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BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

भारतीय मानक मसौदा

दंत चिकित्सा — एंडोओसियस दंत इम्प्लांट के इम्प्लांट बॉडी/इम्प्लांट एबटमेंट कनेक्शन के लिए चक्रीय टॉर्शनल लोडिंग का उपयोग करके स्क्रू ढीला होने का परीक्षण

Draft Indian Standard

Dentistry — Screw Loosening Test Using Cyclic Torsional Loading for Implant Body/Implant Abutment Connection of Endosseous Dental Implants

[ICS 11.060.15]

Dentistry Sectional Committee, MHD 08 | Last date for comments: **15 June 2025**

NATIONAL FOREWORD

(*Adoption clause will be added later*)

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 1942 Dentistry — Vocabulary	IS 17895 : 2023/ISO 1942 : 2020 Dentistry — Vocabulary	Identical
ISO 16443 Dentistry — Vocabulary for dental implants systems and related procedure	IS 18191 : 2023/ISO 16443 : 2014 Dentistry — Vocabulary for dental implants systems and related procedure	Identical

In reporting the result of a test or analysis made in accordance with this standard, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Scope

This Technical Report provides guidelines for a method to determine the extent of screw loosening of the metallic implant body/implant abutment joint of endosseous dental implants, such as two-part implants or multi-part implants under cyclic torsional loading. This test is most appropriate for evaluating new types of joints fixed using screw(s) and metallic connecting parts. This Technical Report provides a protocol for torsional cyclic torque on an implant body/implant abutment joint, but its intended use is for prefabricated implant bodies, implant abutments and, if appropriate, implant connecting parts that are made of metallic materials.

It is not applicable to ensure the in vivo performance of endosseous dental implants and is not derived from observations of clinical failures.

NOTE This Technical Report is not intended for use with temporary abutments.

The technical content of the document has not been enclosed as it is identical with the corresponding ISO standard. For details, please refer to ISO/TR 18130 : 2016 or kindly contact:

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