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Monocytes (x10E3/uL)*	0.08	0.02	0.001	0.11	0.03	<.0001	0.10	0.04	0.006	0.13	0.04	0.001	0.13	0.03	0.0001	0.04	0.03	0.08
Eosinophils (x10E3/uL)*§	0.06	0.04	0.13	0.10	0.05	0.03	0.10	0.07	0.12	0.10	0.07	0.14	0.10	0.06	0.08	0.04	0.04	0.3

All models adjusted for sex (male,female), age in years (<35,35-50,>50), race (White,Black,Other), Body Mass Index (<24.9,25.0-29.9,>30), alcohol consumption (not current drinker,fewer than 7 drinks per week,more than 7 drinks per week), education (Less than high school or equivalent,High school diploma or GED,Some college or 2 year degree,4 year college graduate), and household annual income (<$20000,$20001-$50000,>$50000).

*ln-transformed.

**Tobacco smoke-unexposed participants reported no primary tobacco use, less than 30 minutes of passive smoke exposure, and had blood 2,5-DMF concentrations less than 14 ng/L.

***Tobacco smoke-exposed participants either reported primary tobacco use, 30 or more minutes of passive smoke exposure, or had blood 2,5-DMF concentrations greater than or equal to 14 ng/L.

§Participants with eosinophil percentrage equal to zero were assigned a value of 0.5% to permit ln-transform.

Highlights

- Among tobacco smoke-unexposed participants, we observed inverse associations between blood benzene concentrations and hemoglobin concentration and mean corpuscular hemoglobin concentration, and a positive association with red cell distribution width.
- Among tobacco smoke-exposed participants, we observed positive associations between blood VOC concentrations and several hematologic parameters, including increased white blood cell and platelet counts, suggestive of hematopoietic stimulation typically associated with tobacco smoke exposure.
- Most associations with were stronger for benzene than for the other VOCs.

Supplemental Table S1. Associations between blood BTEXS concentrations and hematologic parameters by three-level quantiles.

	Benzene			Toluene			Ethylbenzene			o-Xylene			m/p-Xylene			Styrene		
	1st Quantile (n=93)	2nd Quantile (n=25)	3rd Quantile (n=24)	1st Quantile (n=49)	2nd Quantile (n=47)	3rd Quantile (n=48)	1st Quantile (n=64)	2nd Quantile (n=20)	3rd Quantile (n=21)	1st Quantile (n=87)	2nd Quantile (n=27)	3rd Quantile (n=28)	1st Quantile (n=49)	2nd Quantile (n=48)	3rd Quantile (n=49)	1st Quantile (n=58)	2nd Quantile (n=41)	3rd Quantile (n=42)

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Population	Hematologic Parameter	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error	)	Effect Estimate	Standard Error	Effect Estimate	Standard Error
Tobacco Smoke-Unexposed	RBC (x10E6/uL)	REF	-0.13	0.09	-0.02	0.10	REF	0.07	0.09	-0.04	0.09	REF	0.22	0.11	-0.10	0.12	REF	-0.08	0.10	-0.18	0.09	REF	0.10	0.09	-0.10	0.08	REF	0.00	0.09	0.03	0.09
	Hemoglobin (g/dL)	REF	-0.23	0.24	-0.75	0.25	REF	0.31	0.24	-0.03	0.22	REF	0.46	0.29	-0.33	0.31	REF	-0.27	0.25	-0.47	0.24	REF	0.35	0.22	-0.32	0.22	REF	0.07	0.23	-0.04	0.23
	Hematocrit (%)	REF	-0.59	0.70	-0.69	0.75	REF	-0.14	0.68	-0.63	0.64	REF	1.97	0.82	-0.81	0.88	REF	-0.74	0.71	-1.87	0.68	REF	0.65	0.64	-1.30	0.62	REF	0.44	0.65	0.32	0.66
	Mean Corpuscular Volume (fL)	REF	1.22	1.20	-2.12	1.28	REF	-1.26	1.19	-0.47	1.12	REF	-0.58	1.52	-0.08	1.63	REF	-0.22	1.27	-0.77	1.22	REF	-0.79	1.15	-1.02	1.12	REF	0.76	1.15	-0.23	1.15
	Mean Corpuscular Hemoglobin Concentration (g/dL)	REF	0.02	0.24	-0.84	0.25	REF	0.60	0.23	0.27	0.22	REF	-0.07	0.26	-0.07	0.28	REF	-0.19	0.25	0.35	0.24	REF	0.50	0.23	0.32	0.22	REF	-0.11	0.23	-0.08	0.23
	Red Cell Distribution Width (%)	REF	-0.10	0.23	0.73	0.24	REF	0.09	0.23	-0.06	0.22	REF	0.24	0.27	-0.11	0.28	REF	-0.16	0.24	-0.27	0.23	REF	-0.18	0.22	-0.18	0.22	REF	-0.01	0.21	0.02	0.22

