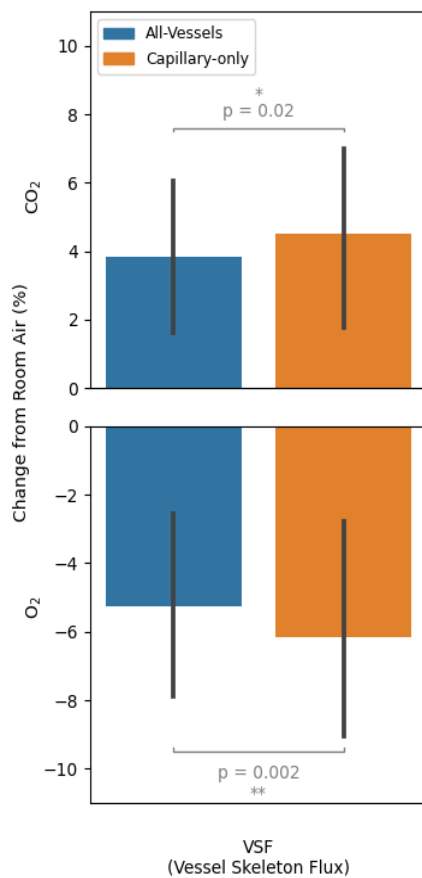
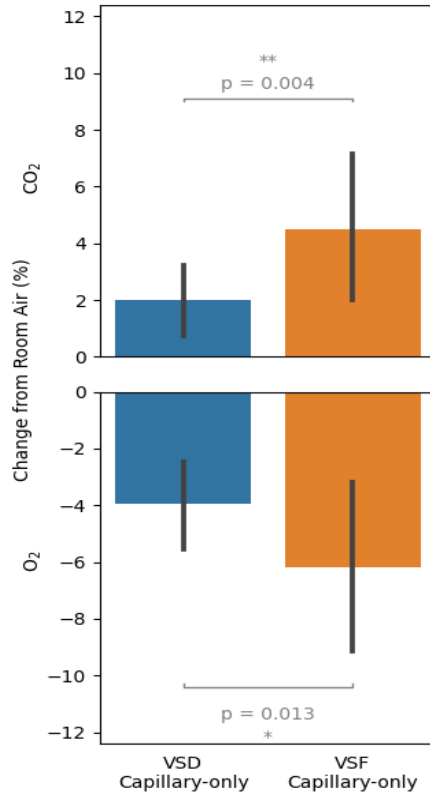


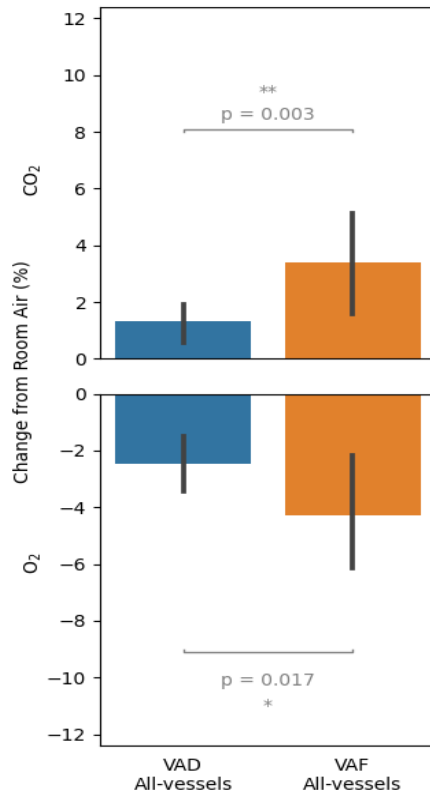
## Supplementary Material



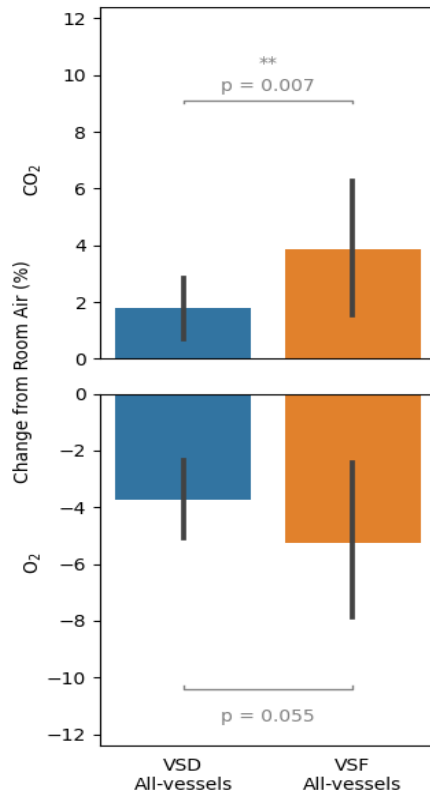
**Figure S1.** Comparison of the change in OCTA derived VSF (vessel skeleton flux) in all-vessels (including arterioles and venules) versus capillary-only images. (Mean and 95% CI of mean are shown)



