



Supplementary figure 1. K⁺-induced hyperemia is unaffected by surgical procedures. (A) Left: Baseline and peak distance–time plots of capillary line scans showing hyperemia to the ejection of 10 mM K⁺ onto a capillary after sham surgery. Right: typical experimental time-course of RBC flux binned at 1-s intervals before and after pressure ejection of 10 mM K⁺ (300 ms, 5 ± 1 psi; grey arrow) onto a capillary, demonstrating hyperemia to K⁺ delivery. Summary data showing (B) RBC flux in response to 10 mM K⁺ in sham control mice (21 ± 11 vs. 36 ± 16 cells/s, n=5 paired experiments, 5 mice; *p=0.003, paired t-test) and (C) comparison of flux change in response to 10 mM K⁺ in naïve and sham control mice (14 ± 7 vs. 15 ± 5 cells/s, p=0.804, unpaired t-test). Bar graph summarizing (D) arteriole diameter before and after capillary application of 10 mM K⁺ in sham control mice (11.2 ± 0.86 μm vs. 13.4 ± 1.10 μm, n=5

paired experiments, 5 mice; * $p=0.008$, paired t-test) and (E) comparison of diameter change with 10 mM K^+ in naïve and sham control mice ($p=0.6912$, unpaired t-test).