

## 한국인의 임플란트 식립을 위한 가용골의 길이에 관한 연구

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As dental implantation is commonly used for oral rehabilitation of the partially or completely edentulous patient. Dentists began to be concerned about teeth and soft tissue as well as osseous tissue because the important anatomic structures like the maxillary sinus, nasal cavity and the mandibular canal must be avoided when endosseous implants are placed.

For example, placing endosseous implants close to the mandibular canal may result in vascular trauma or damage to the inferior alveolar nerve, resulting in paresthesia of the lower lip and mentalis muscle area. Also, bone healing around the dental implant may be impaired if the implant comes in contact with the soft tissues lining the inferior alveolar nerve and vessels. The mandibular canal may thus limit the placement of osseous implants.

The many exterior differences in the body figure between oriental and occidental are known very well. It is anticipated that the size of the maxilla and mandible is different. This study was done to measure actual vertical dimensions for endosseous implantation in the maxilla and mandible in Koreans.

The CT images were considered satisfactory for measurements, and 94% of the measurements were performed within 1mm of the true value. For periapical radiographs, the corresponding figure was 53%, for conventional

tomography 39%, and for panoramic radiography 17%. The average distortion for the periapical, panoramic, and computerized tomographic radiographs, as a percentage, was 14%, 23.5%, and 1.8% respectively. The computerized tomogram was the most accurate radiograph. The Dentascan is a dental CT software program which provides CT imaging of the mandible and maxilla in three planes of reference : axial, panoramic, and reformatted oblique sagittal (cross-sectional). Because of the merit of the Dentascan, it is the selected measuring data for this title.

The Results were as followed.

1. In general, there was more available bone length in the region of the anterior teeth than that of the posterior teeth.
2. There was no difference between the right and left sides.
3. There was no difference between the gender with exception of the lower anterior teeth region.
4. According to the aging, there is no significant difference in the available bone length.

The available bone length in the region of the posterior teeth tend to be diminished according to the aging.