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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Forensic sciences - Technical specifications for examination of
visual dysfunction**

法庭科学 视觉功能障碍鉴定技术规范

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some elements of this document may involve patents. The issuer of this document is not responsible for identifying these patents.

This standard was proposed by the National Criminal Technology Standardization Technical Committee.

This standard is under the jurisdiction of the National Criminal Technical Standardization Technical Committee Forensic Inspection Branch Technical Committee (SAC/TC 179/SC 6).

This standard was drafted. Institute of Forensic Science and Technology, Ministry of Justice, Institute of Evidence Science, China University of Political Science and Law, Suzhou University Medicine Ministry, Tongji Medical College of Huazhong University of Science and Technology.

1 Scope

This standard specifies the basic principles, requirements and methods for the inspection and identification of visual dysfunction.

This standard applies to forensic identification of visual dysfunction in various personal injury cases. Others require visual function tests and the forensic evaluation of the assessment can also be performed by reference.

2 Terms and definitions

The following terms and definitions apply to this document.

Visual function

Visual impairment and visual field defect.

Visual acuity (VA)

The ability of the human eye to distinguish the smallest distance (angle) between two points on the surface of an object.

Visual impairment

Usually refers to a decrease in distance vision than normal.

Visual field

The eyeball is facing a fixed target in front of the eye, and the eye can see the range of space that can be seen with the head still.

Visual field deficiency the perimeter of the visual field of the subject's eye is narrowed or an invisible blind zone appears within the visual field.

Binocular vision

The brain's high-level center analyzes, synthesizes, and forms a complete, three-dimensional perception impression.

3.1 Basic principles

Forensic identification of visual dysfunction should use clinical ophthalmology, visual science, and forensic theory and technology, combined with forensic identification practice, Based on objective inspection, comprehensive analysis and comprehensive judgment are made.

For the visual dysfunction after the subject reports self-injury, the appraiser should analyze the visual function according to the inspection results of the eye organ structure.

Impaired pathological basis. For visual dysfunction that cannot be explained by the nature, location, degree, etc. of the injury, the injury and the Cause and effect relationship of visual dysfunction; for visual dysfunction related to own disease and cognitive dysfunction, the relationship of injury and illness should be analyzed.

3.2.1 Review and appraisal materials

First, you should understand the history of trauma in detail. The materials to be collected mainly include medical history materials, which should be reflected as comprehensively, completely and fully as possible.

- a) the time of injury, the injured object and the method of injury;
- b) main symptoms and signs after injury;
- c) The main diagnosis and treatment after the injury, including the recovery.

If necessary, you should know the history of ophthalmology before injury 1), ask about the

history of familial disease, the history of systemic disease and the history of medication.

3.2.2 Visual function test

According to the subject's complaints of visual dysfunction, check their visual functions such as vision and visual field.

3.2.3 Eye Structure Examination

Eye appendix, anterior segment of the eyeball, and posterior segment of the eyeball are performed in order of the right eye first, the left eye later, or the order of the healthy eye and the injured eye.

Check. Among them, slit lamp microscope examination and fundus examination should be performed in a dark room. Choose refraction, intraocular pressure, eye movement, Eye examination, binocular vision, lacrimal apparatus, eye imaging and other targeted examinations.

The inspection results shall be recorded in real time, objectively and comprehensively; the inspection results shall be filmed and archived for review.

3.2.4 Testing for false blindness or camouflage loss

For cases where suspected false blindness or camouflage vision reduction is required, a corresponding false blindness or camouflage vision reduction test can be selected Check, or refer to the results of visual electrophysiology tests.

3.3 Evaluation of results

If it is determined that the injury caused visual impairment, the degree of the impairment should be the same as that of the primary injury or the complications or sequelae caused by the injury.

The nature and degree match.

If it is determined that the impairment caused visual dysfunction, the degree of impairment should be equal to the result of false blindness or camouflage vision reduction test and/or visual electricity generation.

Reasonable test results agree.

If it is determined that the injury caused visual dysfunction, the influence of its own disease or pathological basis should be ruled out.

3.4 Identification timing

The identification of visual dysfunction should in principle be carried out after the injury or the complications caused by the injury and the sequelae have ended.

The above medical termination refers to the stabilization of clinical effect after the implementation of medical measures recognized by general principles of clinical medicine, that is, eye injury Symptoms disappear or stabilize, and eye signs and visual functions tend to be relatively fixed.

Generally speaking, for minor eye injuries that do not leave obvious visual dysfunction, the timing of identification can be appropriately advanced; if there is visual function Impairment or visual impairment as the main basis for the assessment of the degree of impairment and the assessment of the degree of disability, it is recommended that the time of identification is the day of the injury After 90 days.

Including visual functions.

4.1.1 Examination of the external eye

Check the orbits, eyelids, conjunctiva, eyeball protrusion, eye position, eyeball movements, lacrimal apparatus, and intraocular pressure.

4.1.2 Anterior segment examination

Use a slit-lamp biological microscope or flashlight to inspect the cornea, sclera, anterior chamber, iris, pupil area, lens, and anterior segment glass Body structure.

4.1.3 Posterior segment inspection

Use direct ophthalmoscope and other equipment to inspect vitreous body and fundus.

In order to expand the scope of fundus examination and improve accuracy, dilated pupil examination is feasible when there are no contraindications.

4.2.1.1 Preparation

Use of international standard eye chart. Specify the visual mark and ask the examinee to read it. Based on the minimum visual acuity it read out, it determined its visual acuity. Check distance Generally, it is 5m; when the distance of the examination room is less than 5m, the reflection distance of the plane mirror can be used to extend the inspection distance. The chart height should be 1.0 it is advisable to travel at the same height as the eye to be examined. The illumination of the watch should be uniform without glare, and the illumination is 300lux ~ 500lux.

If an eye chart projector is used, the inspection distance can generally be 3m ~ 6m