

## Apicoectomies

### What is an apicoectomy procedure?

The treatment is divided into several sections. The order and execution can differ case to case:

The apicoectomy can be done at the same time as a root canal filling or at a later time. X-rays are required to plan the treatment. An anaesthetic injection beforehand makes the treatment painless.

The measured length of the tooth is transferred to the gum. In the area around the root tip, the maxillary mucosa is opened and somewhat detached from the bone. The bone covering the root tip is removed with a bone cutter. This reveals the root tip. It is separated cleanly and any inflamed/soft tissue in the surrounding area is removed. A wound cavity remains in the bone, which fills with blood. Natural or artificial bone replacement material can be inserted if the cavity is too large.

In certain cases, the root canal opening in the resulting cut area of the root can be sealed with a filling made of plastic material or a special cement. The result of cutting off the root tip and any fillings performed in the root canal is checked with an X-ray. The gum is sealed tightly over the wound with stitches. After one week to ten days, the mucosa/gums will have healed and the stitches can be removed.

Another X-ray is taken after a few months to check whether the body has built up new bone tissue inside the cavity and made it smaller. It can take a year or more – depending upon the size – until the cavity has completely disappeared.

### What treatment alternatives are available?

Instead of the suggested apicoectomy, tooth extraction can always be considered, in some cases a particularly complex root canal treatment, too.

Tooth extraction is quicker, easier and safer than an apicoectomy. Current inflammations and possible causes of inflammation are safely eliminated. However, the tooth is then gone forever and the bone recedes. Neighbouring teeth can become tilted, opposing teeth can grow outwards and there is often a need for tooth replacement.

Through particularly complex root canal treatments, it may be possible to completely clean and fill root canals even in very difficult cases that have not been successfully treated before. This may require, for example, treatment under a special microscope, cleaning of any branching root canals or removal of metal pins/instruments/fragments that are firmly lodged in the root canal after previous treatments. This means that, in many cases, the full root length and the natural root tip can be preserved. This allows pathogens to be combated in the entire interior, thus avoiding surgery. However, this often requires more time and costs more than an apicoectomy.

Nevertheless, a definite recovery cannot be guaranteed.

## Which side-effects and complications can occur?

As with all dental/medical treatments, there are certain risks associated with apicoectomies:

### Frequent

- Slight to severe pain shortly after the operation for a few hours to a few days
- Tension in the cheeks/lips in the area of the operation
- Lip/cheek swelling after the operation for a few hours to a few days
- Slight post-operative bleeding
- Food and plaque adhering to the suture, feeling of discomfort
- Bruising, changing, externally visible discolouration in the area of the operation for a few days after the procedure
- Temporary numbness in the area where the gum was cut

### Occasionally

- Only a partial anaesthetic effect, pain during treatment
- Swelling/abscesses shortly or later following the apicoectomy
- Partial loosening/complete loss of individual stitches, swallowing/inhalation (very rarely) possible
- Inflammation of the wound edges
- Necrosis of parts of the gums that were detached and reattached during the operation
- Minor or more significant inflammation of the bone
- Missing or incomplete filling of the wound cavity with bone / residual cavity
- Continuation/recurrence of pain/complaint, failure

### Rare

- Very extensive and/or prolonged bone inflammation
- Permanent and/or extensive numbness in the area of the operation
- Allergic reaction to materials used

## Important instructions

As a general rule, if you experience any pain, discomfort, complications or have any questions, you should seek immediate advice from your dental practice (or from the dental emergency services).

In the first hours/days following the operation:

- For a few days, moderate physical activity / lots of rest / little sport
- Do not smoke for 1-2 days; do not drink coffee, black tea or cola; do not eat any dairy products.
- Avoid biting hard foods with the operated tooth. Crumbs can irritate the wound
- Apply pressure to light bleeding with a clean cloth for 10 minutes

- Cool with a cold, damp cloth or with ice in a cloth bag but not directly on the skin After 10 minutes of cooling, take a break for 5 minutes
- Do not touch the wound Continue to care for the teeth, tongue and interdental spaces as normally as possible

In future:

- Only with thorough, daily care of teeth and interdental spaces can gingivitis and tooth decay be largely minimised
- For the long-term preservation of the exhaustively preserved teeth, appointments should be made for preventive check-ups at the dental practice at least every 6 months
- X-rays are useful to check the surrounding bone at longer intervals
- As with natural, healthy teeth, after an apicoectomy your teeth are not suitable for performing unnatural tasks; therefore, refrain from chewing bones, biting threads, pulling out bottle corks with your teeth, etc.

## Consequences of failing to undergo treatment

Failing to undergo the proposed treatment and refusing all the alternatives specified may have adverse consequences for you:

- Unsealed teeth without a living nerve can cause severely bad breath
- The body cannot fight bacteria inside the tooth; this can cause the tooth to rot from the inside
- Teeth with incurably inflamed or dead nerve tissue and teeth with insufficient root fillings are contaminated with pathogens inside; they are a constant site for inflammation; this causes bone loss at the root tip as well as inflammation and degradation of the tooth-support apparatus (periodontitis)
- One-off or recurring ulcerative abscesses may develop at the root tip/bone
- The pathogens found on and in teeth can also affect other vital body organs and contribute to diabetes, heart disease and miscarriages, for example.