

# Side effects of antibiotics

**Side effects** occur at the usual doses and recommended plasma pharmacotherapeutic concentrations. **Toxic effects** occur at high doses, due to high plasma concentrations, possibly at higher patient sensitivity. In most cases, they can be prevented or their clinical manifestations alleviated. The risk of toxic effects is acceptable given life-threatening diseases unless another, safer antibiotic is available. **The biological effects** of antibiotics are caused by a change in the natural bacterial microflora of the skin or mucous membranes. They are especially common when using broad-spectrum antibiotics (ampicillin, tetracyclines).

## Allergic reaction

Induced after previous sensitization with a small dose of antibiotics. They are common in beta-lactams. Therefore, it is necessary to look for them in the patients history. Clinical manifestations may vary from polymorphic rashes, to urticaria, eosinophilia, edema, fever, conjunctivitis, photodermatoses, bronchial asthma attacks and anaphylactic shock. Dangerous forms are mainly associated with parenteral administration of antibiotics. They may manifest as early or late reactions during or after treatment (after 9-11 days). Due to topical administration, contact allergy (neomycin) may also be encountered.

## Effects on the nervous system

## Effects on the musculoskeletal system

## Effect on the GIT

## Effect on the hematopoietic system

## Effect on the cardiovascular system

## Nephrotoxicity

## Links

### Related articles

- Antibiotics
- Antibiotic resistance

### External links

- Rational antibiotic therapy - interactive algorithm + test (<https://www.akutne.cz/index.php?pg=vyukove-materialy--rozhodovaci-algoritmy&tid=261>)
- Antibiotics (Czech wikipedia)
- Antibiotic treatment according to diagnoses (<https://mefanet.upol.cz/clanky.php?aid=6>)

### Source

- MARTÍNKOVÁ, J., S MIČUDA a J CERMANOVÁ. *Antibiotika* [online]. [cit. 2010-02-18]. <<https://www.lfhk.cuni.cz/farmakol/predn/bak/kapitoly/atb-bak.doc>>.

### Bibliography

- VOTAVA, Miroslav. *Lékařská mikrobiologie obecná*. 2. edition. Brno : Neptun, 2005. ISBN 80-86850-00-5.
- MARTÍNKOVÁ, Jiřina. *Farmakologie pro studenty zdravotnických oborů*. 2. edition. Praha : Grada, 2018. ISBN 978-80-271-0929-6.
- ŠVIHOVEC, Jan. *Farmakologie*. 1. edition. Praha : Grada, 2018. ISBN 978-80-271-2150-2.
- LINCOVÁ, Dagmar. *Základní a aplikovaná farmakologie*. 1. edition. GALÉN, 2002. ISBN 80-7262-168-8.