Micropereimeter

MP-3

US Edition

**Product/Model name:** Microperimeter MP-3

**Caution:** U.S. Federal Law restricts this device to sale, distribution and use by or on the order of physician or other licensed eye care practitioner.

Specifications may vary depending on circumstances in each country.

Specifications and design are subject to change without notice.

**Fixation Test**

The MP-3 can measure fixation and determine the preferred retinal locus, simply by having the patient fixate on a target. Any change in fixation can be compared pre- and post-treatment because the patient's eye is constantly tracked during microperimetry. This test allows evaluation of fixation in patients with central visual field defects and determines whether fixation improved after treatment.

**Auto Tracking and Auto Alignment**

- **Automatic Registration (color fundus and microperimetry)**
  - **Anterior Auto Tracking**
    - **Fundus Auto Focusing**
      - **Microperimetry**
        - **Fundus Auto Tracking**
          - **Auto Alignment**

- **Color Fundus Photography**

Auto tracking and auto alignment functions provide more accurate measurements increasing patient and operator comfort and efficiency. These functions allow easy follow-up and reduce variations between examiners, resulting in well-aligned follow up exams.

**Fixation Test Image**

**MP-3 Image**

There have been significant advances in the assessment of retinal morphology due to the introduction of optical coherence tomography (OCT) into clinical practice, however, functional evaluation of retinal pathology is further advanced with the use of the microperimetry. The MP-3 measures local retinal sensitivity for functional assessment of the retina. The results can be displayed over a color fundus image, correlating retinal anatomy to retinal function.
The Automatic Microperimeter With A Non-mydriatic Fundus Camera

**Functionality**

- **Wide Measurement Range**
  - The MP-3 covers a wider range of stimulus intensity, from 0 to 34 dB, compared to the MP-1. The MP-3 measures perimetric threshold values, even for normal eyes. A maximum stimulus luminance of 10,000 asb* allows evaluation of low-sensitivity.

*In accordance with ISO12866 measurement methods

- **Evaluation of Treatment**
  - Several measurement modes are available for evaluating a variety of pathology including:
    - Microperimetry: Microperimetry test (visual sensitivity mapping)
    - Retinography: Fundus photography
    - Fixation: Fixation test

- **User-friendly Functions**
  - A follow-up test can be performed on the same area using the same parameters as a previous test. This feature allows evaluation of disease progression or assessment of pre- and post-treatment outcomes. Any differences in two microperimetry images are displayed for quick, intuitive interpretation.

- **Region-specific Test Evaluation**
  - After completion of measurements, results can be evaluated in a specific region of interest to allow easier comparison with other pathology images. By specifying the region of interest, the average results in the region are displayed.

- **Fixation Assessment**
  - The MP-3 indicates the percentage of fixation points within 2° and 4° in diameter to help confirm fixation stability.

**Morphology**

- **High Resolution Non-mydriatic Fundus Camera**
  - The 12-megapixel fundus camera in the MP-3 acquires high resolution images of retinal pathology and allows easy image acquisition.

**Print Setup**

- Various printed reports are available including user specified layouts when used with NAVIS-EX.

**Examination room**

NAVIS-EX Viewer and MP Viewer

**Consultation room**

Follow-up Test

Excessive Myopia
Central Serous Chorioretinopathy

**Epiretinal Membrane Age-related Macula Degeneration** (Geographic Atrophy)
Polypoidal Choroidal Vasculopathy Retinal Angiomatous Proliferation

**Case of anti-VEGF treatment for age-related macular degeneration (AMD)**

Pre-treatment
- Circle at 2° Percentage of fixation points 66.1%
- Circle at 4° Percentage of fixation points 92.1%
- Mean sensitivity: 20.4

Post-treatment
- Circle at 2° Percentage of fixation points 68.1%
- Circle at 4° Percentage of fixation points 95.5%
- Mean sensitivity: 20.9

**Image of Area Specified Fixation Result**

Follow-up Image

**MP-3 Images of Pre- and Post-treatment Comparison**
**Evaluation of Treatment**

- Microperimetry test
  - Visual sensitivity mapping
  - Microperimetry test practice
- Retinography
- Fixation test

**Follow-up Test**

A follow-up test can be performed on the same eye using the same parameters as a previous test. This feature allows comparison of disease progression in a consecutive year and post-treatment outcomes. Any differences in test results are displayed for quick, intuitive interpretation.

**Fixation Assessment**

The MP-3 indicates the percentage of fixation points within 2° and 4° in diameter to help confirm fixation stability.

