Abstract: Aim and Introduction:
Biodentine is a new bioactive cement with dentin-like mechanical properties, which can be used as a dentin substitute on contact with vital pulp tissue. It also promotes the formation of reparative dentin.
Currently, calcium hydroxide products are the "gold standard" for direct pulp capping but they have some drawbacks:
- Poor bonding to dentin, material resorption and mechanical instability and no prevention against microleakage at long term, which may cause secondary inflammation of the pulp tissue and may lead to loss of tooth vitality, its high pH causes liquefaction necrosis at the surface of the pulp tissue.
Biodentine shares both its indications and mode of action with calcium hydroxide, but does not have its disadvantages. Biodentine consists of a powder (tricalcium, dicalcium silicate and calcium carbonate) in a capsule and liquid (calcium chloride in aqueous solution with an admixture of polycarboxylate) in a pipette. The consistency of Biodentine is similar to that of phosphate cement.

Content:
Biodentine can be used on both crowns and roots. Its crown applications include:
- Pulp protection
- Temporary closure
- Deep caries management
- Cervical filling
- DPC and IPC
- Pulpotomy
Its use in roots includes:
- Managing perforations of root canals or the pulp floor
- Internal and external resorption
- Apexification
- Retrograde root canal obturation.

Conclusion:
Due to its improved material properties, Biodentine is an interesting alternative to conventional calcium hydroxide-based materials. It offers advantages for DPC and may contribute to the long-term maintenance of tooth vitality.

Biodentine, DPC
Presentation: Oral