

High precision of the CONELOG implant-abutment connection

As for the CAMLOG[®] Implant System, precision testings have confirmed the high precision of the CONELOG[®] implant-abutment connection, this to the benefit of the patient, the dentist, and the dental technician.^(1,2)

Semper Hogg et al. (2015) compared the CONELOG implant-abutment connection to other systems with conical connections, i.e. Nobel Active, Ankylos C/X, Astra Tech, Straumann Bone Level, and Straumann Tissue Level. The abutments were **torque tightened** according to each manufacturer's recommendations.

CONELOG showed the best results in terms of rotational displacement (Fig. 1) and canting moment range (Fig. 2) and very good results in terms of vertical displacement range (Fig. 3).

Importance of the results:

The precision of the implant-abutment connection is of major importance for the fabrication and later fit of the prosthetic restorations and their accuracy from the model to the patient's mouth. Stability of the implant-abutment connection is strongly influenced by the precision of fit, the connection design (incl. positional index design) and the manufacturing precision.

The CONELOG implant-abutment connection showed evidences of high-precision manufacturing and superior positional stability when compared with other conical connections.

TAKE HOME MESSAGE:

1. Superior precision of the implant-abutment connection for CAMLOG[®] and CONELOG[®] Implant Systems

2. Advantages of a good precision:

- a. Positional stability of supraconstruction
- b. Better passive fit
- c. Less abutment screw failure
- d. Time saving (e.g. less adjustment)

3. Beneficial for the patient, the dentist, and the dental technician

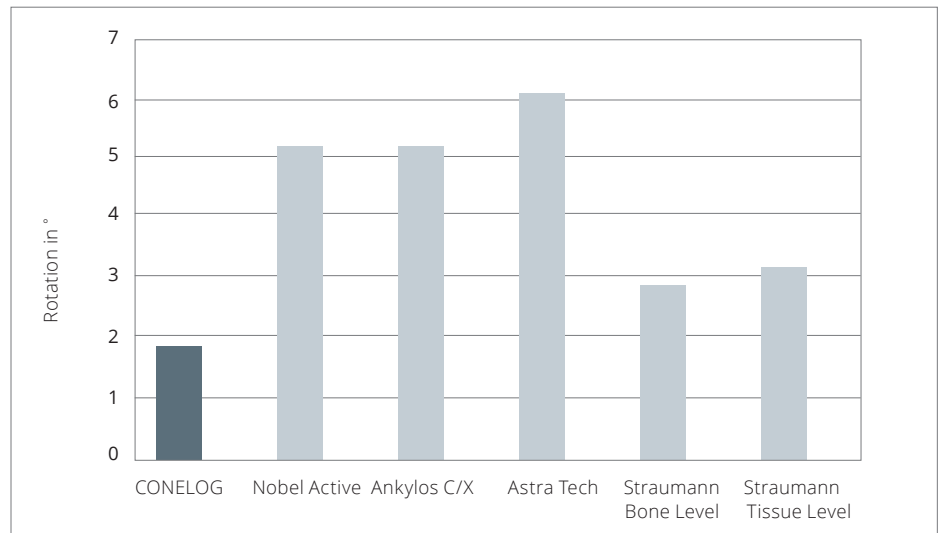


Fig. 1: Rotational displacement of 6 implant systems. (Graphic depicted from Semper Hogg et al. 2015)

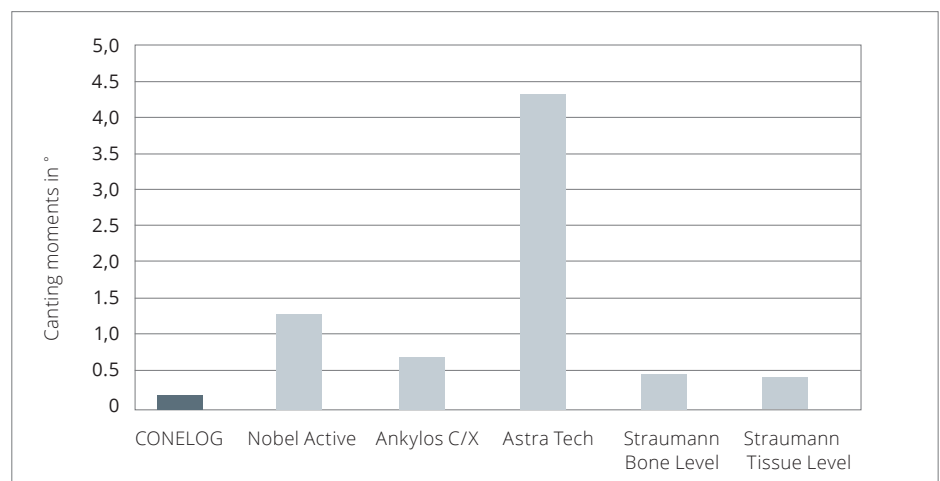


Fig. 2: Canting moments of 6 implant systems. (Graphic depicted from Semper Hogg et al. 2015)

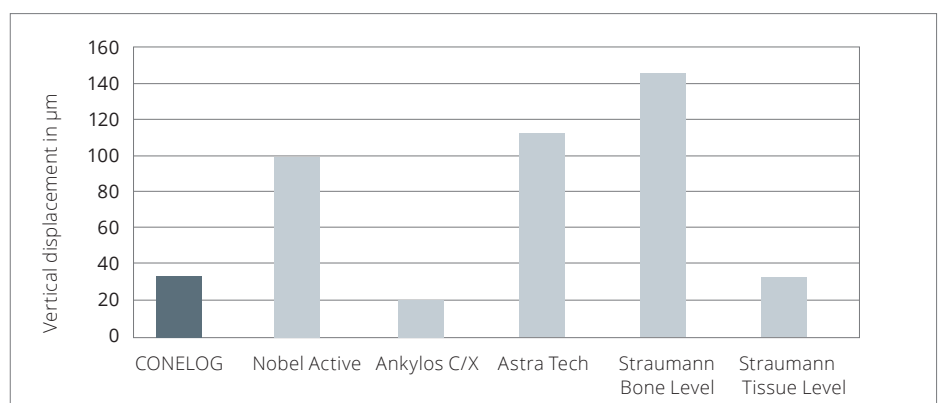


Fig. 3: Vertical displacement of 6 implant systems. (Graphic depicted from Semper Hogg et al. 2015)

References

(1) **Semper Hogg W, Zulauf K, Mehrhof J, Nelson K.** The influence of torque tightening on the position stability of the abutment in conical implant-abutment connections. Int J Prosthodont 2015;28(5):538-541

(2) **Semper W, Heberer S, Mehrhof J, Schink T, Nelson K.** Effects of repeated manual disassembly and reassembly on the positional stability of various implant-abutment complexes: an experimental study. Int J Oral Maxillofac Implants 2010;25:86-94

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