

Unitek™ Temporary Anchorage Device (TAD) System

Foundation and Explanation



Versatile
Fixed

Anchorage

for Treatment Efficiency

3M Unitek

Temporary Anchorage Device (TAD) – Foundation and Explanation

- Why TADs
- The Need for Anchorage
- Anchorage History
- Benefits of TADs

Why TADs

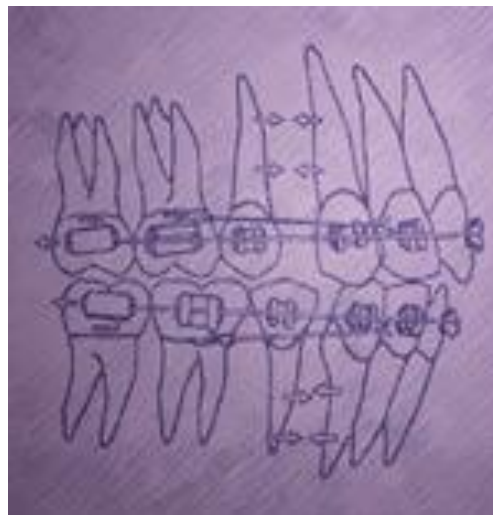
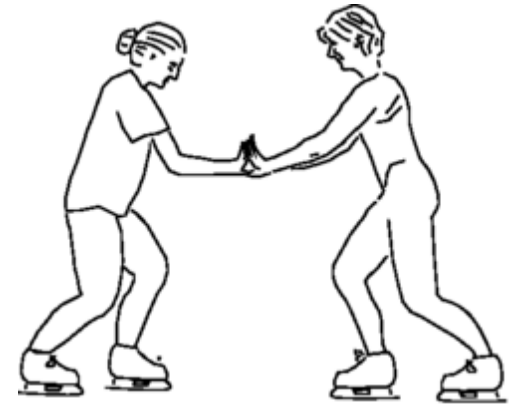
- Temporary Anchorage Devices are a fast growing product segment in orthodontics.
- TADs allow for a fixed anchorage point that can be used to move teeth individually or en masse.

Are TADs a Fad?

- *“OrthoTADs are here to stay; they are a reality and they will change the way orthodontics is practiced from this point forward”.*
– *Dr. Jason B. Cope*
- *“Miniscrews are no longer controversial as a means of obtaining orthodontic anchorage. They have moved into the mainstream.”*
– *Dr. Robert Keim, Editor’s Corner, JCO December 2007*

The Need for Anchorage

- **Newton's Third Law:** For every action, there is an equal and opposite reaction.
- Using molars for anchorage allows a reciprocal force pulling the teeth in both directions.
- Using TADs for anchorage allows for one single point of anchorage.



Anchorage History

- Ankylosed Teeth
 - *The periodontal ligament is destroyed in one or more localized areas, and a “bony bridge” is formed by penetration of alveolar bone into the cementum.*
 - *This bony bridge eliminates the potential for orthodontic movement of the ankylosed tooth. Therefore, that tooth can be used as an anchor for other teeth.*

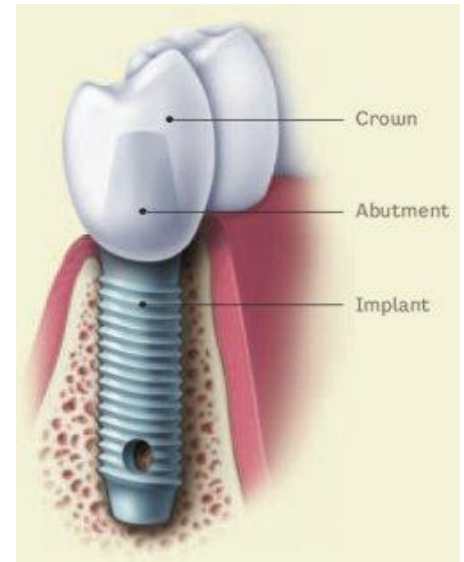
Limitations for orthodontic anchorage:

- *The ankylosed tooth cannot be moved*
- *Limited local application*

Anchorage History

- Dental Implants

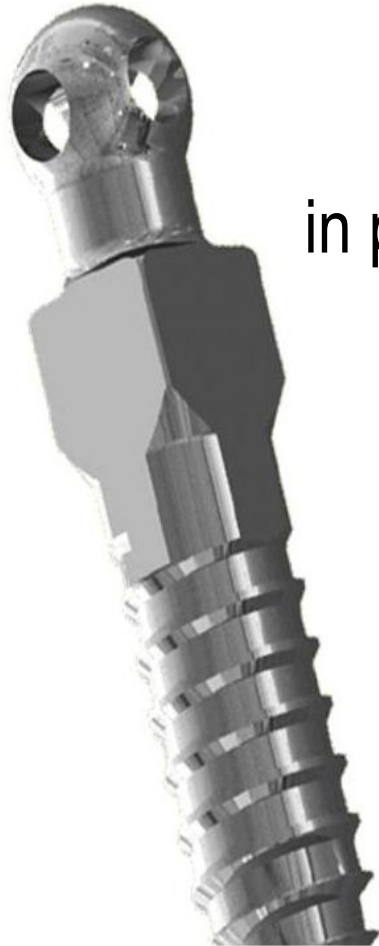
- *A dental implant is an artificial tooth root that is placed in the jaw to hold a crown or bridge.*
- *A dental implant can offer a fixed point of anchorage*



- Limitations of Dental Implants for orthodontic anchorage:

- *Limited local application*
- *Not its intended purpose*
- *Not intended for temporary or orthodontic use*

Anchorage Options



Orthodontic **Temporary Anchorage Devices (TADs)**, or **Miniscrew Implants (MSIs)** in particular, have rapidly gained acceptance among clinicians in the past few years. TADs provide an effective means of overcoming traditional anchorage limitations.

A Temporary Anchorage Device (TAD) is a device that is temporarily fixed to bone for the purpose of enhancing orthodontic anchorage. With a temporary anchorage device, it is possible to move teeth either individually or en masse.

TAD Benefits

- Reduced treatment time
- Using molars for fixed anchorage often requires further molar treatment, i.e. molar uprighting.
- Bite correction can be accomplished with TADs.