

Supplementary Table 1. Associations between the velocity pulsatility index (VPI) with measures of SFA plaque burden.

| Variable | Independent Variable | N | BETA | SE | R ² | Adjusted R ² | P-value |
|----------------------------------|--------------------------------|----|----------|---------|----------------|-------------------------|---------|
| Pooled Data | | | | | | | |
| VPI at proximal site | SFA total volume, cc | 70 | 60.833 | 179.172 | 0.002 | -0.013 | 0.74 |
| | SFA wall volume, cc | 70 | 275.648 | 251.106 | 0.017 | 0.003 | 0.28 |
| | SFA lumen volume, cc | 70 | -368.77 | 389.016 | 0.013 | -0.002 | 0.35 |
| | 24Mo Δ of SFA total volume, cc | 38 | 124.843 | 373.776 | 0.003 | -0.025 | 0.74 |
| | 24Mo Δ of SFA wall volume, cc | 38 | 1115.102 | 659.675 | 0.074 | 0.048 | 0.1 |
| | 24Mo Δ of SFA lumen volume, cc | 38 | -634.241 | 645.027 | 0.026 | -0.001 | 0.33 |
| VPI at distal site | SFA total volume, cc | 69 | 4.369 | 3.734 | 0.02 | 0.005 | 0.25 |
| | SFA wall volume, cc | 69 | 1.94 | 5.306 | 0.002 | -0.013 | 0.72 |
| | SFA lumen volume, cc | 69 | 16.285 | 8.034 | 0.058 | 0.044 | 0.047 |
| | 24Mo Δ of SFA total volume, cc | 37 | 7.701 | 6.035 | 0.045 | 0.017 | 0.21 |
| | 24Mo Δ of SFA wall volume, cc | 37 | -1.494 | 11.242 | 0.001 | -0.028 | 0.90 |
| | 24Mo Δ of SFA lumen volume, cc | 37 | 24.866 | 9.945 | 0.152 | 0.127 | 0.017 |
| Diabetic PAD Patients | | | | | | | |
| VPI at proximal site | SFA total volume, cc | 27 | 3.226 | 4.204 | 0.023 | -0.016 | 0.45 |
| | SFA wall volume, cc | 27 | 0.728 | 5.89 | 0.001 | -0.039 | 0.90 |
| | SFA lumen volume, cc | 27 | 12.101 | 8.43 | 0.076 | 0.039 | 0.16 |
| | 24Mo Δ of SFA total volume, cc | 14 | 5.554 | 6.583 | 0.056 | -0.023 | 0.42 |
| | 24Mo Δ of SFA wall volume, cc | 14 | -1.277 | 13.066 | 0.001 | -0.083 | 0.92 |
| | 24Mo Δ of SFA lumen volume, cc | 14 | 20.96 | 11.25 | 0.224 | 0.16 | 0.09 |
| VPI at distal site | SFA total volume, cc | 27 | 10.391 | 5.183 | 0.139 | 0.104 | 0.06 |
| | SFA wall volume, cc | 27 | 6.808 | 7.615 | 0.031 | -0.008 | 0.38 |
| | SFA lumen volume, cc | 27 | 29.095 | 9.937 | 0.255 | 0.226 | 0.007 |
| | 24Mo Δ of SFA total volume, cc | 14 | 16.6 | 8.345 | 0.248 | 0.185 | 0.07 |
| | 24Mo Δ of SFA wall volume, cc | 14 | 17.531 | 17.863 | 0.074 | -0.003 | 0.35 |
| | 24Mo Δ of SFA lumen volume, cc | 14 | 42.263 | 13.428 | 0.452 | 0.407 | 0.008 |
| Non-Diabetic PAD Patients | | | | | | | |
| VPI at | SFA total volume, cc | 43 | 120.766 | 304.942 | 0.004 | -0.021 | 0.69 |

| | | | | | | | |
|--------------------|--------------------------------|----|-----------|----------|-------|--------|------|
| proximal site | SFA wall volume, cc | 43 | 528.924 | 431.074 | 0.035 | 0.012 | 0.23 |
| | SFA lumen volume, cc | 43 | -706.134 | 688.34 | 0.025 | 0.001 | 0.31 |
| | 24Mo Δ of SFA total volume, cc | 24 | 407.817 | 708.832 | 0.015 | -0.03 | 0.57 |
| | 24Mo Δ of SFA wall volume, cc | 24 | 2222.527 | 1101.121 | 0.156 | 0.118 | 0.06 |
| | 24Mo Δ of SFA lumen volume, cc | 24 | -1050.943 | 1163.699 | 0.036 | -0.008 | 0.38 |
| VPI at distal site | SFA total volume, cc | 42 | -1.574 | 4.814 | 0.003 | -0.022 | 0.75 |
| | SFA wall volume, cc | 42 | -4.143 | 6.854 | 0.009 | -0.016 | 0.55 |
| | SFA lumen volume, cc | 42 | 2.363 | 11.102 | 0.001 | -0.024 | 0.83 |
| | 24Mo Δ of SFA total volume, cc | 23 | -8.457 | 8.198 | 0.048 | 0.003 | 0.31 |
| | 24Mo Δ of SFA wall volume, cc | 23 | -23.387 | 12.843 | 0.136 | 0.095 | 0.08 |
| | 24Mo Δ of SFA lumen volume, cc | 23 | 0.418 | 13.997 | 0 | -0.048 | 0.97 |

VPI = Maximum velocity - Minimum velocity / Mean velocity; BETA=parameters estimate; SE = standard error; Mo: month; SFA: superficial femoral artery; PAD: peripheral artery disease; 24-Mo Δ: 24-months difference.