JUSTAGE	My J-STAGE Sign in
The Bulletin of Tokyo Dental College	Published by Tokyo Dental College, Japan
Available Issues   Japanese	>> <u>Publisher Site</u>
Author: ADVANCED   Keyword: Search	Volume Page Go
Add to Favorite / Citation Articles Alerts Add to Favorite Publications Alerts Publications Alerts Publications	
<b>TOP</b> > Available Issues > Table of Contents >	Abstract

PRINT ISSN: 0040-8891

**The Bulletin of Tokyo Dental College** Vol. 51 (2010), No. 2 :69-76

[PDF (2998K)] [References]

## **Tooth Inclination in Elderly with Many Remaining Teeth Observed by 3-D Imaging**

<u>Hiroko Fukagawa<sup>1)</sup>, Etsuko Motegi<sup>2)</sup>, Asuka Fuma<sup>2)</sup>, Mayumi Nomura<sup>2)</sup>, Masataka Kano<sup>2)</sup>, Kenji Sueishi<sup>2)</sup> and Shigeru Okano<sup>3)</sup></u>

1) Division of Orthodontics, Department of Oral Health Clinical Science, Tokyo Dental College

2) Department of Orthodontics, Tokyo Dental College

3) Department of Oral Science Center, Tokyo Dental College

(Received October 31, 2009) (Accepted February 3, 2010)

Abstract: Tooth inclination has been discussed many times in terms of esthetics and functionality, but reports related to aging are extremely rare. The purpose of this study was to evaluate tooth inclination in the elderly from the orthodontic point of view. The dental casts of twenty elderly persons with many remaining teeth were digitized with a 3-D laser scanner (VMS-100F,UNISN INC., Osaka, Japan) for reconstruction into 3-D images. Inclination of each tooth was then measured with an analytical software (SURFLACER, UNISN INC. and IMAGEWARE 12, UGS PLM Solutions, MO, USA). The occlusal plane formed by the incisal edge of the central incisor and distal buccal cusp tip of the first molar on either side was used as a reference plane to measure tooth inclination, and the complementary angle as tooth inclination was measured. The average tooth inclinations (degrees) of the maxillary teeth were 8.08 for central incisors, 8.10 for lateral incisors, 4.85 for canines, -6.68 for first premolars, -5.58 for second premolars, -5.15 for first molars, and -5.41 for second molars. The corresponding values for the mandibular teeth were 6.78 for central incisors, 4.87 for lateral incisors, -5.73 for canines, -13.74 for first premolars, -19.21 for second premolars, -23.76 for first molars, and -28.63 for second molars. There was no statistical difference between men and women, except for in the maxillary lateral incisors (p<0.05). Tooth inclination showed a progressive decrease from anterior to posterior. The decrease in the mandibular teeth was more regular than that of the maxillary teeth.

## Key words: Tooth inclination, Elderly with many remaining teeth, Dental cast, <u>3-D images</u>, <u>Arch size</u>

[PDF (2998K)] [References]

Download Meta of Article[<u>Help</u>] <u>RIS</u> <u>BibTeX</u>

To cite this article:

Hiroko Fukagawa, Etsuko Motegi, Asuka Fuma, Mayumi Nomura, Masataka Kano, Kenji Sueishi and Shigeru Okano: "Tooth Inclination in Elderly with Many Remaining Teeth Observed by 3-D Imaging". The Bulletin of Tokyo Dental College, Vol. **51**: 69-76 (2010).

doi:10.2209/tdcpublication.51.69

JOI JST.JSTAGE/tdcpublication/51.69

Copyright (c) 2010 by Tokyo Dental College, Japan

