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**Health Informatics — Categorical  
structures for representation of  
acupuncture —**

Part 5:  
**Cupping**

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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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 215 *Health informatics*.

A list of all parts in the ISO 16843 series can be found on the ISO website.

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](http://www.iso.org/members.html).

## Introduction

Acupuncture therapy is widely practiced in Asia, and as a part of complementary and alternative medicine treatments in western countries. Cupping is a therapeutic procedure using a vacuumized cup or jar to apply negative pressure to certain points or areas of the body surface for treating diseases through regulation of the functions of meridians/channels and visceral organs.

A guideline for reporting acupuncture intervention in clinical trials has already been provided and a large number of clinical trials have been conducted to assess the efficacy and efficiency of acupuncture therapy. However, the descriptions of cupping, as an acupuncture intervention in clinical reports tend to be insufficient for the interpretation of heterogeneity among trials, often causing difficulties in synthesizing data in meta-analysis. This arises from three reasons: firstly, an appropriate information structure of cupping has not yet been formulated; secondly, the peculiar concepts within traditional medicine in the western pacific-rim region originated in China and are not considered sufficient; thirdly, semantic associations between concepts of cupping need to be explicit.

This document defines the categorial structures in the field of cupping in order to address these existing problems.

The potential benefits of this document include

- supporting developers to provide new terminological resources concerning cupping,
- supporting developers to provide new detailed content areas of existing terminological resources concerning the cupping process to ensure its conformance,
- facilitating the representation of the cupping process using a standardized core model in a manner suitable for computer processing,
- providing a conceptual framework for the generation of a compositional concept representation of cupping,
- facilitating the mapping and improved semantic correspondence between different terminological resources by proposing a core specification for cupping and the means for determining conformance to the specification;
- providing a core model to describe the structure of cupping, and facilitate improved semantic correspondence with information models,
- providing a tool for cupping text mining, database construction, ancient document processing over a wide area of acupuncture information collection and processing, and
- providing a new method for researchers to conduct relevant research, and ideas for the development of acupuncture and moxibustion disciplines.

The target groups for this document are

- stakeholders such as companies which offer Electronic Categorical Structures, by helping build Knowledge databases or automatic processing of the medical literature,
- clinicians who can be given assistance on the semantics of needling and cupping procedures, or support in clinical decision making, and
- researchers assisted in performing text mining.

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# Health Informatics — Categorical structures for representation of acupuncture —

## Part 5: Cupping

### 1 Scope

This document aims to specify categorical structure in the field of cupping by defining a set of domain constraints for use within terminological resources.

This document describes a concept system detailing the domain constraints of sanctioned characteristics, each composed of a semantic link and applicable characterizing categories.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions 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 General

##### 3.1.1

##### **cupping**

action by creating localized negative pressure where the cups are placed on the skin by means of either heat or suction pump, for affecting the body surface or increasing bloodletting by the negative pressure within the cups

##### 3.1.2

##### **cupping apparatus**

apparatus for cupping therapy, which can maintain negative pressures generated by *pressure control device* (3.2.6)

EXAMPLE Suction cup, bamboo cup, glass cup.

##### 3.1.3

##### **method for generating decompressed pressure**

cupping procedure generating negative pressure to attach the *cupping apparatus* (3.1.2)

EXAMPLE Fire-insertion cupping method, flash-fire cupping method, cotton-burning cupping method.

## 3.2 Characterizing categories

### 3.2.1

#### **cupping site**

body surface where *cupping* (3.1.1) can be applied, including the acupuncture point

Note 1 to entry: See ISO/TS 16843-1:2016, 3.7.

### 3.2.2

#### **cup type**

type of *cupping apparatus* (3.1.2) classified by its characteristics, materials and features

EXAMPLE Air extraction cupping device (see ISO 19611:2007, 3.3).

### 3.2.3

#### **cup size**

characteristics of *cupping apparatus* (3.1.2) affecting the *decompressed pressure* (3.2.4)

EXAMPLE Diameter, inner volume.

Note 1 to entry: Configuration of the air extraction cupping device is described in ISO 19611.

### 3.2.4

#### **decompressed pressure**

force for attaching *cupping apparatus* (3.1.2) to the body surface

### 3.2.5

#### **pressure control method**

*method for generating decompressed pressure* (3.1.3) of *cupping apparatus* (3.1.2)

EXAMPLE Fire-insertion cupping method, flash-fire cupping method, cotton-burning cupping method (see IST 2007<sup>[9]</sup>, 5.2.6-8), aspiration.

