

# Bilateral Fusion of Primary Maxillary Incisors: A Case Report

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## Introduction

Fusion of primary teeth is a rare developmental anomaly resulting from the union of two adjacent tooth germs [1]. It most commonly affects anterior teeth and can lead to altered tooth morphology, crowding, delayed exfoliation, and aesthetic concerns [1]. Bilateral fusion is even less common and presents unique diagnostic and clinical management challenges [2]. When fused teeth are associated with caries or missing permanent successors, treatment decisions become increasingly complex and require multidisciplinary planning.

## Case Report

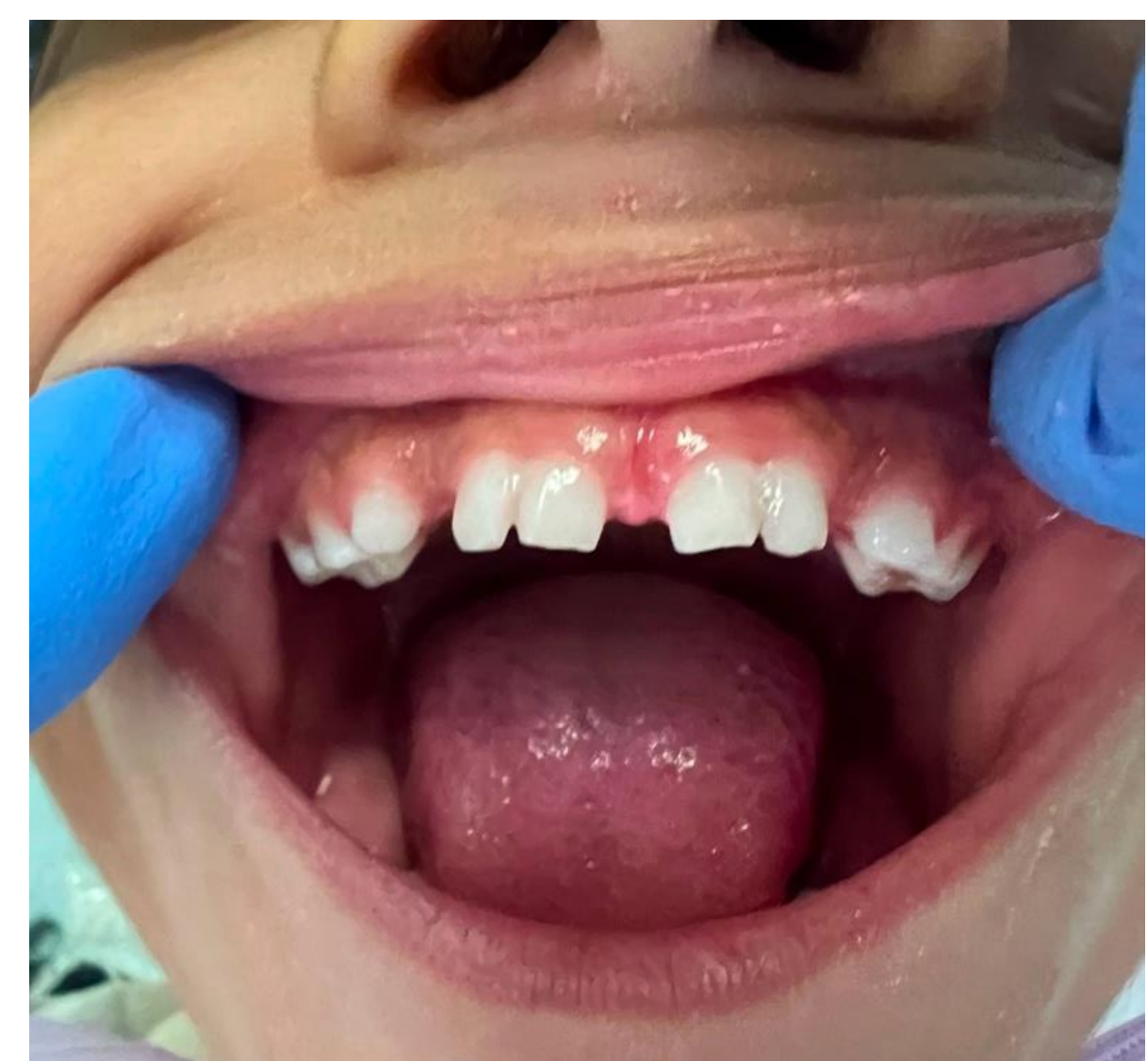
**Patient Age:** 5 years, 5 months.

