

 $From \ left: In Teleretina\ co-founders\ Dr.\ James\ Lai\ and\ Eric\ Hannum\ watch\ Project\ Manager\ Will\ Heggeness\ take\ a\ retinal\ scan.$



retinopathy: seeing it in time

words David Frickman

A new father went to retina specialist James Lai, M.D., after having a diabeticretinopathy screening in his primary care provider's (PCP's) office and finding out that he may have a problem. The patient was impressed that his PCP was able to make this discovery in his office with a simple test.

Little did he know that Dr. Lai co-founded the local company that offers the hand-held device his PCP used to make the diagnosis. The young man also didn't know that if he had waited any longer to take the test, he would likely go blind.

With a retinal camera in their office, doctors can perform the diabetic retinopathy test without dilating the patients' pupils. These images are transmitted to a centralized reading center in Hawai'i where they're read by board-certified retina specialists.

"Until recently, the desktop retinal cameras needed to acquire these images were large, difficult to use, and expensive," he says. "Recent advances in retinal imaging technology have resulted in hand-held cameras that capture images with sufficient quality to accurately diagnose and grade diabetic retinopathy."

If the reading uncovers potential problems, the PCP will send the patient to an optometrist or ophthalmologist.

The screening is especially important for patients with diabetes who aren't getting regular eye exams, Dr. Lai says. "The diabetic retinopathy exam is not designed to replace a regular eye exam. We're not looking to bypass the optometrist or ophthalmologist. This is a safety net for those patients who can't get to see their eye doctor.

Whether the exam is taken at your eye doctor or with your PCP, Dr. Lai says the key is to catch diabetic retinopathy before it's too late to get treatment and possibly save your vision.

"Patients who have end-stage diabetic retinopathy have already sustained irreparable damage to their eyes. Early detection of diabetic retinopathy is crucial to preventing blindness as the studies have shown that timely intervention can reduce the risk of severe vision loss by more than 90%." (5)



Dr. James Lai