Revised American National Standard/
American Dental Association
Standard No. 119

Manual Toothbrushes

MANUAL TOOTHBRUSHES

The Council on Scientific Affairs of the American Dental Association has approved revised American Dental Association Standard No. 119 for Manual Toothbrushes. This and other standards for dental materials, instruments and equipment are being formulated by working groups of the ADA Standards Committee on Dental Products. The Committee has representation from all interests in the United States in the standardization of materials, instruments and equipment in dentistry. The Council has adopted the standards, showing professional recognition of their usefulness in dentistry, and has forwarded them to the American National Standards Institute with a recommendation that the standards be approved as American National Standards. The American National Standards Institute granted approval of revised ADA Standard No. 119 as an American National Standard on January 29, 2015.

The ADA Standards Committee on Dental Products thanks the members of Working Group 7.45 and the organizations with which they were affiliated at the time the specification was developed:
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TOOTHBRUSHES

FOREWORD
(This foreword is not a part of revised ANSI/ADA Standard No. 119 for Manual Toothbrushes).


The major changes to this version of ANSI/ADA Standard No. 119 are the additions of requirements for handle impact strength and the handle impact test method.

Manual toothbrushes are used for the removal of dental plaque and oral debris in order to facilitate oral hygiene. This standard is intended for the evaluation of the physical properties of manual toothbrushes.

The stiffness of the tufted area of a manual toothbrush has been of great concern for both consumers and manufacturers. This standard provides a test method for determining the resistance of the tufted portion to deflection, described in Annex A, which could be used to derive a stiffness as described in Annex B. However, this standard does not contain requirements for stiffness of manual toothbrushes and its classification. For stiffness determination, the measurement of the tufted area is required, but the result of the measurement varies over a wide range depending on the method of the measurement and the shape of the tuft holes. Therefore, the resistance of the tufted area and stiffness determinations are described only in Annexes A and B.

ANSI/ADA Standard No. 119 does not address manual interdental brushes and powered oral hygiene devices.
1 SCOPE
This standard describes requirements and test methods for the physical properties of manual toothbrushes in order to promote the safety of these products for their intended use.

Also specified is a test method for determining the resistance of the tufted portion of manual toothbrushes to deflection. This test method is applicable to toothbrushes having a conventional, flat trim design and may not be applicable to toothbrushes with other designs.

Specifically excluded from this standard are manual interdental brushes and powered oral hygiene devices as these instruments are covered by separate standards.

2 NORMATIVE REFERENCES
The following referenced documents are indispensable for the application 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 3696:1987, Water for analytical laboratory use — standard and test methods

(ISO standards for dentistry are available from the American Dental Association, Department of Standards, 211 E. Chicago Ave., Chicago, IL 60611 or www.adacatalog.org. Other ISO standards are available from the American National Standards Institute, 25 W. 43rd St., New York, NY 10036 or www.ansi.org).

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

3.1 Brush head — working end of a manual toothbrush to which the filaments are attached

3.2 Brush neck — part of the toothbrush which joins the brush head to the handle

3.3 Filament — single strand within the brush head

3.4 Manual toothbrush — hand-powered device, the working end of which carries filaments, for primarily cleaning surfaces within the oral cavity

3.5 Resistance to deflection — resisting force of the tufts to deflection under a force of 5 N, applied at right angles to the tuft hole plane

3.6 Tuft — group of filaments gathered together and attached to the brush head

3.7 Tuft hole plane — plane between the base of the tufts (where they meet the tufted hole surface) at the top of the brush head and the base of the tufts at the bottom of the brush head

See Figure 1.

3.8 Tuft hole surface — surface of the tuft holes, which can be convex, triangular or plane and which is limited by a peripheral tangent line to the outer tuft holes