**Figure S2.** Comparison of the change in OCTA derived VSD (vessel skeleton density) and VSF (vessel skeleton flux) measures in capillary-only images. (Mean and 95% CI of mean are shown)

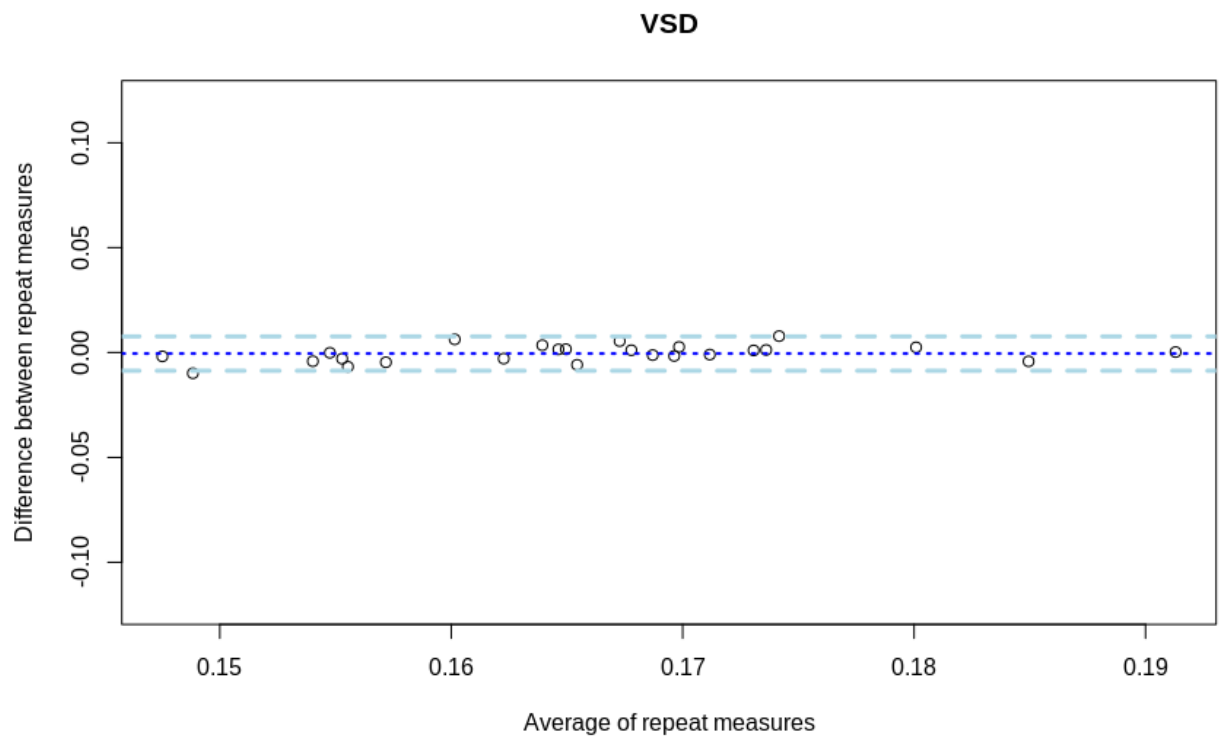
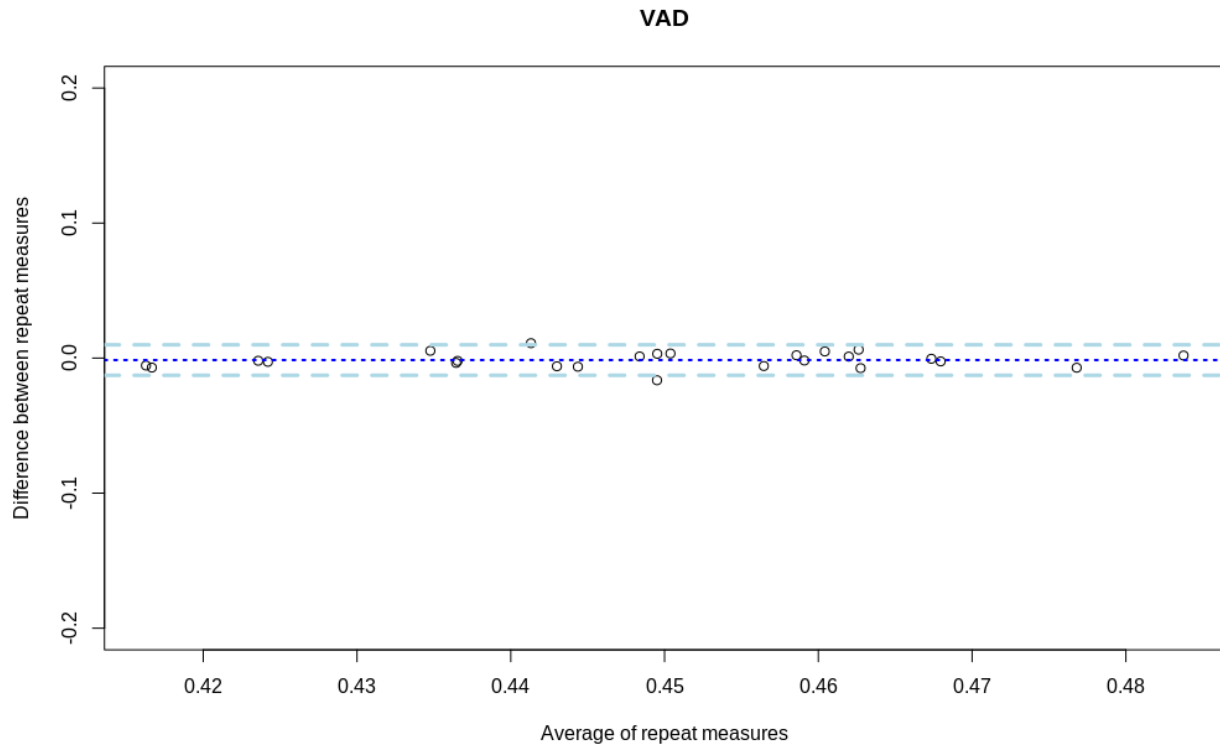


