

HEALTHY LIVING relieving the pain

# LATEST AND GREATEST

story and photos by  
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## Changing the game for sinus sufferers

When it comes to the medical field, the best mark of success is a validated outcome — some way of knowing that a procedure accomplished what it was supposed to accomplish. In cardiology for example, doctors are able to inject a special dye that acts as a contrast material so that when x-ray images are taken, blockages in blood flow can be visibly noted. But what about in specialties where contrast materials can't be used as a guide?

Much like cardiologists use an inflated balloon to clear blockage in an artery, relying on x-ray technology and the paths laid out by the dye, ENT (an acronym for ears, nose and throat) specialists perform a similar procedure to open up sinus passageways.

This process, known as Balloon Sinuplasty, was pioneered in part by Dr. Raymond Weiss and works by inflating a small balloon, which expands the sinus cavity, permanently improving sinus drainage and reducing the effects of swelling. In the beginning, doctors struggled with being able to see a validated outcome as technology in ENT hadn't yet reached the level that it had in other specialties, forcing ENT professionals to rely on x-ray images that didn't give them all of the information they needed.

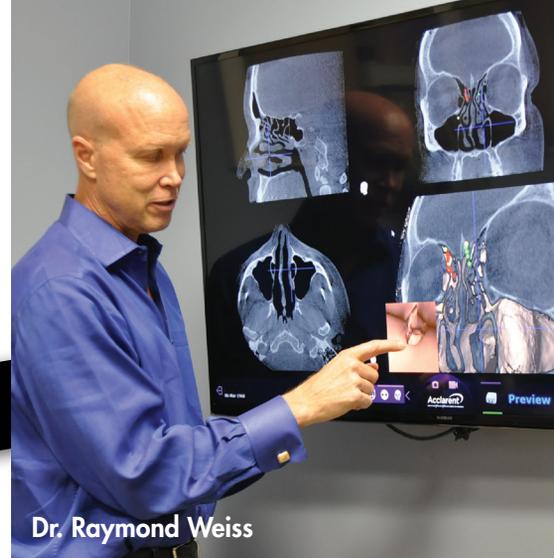
"The next advancement was using a light on the end of the sinuplasty

equipment that could show doctors where the instrument was, but it didn't help when it came to navigating all of the sinus passages," said Dr. Weiss, who founded the original Sinuplasty Center of Excellence in 2005. Much of this technique was intuitive and relied on precise movements of the wrist to move the balloon up the nasal cavity to the correct location.

The latest advancement in ENT, an image guidance system known as "TruDi," has really changed the game. As a pivotal player in the development of Balloon Sinuplasty, Weiss has been able to be a part of the team to test and use the new technology. "TruDi uses an algorithm to figure out where devices are during the procedure and display markers on a screen," Weiss said. "The system even constructs a 3D visual of the sinuses, and artificially overlays images so we can see on screen when the instrument has reached the sinus cavity."

With this technology, Dr. Weiss and his team are able to look at 3D models of the patient and plot their target path, which he says has improved their accuracy radius from two millimeters to less than one — a big difference in a space as small as a sinus cavity. Doctors are also able to have visual confirmation that the procedure was successful.

Johnson & Johnson, one of the largest names in healthcare, is behind



Dr. Raymond Weiss



Sinuplasty Center of Excellence  
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the product, and has selected a few leading doctors to implement TruDi and teach others to use it as well. Sinuplasty Center for Excellence has been named one of just four "TEC" sites by the company, and uses its expertise to train others using a video recording of procedures.