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## ATRAUMATIC EXTRACTION KIT

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# ATRAUMATIC EXTRACTION KIT









## ATRAUMATIC EXTRACTION KIT [KAE001]

> Used for the immediate and effortless extraction of the root of the tooth with simple procedures.



## (1) Diversity

A root extraction can be done regardless of whether residual amount of root is large or little.

## (2) Safety

A root extraction without the risk of damaging adjacent teeth is possible using the Rest Plate, Elevator, etc.

## (3) Convenience

A very simple and convenient root extraction is possible, compared to the existing extraction method.

## (4) Reduced Procedure Time

The procedure time is reduced due to the simple procedure.

## Composition



## 1. Extraction Drill

> The Extraction Drill is composed of three types of drills (Ø1.3 / Ø1.7 / Ø2.1) that can be selected according to the case.



## 2. Extraction Screw

to the remaining root. It is composed of the Ø1.8 / Ø2.2 / Ø2.6 screws that can be selected according to the extraction drill.

> The Extraction Screw is fastened into the hole that was created by the Extraction Drill via the screw method, and it is stably fixed > The Ø1.8 Screw is used for vital root of which canal is not treated, after using the Ø1.7 Drill.







## 3. Post Driver

> After connecting the Post Driver to the Extraction Screw, turn the Torque Wrench in a clockwise direction in order to fix it to the hole that was created by the Extraction Drill (Recommended torque : 30 N.cm or more).



## 4. Rest Plate

> The Rest Plate is connected between the Extraction Screw and the torque head. It protects the part with silicon that comes into direct contact with the adjacent teeth in order to prevent teeth damage.

It also serves as a support for the Elevator and Torque Wrench.

> One side is inclined at a 30-degree angle, so that it can act as a support depending on the removal direction.



## 5. Torque Head

- > The Torque Head is connected to the Extraction Screw that is fixed in the tooth to be extracted. It fixes the gap of the rest plate and it can be used with the Elevator.
- > If the root to be extracted has both distal and mesial adjacent teeth, it will be extracted with the Torque Wrench (Recommended torque: 100 N.cm or less).





## 6. Elevator

direction.



## How to Use

## **1. Extraction Drill**

Create a hole on the tooth to be extracted using the Extraction Drill.



## Caution A

- if the drill and screw penetrate the root.
- 2. Extraction Screw

Connect the Extraction Screw to the Post Driver and fix it to the hole created by rotating it clockwise (Recommended torque: 20 N.cm minimum ~ 25 N.cm maximum).



#### Connect Post Driver to the Extraction Screw.

## > The Elevator is used by connecting it with the Torque Head and extracting the root by applying force toward a distal or mesial

- The Extraction Drill must follow the neural root canal during drilling. - Drill down to at least 10mm because extraction is possible even





- Drill to a depth of 10~12 mm and insert the Extraction Screw at a depth of 10 mm.

\* Drilling Sequence

Root Canal Preparation





## Caution C

- Fix the screw with a torque of 20 ~ 25 N.cm. If it is not applied, use a thicker screw.
- The low torque force causes the screw to fall out during the extraction, and the over torque force fractures tooth root.

## 3. Rest Plate

After removing the Post Driver, connect a Rest Plate to the Extraction Screw by taking into account the adjacent teeth.



Rest Plate

## 4. Torque Head

Connect the Torque Head to the Extraction Screw projected above the Rest Plate by rotating it clockwise.



Connect Torque Head to Screw

## 5. Torque Wrench

Extract the tooth by rotating the Torque Head clockwise using the Torque Wrench.



## Caution D

- Extraction using the Torque Wrench is possible in a root with mesiodistal root.



## Caution E

- If there are adjacent teeth with 2 or higher swaying degrees, upward pulling or downward pressing should be applied using the Elevator so that the teeth will not receive force during extraction.





### Caution F

- If there is an adjacent tooth projected to the mesiodistal root, it must be extracted using the Elevator.



Extraction with fulcrum of distal tooth

\* When extracting the mesial root, support the Elevator in the distal direction and apply force downward. Lift the root to extract it.



Extraction with fulcrum of mesial tooth

\* When removing the distal root, support the root in the mesial direction and apply force upward to extract the root.



### Caution G

- A molar with two or more roots is a contraindication because the anatomical structure causes screw fracture during extraction.

# ATRAUMATIC EXTRACTION KI