**Region-specific Test Evaluation**

After completion of measurements, results can be evaluated in a specific region of interest by comparing with other pathology images. By specifying the region of interest, the average results in the region are displayed.

**User-friendly Functions**

Several measurement modes are available for evaluating a variety of pathologies, including:
- Microperimetry
- Macular sensitivity test
- Fixation test
- Maps by retinal area
- Fixation test practice

**Print Setup**

Various printed reports are available, including user-specified layouts, viewed with NAVIS-EX.

**NAVIS-EX**

NAVIS-EX is an image filing software that integrates the MP-3 and other NIDEK fundus imaging devices.
Morphology

High Resolution Non-mydriatic Fundus Camera

Cases of the Macular Disease

Microperimeter

The 12-megapixel fundus camera in the MP-3 acquires high-resolution images of retinal pathology and allows easy image acquisition.

NAVIS-EX

NAVIS-EX is an image filing software that networks the MP-3 and other NIDEK fundus imaging devices.

Print Image

MP-3

The MP-3 has a wider range of stimulus intensity, from 0 to 34 dB, compared to the MP-1. The MP-3 measures perimetric threshold values, even for normal eyes. A maximum stimulus luminance of 10,000 asb* allows evaluation of low-sensitivity.

*In accordance with ISO12866 measurement methods

Functionality

Wide Measurement Range

Evaluation of Treatment

User-friendly Functions

Several measurement modes are available for evaluating a variety of pathology including:

• Microperimetry: Microperimetry test (visual sensitivity mapping) Microperimetry test practice
• Retinography: Fundus photography
• Fixation: Fixation test

Selection of Test Mode

Print Setup

Various printed reports are available including user specified layouts when used with NAVIS-EX.

Fixation Assessment

The MP-3 indicates the percentage of fixation points within 2° and 4° in diameter help confirm fixation stability.

Examination room

NAVIS-EX Viewer and MP Viewer

Consultation

Follow-up Test

A follow-up test can be performed on the same area using the same parameters as a previous test. This feature allows evaluation of disease progression or assessment of pre- and post-treatment outcomes. Any differences in two microperimetry images are displayed for quick, intuitive interpretation.

Follow-up Test

Magnified Image of the Fixation Stability

Magnified Image of Specified Fixation Point

Start Image

MP-3 Normal Eye Image (34 dB)

MP-3 Glaucomatous Eye Image (34 dB)

Fundus Camera Image

Post-treatment

Circle at 2° Percentage of fixation points 68.1%
Circle at 4° Percentage of fixation points 95.5%
Mean sensitivity: 20.9

Region-specific Test Evaluation

After completion of measurements, results can be evaluated in a specific region of interest to allow easier comparison with other pathology images. By specifying the region of interest, the average results in the region are displayed.

Image of Area Specified Fixation Result

Follow-up Image

Follow-up Image

MP-3 Images of Pre- and Post-treatment Comparison

Case of anti-VEGF treatment for age-related macular degeneration (AMD)

Cases of the Macular Disease

Epiretinal Membrane

Age-related Macular Degeneration (Dry and Wet)

Polypoidal Chorioidal Vasculopathy

Retinal Angiomatic Proliferation

Central Serous Chorioretinopathy

Excessive Myopia
There have been significant advances in the assessment of retinal morphology due to the introduction of optical coherence tomography (OCT) into clinical practice; however, functional evaluation of retinal pathology is further advanced with the use of the microperimetry. The MP-3 measures local retinal sensitivity for functional assessment of the retina; the results can be displayed over a color fundus image, correlating retinal anatomy to retinal function.

**Fixation Test**

The MP-3 can measure fixation and determine the preferred retinal locus occupied by the corneal surface. By focusing on a target, any change in fixation can be determined. If the patient’s eye position is constantly tracked during microperimetry, the test allows evaluation of fixation in patients with central visual field defects and determines whether fixation improved after treatment.

**Auto Tracking and Auto Alignment**

Auto tracking and auto alignment functions provide more accurate examinations by increasing patient and examiner comfort and efficiency. These functions allow easy follow-up and reduce variations between examinations, resulting in well-aligned follow-up exams.

**MP-3 Specifications**

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Auto Tracking and Auto Alignment

Auto Tracking (color fundus and microperimetry)

Anterior Auto Tracking

+ Fundus Auto Focusing

Microperimetry

+ Fundus Auto Tracking and Auto Alignment

Color Fundus Photography

Auto tracking and auto alignment functions provide more accurate measurements increasing patient and operator comfort and efficiency. These functions allow easy follow-up and reduce variations between examiners, resulting in well-aligned follow-up exams.

Fixation Test Image

MP-3 Image

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