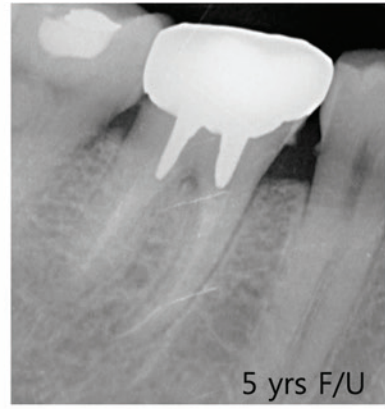


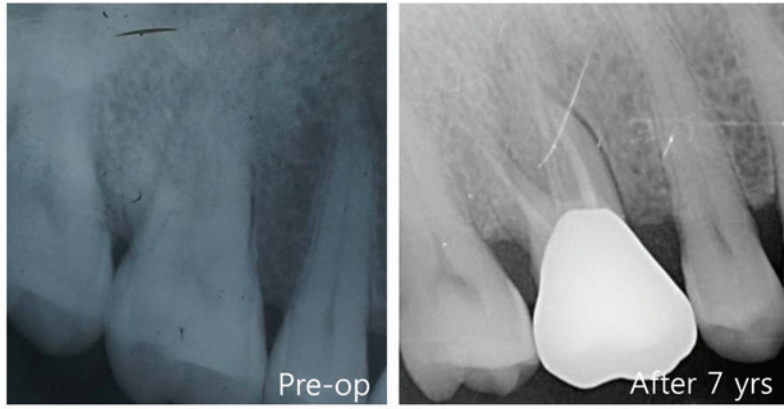
OrthoMTA

: Clinical Uses

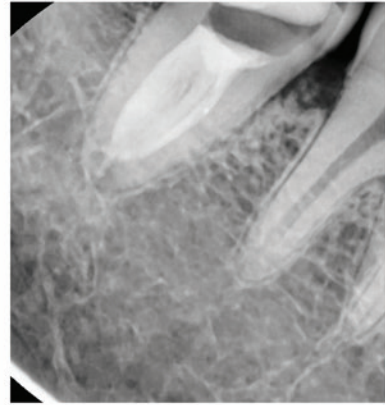
File separation



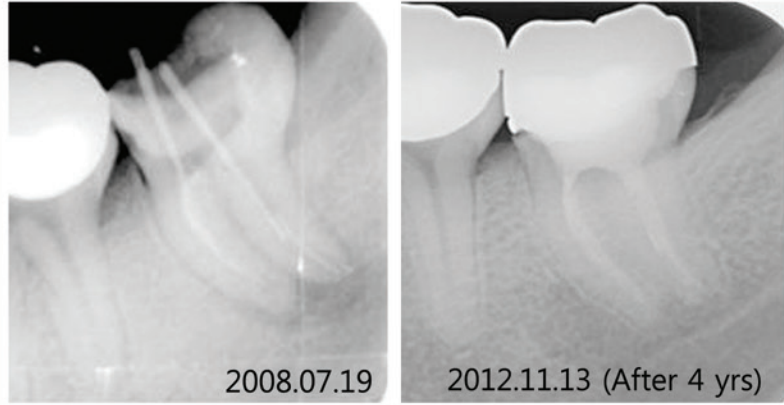
Cracked tooth



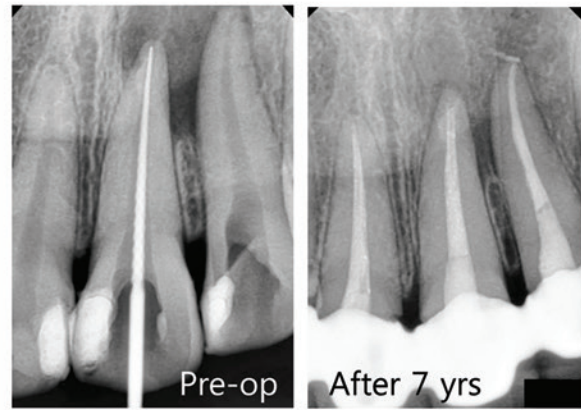
C shape canal obturation



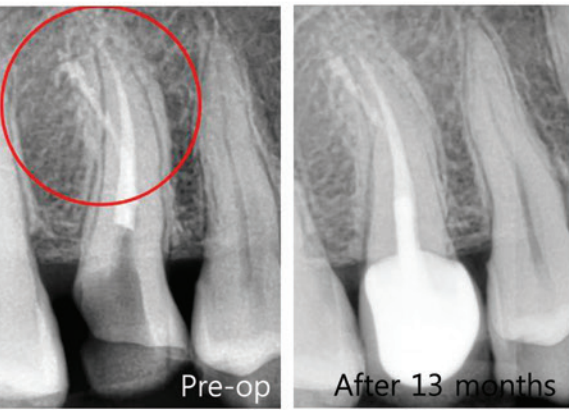
Retreatment



Severely infected canal

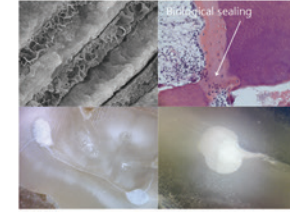


Apical perforation



BioMTA

Make Teeth Alive OrthoMTA FAQ



Indications?

