

## **Summery - Infiltration anaesthesia in dentistry by using INJEX™**

Lecturer: Dr. E. Körperich, senior lecturer at Freie Universität Berlin

Dr Körperich works at the University Clinic Benjamin Franklin at the Free University Berlin. He is specialized in paediatric dentistry and has been using INJEX for more than 18 Months in his practice. Since the majority of his patients are needle-phobic children, he finds INJEX a very helpful device to make the therapeutic treatment much easier and safer. Dr Körperich has been recommending INJEX to his colleagues actively but he also emphasized that the correct application technique is a prerequisite for a successful local anaesthesia.

### **The pros for INJEX in paediatric dentistry**

There are a few features of INJEX which are especially beneficial for children, such as:

- The maximum dosage  
The maximum dosage of local anaesthetic (LA) is 5mg/kg without vasoconstrictor and 7 mg/kg with vasoconstrictor. But in case of small children, the therapeutic dosage of LA easily exceeds the maximum dosage administered by standard needle syringes.

With INJEX only a dosage of 0.3 ml is needed to reach full local anaesthesia. Less anaesthetic being used also means that less likely the LA related side effects could occur.

- Better penetration and diffusion characters  
Related to the special anatomic features of children (vs. adults), such as comparatively softer and more porous bone structure, the LA injected by INJEX can diffuse more effectively. A faster LA onset time can also be observed at children. There is almost no waiting time after the LA injection and the dentist can carry on with the treatment immediately. This feature is much appreciated by dentists, because to keep a child quiet on a dental chair for 1-2 minutes could be a very challenging job.
- Needle-free and pain-free  
According to Dr Körperich, the fear of needle is more distinctively confronted during the treatment for children. Therefore, a needle-free and pain-free LA solution not only makes the treatment of children much easier, it is also very much appreciated by their parents. Dr Körperich recommends that a surface anaesthesia is very helpful prior to INJEX injection to ensure a painless injection.

INJEX is designed small and handy and it looks quite harmless compared to the long LA needle. With the help of the ampoule, dentists can point the injection orifice directly to the injection site while patients keeping their mouths closed. No opened mouth needed!

- Wide but more precise application range  
The special anatomic features of children allows a LA with INJEX for the complete range of teeth. Since the dentists normally will keep the treatment duration for children as short as possible (according to Dr Körperich no longer than 15 minutes), the therapeutic duration achieved by using INJEX (around 30-45 minutes) is more than enough.

With INJEX a more precise and pin-pointed I.A is possible. If only two teeth need to be treated, why anaesthetise the whole upper arch?

**Indications INJEX:**

Infiltration anaesthesia in the front teeth area.

Upper arch: 15-25

Lower arch: 33-43

**Injection site:**

The orifice of the ampoule should be pressed perpendicularly against the hard(fixed) gingival.

**DO NOTs**

Do not point directly to the marginal gingiva and apex

Do not point directly to the foramen mentale (bone canal), but mesial to them.

Do not point directly to the nerve trunks.

Do not use INJEX in infected or inflamed area.