

Patient information about sedation and application of sedative medications before dental interventions

Most patients are afraid of dental treatment. The extent of their fear, their pain threshold and the perception of pain may depend on many factors. Hereditary factors, good or bad experience in childhood, acquired behaviour when becoming adults can all influence this. Treatments influencing initial experience must be carried out with caution, causing no pain and anxiety, particularly in children. Patients who are anxious or unable to tolerate pain (even if it lasts for a short time) need help. There are many options to reduce their anxiety: oral medications, conscious sedation or even general anaesthesia (putting the patient to sleep). We always involve you in making a decision about sedation. The most common type of pain relief in dentistry is local anaesthesia (numbing the area), which can be combined with sedation.

The most common types of sedation applied in dentistry and oral surgery:

- oral medications
- intravenous medications
- conscious sedation with dinitrogen-oxide
- combined techniques (the three techniques together)

Oral sedation before interventions with local anaesthesia

We can apply oral sedation before dental interventions with local anaesthesia, if you are too anxious, the intervention takes a long time or it exerts excess load on the body. If you are on regular sedative medication, continue taking it (other regular medications, such as medications for high blood pressure, should also be taken as usual). Oral sedatives are taken by mouth as tablets, or syrup in children. Adults should take the sedative medicine one hour before the treatment, children should take it 30 minutes before it.

Intravenous sedation

You are injected sedative medication into your vein, which inhibits the central nervous system. With this type of sedation you are able to communicate. Venous sedation is usually applied in dentoalveolar surgery, such as implantation. One of the biggest benefits of venous sedation is that the effect is immediate. If the extent of sedation is not sufficient, the dentist can administer small doses of medication monitoring the effect continuously. Intravenous medicines are more effective than oral medications. You may not remember certain things, in rare cases amnesia can occur. Intravenous sedation is a safe and effective technique, particularly in patients with severe dental anxiety. During intravenous sedation we monitor your vital signs. You are not allowed to drive after the intervention, you are advised to arrange your transport to your home.

Conscious sedation with dinitrogen-oxide combined with oxygen (N₂O/O₂)

The analgesic effect of dinitrogen-oxide in toothache was discovered by a young British scientist, Humphry Davy, in 1798. He inhaled the substance and observed the effect. He had a toothache when he was conducting the experiment, and he noticed that his pain was reduced. It was first used in a clinical setting in England in 1868. In the 20th century there were two flares of interests in dinitrogen-oxide as a dental analgesic (in 1913-1918 and 1932-1938). Dental use of dinitrogen-oxide has become more and more widespread. Qualification requirements for its application by dentists are mainly determined by the various medical-dental educational systems.

Conscious sedation decreases your anxiety and fear of dental treatment, and increases the pain

threshold thus improving the effectiveness of analgesia. At the same time you are alert and able to communicate and follow your dentist's instructions. Your gag reflex and spontaneous breathing are maintained. This makes it easier for the dentist to perform the intervention, it will take less time and you will have less discomfort.

The indications for conscious sedation include excessive anxiety, previous bad experience with dental treatment, increased gag reflex and nausea, time consuming and/or painful intervention, drug allergy.

Conscious sedation is not possible in case of airway obstruction (blocked nose, nasal polyp), pregnancy (during the first trimester), recent myocardial infarct, fever, uncontrolled high blood pressure or diabetes, swinging blood pressure, immune system diseases, full stomach or complete lack of cooperation.

How do you prepare for conscious sedation?

In order to prepare for the sedation, avoid eating for 4-5 hours before the intervention. 3 hours before the intervention you can drink a small glass of water or tea. You are asked to complete a health questionnaire and give your consent to the procedure. 30-60 minutes before the intervention we give you the sedative medication. We discuss the treatment, how long it will take and what to expect afterwards. You can go home approximately 30 minutes after the intervention. You are not allowed to drive, so ask someone to take you home. This method of conscious sedation is completely safe and reliable. Dinitrogen-oxide can only be used in combination with oxygen, so its effect can be neutralised by administering oxygen.