**Figure S3.** Comparison of the change in OCTA derived VAD (vessel area density) and VAF (vessel area flux) measures in all-vessels (including arterioles and venules) images. (Mean and 95% CI of mean are shown)

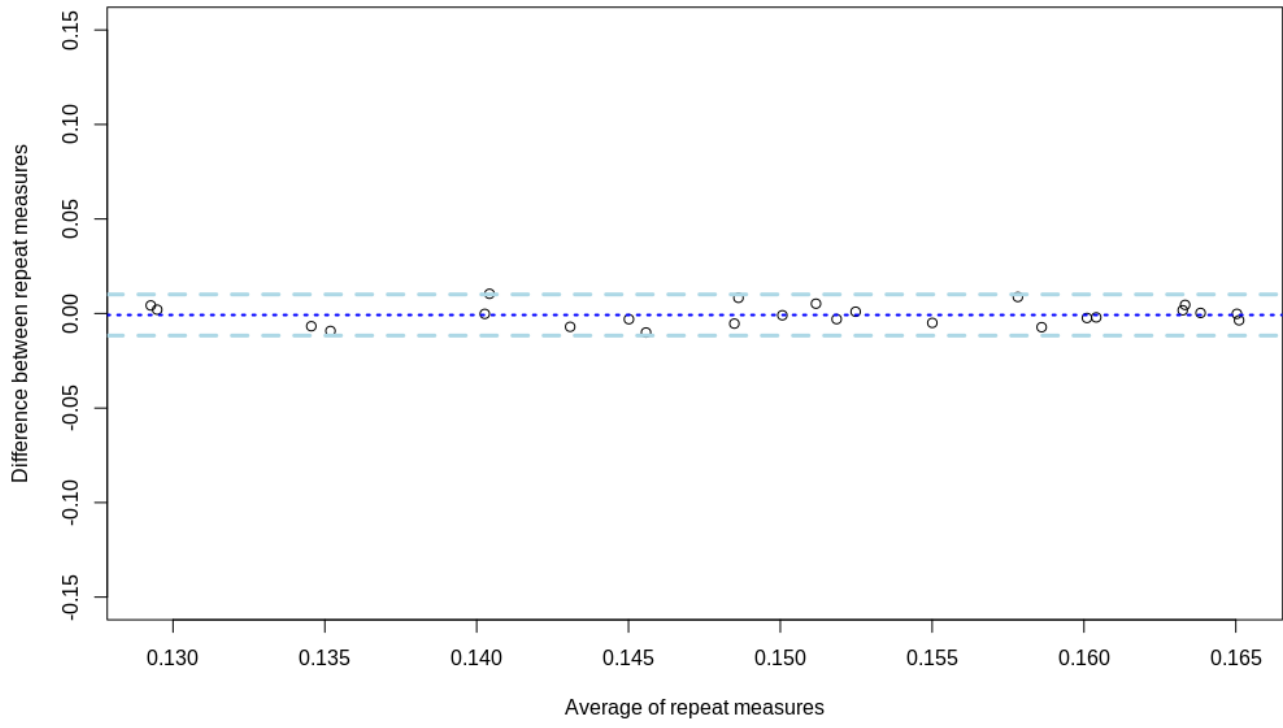


**Figure S4.** Comparison of the change in OCTA derived VSD (vessel skeleton density) and VSF (vessel skeleton flux) measures in all-vessels (including arterioles and venules) images. (Mean and 95% CI of mean are shown)

