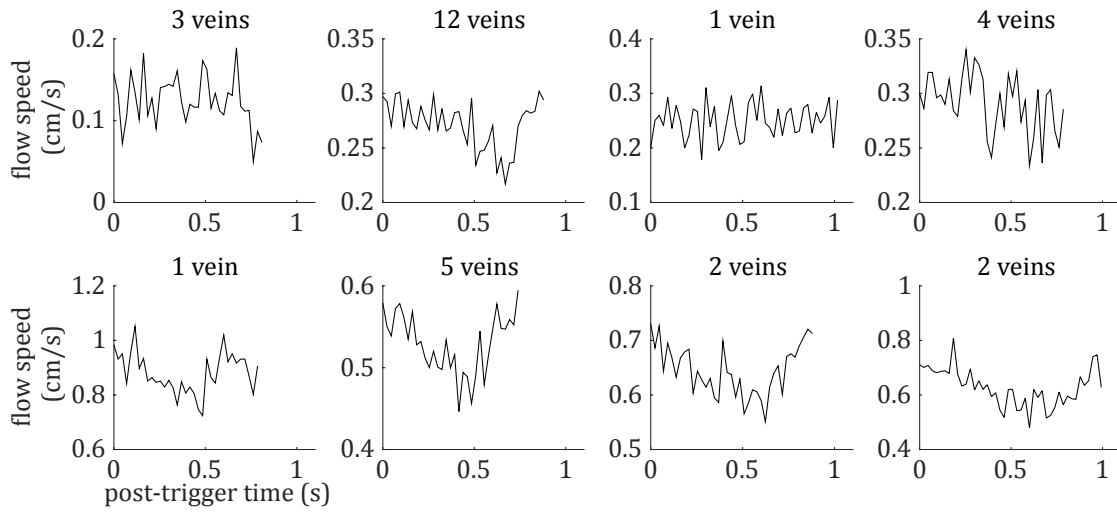


## Supplementary Material

### 1 Supplementary Figures



**Supplementary Figure 1.** Cardiac cycle synchronized venous blood flow time-courses for each subject for veins that do not meet the PCNR>3.9 threshold (i.e. ‘non-pulsatile veins’). The number of non-pulsatile veins for each subject is displayed above the respective plot.