

<b>Supplementary Table 1. Impact of LUR NO<sub>x</sub> (per IQR) on Uterine Artery Resistance</b>										
		Visit 1		Visit 2		Visit 3				
		n: ≥/ <90th	Model 1 <sup>a</sup>	n: ≥/ <90th	Model 1 <sup>a</sup>	n: ≥/ <90th	Model 1 <sup>a</sup>			
<b>Pulsatility index</b>										
Per SD (Beta, 95%CI)			0.01 -0.10, 0.12		0.07 -0.04, 0.18		0.11	0.00, 0.23		
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	56/502	1.01	0.69, 1.49	53/486	1.04	0.71, 1.53	49/437	1.53	1.03, 2.28	
<b>Resistance index</b>										
Per SD (Beta, 95%CI)			0.01 -0.10, 0.12		0.07 -0.04, 0.18		0.12	0.01, 0.24		
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	56/502	1.00	0.68, 1.46	54/485	0.94	0.64, 1.39	48/438	1.47	0.99, 2.18	
<b>S/D ratio</b>										
Per SD (Beta, 95%CI)			-0.02 -0.13, 0.09		0.06 -0.05, 0.17		0.12	0.01, 0.23		
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	55/503	1.11	0.76, 1.62	54/485	1.07	0.73, 1.56	48/438	1.66	1.12, 2.44	
<b>Presence of notching</b>										
Unilateral (Odds ratio, 95% CI)		133/420	1.21	0.94, 1.55	124/412	1.17	0.92, 1.51	117/368	1.10	0.85, 1.43
Bilateral (Odds ratio, 95% CI)		230/323	0.98	0.76, 1.27	128/408	0.96	0.72, 1.28	116/369	1.12	0.83, 1.51

a. Models adjusted for maternal age, pre-pregnancy BMI, infant sex, parity, marital status, payment for prenatal care, maternal smoking, maternal race, maternal education

<b>Supplementary Table 2. Impact of LUR NO<sub>2</sub> (per IQR) on Uterine Resistance by Smoking Status</b>									
<b>Among Never Smokers</b>									
		Visit 1			Visit 2			Visit 3	
	n: ≥/ <90 <sup>th</sup>	Model 1 <sup>a</sup>		n: ≥/ <90 <sup>th</sup>	Model 1 <sup>a</sup>		n: ≥/ <90 <sup>th</sup>	Model 1 <sup>a</sup>	
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		0.06	-0.06, 0.17		0.10	-0.01, 0.22		0.17	0.05, 0.29
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	35/323	1.39	0.91, 2.12	25/318	1.16	0.74, 1.84	30/286	1.71	1.06, 2.76
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		0.06	-0.06, 0.18		0.11	-0.01, 0.22		0.18	0.06, 0.31
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	36/322	1.39	0.91, 2.12	24/319	1.05	0.66, 1.66	28/287	1.68	1.03, 2.72
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		0.02	-0.09, 0.13		0.09	-0.02, 0.20		0.15	0.03, 0.27
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	32/326	1.39	0.91, 2.13	29/314	1.18	1.13, 2.86	28/287	1.80	1.13, 2.86
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	89/266	1.06	0.79, 1.42	89/252	0.95	0.72, 1.26	80/236	1.13	0.83, 1.53
Bilateral (Odds ratio, 95% CI)	141/214	1.07	0.79, 1.44	69/272	1.12	0.80, 1.59	77/239	1.02	0.72, 1.46
<b>Among Former Smokers</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		-0.03	-0.31, 0.26		0.07	-0.21, 0.36		0.13	-0.16, 0.41
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	12/87	0.85	0.31, 2.37	11/83	1.31	0.45, 3.81	11/79	2.38	0.77, 7.38
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		-0.03	-0.31, 0.25		0.08	-0.21, 0.36		0.13	-0.16, 0.41
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/88	0.82	0.29, 2.34	11/83	1.33	0.46, 3.84	10/80	2.20	0.69, 6.94
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		-0.04	-0.34, 0.25		0.02	-0.28, 0.32		0.19	-0.11, 0.49
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	13/86	1.22	0.44, 3.32	11/83	1.45	0.50, 4.20	12/78	1.98	0.68, 5.80
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	23/75	1.41	0.75, 2.66	16/77	1.03	0.52, 2.04	23/67	1.74	0.91, 3.32

