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## Traditional Chinese Medicine — Intradermal acupuncture needles

*La médecine traditionnelle chinoise — Aiguilles d'acupuncture intradermiques*

ICS: 11.040.25

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## Foreword

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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. [www.iso.org/directives](http://www.iso.org/directives)

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The committee responsible for this document is ISO/TC 249, *Traditional Chinese medicine*.

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## Introduction

As one of several different needling approaches, intradermal acupuncture needles are recognized as an effective treatment for various disorders. Intradermal acupuncture needles are easy to use, and especially effective when relatively long-lasting stimulation to a needling site is needed. Therefore, safety, sanitation consideration of intradermal acupuncture needles should be more carefully reviewed as well as their compatibility to human body.

As a biomaterial, acupuncture needles can be corrosive and have potential to lose some of their mechanic characteristics. Furthermore, leachable substances can affect human tissue in any unintended, yet potentially harmful way. To address this problem, biomaterials should have no toxicity or produce any adverse effects and should have appropriate mechanical characteristics such as tensile strength, elasticity, durability of abrasion and fatigue strength. In addition, the material should have a strong corrosion-resistant ability.

This standard establishes an international standard for intradermal acupuncture needles. The characteristics of intradermal acupuncture needles include size, material, quality, tests, packing, and identification through regulating marking methods. The standardization of the characteristics of intradermal acupuncture needles has potential to enhance the efficacy and improve the quality and safety of acupuncture treatments using intradermal acupuncture needles especially in regards to the biocompatibility for human body.

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# Traditional Chinese Medicine — Intradermal acupuncture needles

## 1 Scope

This International standard specifies the requirements of sterile intradermal acupuncture needle for single use as a medical device, including the following factors:

- a) size;
- b) material;
- c) quality;
- d) testing methods;
- e) packing; and
- f) Identification.

## 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 10993-1, *Biological evaluation of medical devices — Part 1: Evaluation and testing within a risk management process*

ISO 10993-7, *Biological evaluation of medical devices – Part 7: Ethylene oxide sterilization residuals*

ISO 17218, *Sterile acupuncture needles for single use*

ISO 15223-1, *Medical devices – Symbols to be used with medical device labels, labelling and information to be supplied – Part 1: General requirements*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **intradermal acupuncture needles**

a small needling instrument for embedding in the skin.

There are two types of intradermal acupuncture needles. One is termed an intradermal thumbtack type needle and the other is intradermal granule type needle.

[SOURCE: WHO International Standard terminologies on traditional medicine in the Western Pacific region, 5.1.29, modified – 2nd sentence has been added.]

### 3.2

#### **intradermal granule type needle**

an intradermal needle inserted obliquely or horizontally into subcutaneous tissue often across various sites on the human body

**3.3**

**intra-dermal thumbtack type needle**

an intra-dermal needle resembling a thumbtack

Inserted perpendicularly into subcutaneous tissue, often into the auricular region

[SOURCE: WHO International Standard terminologies on traditional medicine in the Western Pacific region, 5.1.28, modified – 2nd sentence has been added.]

**3.4**

**body of the needle**

part of the intra-dermal acupuncture needle that is inserted into the human body

[SOURCE: ISO 17218:2014, 3.1]

**3.5**

**handle of the needle**

part of the intra-dermal acupuncture needle that is not inserted into the human body and is often used to manipulate the needle during insertion

[SOURCE: ISO 17218:2014, 3.2]

**3.6**

**tip of the needle**

sharp apex at the end of the acupuncture needle body that is inserted into the human body

[SOURCE: ISO 17218:2014, 3.3]

**3.7**

**primary package**

sealed or closed packaging system that forms a microbial barrier, directly enclosing the acupuncture needle

[SOURCE: ISO 17218:2014, 3.9]

**3.8**

**secondary package**

package containing one or more primary packages for transportation and storage

[SOURCE: ISO 17218:2014, 3.10]

**4 Structure and dimension of intra-dermal acupuncture needles**

**4.1 Size designation**

The size of the body of the needle shall be designated by the following:

- a) the nominal diameter of the body of the needle (or when no body of the needle, the maximum diameter of the tip of the needle), expressed in millimetres; and
- b) the nominal length of the body of the needle, expressed in millimetres.

The size shall be referred to as “the designated metric size” and specified as a) × b)

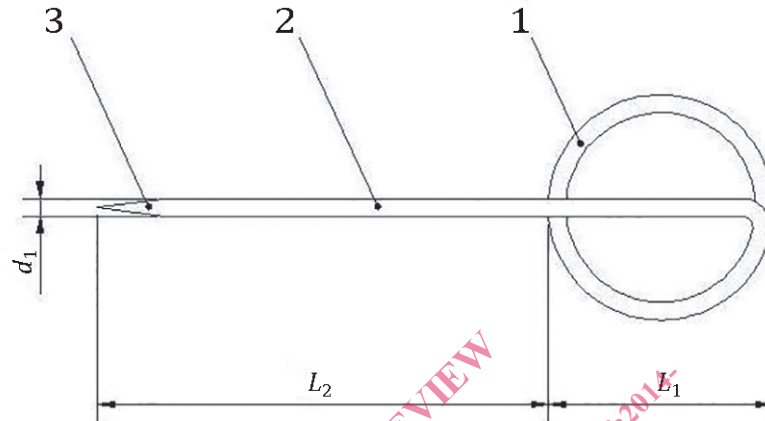
EXAMPLE     ∅ 0,16 × 10 mm



## 4.2 Structure and dimension of intradermal granule type needle

### 4.2.1 Structure of intradermal granule type needle

The intradermal granule type needle shall have the structure as shown in [Figure 1](#) and be composed of the body of the needle, the handle of the needle, and the tape (in some cases). The type of needle handles are not limited to those shown in [Figure 1](#).



#### Key

- 1 Handle of the needle
- 2 Body of the needle
- 3 Tip of the needle
- $d_1$  Diameter of body of the needle
- $L_1$  Length of handle of the needle
- $L_2$  Length of body of the needle

Figure 1 — Example of typical structure of intradermal granule type needle

### 4.2.2 Dimension of intradermal granule type needle

The nominal diameter of body of the needle and the length of body and handle of the needle shall be measured using a gauge specified in [Table 1](#) (see [Figure 1](#)).

Table 1 — - Nominal dimension of intradermal granule type needle

Dimensions in millimetres

Part		Dimensions	Tolerance
The body of the needle	Diameter $d_1$	$d < 0,40$	$\pm 10 \%$
	Length $L_2$	$L_2 < 5$	$\pm 0,5$
		$5 \leq L_2 < 10$	$\pm 0,8$
	$10 \leq L_2 \leq 30$	$\pm 1,0$	
The handle of the needle	Length $L_1$	$1,6 \leq L_1$	