Opinion Article



# Dentigerous Cysts and their Impact on Oral Health

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# DESCRIPTION

Dentigerous cyst, also known as a follicular cyst, is a common type of odontogenic cyst that forms around the crown of an unerupted tooth. It is characterized by the accumulation of fluid between the Reduced Enamel Epithelium (REE) and the tooth crown.

#### Causes

Dentigerous cysts typically develop due to an obstruction in the eruption pathway of a tooth. The cyst forms when the fluid accumulates between the REE, which surrounds the crown of the unerupted tooth, and the enamel. The exact cause of the obstruction is often unknown, but several factors can contribute to its formation, including:

**Impacted teeth:** Dentigerous cysts most commonly occur around impacted teeth, where the tooth fails to emerge through the gumline properly.

**Developmental factors:** Certain developmental abnormalities or disturbances during tooth formation can contribute to the development of dentigerous cysts.

**Genetic predisposition:** Some individuals may have a genetic predisposition that increases their susceptibility to the formation of dentigerous cysts.

## Symptoms

Dentigerous cysts often do not cause any symptoms in their early stages. They are usually discovered incidentally during routine dental or radiographic examinations. However, as the cyst grows, it can lead to various symptoms, including:

**Swelling:** A visible swelling or bulge in the affected area may be observed. It is often painless and can cause facial asymmetry.

**Discomfort or pain:** In some cases, the cyst may cause discomfort or pain, especially if it becomes infected or if it exerts pressure on surrounding structures.

**Difficulty with mouth opening:** Large cysts can interfere with jaw movement, resulting in difficulty opening the mouth fully.

**Shifting teeth:** Dentigerous cysts can cause adjacent teeth to shift or become displaced due to the pressure exerted by the growing cyst.

**Gum inflammation:** The presence of a cyst can lead to inflammation of the gum tissues surrounding the affected tooth, causing redness, tenderness, or swelling.

#### Treatment

The treatment of a dentigerous cyst depends on various factors, including the size and location of the cyst, the associated impacted tooth, and the patient's overall oral health. The primary treatment options for dentigerous cysts include:

**Enucleation:** The most common treatment approach involves the complete removal of the cyst and the associated impacted tooth. This is typically performed under local or general anesthesia, depending on the case's complexity.

Marsupialization: In some cases where the cyst is large and removal in a single procedure may risk damage to vital structures, marsupialization may be performed. This technique involves creating an opening in the cyst to allow drainage and gradual shrinkage before definitive removal.

**Extraction of impacted tooth:** The impacted tooth associated with the dentigerous cyst is typically extracted during the surgical removal of the cyst. This helps eliminate the source of the cyst formation and reduces the risk of recurrence.

Bone grafting: In cases where significant bone loss occurs due to the cyst, bone grafting procedures may be necessary to restore the normal contour and volume of the jawbone.

## **Prognosis**

The prognosis for dentigerous cysts is generally favorable with appropriate treatment. The recurrence rate for properly treated cases is low. However, regular follow-up visits and imaging studies are crucial to monitor for any signs of recurrence or the development of new cysts.

It is important to note that dentigerous cysts can cause complications if left untreated or undiagnosed. These complications

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can include infection, root resorption of adjacent teeth, pathological fracture of the jawbone, and, rarely, malignant transformation. Dentigerous cysts are relatively common odontogenic cysts that form around the crown of an unerupted tooth. While they are usually asymptomatic, they can cause significant complications if left untreated. Early diagnosis, through clinical examination and radiographic imaging, followed

by appropriate treatment, including cyst removal and extraction of the associated impacted tooth, is essential for successful management. Regular follow-up visits and surveillance are important to monitor for any recurrence or development of new cysts, ensuring optimal oral health and preventing potential complications associated with dentigerous cysts.

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