### 3.2.6

#### **pressure control device**

device for generating *decompressed pressure* (3.2.4) of *cupping apparatus* (3.1.2)

EXAMPLE Manual suction pump, electrical suction pump.

### 3.2.7

#### **performing method**

therapeutic method used to implement *cupping* (3.1.1)

EXAMPLE Retained cupping, slide cupping (see IST 2007<sup>[9]</sup>, 5.3.5, 9), flash cupping, medicated cupping, pricking-cupping bloodletting method.

### 3.2.8

#### **needling**

technique using acupuncture which can be combined with *performing method* (3.2.7)

EXAMPLE Needle retention, scattered needling method (see IST 2007<sup>[9]</sup>, 5.1.185, 188).

### 3.2.9

#### **containing material**

material contained in a *cupping apparatus* (3.1.2) when the *cupping* (3.1.1) is applied

EXAMPLE Warm water, boiling medicinal solution.

### 3.2.10

#### **duration**

length of time that *cupping* (3.1.1) is applied

Note 1 to entry: Dose cannot be computed without knowing the duration.

3.2.11

**number of cups**

number of *cupping apparatus* (3.1.2) attached to *cupping site* (3.2.1)

**4 Categorical structure**

**4.1 Overview**

Cupping treatment may involve multiple cupping actions as characterized in this document being undertaken at various cupping sites. The formal concept representation system in the field of cupping contains characterizing categories (3.2) and semantic links (4.2).

The outline of those characterizing categories and semantic links is illustrated in a concept diagram in Figure 1.

Note Specification of categorial structures for representation of acupuncture point and needling is outside the scope of this document.