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Population	Hematologic Para	Benzene				Toluene				Ethylbenzene				o-Xylene				m/p-Xylene				Styrene			
		1st Quantile (n=82)		2nd Quantile (n=79)		1st Quantile (n=80)		2nd Quantile (n=82)		1st Quantile (n=60)		2nd Quantile (n=62)		1st Quantile (n=79)		2nd Quantile (n=80)		1st Quantile (n=82)		2nd Quantile (n=80)		1st Quantile (n=77)		2nd Quantile (n=80)		2nd Quantile (n=77)	
		Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan	Effect	Stan
	Platelets (x10E6/uL)	REF		1.12	13.49	-11.45	14.43	REF		0.27	13.07	-21.45	12.20	REF		19.40	15.91	-37.68	17.03	REF		8.31	13.73	-29.75	13.15	REF		-13.67	12.67	-22.40	12.29	REF		-8.59	12.75	-19.70	12.85
	WBC (x10E3/uL)*	REF		0.08	0.06	0.08	0.07	REF		0.06	0.06	0.05	0.06	REF		0.05	0.07	0.07	0.08	REF		0.06	0.07	0.02	0.06	REF		0.07	0.06	0.05	0.06	REF		0.04	0.06	0.04	0.06
	eutrophils (x10E3/uL)*	REF		0.08	0.09	0.11	0.10	REF		0.06	0.09	0.07	0.08	REF		0.19	0.11	0.18	0.11	REF		0.08	0.09	0.08	0.09	REF		0.12	0.09	0.11	0.08	REF		0.00	0.08	0.05	0.09
	ymphocytes (x10E3/uL)*	REF		0.06	0.06	0.08	0.06	REF		-0.01	0.06	-0.01	0.06	REF		-0.03	0.07	-0.06	0.07	REF		0.01	0.06	-0.02	0.06	REF		0.00	0.06	-0.03	0.06	REF		0.06	0.06	0.06	0.06
	onocytes (x10E3/uL)*	REF		0.14	0.09	-0.11	0.10	REF		0.16	0.09	0.06	0.08	REF		0.10	0.09	0.07	0.10	REF		0.04	0.10	-0.01	0.09	REF		0.19	0.09	0.09	0.08	REF		0.07	0.09	0.14	0.09
	osinophils (x10E3/uL)*§	REF		0.03	0.15	0.20	0.16	REF		0.38	0.15	0.13	0.14	REF		0.04	0.20	-0.28	0.20	REF		0.05	0.16	-0.14	0.15	REF		0.32	0.14	0.08	0.14	REF		0.10	0.14	0.11	0.15