**Chief Complaint:** First dental checkup with no chief complaint.

**Medical History:** Non-contributory.

**Clinical Findings:**

- Bilateral incomplete fusion of teeth D & E and F & G (Figure 1).
- Interproximal caries present between fused teeth (Figure 2).
- Caries appeared hard and arrested upon clinical exam.



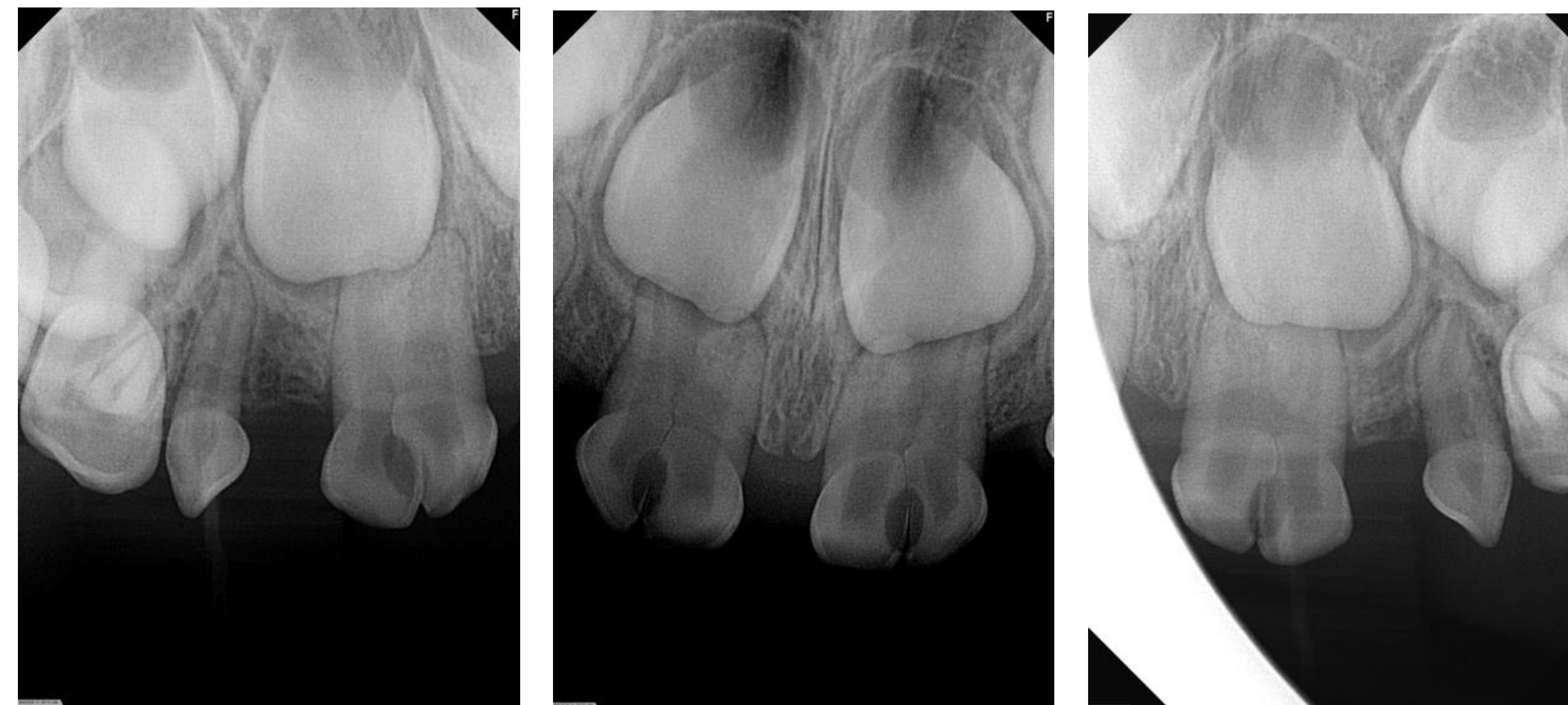
**Figure 1.** Clinical photograph depicting incomplete fusion of teeth D & E and F & G, with a separating groove between fused teeth.



