

## Editorial Save the Tooth or Place an Implant: A Routine Dental Decision

Single-tooth replacement is frequently considered in most dental practices. Thoughtful diagnostic treatment planning is required when evaluating endodontic vs implant treatment in order to ensure comfort, esthetics, and longevity for the patient.

The American Association of Endodontists position statement on implants states that, apart from survival rates, components such as the restorability of the tooth, quality of bone, esthetic demands, cost-benefit ratio, and systemic factors should be taken into account when deciding whether to treat the tooth endodontically or to place a single implant.<sup>1</sup> One study evaluated the 10-year success rate of 1,175 endodontically treated teeth, and the life table analysis reported that 93% of the teeth survived 10 years after endodontic treatment.<sup>2</sup> Further, it was shown that the ability to locate second mesiobuccal canals increased from 53% to 93% when evaluated under a surgical operating microscope.<sup>3-7</sup>

Technologic and technical advances in endodontics continue to enhance a dental treatment regime that has been universally accepted. These advances include the surgical operating microscope, mechanical titanium instrumentation, hydrodynamic irrigation, mineral trioxide ag-

gregate, bioceramics, CBCT, and microsurgical instrumentation.

It must be stated that dental implants are an extraordinary service and have made possible some treatment options that were never before imagined. The science of osseointegrated implants has advanced considerably with the development of new implant designs, surface characteristics, materials, and methods. High success rates have helped make single-tooth implants a viable and accepted option for tooth replacement. However, a healthy, natural dentition is still the best alternative requested by patients.

Assessing whether to rehabilitate a tooth requiring endodontic treatment or to replace it with an implant involves a challenging and complex decision-making process,<sup>7</sup> and all treatment decisions must be evidence-based. When comparable criteria are applied to the outcome, survival rates of endodontically treated teeth and single-tooth implants are similar. A compromised tooth should be managed with a multidisciplinary approach (endodontics, periodontics, and prosthetics), and implants should be reserved for the patient with true end-stage tooth failure. Endodontics, periodontics, and implantology should complement each other, not

compete. The overall goal is the long-term health of the patient, using the least invasive treatment method possible, and incorporating function, comfort, and esthetics.

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### References

1. AAE Special Committee on Implants. Implants: AAE Position Statement. American Association of Endodontics, 2007. <https://www.aae.org/specialty/wp-content/uploads/sites/2/2017/06/implantsstatement.pdf>. Accessed April 4, 2022.
2. Fonzar F, Fonzar A, Buttolo P, et al. The prognosis of root canal therapy: A 10-year retrospective cohort study on 411 patients with 1,175 endodontically treated teeth. *Eur J Oral Implantol* 2009; 2:201-208.
3. The Joanna Briggs Institute Reviewers' Manual 2014. Adelaide: The Joanna Briggs Institute, 2014. Accessed April 4, 2022.
4. McArthur A, Klugárová J, Yan H, Florescu S. Innovations in the systematic review of text and opinion. *Int J Evid Based Healthc* 2015;13:188-195.
5. Chércoles-Ruiz A, Sánchez-Torres A, Gay-Escoda C. Endodontics, endodontic retreatment, and apical surgery versus tooth extraction and implant placement: A systematic review. *J Endod* 2017;43:679-686.
6. Stetzer FC, Kim S. Comparison of long-term survival of implants and endodontically treated teeth. *J Dent Res* 2014;93:19-26.
7. Stropko JJ. Canal morphology of maxillary molars. Clinical observations of canal configurations. *J Endod* 1999; 25:446-450.