

Health Effects of Lead for Children

Remember, most people who are lead poisoned present no symptoms at all!

Nervous system

- Brain disease
- Alters function of developing brain
- Alters electroencephalogram [EEG]
- Convulsions
- Cerebral Palsy
- Neurotransmitter release disrupted

Peripheral nervous system

- reduced touch sensitivity
- decreased reaction times
- Foot/ hand drop
- Proprioceptive pathways involved in balance altered
- Dizziness

Growth & development

- Delayed neurodevelopment [e.g. in sitting up, walking, talking]
- Stature and growth rate reduction
- Impaired pituitary-thyroid endocrine system
- Osteoporosis in later years
- Weight loss

Cognitive development

- I.Q. levels decrease
- Cognitive function deficits
- Verbal function / linguistic deficits
- Learning difficulties
- Decreased educational performance
- Decreased reading, math, non-verbal reasoning ability & short term memory, even at blood lead levels less than 10µg/dL
- Autism in genetically predisposed individuals with metallothionein dysfunction

Behaviour

- Aggression, violence, hostility, anti-social or delinquent behavior
- Attention problems; distractibility, restlessness
- Externalizing and internalizing behaviors

- Hyperactive behaviors, difficult to manage
- Inappropriate / uncontrolled behaviors similar to ADD behaviors, increased frequency
- Irritability
- Lethargy
- Increased school absenteeism

Hearing

- Hearing impairment; auditory sensitivity decreased
- Auditory evoked response patterns altered
- Auditory processing altered

Sight

- Retinal degeneration
- Depressed sensitivity of rod photoreceptors
- Perceptual function deficits
- Visuo-spatial skills deficit

Movement and muscular

- Reduced hand-eye coordination
- Fine motor dysfunction
- Motor function deficits
- Impaired muscular strength and endurance
- Paralysis
- aches and pains

Digestive system

- Impaired Vitamin D metabolism affecting bone remodeling, mineral absorption and calcium uptake
- Colic
- Loss of appetite
- Vomiting
- Constipation, diarrhea, anorexia
- Abdominal cramps

Renal (kidneys), blood and circulation

- Renal disease – acute nephropathy
- Queensland nephritis
- Anemia

Death