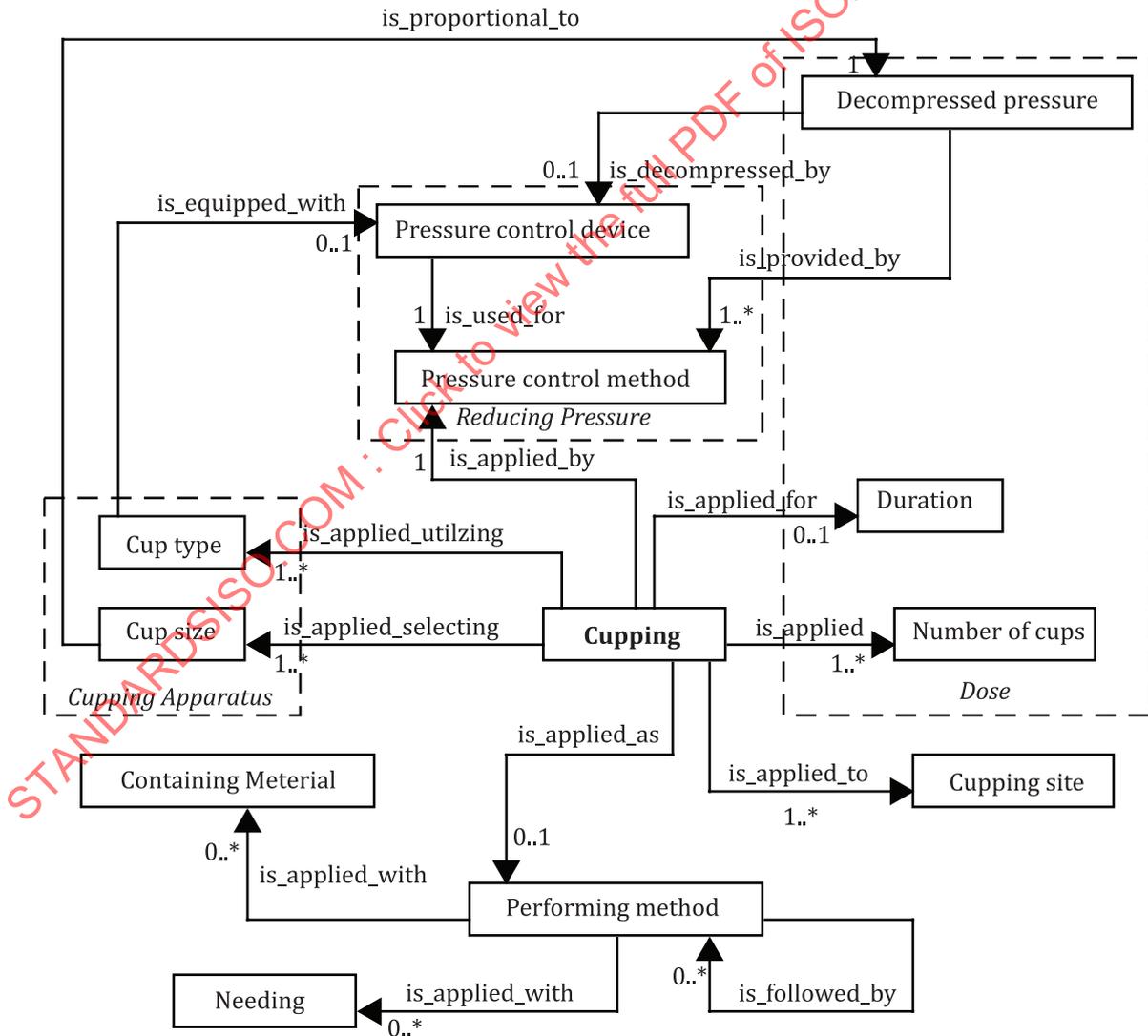


Figure 1 — Concept diagram for representation of cupping

## 4.2 Semantic link

### 4.2.1 is applied to

Apparatus or materials used for cupping treatment are attached to a part of the body surface.

It expresses the semantic link between the cupping and the cupping site where cupping is applied.

EXAMPLE < cupping > is applied to < BL13 >.

NOTE BL13 is the abbreviation code for the acupuncture point, Feishu. Instead of an acupuncture point, anatomical site or human body part would be used but semantically precise names or codes such as Foundational Model of Anatomy are necessary.

### 4.2.2 is applied as

Apparatus or materials used for cupping treatment are employed or utilized as certain therapeutic method.

It expresses the semantic link between the cupping and the performing method.

EXAMPLE < cupping > is applied as < retained cupping >.

### 4.2.3 is applied with

Certain therapeutic methods used for cupping treatment are employed or utilized being combined with methods or materials.

It expresses the semantic link between the performing method and the needling or between the performing method and the containing material.

EXAMPLE 1 < pricking-cupping bloodletting method > is applied with < pricking with a three-edged needle >.

EXAMPLE 2 < medicated cupping > is applied with < boiling medicinal solution for bronchial asthma >.

### 4.2.4 is applied by

Apparatus or materials used for cupping treatment are attached by a method that produces a negative pressure of a cupping apparatus.

It expresses the semantic link between the cupping and the pressure control method.

EXAMPLE < cupping > is applied by < aspiration >.

### 4.2.5 is applied for

Indicates the duration of time that materials and methods are employed or applied for treatment.

It expresses the semantic link between the cupping and the duration.

EXAMPLE < cupping > is applied for < 10 minutes >.

### 4.2.6 is applied

Indicates the number of apparatus or materials used for treatment.

It expresses the semantic link between the cupping and the number of cups.

EXAMPLE < cupping > is applied < two times >.

**4.2.7 is applied selecting**

When cupping treatment is employed or utilized, the size of apparatus or materials is selected considering the strength of pressure or the area of cupping site.

It expresses the semantic link between the cupping and the cup size.

EXAMPLE < cupping > is applied selecting < cup number 3 >.

NOTE Configuration of the air extraction cupping device is described in ISO 19611. For example, inner volume of the cup number 3 is  $(40 \pm 4)$  ml.

**4.2.8 is applied utilizing**

Indicates the type of apparatus or materials used for treatment.

It expresses the semantic link between the cupping and the cup type.

EXAMPLE < cupping > is applied utilizing < suction cup >.

**4.2.9 is provided by**

Negative pressure inside the apparatus is made by methods that control pressure.

It expresses the semantic link between the decompressed pressure and the pressure control method.

EXAMPLE < -92 kPa > is provided by < aspiration >.

**4.2.10 is decompressed by**

Negative pressure inside the apparatus is made by devices that can control pressure.

It expresses the semantic link between the decompressed pressure and the pressure control device.

EXAMPLE < -92 kPa > is decompressed by < suction pump >.

**4.2.11 is equipped with**

Specific apparatus or material is attached by a specific device that can control pressure.

It expresses the semantic link between the cup type and the pressure control device.

EXAMPLE < suction cup > is equipped with < suction pump >.

**4.2.12 is proportional to**

Size of apparatus or materials corresponds to the strength of pressure.

It expresses the semantic link between the cup size and the decompressed pressure.

EXAMPLE < cup number 3 > is proportional to < -92 kPa >.

**4.2.13 is used for**

Devices are employed or applied for pressure control method.

It expresses the semantic link between the pressure control device and the pressure control method.

EXAMPLE < suction pump > is used for < aspiration >.