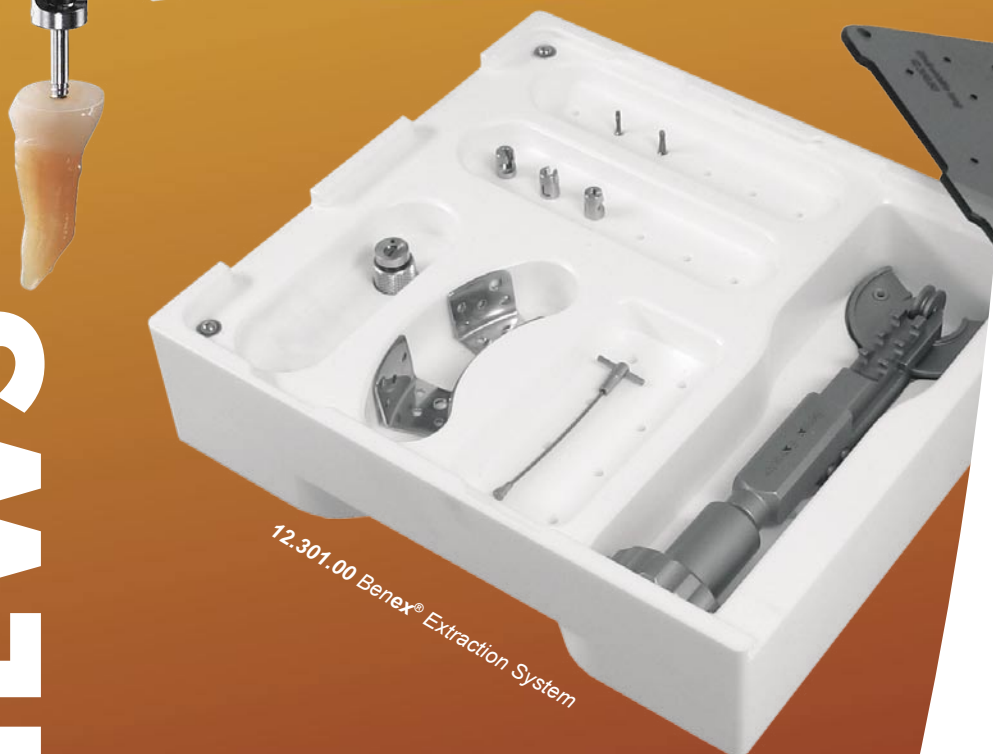


Benex[®]
PENDING PATENT



12.300.10 Benex[®] Extractor



12.301.00 Benex[®] Extraction System

Benex[®]-Extraction System

acc. to Benno Syfrig Dr. med., med. dent.

Pat.No. CH 696 458

Pursuing logically the quest of gentle extraction, **HELMUT ZEPF** Medizintechnik has developed a new, patented extraction system in close collaboration with Benno Syfrig Dr. med., med. dent from Switzerland.

In modern dental treatment, implantology following extraction is increasingly favoured. Consistent with the principle of minimal invasion, conserving soft and hard tissue structures is a must. Starting with extraction.

The Benex[®]-Extractor represents an innovative system allowing gentle, secure and easy extraction of the root of the tooth. Whereas with conventional instruments, the task is more tedious.

A further advantage of the new Benex[®]-Extractor is to be found in the field of germectomy - germs of teeth are also removed in a gentle and time-saving manner.

For more detailed information, application samples and the Benex[®] User Forum refer to:

<http://www.zepf-dental.com>



HELMUT ZEPF
MEDIZINTECHNIK GMBH

NEWS

11/06

easy. protecting. save.

Benex® Application Cases.

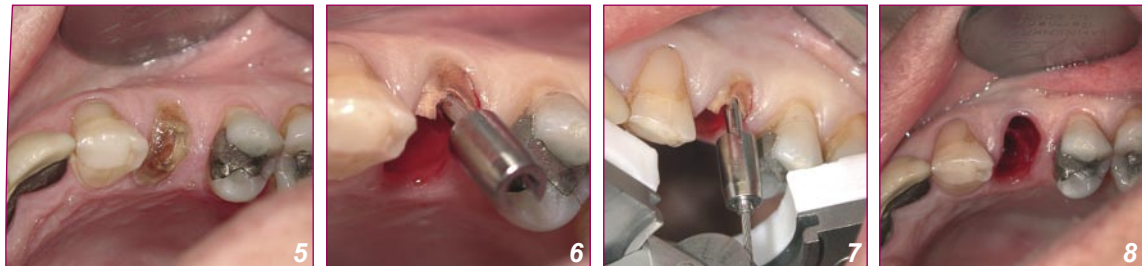
Benex® Application Cases

acc. to Benno Syfrig Dr. med., med. dent.

