

# 7 FACTS

## ABOUT THE EARLY DETECTION OF PERIPHERAL ARTERIAL DISEASE (PAD) AND PREVENTING VASCULAR COMPLICATIONS

FACT

1

### THE CLINICAL EXAM CANNOT ACCURATELY SCREEN FOR PAD

- Physical exam and history under-diagnose PAD
- The PAD screening score using the hand-held Doppler has a greater diagnostic accuracy than clinical examination<sup>1</sup>
- The QuantaFlo™ PAD System is at least as sensitive as Doppler<sup>2</sup>

FACT

2

### PAD SCREENING AND INTERVENTION REDUCES MORTALITY BY 65%

Lack of treatment of PAD is associated with increased mortality.

- 16% mortality in almost 7500 participants with PAD in a 5-year study vs.
- 4% in non-PAD subjects
- Among PAD subjects, use of multiple preventive therapies was associated with 65% lower all-cause mortality ( $p=0.02$ )<sup>3</sup>

FACT

3

### PAD SCREENING AND INTERVENTION CAN PREVENT AMPUTATIONS

- 2,011 participants screened and 128 found to have PAD.
- Then randomly assigned to foot protection program or control with 2-year follow up
- 1 major amputation in the treatment group versus 12 major amputations in the control group ( $p<0.01$ )<sup>4</sup>

FACT

4

### SCREENING AND AWARENESS OF PAD MOTIVATE HEALTHY BEHAVIOR

- 128 participants with almost 55% aware of their PAD diagnosis
- In the regression analysis, knowledge about PAD influenced health promoting behavior in subjects ( $R^2=0.212, P=0.032$ )<sup>5</sup>

FACT

5

### RISK SIMILAR IN PAD PATIENTS WITH AND WITHOUT SYMPTOMS

- 6,880 subjects: 836 had asymptomatic PAD and 593 had symptomatic PAD – 5-year follow-up
- The risk of mortality was similar in symptomatic and asymptomatic patients with PAD but significantly higher than in those patients without PAD.
- In the primary care setting, the diagnosis of PAD has important prognostic value<sup>6</sup>

**FACT****6****EVEN MILD PAD IS A MAJOR CVD RISK FACTOR**

- PAD is predictive of cardiovascular and cerebrovascular morbidity and mortality—perhaps more strongly predictive than prior MI.
- Recent clinical trials show both lipid therapy and antiplatelet therapy prevent cardiovascular disease events in PAD patients
- The strong prognostic significance of PAD, ankle-brachial index merits a central role in CVD risk assessment<sup>7</sup>

**FACT****7****FUNCTIONAL DECLINE AND DISEASE PROGRESSION IN ASYMPTOMATIC PAD**

- Among the 676 participants, 80 had PAD without exertional leg symptoms at baseline. Almost half remained asymptomatic at follow-up; the remainder developed exertional leg symptoms at follow-up visits
- Participants with asymptomatic PAD with leg symptoms during 2-year follow-up had greater mean functional decline than those who had symptoms at baseline<sup>8</sup>

**CONCLUSION**

**PAD screening with a tool like QuantaFlo™ has documented value as:**

- A prognostic tool for pre-symptomatic CAD and PAD detection
- A way to educate and motivate lipid-lowering medication adherence and increasing exercise
- A way to significantly lower morbidity, mortality, and cost

**The QuantaFlo™ PAD System from Semler Scientific, Inc. is a more sensitive, more efficient, and less expensive way to test for PAD**

<sup>1</sup> Khan NA, Rahim SA, Anand SS, Simel DL, Panju A. Does the clinical examination predict lower extremity peripheral arterial disease? JAMA. 2006 Feb 1;295(5):536-46. Review.

<sup>2</sup> Schaefer ME, Long JB, Pollick C. Non-Invasive Detection of Vascular Disease in the Arteries of the Lower Extremity; Clinical Evaluation of QuantaFlo(TM) Compared to Doppler and Definitive Imaging. Vasc Dis Mgmt. March 2016 13(3) Supplement.

<sup>3</sup> Pande RL, Perlstein TS, Beckman JA, Creager MA. Secondary prevention and mortality in peripheral artery disease: National Health and Nutrition Examination Study, 1999 to 2004. Circulation. 2011 Jul 5;124(1):17-23.

<sup>4</sup> McCabe CJ, Stevenson RC, Dolan AM. Evaluation of a diabetic foot screening and protection programme. Diabet Med. 1998 Jan;15(1):80-4.

<sup>5</sup> Yoo Y, Ju Hee Chu LSH, Choi D. Factors influencing health promoting behavior among peripheral arterial disease patients. Korean J Health Promot. 2016 Mar;16(1):37-47.

<sup>6</sup> Diehm C, Allenberg JR, Pittrow D, Mahn M, Tepohl G, Haberl RL, Darius H, Burghaus I, Trampisch HJ; Mortality and vascular morbidity in older adults with asymptomatic versus symptomatic peripheral artery disease. German Epidemiological Trial on Ankle Brachial Index Study Group. Circulation. 2009 Nov 24;120(21):2053-61

<sup>7</sup> Golomb BA, Dang TT, Criqui MH. Peripheral arterial disease: morbidity and mortality implications. Circulation. 2006;114:688-69

<sup>8</sup> McDermott MM, Liu K, Greenland P, Guralnik JM, Criqui MH, Chan C, Pearce WH, Scheider JR, Ferrucci L, Celis L, Taylor LM, Vonesh E, Marting GJ, Clark E. Functional decline in peripheral arterial disease: associations with the ankle brachial index and leg symptoms. JAMA. 2004;292(4):453-61