

ASSOCIATION BETWEEN AIR POLLUTION AND PAEDIATRIC INTESTINAL INTUSSUSCEPTION IN SEOUL, KOREA: A TIME-SERIES REGRESSION APPROACH

Kiook Baek^{1,2}

¹Department of Preventive Medicine, College of Medicine, Dongguk University Gyeongju, Gyeongju, Republic of Korea

²Department of Occupational and Environmental Medicine, Dongguk University Gyeongju Hospital, Gyeongju, Republic of Korea

Cent Eur J Public Health 2026; 34 (2): 98–104

<https://doi.org/10.21101/cejph.a8806>

Table S1. Annual mean of daily ambient air pollutant concentrations, temperature, and paediatric intestinal intussusception incidence in Seoul (2009–2019)

Year	NO ₂ (ppm) Mean (SD)	PM ₁₀ (µg/m ³) Mean (SD)	O ₃ (ppm) Mean (SD)	CO (ppm) Mean (SD)	SO ₂ (ppm) Mean (SD)	Temp (°C) Mean (SD)	Intussusception (cases/day) Mean (SD)
2009	0.048 (0.015)	54.4 (32.5)	0.014 (0.009)	0.82 (0.35)	0.008 (0.003)	13.0 (10.3)	3.8 (2.2)
2010	0.046 (0.014)	49.5 (29.1)	0.014 (0.009)	0.73 (0.30)	0.007 (0.002)	12.1 (11.1)	4.6 (2.8)
2011	0.046 (0.015)	48.4 (31.3)	0.015 (0.009)	0.67 (0.27)	0.006 (0.002)	12.1 (10.9)	3.7 (2.1)
2012	0.047 (0.015)	42.7 (20.8)	0.016 (0.009)	0.65 (0.25)	0.006 (0.002)	12.3 (11.6)	4.0 (2.2)
2013	0.049 (0.015)	47.2 (24.2)	0.017 (0.010)	0.70 (0.26)	0.007 (0.002)	12.6 (11.2)	4.5 (2.4)
2014	0.043 (0.014)	46.2 (25.7)	0.015 (0.008)	0.58 (0.21)	0.007 (0.001)	13.4 (10.3)	3.7 (2.2)
2015	0.041 (0.013)	46.5 (33.4)	0.018 (0.011)	0.62 (0.24)	0.009 (0.001)	13.6 (10.1)	3.6 (2.0)
2016	0.046 (0.014)	43.9 (17.7)	0.018 (0.010)	0.57 (0.21)	0.008 (0.002)	13.6 (11.0)	4.4 (2.3)
2017	0.041 (0.013)	46.8 (20.1)	0.019 (0.010)	0.55 (0.19)	0.006 (0.001)	13.1 (11.0)	3.3 (2.0)
2018	0.038 (0.014)	40.8 (22.1)	0.021 (0.012)	0.61 (0.24)	0.006 (0.002)	13.0 (11.5)	3.4 (2.0)
2019	0.036 (0.012)	39.9 (22.7)	0.022 (0.012)	0.68 (0.23)	0.004 (0.001)	13.6 (10.2)	3.4 (2.0)

Values are presented as mean (standard deviation) of daily measurements within each calendar year. NO₂ – nitrogen dioxide; PM₁₀ – particulate matter with aerodynamic diameter ≤ 10 µm; O₃ – ozone; CO – carbon monoxide; SO₂ – sulphur dioxide.