

# EXT STUDY RESTORATION

Coronal mikroleakage of various temporary fillings in standardized endodontic access cavities

**DuoTEMP**<sup>®</sup>  
dual cure temporary filling material

**coltosol<sup>®</sup> F**

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## STUDY AIM

To compare the coronal microleakage of various temporary fillings in endodontic access cavities.

## EXPERIMENTAL SETUP

Standardized access cavities were prepared in 100 extracted human premolars. The teeth were then randomly divided into 9 groups of 10 teeth, with the remaining teeth serving as positive and negative controls.

The cavities in the experimental groups were filled with 4 mm of

- DuoTemp, COLTENE
- Coltosol F, COLTENE
- Cavit G, 3M ESPE \*
- BMS, BMS Dental \*
- Fermin, Detax \*
- Clip, Voco \*
- ProFill, WP Dental \*
- TempBond Clear with Triclosan, Kerr \*
- Ketac Molar Easymix, 3M ESPE \*

according to the manufacturer's instructions. After thermocycling for 500 cycles (5-55°C), microleakage was measured by using a methylene blue dye penetration test. The teeth were sectioned, and the greatest depth of dye penetration was recorded.

## RESULT

Coronal microleakage was evaluated with a stereomicroscope. Positive controls displayed complete dye penetration, and negative controls showed no dye penetration. All Temporary Fillings displayed some degree of leakage. DuoTemp and ColtosolF rank among the best sealing materials.

