WEB OF SYNERGY:
International Interdisciplinary Research Journal
Volume 2 Issue 1, Year 2023 ISSN: 2835-3013
https://univerpubl.com/index.php/synergy

Methods for Determining Human Visual Acuity

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Article Information

Received: November 29, 2022
Accepted: December 30, 2022
Published: January 31, 2023

Keywords: *vision, method, ophthalmoscope, distance, tube, reflex, rod, lens, objects, light, function, swelling body.*

ABSTRACT

Kidney is one of the most important human organs. This article describes the functions and composition of human visual acuity and methods of determining human visual acuity.

Disability studies have made great strides in the study of the human body and power. This raises questions about the impact of disability research on a particular field of study, furthering the interaction between disciplines. It is changing the way we think about disability research within the disciplines of sociology, literature, gender, bioethics, social work, law, education, and history1. Perception of the world with the help of a vision analyzer is important for the child's mental development. The strongest impressions of the surroundings are perceived by the eyes. A child gets an idea about the color, shape, size, movement, distance and proximity of things, and their place in space through the ability to see. A well-known vision analyzer transmits the image from the light-receiving part - the eyeball and its auxiliary apparatus - first to the subcortical centers, and then to the higher vision.

1. Disability and Discourse Analysis. Jean Grue. University of Oslo, Norway. — 2015. p-iiix

It is made up of conductive paths that deliver to the cerebral cortex, where the centers are located. Changes in any parts of this analyzer will definitely affect the child's vision. In child pedagogy, visually impaired children are divided into blind, visually impaired, and blind children. Blind children have a sharp decrease in visual acuity, or a visual acuity of 0.04 even with correction, which means that such children are practically blind. Visual acuity in blind children can range from 0.05 to 0.4. Children in this group perceive their surroundings through a visual analyzer. Defects related to vision are congenital and acquired according to the causes of origin. Among the causes of congenital defects, genetic diseases, toxoplasmosis and rubella in pregnant women, damage to the organs of vision during embryonic development, brain tumors and these diseases play a major role. Acquired visual anomalies are relatively rare nowadays. Due to the improvement of treatment and preventive ophthalmology assistance to the population and great achievements in the field of medicine, the number of blind children has decreased

significantly. Cases of children becoming blind or blind due to trachoma, smallpox, tuberculosis, measles, scarlet fever and other diseases have been almost completely eliminated. Amblyopia, that is, visual impairments are progressive and constant. It gets worse day by day and gradually leads to blindness. The fixed color is stable, the child's level of vision is always the same. The progressive weakness of visual acuity, i.e., glaucoma, is due to dystrophy of the retina around the optic nerve, and can occur at any stage of a child's development. Non-compliance with hygiene requirements

The modern point of view of ophthalmology was confirmed during hundred years of observations and discoveries and eventually turned into scientific and methodical knowledge. The development of the ophthalmoscope - a device that determines the interior of the eye - has become important in understanding and diagnosing eye diseases. With its help, ophthalmologists were able to obtain important information about the pupil and its vessels, the internal eye and eye diseases. With the help of our eyes, we see objects and objects, we can clearly distinguish their color, shape, size, which side they are facing, and even the smallest details of the object. These unique properties of the eye are called its sharpness. Visual acuity is determined by the smallest distance between these two objects that is necessary for two objects to be seen separately without blending into each other. The viewing angle must be 50 seconds. When the reflection of objects falls on a cone on the retina, two objects appear to a person as one. Also, when two rays fall on two side-by-side cones, they appear as one. Only if these rays excite two cones, and if there is one unexcited cone between these two cones, then 2 points appear as 2.

