

QUICK TECHNIQUE

Predictable Emergency Implant Placement: *Maintaining the Buccal Plate With the Physics Forceps Extraction Technique*

Timothy Kosinski, MS, DDS

Practitioners like myself who offer implants desire the “emergency implant” situation that arises to be more predictable, starting with a complete atraumatic extraction that preserves the buccal plate. This is particularly the case when dealing with anterior teeth, where the buccal plate can be very thin. If we are able to start with an extraction technique that preserves the buccal plate on a predictable basis, these emergency cases can be a bit more straightforward. Advancements in today’s extraction instruments provide far less stress for us, and more importantly, for our patients, and I find the Physics Forceps (with their associated technique) to be the best instrument on the market in these cases.

The Physics Forceps are used to achieve a complete atraumatic extraction of a tooth where

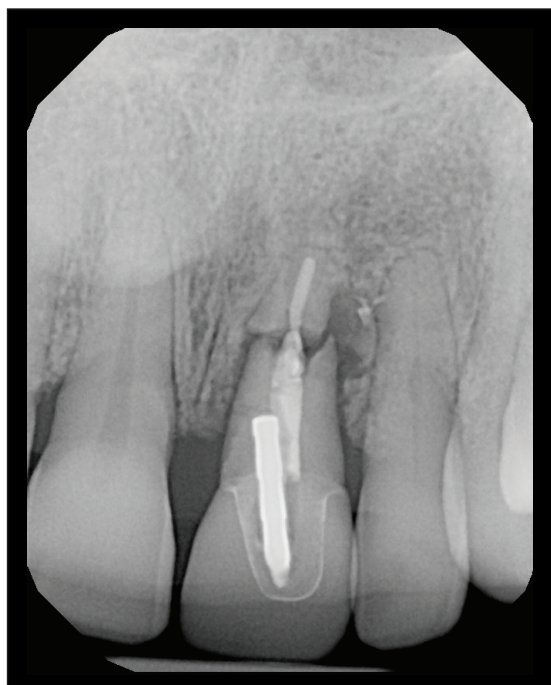


Figure 1. Preoperative digital radiograph illustrating symptomatic fractured root that required immediate attention and a potential for an “emergency dental implant.”



Figure 2. The Physics Forceps bumper is placed in the anterior vestibule close to the mucogingival line angle, and its beak is placed approximately 3 mm subgingival on the palatal aspect of the tooth's root surface.



Figure 3. Using only wrist rotation in a buccal-only direction with no physical force, the tooth begins to disengage from the socket. Once the tooth moves, stop using the Physics Forceps and deliver the tooth with a convention instrument of choice. The forceps operate as a lingual elevator, with no elevation required in advance.

it is imperative to maintain the buccal plate in preparation for an immediate emergency dental implant. Root fracture would only complicate a compromised situation. Elevation of the tooth is no longer necessary since the Physics Forceps stretch and eventually break down the periodontal ligament fibers by creating a chemical change in the ligament, resulting in release of the Sharpey's fibers. Hyaluronic acid creates the chemical breakdown of the ligament, and the tooth is released from its attachment to the alve-



Figure 4. The fractured root is atraumatically removed, maintaining the buccal plate.



Figure 5. A dental implant is threaded into the socket. Tricalcium phosphate granules were used to fill in any small gap between the body of the implant and facial plate of bone.

olus and is easily and atraumatically removed. This is all completed utilizing only wrist rotation (no squeezing) in a buccal-only direction with one instrument.

In this clinical case study, the patient presented with a symptomatic fractured root that required immediate attention. Being an anterior tooth, the patient expressed much emotion concerning its extraction. Providing the patient with an extraction technique that was simple and relatively noninvasive created a positive effect for the pa-



Figure 6. Postoperative digital radiograph with implant, abutment, and crown completed.

tient. In this case, the procedure was completed in a few minutes, and you can see that the Physics Forceps technique resulted in removal of the entire root along with the fractured apical tip.

The resulting clean socket became an appropriate site for immediate placement of a single dental implant. Slight grafting with tri-calcium phosphate crystals filled in any small areas where the implant was not immediately engaged into bone. When a proper socket was created following the atraumatic extraction, immediate placement was considered and discussed with the patient. The osteotomy was made approximately 3 mm palatal to the facial plane of the adjacent teeth engaging the palatal bone. This allowed proper facial contours of the final aesthetic crown and also good blood supply to the integrating dental implant. The implant was torqued into place, and a healing abutment placed. An Essex retainer was made from the preoperative cast and used as the transitional appliance while the implant healed.

Utilizing this atraumatic extraction technique, patients are impressed by the ease of the procedure and lack of trauma to the surgical site. The biomechanical design of Physics Forceps instruments allows minimal fracture of roots and maintains the buccal plate, essential to proper healing of an immediately placed dental implant.