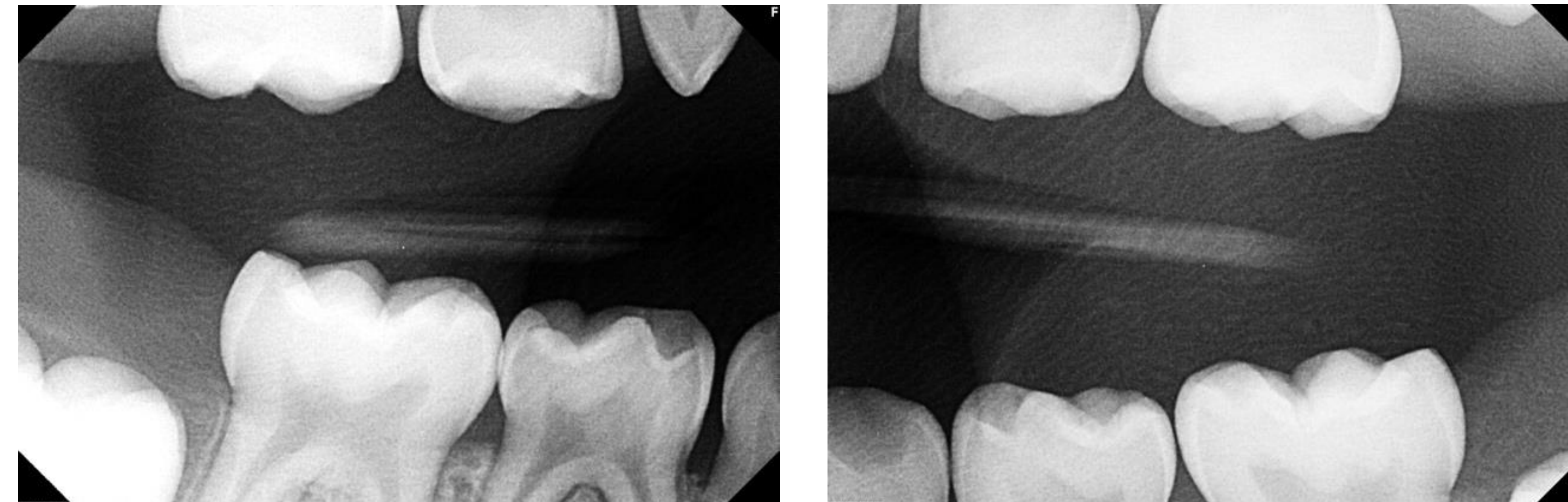
**Figure 2.** Clinical photograph depicting interproximal caries between fused teeth D & E and F & G.

**Radiographic Findings:**

- Teeth D & E and F & G incomplete fusion confirmed with union of dentin and distinct pulp chambers and root canals (Figure 3).
- Caries extending towards pulp chambers on teeth D, E, F and G (Figure 3).
- Congenital absence of permanent maxillary lateral incisors (Figure 5).
- No other caries or anomalies noted throughout the dentition (Figures 4 and 5).



**Figure 3.** Maxillary anterior periapical radiographs depicting incomplete fusion of teeth D & E and F & G, with union of dentin and distinct pulp chambers and root canals.



**Figure 4.** Posterior bitewings depicting healthy primary canines and posterior teeth with no evidence of caries.



**Figure 5.** Panoramic radiograph depicting congenitally missing permanent maxillary lateral tooth buds.

## Treatment Options Discussed

### 1. No Treatment

- Poor prognosis due to the depth of caries and risk of pulp involvement and infection.

### 2. Teeth D, E, F, and G caries removal and restoration with glass ionomer

- Guarded prognosis due to high risk of pulp involvement and potential need for pulp therapy or extraction.

### 3. Extraction of teeth D, E, F, and G

- Fair prognosis and prevents future complications with extracted teeth.

## Management Plan

- The legal guardian was counseled regarding the dental anomaly, the presence of caries in the fused teeth, available treatment options, and the importance of future multidisciplinary management and follow-up to address the congenitally missing permanent lateral incisors.
- Management of congenitally missing permanent lateral incisors to include:
  - Orthodontic evaluation for possible canine substitution.
  - Space management as needed for future prosthetic options.
  - Prosthetic options after growth completion to include: partial removable dental prosthesis, fixed dental prosthesis, or dental implant.
  - Long-term multidisciplinary follow-up.

## Conclusion

Bilateral fusion of primary maxillary incisors is a rare clinical finding that may be complicated by interproximal caries and the absence of permanent successors [3]. This case highlights the importance of early diagnosis, parent education, and a coordinated, multidisciplinary treatment approach that balances immediate needs with long-term occlusal and esthetic outcomes.

## References

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2. Mohtesham I, Shakil M, Jose M, Prabhu V. Fusion of deciduous central incisors. Arch Med Health Sci. 2015;3(1):85–7. doi:10.4103/2321-4848.154951
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