

Supplementary Table 1. Comparison of platelet aggregation rates estimated by the light scattering method between baseline and after night-shift work ($n = 11$)

SPA	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
Log SMAX	3.8 (3.5–4.0)	3.8(3.5–3.8)	-0.0 (-0.2 to 0.2)	.949
Log SAUC	6.3 (5.9–6.4)	6.2 (6.0–6.4)	0.0 (-0.1 to 0.2)	.586
Log TMAX	3.9 (3.6–4.0)	3.8 (3.7–4.0)	0.0 (-0.2 to 0.2)	.844
Log TAUC	6.3 (6.0–6.4)	6.2 (6.1–6.4)	0.0 (-0.1 to 0.2)	.547
ADP (0.5 μ M)	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
Log SMAX	5.3 (5.2–5.3)	5.3 (5.2–5.3)	-0.0 (-0.0 to 0.0)	.969
Log SAUC	7.4 (7.0–7.8)	7.3 (6.9–7.6)	-0.6 (-0.2 to 1.0)	.413
Log TMAX	5.5 (5.2–5.6)	5.4 (5.3–5.5)	-0.0 (-0.1 to 0.0)	.493
Log TAUC	7.4 (7.1–8.0)	7.3 (6.9–7.7)	-0.1 (-0.2 to 0.0)	.105
Collagen (0.1 μ g/ml)	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
Log SMAX	4.5 (4.1–5.1)	4.2 (4.1–5.1)	-0.1 (-0.5 to 0.2)	.385
Log SAUC	6.9 (6.5–7.2)	6.7 (6.6–7.1)	-0.1 (-0.4 to 0.2)	.583
Log TMAX	4.5 (4.1–5.3)	4.2 (4.1–5.3)	-0.1 (-0.5 to 0.3)	.630
Log TAUC	6.9 (6.5–7.5)	6.7 (6.7–7.8)	-0.0 (-0.5 to 0.4)	.868
Epinephrine (0.1 μ M)	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
Log SMAX	4.7 (4.3–5.3)	4.7 (4.5–5.1)	-0.0 (-0.3 to 0.2)	.840
Log SAUC	7.3 (6.8–7.6)	7.1 (7.0–7.6)	-0.0 (-0.2 to 0.2)	.975
Log TMAX	4.7 (4.3–5.5)	4.7 (4.5–5.1)	-0.1 (-0.4 to 0.2)	.662
Log TAUC	7.3 (6.8–7.8)	7.1 (7.0–7.6)	-0.0 (-0.3 to 0.2)	.691
Epinephrine (0.25 μ M)	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
Log SMAX	5.3 (4.6–5.3)	5.1 (4.8–5.3)	0.0 (-0.2 to 0.2)	.973
Log SAUC	7.6 (7.2–7.8)	7.6 (7.4–7.8)	0.0 (-0.2 to 0.2)	.882
Log TMAX	5.3 (4.6–5.5)	5.1 (4.8–5.4)	-0.0 (-0.3 to 0.3)	.930
Log TAUC	7.8 (7.2–8.0)	7.6 (7.5–8.0)	-0.0 (-0.2 to 0.2)	.918

SPA, spontaneous platelet aggregation; ADP, adenosine 5'-diphosphate; SMAX, the maximum light intensity scattered by small aggregates; SAUC, the area under the light intensity curve for small aggregates; TMAX, the maximum of the sum of light intensities scattered by small, medium, and large aggregates; TAUC, the sum of the areas under the light scattering intensity curves of small, medium, and large aggregates; IQR, interquartile range; post-shift—baseline, difference in parameter values between baseline and after night-shift work; CI, confidence interval. Median values were compared using paired t -tests.

Supplementary Table 2. Comparison of serum concentrations of eicosanoid mediators between baseline and after night-shift work ($n = 11$)

Cox-metabolized eicosanoid mediator	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
TxB ₂ , ng/ml	65.3 (23.1–169.4)	180.4 (93.5–258.9)	99.7 (14.4 to 184.9)	.026
11-dehydro TxB ₂ , ng/ml	1.8 (0.8–3.9)	3.4 (1.6–6.2)	2.0 (–0.6 to 4.6)	.122
12-HHT, ng/ml	44.4 (17.2–107.7)	116.7 (67.1–156.9)	57.3 (1.2 to 113.5)	.046
PGE ₂ , ng/ml	1.0 (0.3–4.0)	4.1 (1.8–6.2)	2.8 (0.1 to 5.5)	.042
PGF _{2α} , ng/ml	0.4 (0.2–1.3)	1.2 (0.7–1.8)	0.7 (0.1 to 1.2)	.032
PGD ₂ , ng/ml	0.3 (0.1–0.7)	1.1 (0.4–2.9)	0.6 (–0.04 to 2.9)	.010 [†]
Tetranor-PGEM, pg/ml	326.0 (299.0–371.5)	331.0 (304.0–413.0)	19.8 (–51.0 to 90.5)	.547
8-iso-PGE ₂ , pg/ml	95.0 (27.5–433.0)	404.5 (185.0–549.0)	239.3 (–19.5 to 498.1)	.066
15-HETE, ng/ml	1.8 (1.0–5.3)	4.9 (3.5–8.4)	2.8 (0.1 to 5.4)	.043
11-HETE, ng/ml	2.6 (0.9–5.9)	6.9 (3.8–9.6)	3.6 (0.6 to 6.6)	.024
12-LOX-metabolized eicosanoid mediator	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
12-HETE, ng/ml	24.0 (11.9–46.5)	32.3 (20.9–80.5)	28.3 (–3.5 to 60.1)	.075
5-HETE, pg/ml	451.5 (336.0–1045.5)	407.0 (258.5–480.5)	–231.4 (–405.4 to –57.4)	.014
CYP-metabolized eicosanoid mediator	Baseline median (IQR)	After the shift median (IQR)	Post-shift—baseline mean (95% CI)	p -value
20-Carboxy-AA, ng/ml	2.2 (1.6–2.5)	2.3 (1.7–2.9)	0.1 (–0.4 to 0.6)	.631
14,15-DHET, pg/ml	231.5 (159.5–322.0)	216.0 (187.5–255.5)	–23.0 (–72.9 to 27.0)	.330
11,12-DHET, pg/ml	160.0 (109.5–200.5)	142.0 (104.5–186.5)	–10.8 (–52.8 to 31.1)	.578
9-HETE, ng/ml	0.8 (0.4–2.2)	1.4 (0.9–3.5)	1.2 (–0.2 to 2.7)	.093
8-HETE, pg/ml	128.5 (66.5–170.5)	128.5 (83.5–220.5)	38.7 (–28.8 to 106.1)	.230

COX, cyclooxygenase; TxB₂, thromboxane B₂; 12-HHT, 12-hydroxyheptadecatrienoic acid; PG, prostaglandin; PGEM, prostaglandin E metabolite; HETE, hydroxyeicosatetraenoic acid; LOX, lipoxygenase; CYP, cytochrome P450; AA, arachidonic acid; DHET, dihydroxyeicosatrienoic acid; IQR, interquartile range; post-shift—baseline, difference in parameter values between baseline and after night-shift work; CI, confidence interval. [†]Wilcoxon signed-rank test, all other comparisons used paired t -tests.