



## Preparation of a Distal Premolar with Root Perforation

### DIAGNOSIS

- Female pain patient with complaint in the maxilla.
- Tooth 25 sensitive to percussion.

### CHALLENGE

- Root perforation in distal direction with clearly recognizable distal brightening.
- Initial treatment with inadequate root filling as the post blocked the actual root canal.
- The instrument had to be pre-bent to be able to pass the perforation in order to reach the “correct” root canal.

### TREATMENT

- Removing of the old filling and inserted post.
- Following Preparation of the canal with a HyFlex CM file sequence (size/taper: 25/.08, 20/.04, 25/.04, 20/.06, 30/.04 up to 50/.04) using the single length technique.
- Medication with calcium hydroxide for two weeks.
- Sealing of the perforation with MTA followed by obturation.
- At recall after 2.5 months, the obturation had remained intact and the patient was completely free of complaints.



“In a referral practice such as ours, we are regularly confronted with the treatment of root perforations, and by reliably keeping its pre-bent shape, the file also permits relatively stress-free work even under difficult conditions - particularly with difficult to access canal openings.”

**Dr. Thomas Rieger**

### USER BENEFITS

- **Comfortable working in hard to reach cavities**
  - Due to the innovative manufacturing process HyFlex™ CM NiTi files have in contrast to conventional NiTi files a controlled memory and are extremely flexible and pre-bendable.
- **Safe operation due to centered canal preparation**
  - HyFlex™ CM files follow the anatomy of the canal very closely, reducing the risk of ledging, transportation or perforation.

### CONCLUSION

HyFlex CM files are ideally suited for a centered canal preparation of hard to reach distal molars. Due to their controlled memory effect HyFlex files are pre-bendable and do not bounce back.



Dr. Thomas Rieger



HyFlex CM File Sequence



Initial situation: Via falsa

Initial situation under DVT