



# First Hand EXPERIENCE

**Bryan Pogue, MD**

Founder, Heart Prevention Clinic of Idaho

## *An Ounce of Prevention – IMT and Cardiovascular Risk Profiling at the Heart Prevention Clinic of Idaho*

*At the Heart Prevention Clinic of Idaho, Dr. Bryan Pogue and his lipidologist partners are tackling cardiovascular disease by maintaining an intense focus on preventing and even reversing disease, rather than waiting to correct its consequences. They found that one of the most valuable tools in their preventive practice is carotid ultrasound IMT (intima-media thickness), a noninvasive imaging exam that assesses the thickness of a patient's carotid arterial walls and can reveal dangerous plaque deposits.*

Dr. Pogue says, "Although Framingham Risk Score is still the official standard for risk calculation, we have augmented our risk scoring with regular advanced lipid testing, consideration of the insulin resistance spectrum, genetic profiling and the use of IMT. IMT and plaque scoring have become indispensable to us for accurate risk profiling."

He notes that the advantage of IMT scans is that they can reveal the extent of damage to the vascular system caused by known – or, more importantly, unknown – risk factors. This makes it incredibly valuable in preventive care.

"Any time we see a patient with insulin resistance, cholesterol particle problems, hypertension, family history or a genetic disorder, we investigate further with the IMT scan," Dr. Pogue explains. "In our experience, there is no better way in the clinic than

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*"Interventional cardiology is not going to go away, but that's not the future of medicine," says Dr. Pogue. "Prevention is."*

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carotid IMT and plaque analysis to see the end result of all the risk factors combined in a given patient."

The medical community is shifting toward earlier and more aggressive preventive care, especially in the cardiovascular and related disorders, and many of the Clinic's patients are referred from primary care physicians seeking advanced diagnostics for early detection of cardiovascular disease. "The AHA recommends that heart attack and stroke prevention begin by age 20, and we have a substantial body of data to support IMT scanning even in pediatric populations at risk. We've scanned high risk teenagers in our clinic: you're never too young to develop deadly cardiovascular disease," he says.

Dr. Pogue predicts that IMT will become a standard component of preventive medical care in the future, as it is already for his practice. "Coronary calcium CTs seems more glamorous but is actually less useful, especially for monitoring disease regression, and CT exposes many patients to unnecessary radiation. Carotid IMT

technology will be as useful to the coming generation as the office electrocardiogram has been to the last several. It is the 'EKG' of the future," he added. "Like the EKG, it's not a perfect test...but it is a very, very good test, and cost-effective to boot."

The Clinic performs dozens of IMT scans each week. In order to handle the volume of procedures, the scans often can be done by non-physician trained technicians, and then the results are interpreted by one of the doctors.



SonoSite's MicroMaxx®, TITAN® and 180PLUS™ ultrasound systems.

An IMT scan takes about fifteen minutes, is completely noninvasive, and can be performed in any exam room. Says Pogue, "We have never encountered a patient who finds the process to be painful, or even uncomfortable." Then in a bit of allegory he adds, "And our patients seem

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to easily appreciate that just as the eyes are the window to the soul, high-resolution ultrasound of the carotid is a window to the cardiovascular state-of-health in real time."

The images are then processed by proprietary SonoCalc® IMT software, which automatically detects the edges of the vessel wall layers, measures them, and compares them with a database to reveal the patient's risk relative to large population-based studies' normative values for the same age, race and gender. According to Dr. Pogue, "We find the quantitative, graphical style of the SonoCalc report fairly easy to explain to patients."



Summing up the way IMT has changed his practice, Dr. Pogue says, "Without IMT and plaque assessment I believe that the clinicians of the Heart Prevention Clinic of Idaho would still be groping in the dark for reliable risk assessment and effective monitoring of lipidology interventions for a large majority of our patients."



**Dr. Bryan Pogue** received his BS in Molecular Biology at Haverford College and became board certified in Family Medicine after completing medical school at University of Washington in Seattle. He practiced full range medicine (including Obstetrics and Pediatrics) for 20 years, while at the same time conducting extensive medical research in the clinical setting for the pharmaceutical industry, acting as Principal Investigator of more than 200 research protocols. Last year he obtained a second board specialty, graduating with the first group of clinicians to be certified in Clinical Lipidology by the American Board of Clinical Lipidology ([www.lipidboard.org](http://www.lipidboard.org)). He is also a member of the Society of Vascular Ultrasound, and serves as the Medical Director of the Covance Boise Clinical Research Unit (<http://www.covance.com/index.php>) conducting Phase 1 through Phase 3 pharmacology research, much of which is in the cardiovascular area. He founded the Heart Prevention Clinic of Idaho in 2004. Dr. Pogue is an investigator and co-author in the landmark OPACA Study sponsored by SonoSite.

OPACA study Phase I and II currently in press: "Carotid Intima-Media Thickness Testing by Non-Sonographer Clinicians: The Office Practice Assessment of Carotid Atherosclerosis (OPACA) Study".

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