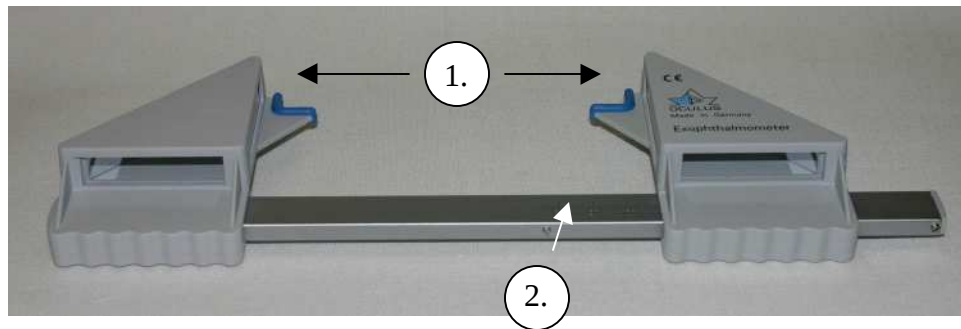


## 52400 Hertel Exophthalmometer Instructions



Hertel mirror Exophthalmometers are used to measure the eye's exact protrusion out of the orbit (degree of proptosis) to determine its position along the sagittal. This examination is of particular interest in retrobulbar, space-occupying conditions such as inflammation, hemorrhaging and tumors.

The distance between the lateral orbital rim and the corneal apex serves as the dimension of the measurement. Under normal conditions, the distance between the apex of the cornea and the orbital wall is approximately 18mm. This value should only be regarded as a statistical average, from which there may well be upward or downward deviations. Depending upon the configuration of the osseous orbit, a value of 15mm might be pathological whereas 21mm might be normal. Continuous checks are therefore more useful than individual measurements.

Physiologically, there are also certain differences in the degree of proptosis in each eye.

Approach: The examiner sits opposite the patient at eye level. The exophthalmometer is then positioned with the blue arched supports (1.) at the temporal lateral orbital walls. The instrument is maneuvered using both hands and firmly propped first against the right-hand orbital wall on the temporal side (which should be felt against the lowest part of the support point). The moveable part is then set in such a way that the left-hand orbital wall lies against the lowest part of the arched support.

The distance between the lateral orbital walls can then be read from the upper side of the scale 2; this distance can be noted for future reference.

The examiner asks the patient to look straight ahead with eyelids wide open. The examiner measures for proptosis in each eye Separately by looking into the mirror (which has a millimeter scale marked on it) with one eye and moving the head horizontally until the red fixations line is at 22mm. The examiner can now determine the position of the corneal apex of the patient from the millimeter reading.