For file separation cases, cracked teeth, severely infected canal, c-shape canal obturation, retreatment, internal resorption and apical perforation cases.

Differences with other MTAs?

OrthoMTA is bioceramic, other MTA is Portland cement based.
OrthoMTA is for root canal obturation, other MTA is for root repair.

Reason for doing total canal filling?

To prevent path of bacterial penetration into the canal and ensure perfect sealability to rule out differential diagnosis to give better treatment and outcome.

Apical Stop formation and easier handling method?

Difficulty in forming the apical stop is because of the wetness inside the canal. MTA only coats the wall but not fill the canal. Use paper points to absorb excess water and then use compacter to fill the canal.

Retrieving after it has set?

After it has set, the compressive strength is 25MPa. For gross removal, dental bur is used and for the remaining particles, Retx Sol is used.
However, if OrthoMTA is used to obturate the canal properly, retreatment is not the cause of reinfection.

Effect on cracked tooth?

Bactericidal effect will minimize pain or discomfort, not recover to its original form.

Radio-opacity?

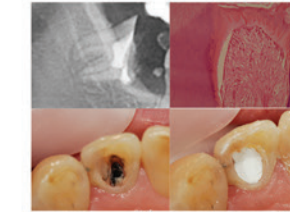
If more than 25% contrast medium is added, it will be more radiopaque but it will weaken the biocompatibility of MTA.

Over Filling?

No pain or discomfort is felt because it neutralizes the pH of tissue but deliberate overfilling is not recommended.

Enlargement and Irrigation?

02 taper, #25 file and above is recommended for canal enlargement. Greater taper shaping on the coronal area is not recommended because OrthoMTA is a micron-sized powder that can be filled and packed.
Avoid excessive irrigation with NaOCl and avoid usage of EDTA. Not only they weaken the root but interferes with the setting action of MTA. Prepare a 1:1 solution of H₂O₂ and Hexamedine and use this for irrigation. According to a journal, remaining hexamedine after irrigation provides a long-term antimicrobial effect.



Make Teeth Alive RetroMTA FAQ

Indications?

For pulp capping, external resorption, coronal perforation, retrograde filling after apicoectomy, apexification and other root repair treatments that needs fast-setting MTA material.

Differences with other MTAs?

RetroMTA is made of Calcium Silicate Bioceramic material not Portland Cement.
Mainly for root repair that doesn't discolor the tooth and sets in 3 minutes.

Setting time and compressive strength?

Initial setting time is 3 minutes. Do not pack repeatedly after placement of material with instruments because it will interfere the setting reaction.
Final setting time is 4 hours. Compressive strength after final set is about 100 MPa.

Treatment and prevention of discoloration?

Treatment : Removal of discolored area and place RetroMTA.
Prevention : Placement of RetroMTA as base material.

Prevention from being washed-out (Solution to faster setting of MTA)?

Too watery : Gently press with dry cotton pellet for 120 seconds.
Too powdery : Gently press with wet cotton pellet for 120 seconds.
Irrigation with NaOCl will wash out remaining particles. Do not use EDTA because it interferes with setting action.

When is it used as base?

Pin point exposure of pulp on deeply prepared cavity. Place 2-3mm thickness of RetroMTA base and then resin.

Used for root canal filling material?

Can be used in anterior teeth where esthetics is important.

When used in open apices?

When apices are large, place a collagen sponge and then fill with RetroMTA to prevent excessive overfilling.

Pulpotomy?

May be used for both primary and permanent teeth.
For permanent teeth 1) (-) Hot/cold test 2) (-) Percussion 3) (-) Palpation are candidates for pulpotomy.

Method used for safe extraction of 3rd molar?

Do coronectomy above CEJ and then place RetroMTA on the orifices of the root. After 3 months, extraction can be performed after confirming that the roots are separated with IAN.

