



# Circulation

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ARTERIOSCLEROSIS, THROMBOSIS, VASCULAR BIOLOGY

SESSION TITLE: DAMPS, INFECTION AND CARDIOVASCULAR METABOLISM

## Abstract 10712: Mrna COVID Vaccines Dramatically Increase Endothelial Inflammatory Markers and ACS Risk as Measured by the PULS Cardiac Test: a Warning

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### Abstract

Our group has been using the PLUS Cardiac Test (GD Biosciences, Inc, Irvine, CA) a clinically validated measurement of multiple protein biomarkers which generates a score predicting the 5 yr risk (percentage chance) of a new Acute Coronary Syndrome (ACS). The score is based on changes from the norm of multiple protein biomarkers including IL-16, a proinflammatory cytokine, soluble Fas, an inducer of apoptosis, and Hepatocyte Growth Factor (HGF) which serves as a marker for chemotaxis of T-cells into epithelium and cardiac tissue, among other markers. Elevation above the norm increases the PULS score, while decreases below the norm lowers the PULS score. The score has been measured every 3-6 months in our patient population for 8 years. Recently, with the advent of the mRNA COVID 19 vaccines (vac) by Moderna and Pfizer, dramatic changes in the PULS score became apparent in most patients. This report summarizes those results. A total of 566 pts, aged 28 to 97, M:F ratio 1:1 seen in a preventive cardiology practice had a new PULS test drawn from 2 to 10 weeks following the 2<sup>nd</sup> COVID shot and was compared to the previous PULS score drawn 3 to 5 months previously pre- shot. Baseline IL-16 increased from 35 $\pm$ 20 above the norm to 82 $\pm$ 75 above the norm post-vac; sFas increased from 22 $\pm$ 15 above the norm to 46 $\pm$ 24 above the norm post-vac; HGF increased from 42 $\pm$ 12 above the norm to 86 $\pm$ 31 above the norm post-vac. These changes resulted in an increase of the PULS score from 11% 5 yr ACS risk to 25% 5 yr ACS risk. At the time of this report, these changes persist for at least 2.5 months post second dose of vac. We conclude that the mRNA vacs dramatically increase inflammation on the endothelium and T cell infiltration of cardiac muscle and may account for the observations of increased thrombosis, cardiomyopathy, and other vascular events following vaccination.