Bilateral (Odds ratio, 95% CI)	44/54	1.21	0.64, 2.28	25/68	1.15	0.56, 2.39	22/68	1.18	0.56, 2.48
<b>Among Smokers</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		-0.13	-0.41, 0.15		-0.07	-0.35, 0.21		-0.10	-0.40, 0.19
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	9/92	0.34	0.10, 1.23	17/84	0.55	0.23, 1.31	8/71	0.95	0.33, 2.71
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		-0.11	-0.39, 0.18		-0.06	-0.34, 0.22		-0.08	-0.38, 0.21
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	9/92	0.16	0.03, 0.75	19/82	0.46	0.19, 1.07	9/70	0.91	0.33, 2.49
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		-0.19	-0.47, 0.10		-0.08	-0.36, 0.21		-0.11	-0.41, 0.20
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	10/91	0.28	0.08, 0.99	14/87	0.49	0.19, 1.25	7/72	1.04	0.35, 3.13
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	21/79	0.82	0.42, 1.59	19/82	1.34	0.71, 2.53	14/64	0.37	0.15, 0.90
Bilateral (Odds ratio, 95% CI)	45/55	1.46	0.76, 2.80	34/67	1.07	0.55, 2.11	17/61	4.16	1.73, 10.02

a. Models adjusted for maternal age, pre-pregnancy BMI, infant sex, parity, marital status, payment for prenatal care, maternal race, maternal education

<b>Supplementary Table 3. Impact of CALINE NOx<sup>a</sup> on Uterine Resistance by Smoking Status</b>									
<b>Among Never Smokers</b>									
		Visit 1			Visit 2			Visit 3	
	n: ≥/ <90 <sup>th</sup>	Model 1 <sup>b</sup>		n: ≥/ <90 <sup>th</sup>	Model 1 <sup>b</sup>		n: ≥/ <90 <sup>th</sup>	Model 1 <sup>b</sup>	
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		0.02	-0.10, 0.14		-0.00	-0.11, 0.11		0.13	0.00, 0.25
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	35/323	1.11	0.71, 1.74	25/318	0.90	0.57, 1.43	30/286	1.12	0.69, 1.82
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		0.02	-0.10, 0.14		0.01	-0.11, 0.12		0.14	0.01, 0.27
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	36/322	1.11	0.71, 1.74	24/319	0.86	0.54, 1.38	28/287	1.15	0.70, 1.88
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		-0.05	-0.17, 0.07		-0.03	-0.14, 0.08		0.11	-0.02, 0.24
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	32/326	1.22	0.77, 1.92	29/314	1.06	0.69, 1.65	28/287	1.36	0.84, 2.23
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	89/266	1.03	0.75, 1.41	89/252	1.01	0.75, 1.35	80/236	1.22	0.88, 1.71
Bilateral (Odds ratio, 95% CI)	141/214	0.92	0.67, 1.26	69/272	1.01	0.71, 1.42	77/239	0.88	0.62, 1.26
<b>Among Former Smokers</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		-0.01	-0.28, 0.27		0.07	-0.18, 0.33		0.13	-0.13, 0.39
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	12/87	1.05	0.32, 3.47	11/83	1.43	0.46, 4.39	11/79	1.01	0.34, 3.01
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		0.01	-0.27, 0.28		0.06	-0.20, 0.32		0.13	-0.13, 0.39
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/88	1.25	0.36, 4.28	11/83	1.45	0.48, 4.40	10/80	1.05	0.34, 3.28
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		-0.03	-0.32, 0.26		0.06	-0.21, 0.33		0.11	-0.16, 0.38
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	13/86	1.12	0.35, 3.57	11/83	1.27	0.40, 4.03	12/78	0.96	0.33, 2.77
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	23/75	1.22	0.60, 2.49	16/77	0.71	0.36, 1.41	23/67	1.60	0.81, 3.14

Bilateral (Odds ratio, 95% CI)	44/54	1.01	0.51, 2.00	25/68	0.86	0.42, 1.77	22/68	0.98	0.46, 2.05
<b>Among Smokers</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95% CI)		0.14	-0.12, 0.40		0.00	-0.24, 0.25		0.15	-0.12, 0.42
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	9/92	1.10	0.35, 3.38	17/84	0.87	0.37, 2.00	8/71	1.95	0.63, 6.07
<b>Resistance index</b>									
Per SD (Beta, 95% CI)		0.17	-0.09, 0.42		-0.00	-0.25, 0.25		0.15	-0.12, 0.43
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	9/92	0.82	0.27, 2.46	19/82	0.72	0.32, 1.59	9/70	1.43	0.50, 4.13
<b>S/D ratio</b>									
Per SD (Beta, 95% CI)		0.08	-0.19, 0.35		0.06	-0.20, 0.31		0.30	0.01, 0.59
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	10/91	0.89	0.29, 2.72	14/87	0.81	0.33, 1.95	7/72	2.66	0.80, 8.82
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	21/79	1.13	0.57, 2.25	19/82	1.52	0.79, 2.91	14/64	0.76	0.36, 1.60
Bilateral (Odds ratio, 95% CI)	45/55	1.10	0.55, 2.18	34/67	0.87	0.44, 1.74	17/61	3.12	1.29, 7.59

a. IQR for natural log-scaled values

b. Models adjusted for maternal age, pre-pregnancy BMI, infant sex, parity, marital status, payment for prenatal care, maternal race, and maternal education

