

Erratum: “Associations of Combined Exposures to Surrounding Green, Air Pollution, and Road Traffic Noise with Cardiometabolic Diseases”

Jochem O. Klompaker, Nicole A.H. Janssen, Lizan D. Bloemsa, Ulrike Gehring, Alet H. Wijga, Carolien van den Brink, Erik Lebret, Bert Brunekreef, and Gerard Hoek

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For the interaction analyses, we reported the differences in conditional effects (compared to the reference category) instead of the conditional effects, without clearly stating this and discussing results as conditional effects. We calculated the conditional effects; the association of an exposure (e.g., NDVI 300m) with an outcome (e.g., odds of diabetes) conditioned on the level of another exposure (e.g., OP^{DTT}). P-values for interaction did not change. However, two paragraphs of text and three tables were affected and need to be corrected.

The text below should replace the “Potential for interaction” section in the Results.

We hypothesized that the association with exposure to air pollution is strongest (increased odds) in the highest road traffic noise quintile and vice versa. Further, we hypothesized that the association with air pollution and road traffic noise is strongest (increased odds) in the lowest surrounding green quintile and that the association with surrounding green is strongest (decreased odds) in the lowest air pollution or road traffic noise quintile. The conditional associations showed some indications for multiplicative interactions in the hypothesized directions between combinations of exposure variables and the odds of diabetes (Table 5). In the lowest OP^{DTT} quintiles, an IQR increase in NDVI 300m was associated with lower odds of diabetes, whereas in the highest OP^{DTT} quintiles, no significant association of NDVI 300m was observed. The associations of OP^{DTT} with the odds of diabetes was slightly stronger in the highest road traffic noise quintile compared to the other quintiles. The conditional associations showed no clear pattern of interactions for the odds of hypertension (Table S7). When we assessed interactions using continuous by continuous exposures terms, we found similar patterns as when we used continuous by categorical interaction terms (Table S8).

The following changes should be made to the “Interaction” section in the Discussion.

- The first two sentences, reading “We did not find indications for interactions in the hypothesized direction for any cardiometabolic outcome. Some interaction terms were significant; however, no clear pattern was observed.” should be deleted.
- The last two sentences in the paragraph should be replaced with the following: “Surrounding green was associated with lower odds of diabetes in areas with lower air pollution levels, but not in areas with high air pollution levels. This could be because surrounding green in low air pollution areas might be more aesthetically attractive and therefore have a stronger impact on psychological stress, which could in turn lead to diabetes. Further, for diabetes, we found a very weak indication for potential effect measure modification between OP^{DTT} and road traffic noise. Most other studies reported no indications for interactions between air pollution and road traffic noise (Bodin et al. 2016; Sørensen et al. 2013; Selander et al. 2009), except for Sørensen et al. (2014).”

The authors regret the error and would like to apologize for any inconvenience caused.

Table 5 and Tables S7 and S8 should be replaced with the following:

Table 5. Multiplicative interactions of surrounding green (NDVI 300m), air pollution (OP^{DTT}), and road traffic noise (Lden) on the odds of diabetes.

Stratified exposure variable	Quintile	Linear exposure variable		
		NDVI 300m	OR (95% CI)	
			OP ^{DTT}	Road traffic noise (Lden)
NDVI 300m	Q1 (≤0.44)	—	1.00 (0.94, 1.05)	0.98 (0.95, 1.01)
	Q2 (≤0.50)	—	1.00 (0.94, 1.06)	1.02 (0.99, 1.05)
	Q3 (≤0.55)	—	1.08 (1.02, 1.14)	1.01 (0.98, 1.05)
	Q4 (≤0.61)	—	1.08 (1.02, 1.14)	1.02 (0.99, 1.06)
	Q5 (>0.61)	—	1.09 (1.02, 1.15)	1.00 (0.97, 1.03)
	p.int ^a	—	0.05	0.34
OP ^{DTT}	Q1 (<1.01)	0.89 (0.85, 0.93)	—	1.00 (0.97, 1.02)
	Q2 (≤1.14)	0.88 (0.83, 0.93)	—	1.00 (0.97, 1.03)
	Q3 (≤1.24)	0.91 (0.86, 0.96)	—	1.01 (0.97, 1.04)
	Q4 (≤1.35)	0.99 (0.94, 1.05)	—	1.02 (0.99, 1.05)
	Q5 (>1.35)	1.04 (0.99, 1.10)	—	1.00 (0.97, 1.03)
	p.int ^a	<0.005	—	0.78
Road traffic noise (Lden)	Q1 (<49.3)	0.90 (0.86, 0.95)	1.08 (1.03, 1.13)	—
	Q2 (≤52.0)	0.88 (0.84, 0.93)	1.09 (1.03, 1.14)	—
	Q3 (≤54.7)	0.92 (0.88, 0.97)	1.08 (1.03, 1.14)	—
	Q4 (≤58.7)	0.92 (0.88, 0.96)	1.07 (1.02, 1.13)	—
	Q5 (>58.7)	0.93 (0.90, 0.97)	1.12 (1.07, 1.17)	—
	p.int ^a	0.48	0.78	—

Note: Results of multiplicative interactions are given as OR (95% CI) per 1-unit increase (IQR for NDVI 300m: 0.13; IQR for OP^{DTT}: 0.27 nmol DTT/min/m³, 5 dB for Lden) in quintiles of the second variable (conditional effects). Models were adjusted for sex, age, marital status, region of origin, education, work, standardized household income, smoking habits, number of cigarettes/day, alcohol consumption, number of alcohol glasses/week, physical activity, body mass index and neighborhood socioeconomic status (SES). —, no data; CI, confidence interval; Lden, daily average noise level; NDVI, Normalized Difference Vegetation Index; OP^{DTT}, oxidative potential (OP) metric with dithiothreitol (DTT) assay; OR, odds ratio.

^ap.int shows the p-value for the overall interaction.