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	meter		ctEstimate	drdEEr	ctEstimate	drdEEr		ctEstimate	drdEEr	ctEstimate	drdEEr		ctEstimate	drdEEr	ctEstimate	drdEEr		ctEstimate	drdEEr	ctEstimate	drdEEr		ctEstimate	drdEEr	ctEstimate	drdEEr		ctEstimate	drdEEr	ctEstimate	drdEEr
	RBC (x10E6/uL)	REF	0.11	0.08	0.20	0.08	REF	0.10	0.08	0.28	0.08	REF	-0.01	0.08	0.19	0.09	REF	0.05	0.08	0.16	0.08	REF	0.06	0.08	0.18	0.08	REF	0.01	0.08	0.07	0.08
	Hemoglobin (g/dL)	REF	0.48	0.21	0.10	0.22	REF	0.51	0.21	0.13	0.22	REF	0.28	0.24	0.91	0.25	REF	0.62	0.21	0.02	0.22	REF	0.42	0.22	0.96	0.22	REF	0.45	0.22	0.66	0.22
	Hematocrit (%)	REF	1.17	0.56	0.67	0.57	REF	1.12	0.57	0.75	0.58	REF	0.71	0.62	0.46	0.64	REF	1.40	0.56	0.54	0.59	REF	1.00	0.57	0.58	0.57	REF	1.01	0.57	0.72	0.58
To bacco Smoke-Exposed	Mean Corpuscular Volume (fL)	REF	0.93	0.11	0.19	0.12	REF	0.74	0.14	0.95	0.16	REF	1.68	0.05	0.75	0.08	REF	1.86	0.12	0.46	0.17	REF	0.43	0.13	0.24	0.14	REF	0.04	0.09	0.47	0.11
	Mean Corpuscular Hemoglobin Concentration (g/dL)	REF	0.27	0.17	0.52	0.18	REF	0.38	0.18	0.52	0.18	REF	0.15	0.20	0.21	0.21	REF	0.41	0.17	0.43	0.18	REF	0.27	0.18	0.28	0.18	REF	0.32	0.17	0.23	0.18
	Red Cell Distribution Width (%)	REF	-0.11	0.20	-0.31	0.20	REF	-0.11	0.20	-0.32	0.20	REF	-0.32	0.22	-0.17	0.23	REF	0.47	0.19	-0.40	0.20	REF	-0.17	0.20	-0.27	0.20	REF	-0.40	0.19	-0.42	0.19
	Platelets (x10E6/uL)	REF	19.660	11.340	18.830	11.480	REF	9.650	11.380	7.660	11.600	REF	15.560	13.140	5.150	13.610	REF	12.050	11.260	7.690	11.750	REF	11.890	11.280	7.050	11.370	REF	3.670	11.590	6.500	11.790
	WBC	R	0	0	0	0	R	0	0	0	0	R	0	0	0	0	R	0	0	0	0	R	0	0	0	0	R	0	0	0	0

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(x10 E3/uL)*	EF	16	05	29	05	EF	15	05	29	05	EF	11	06	19	06	EF	13	05	20	05	EF	14	05	20	05	EF	10	05	11	05
eutrophils (x10 E3/uL)*	REF	20	07	33	07	REF	15	07	31	07	REF	13	08	19	09	REF	16	07	21	07	REF	17	07	21	07	REF	08	07	10	08
ymphocytes (x10 E3/uL)*	REF	09	05	25	05	REF	15	05	27	05	REF	13	06	24	06	REF	14	05	23	05	REF	12	05	24	05	REF	11	06	13	06
onocytes (x10 E3/uL)*	REF	06	07	26	07	REF	10	07	28	07	REF	09	07	20	08	REF	11	07	22	07	REF	15	07	21	07	REF	16	07	19	07
osinophils (x10 E3/uL)*§	REF	20	12	17	12	REF	24	12	28	12	REF	14	13	17	14	REF	13	12	16	12	REF	14	12	17	12	REF	15	12	11	12

*ln-transformed.
All models adjusted for sex (male,female), age in years (<35,35-50,>50), race (White,Black,Other), Body Mass Index (<24.9,25.0-29.9,>30), alcohol consumption (not current drinker,fewer than 7 drinks per week,more than 7 drinks per week), education (Less than high school or equivalent,High school diploma or GED,Some college or 2 year degree,4 year college graduate), and household annual income (<$20000,$20001-$50000,>$50000).
*Tobacco smoke-unexposed participants reported no primary tobacco use, less than 30 minutes of passive smoke exposure, and had blood 2,5-DMF concentrations less than 14 ng/L.
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