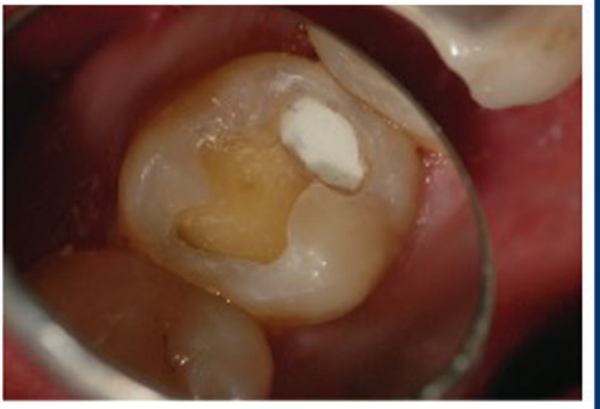
RetroMTA®

: Clinical Uses

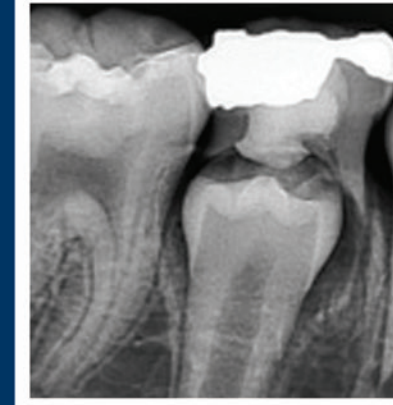
Pulp capping



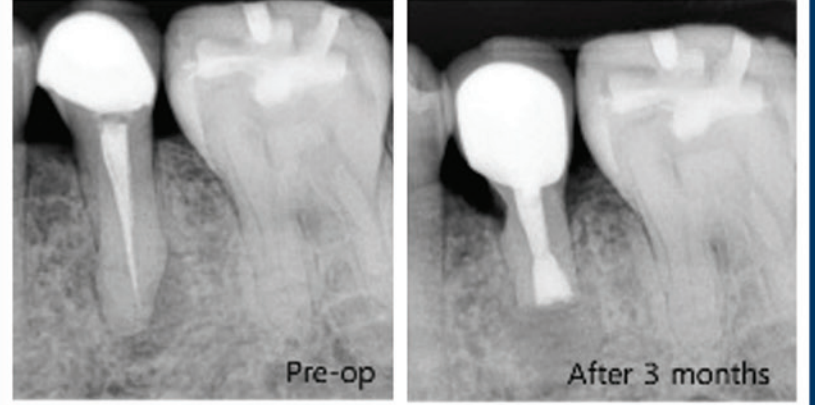
Base material



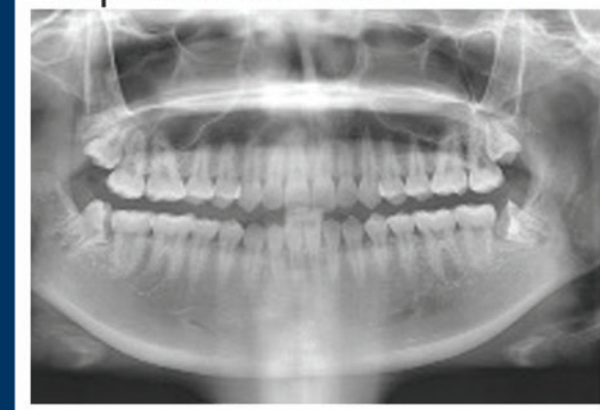
Pulpotomy



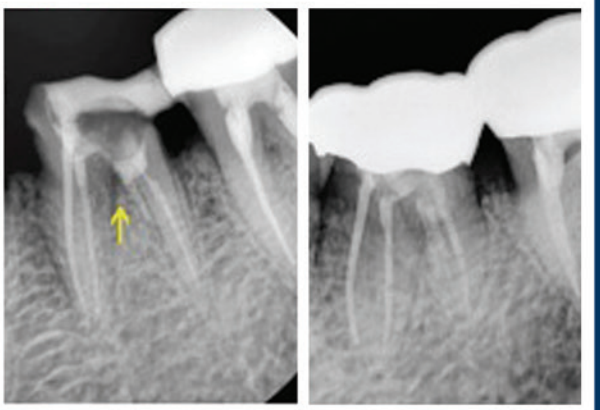
Intentional replantation



Safe extraction of impacted 3rd molar



Coronal perforation



BioMTA

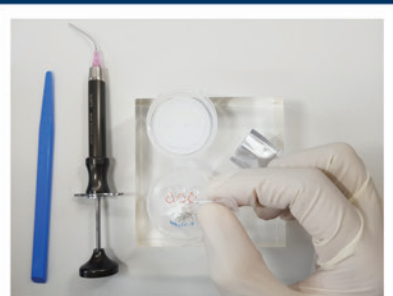
RetroMTA®

Hydraulic Calcium Zirconia complex

How to Use



Prepare for ready
Prepare RetroMTA, Distilled water, Plastic spatula, OrthoMTA carrier



Pour 0.3g of powder and make 3 drops of distilled water.