A special table is used to determine eye acuity. These numbers or letters vary in size and get smaller from top to bottom. Since it is inconvenient to show the numbers by placing the person under examination at different distances, the normal visual acuity is the line that a normal eye can see and read from a distance of 5 meters. For example, if a normal eye can read a line that can be read at a distance of 50 meters with the human eye only from a distance of 5 meters, its visual acuity is 5/50-0.1, i.e. will be ten times less than yor. However, if a normal eye reads from a distance of 4 meters from a distance of 5 meters, its visual acuity is 5/4-1.25, that is, such visual acuity is above normal. is more than If a person can read the numbers in a line that can be read from a distance of 5 meters from a distance of 5 meters, his visual acuity is 5/5-1, that is, this standard visual acuity is considered.

An eye examination and visual acuity of 1.0 are used to provide a true quantitative assessment of visual impairment. In ambulatory conditions, visual acuity is checked using special tables. A letter and ring table is often used and is called Landolt rings. These tables are 12 rows of symbols that can be determined from a distance of 5 meters, and can determine visual acuity from 0.1 to 2.0. In addition to these, the industry produces devices for checking distance vision acuity (POSB-1) located on a chair.

Instruments and devices used in determining eye refraction. The set of lenses taken for the sample is used to choose refraction of the eye and glasses. This assembly consists of 0.25 to 20.0 lenses with positive and negative different refractions, as well as cylindrical mirrors and a special diaphragm. Medium and small aggregates of these are produced in the industry. These consist of 34 pairs of — and + non-astigmatic lenses, 20 pairs of — and + astigmatic lenses, 6 pairs and 3 prism glasses. This kit includes a universal eyeglass flange. They allow you to determine the center of the glasses along the axis of the eye. This is a collection

347 comes in a leather case with a wooden box lined with bahrnal.

Skiascopic ruler. Skiascopic rulers are used to determine eye refraction. This ruler consists of an aluminum plate, on which "-" and "+" lenses with refractions from 1 to 99 are installed. Allows you to determine refractions with an additional lens of 0.5 and 10 D refraction along the line. The ruler should be lightly pushed along the ruler and fixed in front of each lens in such a way that the optical axes of the ruler and the lens are aligned. Lenses are produced in 2 types -

circular and rectangular lenses.

Ophthalmometer. It is intended for measuring the cornea in case of astigmatism. It allows measuring the radius of curvature of the front side of the cornea and determines its astigmatism, which is equal to the magnitude of the difference in refractions of 2 mutually perpendicular meridians.

Perimeters. These devices allow you to determine the limit of vision when the eye is not moving. A commonly used device is the projection perimeter, which is also available in desktop and portable versions.

Binocular magnifier. It is used to see the eye with 2 times magnification. The lens of the magnifier is mounted on a black shade made of plastic.

An ophthalmoscope is used to examine the fundus of the eye. The rays coming from the light are reflected in the tissues of the eye, and the ophthalmoscope collects them and makes it possible to see the fundus of the eye. Various types of it are produced in the industry: with a mirror, handheld, without a large reflex, worn on the forehead, and others.

The mirror ophthalmoscope consists of flat and convex mirrors mounted on a spring-loaded device, and there is a 3 mm diameter hole between the handle and the mirrors through which the observation is made. His collection includes 13.0 and 20.0 DOftalmometr.

Includes 2 magnifiers with 348 refraction. All parts of the ophthalmoscope are placed in a soft compact case, which can be carried in a pocket.

In conclusion, it can be said that the importance of peripheral vision in human life and activity, for self-management in the world, is analyzed. The issue of which elements of the retina perform the function of peripheral vision will be clarified. After that, students define the concept of field of vision or center of attention, analyze the plot of the standard field of vision in relation to white color, colored objects (red, green, blue), colors. They determine each other's fields of vision using the control method and the perimeter method. In doing so, they pay the main attention to the light source of the perimeter, the location in relation to the patient, the doctor, and the size of the object used in the perimeter. Color separation is the differentiation of the color spectrum. A Rabkin chart is used to check this activity. Sensing light is a vision analyzer, sensing light and determining its levels.

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