

# NTEA ENDO FAX

Compliments of North Texas Endodontic Associates

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## IMPLANTS ADJACENT TO ENDODONTIC PATHOSIS

The use of implants in restoring oral function and aesthetics has become a viable and predictable treatment option for many patients. Among the many factors one must consider when treatment planning for dental implants is the pulpal/periradicular condition of adjacent teeth. The relationship between implants and teeth which are either endodontically or non-endodontically treated remains relatively unexplored and has been highlighted as a research priority by the American Association of Endodontists.

Postoperative complications following the placement of implants may include pulpal damage resulting in pulpal necrosis to adjacent teeth. Descriptions of periapical lesions that extend to include otherwise apparently healthy, osseointegrated, submerged implants appear rarely in the literature. This lack of data may be due to the selective placement of implants into primarily edentulous ridges as initially advocated by Branmark. More recently, implants have become popular as single tooth replacements. Although complications following placement of implants appear to be limited, the result is usually catastrophic with the loss of the implant and large amount of supporting bone structure.

It has been suggested that the placement of implants in close proximity to the apex of adjacent teeth could lead to pulpal necrosis due to a localized ischemic response. Additional factors that could impact the pulpal viability of adjacent teeth include heat generation during placement, disruption of blood supply to the region in which the implant is to be placed and the history of the adjacent teeth.

If there is concern about the pulpal status or the quality of the root canal treatment of teeth adjacent to the implant site, appropriate endodontic therapy should be initiated *before* implant placement. A potential source for microbial contamination of the healing implant should be eradicated to prevent implant failure.

If a lesion persists after non-surgical root canal treatment, apical surgery with a nonmetallic retrograde filling material or extraction would be recommended. As implants become standard for dentate arches (and are located adjacent to teeth), more of these lesions may be expected. Adjacent teeth should be tested for pulp vitality. In cases of previous endodontic therapy, the quality of the obturation and the restoration should be evaluated. Periapical radiographs should be exposed of the future implant site and of the adjacent teeth, in addition to any panoramic views. All radiographs should be carefully examined for existing and potential pathosis.

*Endo Fax is produced by North Texas Endodontic Associates, Dr. David Witherspoon, Dr. Ron Wright, Dr. Gary Harris, and Dr. Joel Small, and is intended to aid the practitioner in the management of endodontic conditions. Practitioners must always use their own best professional judgment. We neither expressly or implicitly warrant any positive results associated with this material.*