Monocular Maddox Phoria Measure

Part Number: 120004

Purpose

This instrument is designed to measure Anisphoria (change in the phoria away from the primary position) differences in phoria measurements between the primary position and a patient's normal working or reading position. It can contribute to eye strain and may help explain some headaches.

Description:

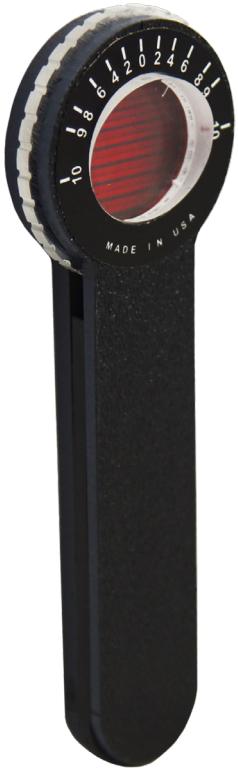
Monocular Maddox Phoria measure
The Monocular Maddox Phoria Measure combines a 25 mm aperture, a red maddox mounted perpendicular to the handle and a 10 PD prism in a rotating disc with knurled edge. There is a small indicator in the periphery of the disc to indicate the effective prism power from 0 PD to 10 PD.

Caution:

In order to get consistent and accurate measurements of phoria it is necessary (imperative!) to control many influencing variables. These include target distance, target size, target contrast, target brightness, and accuracy of accommodation of the eye. The latter is most important because the accommodation response synergistically drives eye position. Even so, the eyes can change position – vergence – without input from accommodation. This is fusional vergence and can influence phoria measurements even if all of the other aforementioned variables have been controlled. For this reason clinicians often allow only momentary viewing of a target, flash viewing with an occluder, so as to limit the influence of fusional vergence.

There should be good agreement between the first and second measurements. If not, additional measurements are needed, counterbalancing the orientation of the initial offset, until the examiner is confident of consistent measurement. Inconsistency generally means that accommodation response is fluctuating or fusional vergence is having some influence or both. So, the examiner may need to repeat the orders to the patient to keep the appropriate target clear, etc. Most patients should be able to repeat phoria measurements within 2 prism diopters but many are capable of 1 prism diopter consistency.

When recording these measurements the aperture size should be noted as well as target distance, target type and size.



Monocular Maddox Phoria Measure

Part Number: 120004

Operation:

A penlight with a 1 or 2 mm aperture or a transilluminator can be used as a light source for near or far. The phoria measure should be held so that the maddox faces the patient. The knurled disc is rotated clockwise or counterclockwise until the streak passes thought the spot-light.

When the handle is held vertically, the maddox rods are horizontal and the patient sees a vertical streak. If the patient fixates the spot-light with the left eye and looks through the phoria measure with the right eye and the notch is below the horizontal, the imbalance is right-hyper. If it is above the horizontal, the imbalance is right-hypo. Conversely, if the right eye is fixing the spotlight and the phoria measure is before the left eye, base down indicates the left-hyper and base up indicates left-hypo.

When the handle is held horizontally, the maddox rods are vertical and the patient sees a horizontal line or streak. If the patient fixates the spot-light with the left eye and looks through the phoria measure with the right eye and the notch is below the horizontal, the imbalance is right-hyper. If it is above the horizontal, the imbalance is right-hypo. Conversely, if the right eye is fixing the spotlight and the phoria measure is before the left eye, base down indicates the left-hyper and base up indicates left-hypo. If the total imbalance is greater than 10 PD, a handheld prism is held before the opposite eye and the power is combined with that of the phoria measure to obtain a complete measurement.

In some cases, home testing may be a worthwhile option with the patient performing the tests 2 and 3 times daily for a week and recording the results. This may help to optimize the value of any prescribed prism.

After the spectacles have been made up and properly adjusted to the patient, it is an excellent procedure to again use the monocular maddox phoria measure to retest the patient through the new glasses. If any significant residual exists, the patient should be retested again in a few weeks after adaptation has had time to take place.

Please do not disassemble.

Cleaning:

The exterior of the Monocular Maddox Phoria Measure can be cleaned using a damp soft cotton cloth. Use only with mild soap and water or a mild glass cleaner. Do not soak or use alcohol.