
Dentistry — Dental explorer

Médecine bucco-dentaire — Sondes exploratrices dentaires

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

This fourth edition cancels and replaces the third edition (ISO 7492:2018), of which it constitutes a minor revision.

The main changes compared to the previous edition are as follows:

- recommendation for maximum length of a dental explorer was reduced from 178 mm to 173 mm in [4.3](#);
- 4.6.2 of the previous edition was removed, because it did not apply to explorers, and handle surface finish was already defined in paragraphs 1 and 2 of 4.6.1 of the previous edition;
- sentence 1 of paragraph 2 of [4.7](#) was removed because reflective coatings are not an applicable property of explorers;
- requirement for UDI code was added in [Clause 6](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Dentistry — Dental explorer

1 Scope

This document specifies the dimensions and performance requirements for dental explorers.

This document is not applicable to endodontic explorers.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1942, *Dentistry — Vocabulary*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*

ISO 7153-1, *Surgical instruments — Materials — Part 1: Metals*

ISO 17664, *Processing of health care products — Information to be provided by the medical device manufacturer for the processing of medical devices*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

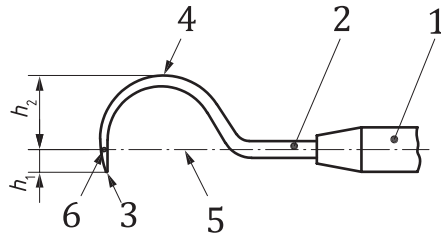
3.1.1

dental explorer

handheld dental instrument with a pointed tip designed for tactile examination of tooth surfaces

Note 1 to entry: See [Figure 1](#).

Note 2 to entry: Dental explorer is used to examine teeth for decay (caries), calculus, furcations, or other abnormalities.



Key

- 1 handle
- 2 shank
- 3 working tip
- 4 first bending point
- 5 centreline
- 6 datum point
- h_1 working end height
- h_2 shank height

Figure 1 — Designation of parts and dimensions for dental explorers

3.1.2

datum point

section point between the centreline of the handle, at right angle to the centreline, and the working tip

Note 1 to entry: The datum point is where h_1 and h_2 meet.

3.1.3

handle

area used for holding the *dental explorer* (3.1.1) during tactile exploration

3.1.4

shank

part of the *dental explorer* (3.1.1) that connects the working end to the handle

3.1.5

working end

part of the *dental explorer* (3.1.1) after the first bend of the shank including the working tip

Note 1 to entry: The working end is the combination of h_1 and h_2 directly on the explorer.

3.1.6

working tip

active part of the working end which will be first to contact the tooth surface

3.2 Symbols and abbreviated terms

For the purposes of this document, the following symbols and abbreviated terms apply, and are shown in [Figure 1](#) to [Figure 9](#).

- b length of working tip (only used in [Figure 5](#))
- h_1 working end height
- h_2 shank height