



## PRESS RELEASE

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### **FOR IMMEDIATE RELEASE**

#### **EYE EXAM EQUIPMENT**

##### *The Instruments That Are Used During a Routine Eye Exam*

(Honolulu, Hawaii), February 2, 2012 – Year after year, you go to your eye doctor for your routine yearly exam. How many times have you wondered what the machines are measuring and what the doctor is looking at? Dr. Christopher Tortora, M.D. of the Hawaiian Eye Center wishes to shed light on the mystery by sharing the names and purpose of the equipment used during a routine yearly exam.

Let's start with the instrument that most resembles a butterfly, a phoropter (or phoroptor), which is used to determine eyeglass prescriptions. Typically, the patient sits behind the phoropter, and looks through it at an eye chart. The doctor or refractionist then changes lenses and other settings, while asking the patient for feedback on which lenses give the best vision. The eyeglass prescriptions is then determined based on the combination of lenses in different powers which provides the best vision.

Another instrument that is used is a tonometer. A Tonometer is used to measure the pressure inside the eye. The test is used to help detect glaucoma. Numbing drops are used for the type of tonometer that actually touches the eye. Some doctors use the less accurate air-puff tonometer in which no numbing drops are needed. Measuring eye pressure is critical in assessing the health of the eye. Patients with glaucoma often have elevated eye pressure.

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A retinoscope is used to shine light into a patient's eye for an eye doctor to observe the reflection off the retina. The light is moved back and forth across the pupil, and the doctor or technician uses this information to help determine the best lens power to correct the vision. A retinoscope is especially useful in prescribing corrective lenses for patients who are unable to give oral feedback to the eye doctor, such as young children.

A slit lamp is a microscope with a light attached that allows the doctor to closely examine the eye. This instrument is used to view structures of the eye such as the cornea, iris, and lens. However, with special lenses, it is possible to examine the back of the eye as well. A slit lamp allows the practitioner to have an amazing view of the structures of your eyes.

In diagnosing retina disease or neurological deficits in the visual pathways between the eye and the brain, visual field testing is essential. It is the primary tool for detecting visual field loss resulting from glaucoma, strokes, artery and vein occlusions and tumors along the optic nerve pathway and brain.

There are a number of other instruments and equipment that can be used to examine the eye and conditions affecting the eye, however, these are the most commonly used. Don't forget to schedule your routine yearly exam, so you can see these instruments up close and personal!

Dr. Tortora, a board certified ophthalmologist, is host of "The Hawaiian Eye Show," a weekly informational radio program about healthy vision. He and his colleagues at Hawaiian Eye Center are committed to educating the public about the importance of preventative eye care. To learn more about a variety of eye health issues, please call the Hawaiian Eye Center at 621-8488 where "*life has never looked better*.

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