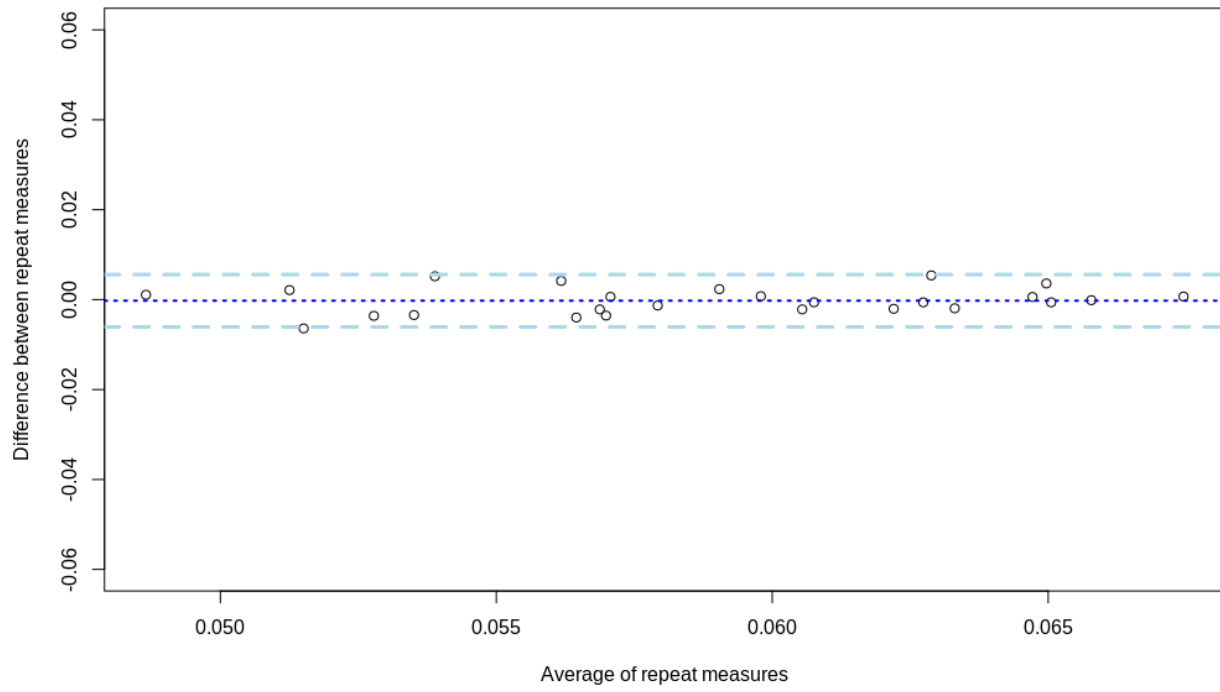
**Figure S5.** Bland–Altman plot of OCTA derived perfusion measures for capillary-only images. (Mean and 95% CI lines are shown. VAD: vessel area density, VSD: vessel skeleton density, VAF: vessel area flux, VSF: vessel skeleton flux)



### VAF



### VSF



**Table S1.** Values ( $\pm$  SD) of retinal perfusion measures in all-vessels and capillary-only images in all breathing conditions.

	<b>All-vessels</b>			<b>Capillary-only</b>		
	CO <sub>2</sub>	RA	O <sub>2</sub>	CO <sub>2</sub>	RA	O <sub>2</sub>
<b>VAD</b>	0.466 (0.015)	0.46 (0.015)	0.449 (0.02)	0.456 (0.017)	0.45 (0.018)	0.437 (0.023)
<b>VSD</b>	0.165 (0.009)	0.162 (0.009)	0.156 (0.011)	0.169 (0.01)	0.166 (0.011)	0.159 (0.013)
<b>VAF</b>	0.177 (0.009)	0.172 (0.012)	0.165 (0.014)	0.156 (0.008)	0.151 (0.011)	0.143 (0.014)
<b>VSF</b>	0.066 (0.004)	0.064 (0.005)	0.06 (0.006)	0.061 (0.004)	0.059 (0.005)	0.055 (0.006)