antibiotics are drugs used to treat bacterial infections. They kill or stop the growth of bad bacteria. However, using them incorrectly, such as using them for viral infections instead of bacterial infections, can make bacteria resistant to the drugs. This is called "antibiotic resistance" and can be very dangerous.

Painkillers, such as ibuprofen, acetaminophen, and narcotic analgesics, are often used to relieve pain after surgery or trauma. However, these drugs can damage kidney and liver function or cause problems with the intestinal system when used for a long time.

Antidepressants and anxiolytics, which are used to improve mental health, are mainly used to treat depression and anxiety. However, misuse of these drugs can lead to addiction or other mental conditions. They can also sometimes cause side effects such as dizziness, sleep problems, and dry mouth.

Some people may be more sensitive to medications because their genetic makeup affects how they work. For example, some people do not have enough enzymes in their bodies to metabolize a particular drug. This can cause too much or too little of the drug to work.

Taking multiple medications together can cause unexpected side effects due to interactions. For example, one medication may have a blood-thinning effect, and if that medication is taken with another blood-thinning medication, the risk of bleeding may increase. Taking some medications with or after food can change how well they work. For example, some medications are better absorbed when taken with food, while others are more effective when taken before or after food.

Children and the elderly may be more sensitive to medications. Care should be taken when choosing medications for children, as their physical condition and immune system are different from adults. Older people may be more susceptible to side effects of medications, such as insomnia or mental instability.

Continuous monitoring is important when taking medications. Doctors must monitor the health of patients while they are taking medications. Some medications can cause unexpected side effects in patients, so regular medical check-ups are necessary. Proper storage of medications is also important to ensure their effectiveness. Each medication may require different storage conditions. For example, some medications need to be stored in a cool place, while others need to be protected from moisture. Improper storage of medications can reduce their effectiveness and even cause them to be harmful.

CONSULSION: Medicines are an important tool in improving human health and treating various diseases. However, to avoid their adverse effects and maximize their benefits, it is necessary to take medicines only as prescribed by a doctor. Regular medical monitoring, safe storage of medicines, and careful administration of medicines increase the effectiveness of medicines and reduce adverse effects. Medicines are an important tool in improving human health, as they help in treating various diseases, reducing pain, controlling bacterial and viral infections, managing cardiovascular diseases, and many other medical problems. Although their benefits are wide-ranging, each medicine should be taken only as prescribed by a doctor and in the correct dosage, as improperly used medicine can cause side effects. Side effects can sometimes be serious and life-threatening. The side effects of drugs are variable and may depend on a person's age, gender, genetic makeup, other medical conditions, and other factors. Also, taking drugs together or interacting with food can change their effectiveness or adverse effects. Therefore, a balanced approach and caution are necessary when using drugs. Each drug should be strictly monitored by doctors to ensure its effectiveness and safety. It is important for patients to take drugs only on the advice of a doctor and to promptly consult a specialist if any adverse symptoms occur.