In pictures [1] to [4], the situation of **plugloss / loss of crown** is shown. This is the most frequent case for a Benex® extraction. Even if the root could be grabbed with forceps, the danger of a root fracture is very high. With the Benex® Extractor, the risk of damaging neighbouring bone or soft tissue structures is virtually non-existent.



In pictures [5] to [8], we show the extraction of a **two-root premolar**. Both roots were separated before the extraction.



Germectomy [9] - Following removal of milk teeth, an access from crestal to the tooth germ is created. The tooth germ "swim" in the follicle and is very difficult to seize. Till now, the tooth germ has to be separated into small pieces and subsequently removed, using forceps or tweezers, amongst others. If unsuccessful, a massive osteotomy will be necessary. The Benex® screws can be easily fixed into the tooth germ and with minimal force, the tooth germ can be luxated. Bigger tooth germs can be separated and "fished out" with the Benex® screw.



HELMUT ZEPF
MEDIZINTECHNIK GMBH

12.301.00 Benex®-Extraction System

application. benefit. result.

Application Benex[®] Extractor.



1. Anaesthesia.

Cutting periodontal fibres (Sharpey fibres) in the sulcus by using the ZEPF Periotome λ_{10d} .



2. Strong, large roots must be loosened / luxated by axial movements within 30 seconds, using a slim elevator / twister (λ_{10d} from ZEPF). Without using transversal movements.

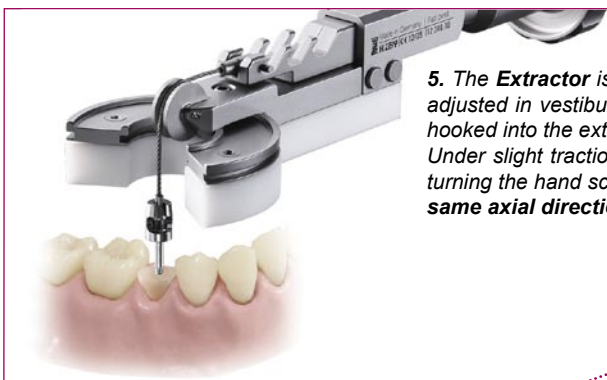
In case of **multi-rooted teeth**, the roots are divided and extracted separately.



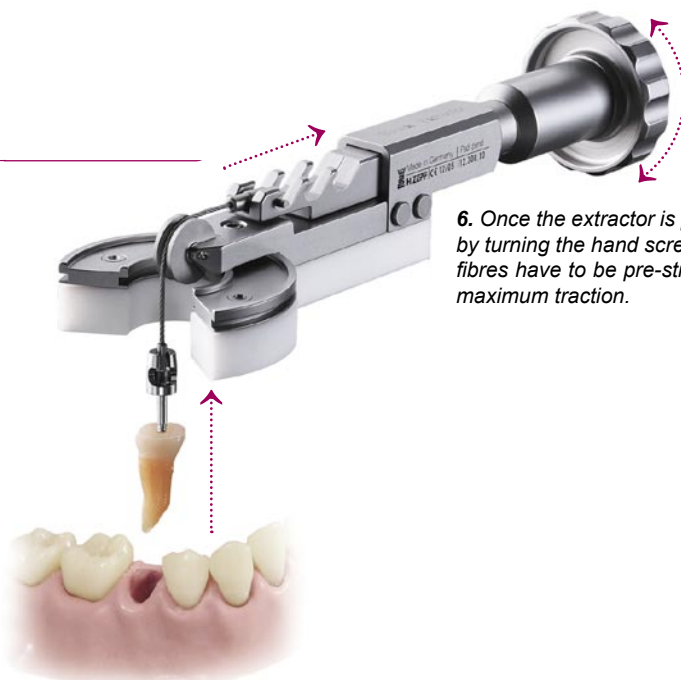
3. **Drilling** with the diamond coated twist drill should be in the axis and center of the root fragment. It should be approx. 7 mm in the hard tissue, deeper drilling will not be necessary. Drilling is performed with water-cooling. In order to remove drilling chips more easily, an inward and outward movement is recommended for deep drilling.



4. According to circumstances, the **short or long extraction screw** with screwing support is inserted.



5. The **Extractor** is positioned on the adjacent crowns: The opening of the round, revolvable segment plate is adjusted in vestibular direction ensuring a good view of the extraction screw. After the traction rope has been hooked into the extraction screw, it is guided over the reverse roller and fixed to the hook of the extraction slide. Under slight traction - so that the rope does not hang out - the instrument is placed on the adjacent teeth by turning the hand screw. During positioning it is important to see that both the **screw and the rope do have the same axial direction**.



6. Once the extractor is positioned properly, the extraction is carried out by turning the hand screw. In case of strong, long roots the periodontal fibres have to be pre-stretched during 30 seconds by applying a sub-maximum traction.



HELMUT ZEPF
MEDIZINTECHNIK GMBH