<b>Supplementary Table 4. Impact of LUR NO<sub>2</sub> (per IQR) on uterine resistance by race</b>										
		Visit 1		Visit 2		Visit 3				
		n: ≥/ <90th	Model 1 <sup>a</sup>	n: ≥/ <90th	Model 1 <sup>a</sup>	n: ≥/ <90th	Model 1 <sup>a</sup>			
<b>Among Whites (n=124)</b>										
<b>Pulsatility index</b>										
Per SD (Beta, 95% CI)			-0.02	-0.23, 0.19		0.14	-0.07, 0.35		0.03	-0.19, 0.26
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	10/112	0.94	0.36, 2.44	6/114	1.62	0.53, 5.00	7/100	1.71	0.57, 5.10	
<b>Resistance index</b>										
Per SD (Beta, 95% CI)			-0.01	-0.22, 0.21		0.13	-0.09, 0.34		0.04	-0.19, 0.27
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/111	0.96	0.38, 2.39	6/114	1.59	0.52, 4.93	7/100	1.67	0.57, 4.90	
<b>S/D ratio</b>										
Per SD (Beta, 95% CI)			-0.09	-0.29, 0.12		0.15	-0.05, 0.36		0.04	-0.18, 0.25
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/111	0.97	0.39, 2.41	6/114	1.72	0.60, 4.94	10/97	1.66	0.66, 4.20	
<b>Presence of notching</b>										
Unilateral (Odds ratio, 95% CI)		24/97	1.01	0.57, 1.78	24/96	0.84	0.47, 1.52	30/77	0.80	0.45, 1.42
Bilateral (Odds ratio, 95% CI)		62/59	1.13	0.64, 1.98	35/85	1.55	0.86, 2.79	28/79	1.57	0.81, 3.04
<b>Among African Americans (n=238)</b>										
<b>Pulsatility index</b>										
Per SD (Beta, 95% CI)			0.06	-0.14, 0.25		-0.00	-0.20, 0.19		0.01	-0.21, 0.23
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.34	0.67, 2.69	29/196	1.12	0.60, 2.10	17/178	0.73	0.31, 1.71	
<b>Resistance index</b>										
Per SD (Beta, 95% CI)			0.05	-0.15, 0.25		0.02	-0.19, 0.22		0.00	-0.22, 0.22
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.23	0.62, 2.43	32/193	1.01	0.56, 1.86	18/177	0.79	0.34, 1.83	
<b>S/D ratio</b>										
Per SD (Beta, 95% CI)			0.03	-0.17, 0.23		-0.05	-0.25, 0.15		0.02	-0.20, 0.24
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.55	0.76, 3.15	28/197	1.04	0.56, 1.93	14/181	0.94	0.38, 2.36	
<b>Presence of notching</b>										
Unilateral (Odds ratio, 95% CI)		63/170	0.88	0.56, 1.38	54/170	1.28	0.81, 2.00	41/154	1.73	0.98, 3.06
Bilateral (Odds ratio, 95% CI)		76/157	1.19	0.74, 1.92	52/172	1.12	0.66, 1.90	42/153	0.77	0.42, 1.43
<b>Among Hispanics (n=173)</b>										

<b>Pulsatility index</b>										
	Per SD (Beta, 95% CI)		0.01	-0.18, 0.19		0.07	-0.11, 0.26		0.19	-0.01, 0.38
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	22/148	0.82	0.42, 1.59	15/149	0.99	0.46, 2.12	23/134	2.04	1.03, 4.04
<b>Resistance index</b>										
	Per SD (Beta, 95% CI)		0.02	-0.17, 0.20		0.07	-0.12, 0.26		0.20	0.01, 0.39
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	22/148	0.86	0.45, 1.66	13/151	0.82	0.37, 1.83	22/135	2.00	1.00, 3.97
<b>S/D ratio</b>										
	Per SD (Beta, 95% CI)		-0.04	-0.22, 0.14		0.08	-0.10, 0.26		0.17	-0.01, 0.36
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	19/151	0.80	0.40, 1.61	17/147	0.94	0.46, 1.93	21/136	2.32	1.14, 4.72
<b>Presence of notching</b>										
	Unilateral (Odds ratio, 95% CI)	37/132	1.43	0.88, 2.32	38/124	1.23	0.78, 1.95	37/119	0.93	0.57, 1.50
	Bilateral (Odds ratio, 95% CI)	80/89	0.89	0.57, 1.41	35/127	0.65	0.38, 1.11	42/114	1.06	0.64, 1.76

a. Models adjusted for maternal age, pre-pregnancy BMI, infant sex, parity, marital status, payment for prenatal care, maternal smoking, and maternal education

