

## C.E. Quiz Component

### Minimal-invasive Extraction and Surgical Extrusion with Benex, the Unique Vertical Extraction System (VES)

#### Author:

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#### Educational Objectives

Upon completion of this course, the clinician will be able to:

- 1) Better understanding of the most common dental surgical treatment, the extraction
  - 2) Be more confident during each phase of extraction procedure
  - 3) perform a minimally invasive, vertical extraction with the Benex
  - 4) perform surgical extrusion for retaining teeth - conventionally judged for extraction.
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1. The main advantage of vertical extraction over conventional extraction is:
    - time savings
    - Protection of the extraction socket wall
    - Formation of a blood coagulum
  2. The vertical extraction system:
    - Preserves only hard tissue
    - Causes more pain
    - Preserves hard and soft tissue
  3. The gentle extraction with and without vertical extraction system requires:
    - Strength
    - Patience
  4. The intra-alveolar luxation is:
    - only important for well-anchored roots
    - not necessary only with pre-existing loosened roots
    - powerfully
    - only important for the vertical extraction
  5. the luxation force:
    - is often in the oro-labial direction
    - does not have to be strict in mesiodistal direction
    - usually takes a few seconds
    - usually takes 20 to 40 seconds
  6. The best instrument for root luxation:
    - are levers and forceps
    - luxators
  7. Multiple roots teeth
    - Must be separated before luxation
    - can be removed with the forceps without separation
    - must be pressed towards the thin buccal alveolar wall
  8. The separated root of multi-root teeth
    - are pressed apart for the luxation
    - are pressed together for the luxation with any forceps in upper jaw and with a luxator in lower jaw
  9. The palatal, separated and well-loosened molar root
    - must be removed conventionally with lever and forceps
    - is the first to be removed with the pole extractor
    - can only be removed after osteotomy
  10. The extractor position

- can only be adjusted with quadrant support
  - must allow axial alignment of the rope
  - can only be adjusted with the tapered segment plate
  - is not important
11. For the correct direction of the Benex hole
- you need a DVT
  - is the best way to treat the root canal with a canal instrument
12. The Benex-drill
- Can only be used intracanalicularly as all other vertical extraction system
  - Is not diamond coated
  - can make a screw hole even in enamel for screw fixation in mesiodens and other displaced tooth fragments
13. After a minimally invasive, vertical extraction
- a suture is necessary
  - the blood filled socket is covered with a gauze for 60 minutes (The gauze can be spat out at home)
  - it does not matter if the socket is not filled with blood
14. Severely damaged, conventionally not restorable roots
- can be obtained/extruded with any extraction system
  - can be obtained/extruded successfully with the Benex-System which ensures an absolutely vertical force due to the rope-force deflection
  - can be obtained with a high success rate with lever and forceps
15. For a successful extrusion
- The root canal should be treated as far as possible to the apex
  - you should use a screw with a newer, sharp thread
  - The screw sharpness is irrelevant
16. The post and core for the extrusion temporary
- needs a customized pin hole and a pin cementation
  - is advantageously made with everStick / GardiaCore so that the structure can be well anchored without additional post-drilling

The author's above statements are based on his 16 years of experience with Benex extraction and 9 years experience with Benex extrusion.

Newest publications:

- Surgical extrusion with an atraumatic extraction system: A clinical study:  
The Journal of Prosthetic Dentistry  
Available online 28 June 2018  
<https://www.sciencedirect.com/science/article/pii/S0022391318301161>
- Minimally invasive vertical versus conventional tooth extraction:  
JADA, August 2018 Volume 149, Issue 8, Pages 688–695

## Quiz resolution

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