The brain of adults exposed to increased lead levels during their childhood also shows a decreased volume, especiallyin the prefrontal cortex on MRI .Lead usually interferes with the neurotransmitter glutamate which is important for many functions, like learning.Lead is able to pass through the endothelial cells at the blood brain barrier because it can substitute for calcium ions and be taken up by calcium–ATPase pumps, thereby interfering with synapse formation.There is apparently no lower threshold to the dose–response relationship below which lead exposure is treated as safe.Blood lead levels lower than 5 ug/dL were found to be associated with reduced academic performance .Increased blood lead levels are also associated with a decrease in cognitive performance and with other psychiatric conditions like depression and anxiety .With increased lead exposure in children, an increase in neuropsychiatric disorders like attention deficit hyperactivity disorder and antisocial behaviour were found .Blood lead levels below 10 ug/dL were reported to be associated with lower IQ and behaviour problems such as aggression, in proportion with the given blood lead level .Another study showed a strong association between preschool blood lead levels and subsequent crime rate trends over several decades across nine countries .The highest lead levels in the air were also shown to deviate normal behaviour and turn to become aggressive and violent, thus for example the highest murder rates were .found in countries with high levels of lead in the air .It operates by blocking NMDA receptors