

Human health can also be affected if nitrate from polluted drinking water is ingested. Nitrate has also been linked to higher rates of stomach and esophageal cancer (Bowman et al., 2000). This hinders the ability of the infant's blood to carry oxygen, leading to a blue or purple appearance in affected infants a condition called methemoglobinemia, or blue baby syndrome. Nitrate oxidizes iron in hemoglobin in red blood cells to methemoglobin. Most people convert methemoglobin back to hemoglobin fairly quickly, but infants do not convert it back as fast. Low blood oxygen in adults can lead to birth defects, miscarriages, and poor general health.