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Air pollution from motor vehicles impacts the health of people living, working, driving, or going to school along major roadways. Studies published in a wide range of scientific journals document health effects for people living at various distances from roads with as few as 20,000 vehicles per day (about the amount of traffic on Kirby or a tenth of the traffic on a typical Houston freeway). The health effects appear strongest within 100 meters (about 1 football field) of major roads, but studies show effects up to 300 meters from major roads. Pollutant levels depend mainly upon traffic volume, and to a lesser extent, traffic jam percentage (Carr et al. 2002). In addition, levels of air pollution inside the cabin of a car are often 2-4 times greater than levels outside the car—especially in slow-moving traffic (SCAQMD 1989; Weinhold 2001). A brief summary of recent health effects literature is given below.

- Compared with children exposed to background levels of air pollution, children living near major roads had higher rates of asthma (Guo et al. 1999; Ising et al. 2003; Nicolai et al. 2003; Studnicka et al. 1997; Wong and Lai 2004; Zmirou et al. 2004), hospital admissions for asthma (Buckeridge et al. 2002; Lin et al. 2002), respiratory symptoms, including cough & wheeze (Brauer et al. 2002; Gehring et al. 2002; Janssen et al. 2003; Nicolai et al. 2003; Studnicka et al. 1997; Venn et al. 2001), reduced lung function (Brunekreef et al. 1997), and respiratory infections (Brauer et al. 2002; Buckeridge et al. 2002).
- Infants exposed to high levels of traffic exhaust had a greater risk of developing asthma during childhood (Zmirou et al. 2004).
- Mothers who lived close to heavy-traffic roadways during pregnancy were 10-20% more likely to have a preterm or low birth weight baby (Wilhelm and Ritz 2003).
- Dying from cardiopulmonary (heart and lung) disease was nearly two times more likely if an adult lived within 100 meters of a freeway or 50 meters of a major urban road (Hoek et al. 2002).
- Living near main roads was found to be associated with greater risk of dying from stroke (Maheswaran and Elliott 2003).
- Bus drivers in Denmark were found to be at increased risk of a number of cancers, including lung, larynx, kidney, bladder, skin, pharynx, rectum, and liver cancers (Soll-Johanning et al. 1998).
- Average traffic-related nitrogen dioxide exposure over 30 years was associated with a 20 percent increase in risk for lung cancer for people with the highest exposure (Nafstad et al. 2003; Nyberg et al. 2000).
- Elevated risk for persistent wheezing and chronic phlegm production was found among adults living within 50 meters of heavily trafficked roads in Massachusetts (Garshick et al. 2003).
- Rising obesity levels and impaired mental health with reduced social interactions are associated with car-dependent mobility and development patterns (Bell et al. 2002; Frumkin 2002; Giles-Corti et al. 2003).
- Noise, including the intermittent noise produced by road traffic during the night, can cause noise-induced sleep disturbances which affect sleep quality as well as mood and performance (Griefahn and Spreng 2004).

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