

• **both statements are true**

The epithelial rests of Malassez are remnants of Hertwig's epithelial root sheath and can be found as groups of epithelial cells in the periodontal ligament. Some rests degenerate; others become calcified (form cementicles). Although apparently functionless, they are the source of the epithelial lining of dental cysts that develop in reaction to inflammation of the periodontal ligament.

Remember: The **purpose of** Hertwig's epithelial root sheath **is to shape the root** (or roots) and **induce dentin formation** (by stimulating the differentiation of odontoblasts) in the root area so that it is continuous with coronal dentin. After this root dentin is deposited, the cervical portion of the root sheath breaks down, and this new dentin comes in contact with the dental sac. This contact stimulates cells from the dental sac to differentiate into cells that will produce cementum, the PDL, and the alveolar bone proper.

Important: The continuity of Hertwig's epithelial root sheath **must be broken** in order for cementum to be deposited during tooth development (cementogenesis).

Hertwig's epithelial root sheath is characterized by:

- The **formation of cell rests** (rests of Malassez) in the PDL when the sheaths functions have been accomplished
- The **absence** of a stellate reticulum and a stratum intermedium (it consists of inner and outer enamel epithelium only)

Remember: The structure responsible for root development is the **cervical loop**, which is the most cervical portion of the enamel organ.