

# Vomiting (oncology)

**Nausea** and **vomiting** can be both accompanying symptoms of the cancer itself and a consequence of the side effects of chemotherapeutics used to treat the disease. Although they do not directly endanger the patient's life, they can complicate treatment by reducing food intake and thus worsening the nutritional status. Prolonged recurrent vomiting also threatens the body with dehydration and mineral deficiencies, and also contributes significantly to reducing quality of life. Although the prevention of these side effects of chemotherapeutics is now a common part of cancer treatment, the ideal situation has still not been achieved.

## Nausea - mechanism

The feeling of **nausea**, is accompanied by vasomotor disorders, weakness, increased salivation and respiratory rate. The main mechanism by which chemotherapy causes these symptoms is the release of serotonin from chromophobic cells of the gastrointestinal tract, which in turn irritates the chemoreceptor area at the base of the fourth brain ventricle. Associated **salivation** and **faster breathing** are most likely due to the proximity of the brain centers for these reactions.

## Role of cytostatics

Almost all cytostatics can cause nausea and vomiting, but not all of them are equally severe (the most prominent are cisplatin, carboplatin or cyclophosphamide). Difficulties may arise not only during the actual administration of the substance (especially children often react by vomiting to the first administration of a chemotherapeutic), but also only after the end of the treatment cycle. Gradually, a mental urge can develop, which causes vomiting at the mere sight of a prepared infusion, a healthcare professional or a hospital building. **Sometimes the complex of difficulties leads to the refusal of further treatment.** To prevent it from developing, it is necessary to prevent nausea or at least alleviate it from the beginning by all available means, because prevention is always more effective than subsequent treatment.

## Prevention

It tends to be gradual, as does pain treatment, and depends on the emetogenic potential of the chemotherapeutic, the intensity of the problem and the type of vomiting (we recognize acute, delayed and anticipatory). Setrons, effective antiemetics with rare side effects, are the most commonly used. Specifically, for example, **ondansetron, granisetron or tropisetron**, sometimes in combination with **dexamethasone**. **Phenothiazine** can be used for anticipatory vomiting, preferably before the actual chemotherapy. We use them before and during chemotherapy, in the dose and frequency affected in addition to the already mentioned parameters, also on the experience with a particular patient and his susceptibility to vomiting. In susceptible patients, it is possible to prescribe an antiemetic in oral form for subsequent supplementary home use. In some cases, however, even a combination of all available medications will not completely eliminate the feeling of nausea and vomiting. Treatment of delayed emesis is also gradual, with corticoids (dexamethasone), dopamine receptor antagonists (metoclopramide), setrons and phenothiazine neuroleptics being the most commonly used.

## Regime measures

Especially in children, it is important to supplement pharmacological treatment with regime measures. In times of nausea, for example, it is important **not to force the child's favorite foods**, as this could provoke resistance to them as well. It is important to offer an **easily digestible diet, in smaller quantities** with a higher frequency of administration. Liquids and food are best **served colder and in a well-ventilated environment**. Patients' tastes can be highly variable and in order to prevent nausea it is good to respect them, not to try to reverse them. It is advisable to talk about food as little as possible, to try to estimate tastes as spontaneously as possible, and to tailor the administration to the observed circumstances of nausea or vomiting, such as their time of day or clear stimuli. Nausea in children is also significantly enhanced by tight clothing and a focus on treatment, especially on chemotherapeutic intake. One to two hours before its administration, it is not appropriate to give children food, for older people it is possible to help by inviting a **psychologist**.

## Links

### Related articles

- Chemotherapy
- Nausea
- Vomiting

### References

- KLENER, Pavel. *Clinical oncology*. Prague: Galén, 2002; Karolinum, 2002. 686 pages. ISBN 80-7262-151-3 (Galén). ISBN 80-246-0468-X (Karolinum).
- Information for patients - Complications of treatment
- <https://www.journalonko.de/news/lesen//?id=2063> (<https://www.journalonko.de/news/lesen//?id=2063>)
- Standards of hemato-oncological care
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- ws:Zvracení (onkologie)