

# **Prosthodontic Management of Fractured Implant and Components: A Literature Review**

**Akshat Srivastava, Shitij Srivastava, Abhinav Shekhar, Love Kumar Bhatia**

Department of Prosthodontics and Crown & Bridge, Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow (Uttar Pradesh)

## **ABSTRACT:**

Dental implants have revolutionized prosthodontic rehabilitation, offering reliable long-term solutions for edentulism. However, mechanical complications such as implant or component fractures, though relatively rare, present significant challenges for clinicians. Fractures can involve the implant body, abutment screw, or prosthetic components, often resulting from biomechanical overload, design flaws, material fatigue, or improper occlusion. Timely diagnosis and appropriate management are crucial to preserve peri-implant health and restore function and esthetics. Non-invasive retrieval techniques, such as screw removal kits, ultrasonic vibration, or trephining, are considered based on the fracture location and severity. In cases where removal is impractical, the fractured implant may be left in situ, and alternative implant placement considered. This literature review explores the etiology, clinical presentation, and prosthodontic strategies for managing fractured implants and associated components and also emphasizes the importance of preventive measures. Understanding fracture patterns and material behavior is key to improving long-term success rates.

**KEY WORDS:** Implant fracture, abutment screw fracture, implant complications, retrieval techniques, implant re-treatment.