

The major advantage of zinc oxide-eugenol based sealer types is:

- Non-staining property
- Fast setting time
- Adhesion
- Insolubility
- Long history of successful usage

Long history of successful usage

Remember: The primary function of a root canal sealer is to **fill in the discrepancies** between the core-filling material and the dentin wall. In fact it is said that it is **more important** than the core filling material.

Other **purposes** or **functions** of a root canal sealer include:

- **To act as a lubricant**, facilitating placement of the gutta-percha
- **To form a bond** between the filling material and the dentin walls
- **To exert antibacterial activity** (*some exert more than others*). This activity is the highest in the period of time **immediately after** its placement.

Most root canal sealers are some type of **zinc oxide-eugenol cement** and are capable of producing a **seal** while being **well-tolerated** by periapical tissues.

All sealers display some degree of **radiopacity** (*caused by metallic salts in the sealer*); thus are visible on a radiograph. This helps disclose the presence of accessory canals, resorptive areas, root fractures, and the shape of the apical foramen and other structures of interest.

Note: After filling a tooth with **gutta-percha**, if you see a horizontal line of material (*gutta-percha or sealer*) extending **both mesially** and **distally** from the canal to the periodontal ligament space, this is **indicative of a root fracture**.

ZOE disadvantages: staining, slow setting time, non-adhesion, solubility.