

Lead Chelation Therapy: For Better or for Worse?

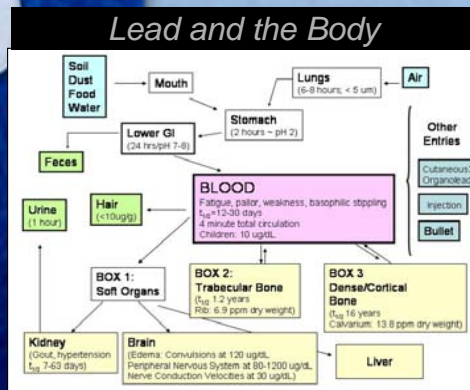
Does lead chelation therapy do the body more harm, or more good?

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Thesis

The debate is whether or not the pros and cons of lead chelation therapy balance each other out. Is the therapy causing more damage to the body than the lead? Or are the cons of the therapy outweighed by getting the lead out of the body?

Analyzing the harmful effect of lead of the body will aid in one making the conclusion that although lead chelation therapy has a number of cons, in the end it is benefiting the body more than it is harming it. The same conclusion could also be made seeing as lead chelation therapy is the only known, effective form of lead removal.



Flow chart from Dr. Alanah Hahn, *Lead And Humanity*, Chapter 8, pg. 361

Conclusion

Although lead chelation is found to have some adverse side effects, in the long run it does help the body more than it hurts it. Lead chelation therapy can help prevent brain damage and mental function impairment in children. Perhaps most importantly it reduces the chances of mortality in acutely lead poisoned patients. (7)

Chelating Agents in the Treatment of Lead Poisoning

Product Name	Generic Name	Chemical Name	Abbreviation
Calcium Disodium Versenate	Edetate disodium calcium	Calcium disodium ethylenediamineeter tracetate	CaNa2EDTA
BAL*in Oil British Anti-Lewisite	Dimercaprol	2,3-dimercapto-1-propanol	BAL
Cuprime	D-Penicillamine	3-mercapto-D-valine	Penicillamine (d-PCN)
Chemet	Succimer	Meso-2,3-dimercaptosuccinic acid	DMSA

Chart from (4)

Pros of Lead Chelation Therapy

- Lowers mortality rate in cases of acute lead poisoning
- Helps prevent brain damage in lead poisoned children
- Aids in prevention of encephalopathy
- Helps treat a gait from that develops in lead poisoned children whose development has been seriously affected

(1,3,6,8,10)

Cons of Lead Chelation Therapy

- Most people who undergo any form of lead chelation therapy experience adverse side effects such as:
 - Possible death associated with hypocalcemia (too much calcium)
 - Severe abdominal cramps
 - Rash
 - Headache
 - Conjunctivitis
 - Unpleasant breath and urine odor
 - Tachycardia
 - General GI upset
 - Hepatic enzyme elevations

(1,2,4,5)

The Future of Lead Chelation Therapy

A number of studies investigating the effectiveness of lead chelation therapy in treatment of other diseases/disorders are currently going on. The following are a few examples of the ongoing studies:

Autism

- It is known that chelation therapy removes lead from children, helping prevent them from brain and mental function damage (eg. lower IQ).

- Scientists at Cornell have discovered that not only does lead chelation therapy improve mental function in lead poisoned rats, but also in the normal control rats.
- Scientists want to test whether or not this will be true in humans as well and whether this therapy could improve the mental function and capacity of those with autism. (9)

Atherosclerosis/ Coronary Heart Disease

- Because a major component of the plaque that builds up in atherosclerosis is calcium, it is thought that these chelating agents may be able to remove the excess calcium.
- Also found that EDTA may be an antioxidant towards low-density lipids, therefore it is thought that this chelation treatment be a form of treatment for coronary heart disease. (4)

Renal Failure

- Several rounds of treatment with EDTA have been shown to slow chronic renal failure (7)

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