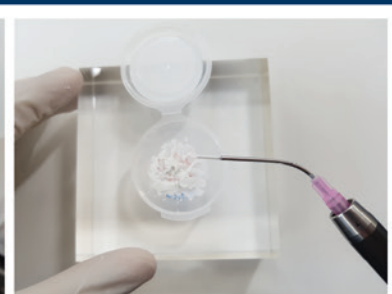
Wetting
Wet it gently with a plastic spatula for 30 seconds. Just wetting not mixing



Using spatula
Prepare RetroMTA, Distilled water, Plastic spatula, OrthoMTA carrier



Carrier
Load it on the carrier and apply it on the procedure area.



Package

0.6G INTRO PACK Endo Sponge, including DW 0.3g x 2caps
2.4G INTRO PACK Including DW 0.3g x 8caps

BioMTA

Bioceramic Root Repair

RetroMTA®



RetroMTA_Synthesis and hydration behavior of calcium zirconium aluminate (Ca₇ZrAl₆O₁₈) cement
Eun-Hee Kang a, Jun-Sang Yoo b, Bo-Hye Kima, Sung-Woo Choi a, Seong-Hyeon Hong a,*
a Department of Materials Science and Engineering, Research Institute of Advanced Materials, Seoul National University, Seoul 151-744, South Korea
b Department of Oral & Maxillofacial Surgery, School of Dentistry, Seoul National University, Seoul 110-749, South Korea

Perforation Repair

Bactericidal pH 12.5, Calcium hydroxide effect
Sealability Bacterial entombment and fossilization
Biocompatibility New cementum formation
Fast setting 3-min, No-washout & 1-visit treatment
No discoloration Base for esthetics



Package

0.6g Intro Pack 0.3g x 2caps
2.4g Refill Pack 0.3g x 8caps



BioMTA

Bldg.86, Room #610, Seoul National University School of Dentistry, 1, Gwanak-ro, Gwanak-gu, Seoul, The Republic of Korea.
Tel : +82-2-885-3923 Fax : +82-2-887-3923
http://www.biomta.com E-Mail : biomta@biomta.com

Make Teeth Alive

MTA Canal Obturation

OrthoMTA



Bacterial entombment by intratubular mineralization following orthograde mineral trioxide aggregate obturation: a scanning electron microscopy study
Jun Sang Yoo^{1,*}, Seok-Woo Chang^{2,*}, So Ram Oh³, Hiran Perinpanayagam⁴, Sang-Min Lim⁵, Yeon-Jee Yoo³, Yeo-Rok Oh¹, Sang-Bin Woo¹, Seung-Hyun Han⁶, Qiang Zhu⁷ and Kee-Yeon Kum³
www.nature.com/ijos

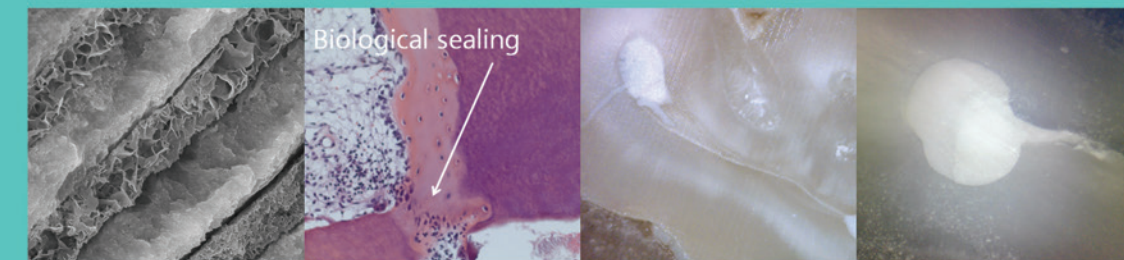
Root Canal Obturation

Bactericidal pH 12.5, Calcium hydroxide effect
Sealability Bacterial entombment and fossilization
Biocompatibility New cementum formation
Retrievability Chemically and mechanically
Technique Dr. Yoo's Orthograde filling method



Package

OrthoMTA 10g x1, Carrier x1, Needle tip x50, Bender x1, Compacter x3, Plugger x1, Cotton buds x80