<b>Supplementary Table 5. Impact of CALINE NOx (per IQR) on uterine resistance by race</b>									
		Visit 1			Visit 2			Visit 3	
	n: ≥/ <90th		Model 1 <sup>a</sup>	n: ≥/ <90th		Model 1 <sup>a</sup>	n: ≥/ <90th		Model 1 <sup>a</sup>
<b>Among Whites (n=124)</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95%CI)		-0.00	-0.21, 0.20		0.06	-0.13, 0.25		0.09	-0.10, 0.29
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	10/112	1.14	0.37, 3.53	6/114	1.28	0.38, 4.31	7/100	1.56	0.48, 5.11
<b>Resistance index</b>									
Per SD (Beta, 95%CI)		0.02	-0.19, 0.23		0.07	-0.13, 0.26		0.10	-0.11, 0.30
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/111	1.06	0.36, 3.15	6/114	1.36	0.40, 4.56	7/100	1.58	0.48, 5.20
<b>S/D ratio</b>									
Per SD (Beta, 95%CI)		-0.09	-0.29, 0.12		0.04	-0.15, 0.23		0.12	-0.08, 0.31
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	11/111	0.93	0.34, 2.59	6/114	1.47	0.45, 4.85	10/97	1.68	0.61, 4.61
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	24/97	0.93	0.50, 1.74	24/96	0.78	0.45, 1.37	30/77	1.04	0.61, 1.77
Bilateral (Odds ratio, 95% CI)	62/59	0.98	0.55, 1.76	35/85	1.15	0.63, 2.09	28/79	1.06	0.56, 1.99
<b>Among African Americans (n=238)</b>									
<b>Pulsatility index</b>									
Per SD (Beta, 95%CI)		0.01	-0.15, 0.17		-0.08	-0.23, 0.07		0.03	-0.13, 0.20
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.38	0.73, 2.60	29/196	0.94	0.55, 1.59	17/178	0.82	0.42, 1.59
<b>Resistance index</b>									
Per SD (Beta, 95%CI)		-0.01	-0.17, 0.16		-0.08	-0.24, 0.07		0.02	-0.15, 0.19
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.29	0.68, 2.42	32/193	0.90	0.54, 1.48	18/177	0.78	0.41, 1.50
<b>S/D ratio</b>									
Per SD (Beta, 95%CI)		-0.05	-0.22, 0.13		-0.06	-0.22, 0.10		0.13	-0.05, 0.31
≥ vs. <90 <sup>th</sup> percentile (Odds ratio, 95% CI)	21/215	1.64	0.84, 3.21	28/197	1.00	0.60, 1.69	14/181	1.17	0.57, 2.41
<b>Presence of notching</b>									
Unilateral (Odds ratio, 95% CI)	63/170	1.22	0.81, 1.85	54/170	1.17	0.80, 1.73	41/154	1.24	0.78, 1.95
Bilateral (Odds ratio, 95% CI)	76/157	0.70	0.46, 1.07	52/172	0.78	0.51, 1.19	42/153	0.68	0.42, 1.11



<b>Among Hispanics (n=173)</b>										
<b>Pulsatility index</b>										
	Per SD (Beta, 95% CI)		0.07	-0.13, 0.26		0.13	-0.06, 0.32		0.20	-0.01, 0.41
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	22/148	0.75	0.36, 1.58	15/149	1.23	0.54, 2.78	23/134	1.10	0.52, 2.33
<b>Resistance index</b>										
	Per SD (Beta, 95% CI)		0.08	-0.12, 0.28		0.13	-0.06, 0.32		0.23	0.01, 0.45
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	22/148	0.95	0.47, 1.95	13/151	1.23	0.52, 2.91	22/135	1.20	0.56, 2.58
<b>S/D ratio</b>										
	Per SD (Beta, 95% CI)		0.02	-0.17, 0.21		0.09	-0.09, 0.27		0.11	-0.09, 0.32
≥ vs. <90 <sup>th</sup>	percentile (Odds ratio, 95% CI)	19/151	0.83	0.38, 1.78	17/147	1.28	0.59, 2.78	21/136	1.23	0.57, 2.66
<b>Presence of notching</b>										
	Unilateral (Odds ratio, 95% CI)	37/132	1.43	0.85, 2.40	38/124	1.38	0.84, 2.26	37/119	1.14	0.65, 2.02
	Bilateral (Odds ratio, 95% CI)	80/89	1.02	0.63, 1.65	35/127	0.92	0.53, 1.58	42/114	1.52	0.85, 2.75

a. IQR for natural log-scaled values

b. Models adjusted for maternal age, pre-pregnancy BMI, infant sex, parity, marital status, payment for prenatal care, maternal smoking, and maternal education