BioMTA

Bldg.86, Room #610, Seoul National University School of Dentistry, 1, Gwanak-ro, Gwanak-gu, Seoul, The Republic of Korea.
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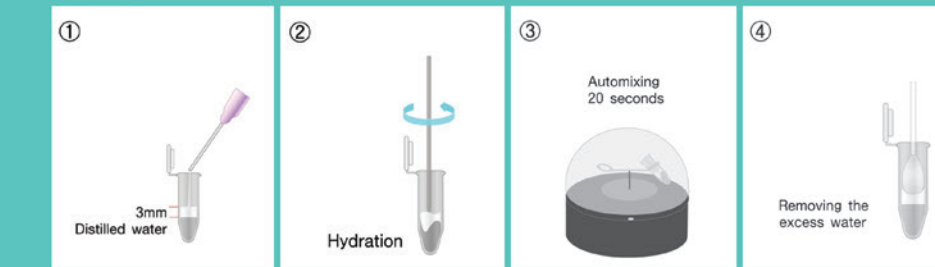
Make Teeth Alive

OrthoMTA

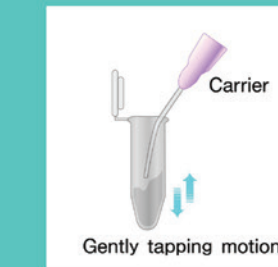
Root Canal Filling Material

How to Use

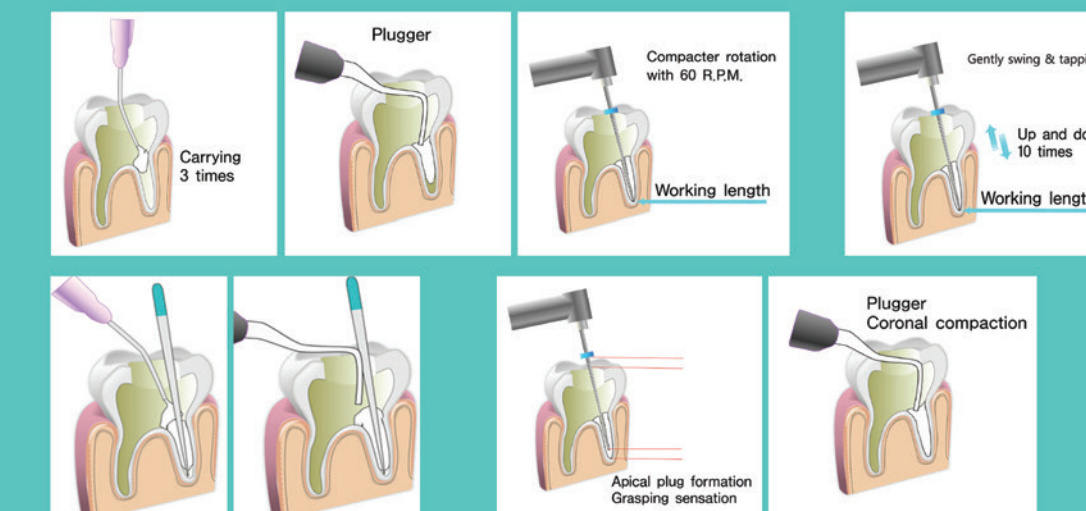
Mixing



Carrying



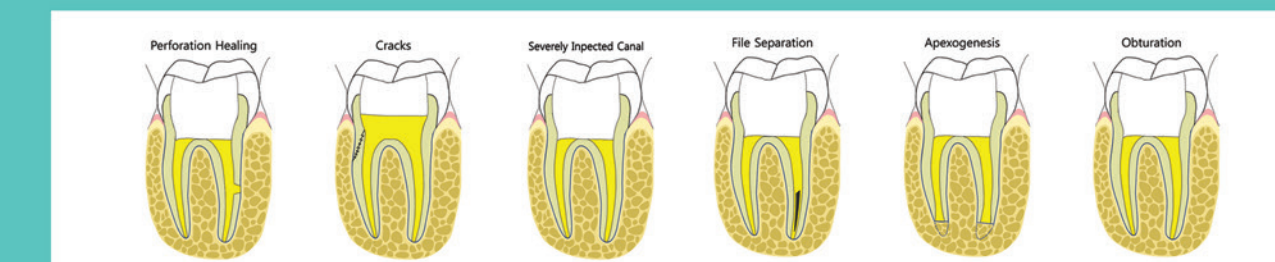
Filling



If you feel sticky, that means you made apical stop after filling 5mm of OrthoMTA, you use a Plugger

OrthoMTA

Orthograde bioceramic filling material Perfect sealing and biocompatibility No heavy metal (NO Cr6+, As, Ni, Fe) No expansion (0.09%)



BioMTA