



Why is bone lead important?

[Editor's note: the following post by Kids with Lead Poisoning FB Group moderator Dr Ulrich "Rick" Mack, is a good introduction to the author, who is the most recent addition to The LEAD Group's "Lead Away" category of Lead Safe World Partners at <https://leadsafeworld.com/partners/lead-away/>. Dr Mack became a Member of The LEAD Group's Technical Advisory Board on 22nd May 2025 and has since helped multiple LEAD Group clients and more recently FB Group members in multiple countries to understand and overcome their workplace and residential lead exposures. You can see my comment on this post below.]

URL :

<https://www.facebook.com/groups/375900123128937/permalink/1865860550799546/?mibextid=wwXifr&rdid=FkMdRD81hUU4mIz9#>

Rick Mack

Moderator

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I've already talked about bone lead in the two posts about blood lead levels. Bone lead represents a longer-term risk to a child and an adult because even if you can avoid any further lead exposure, you carry your own source of lead in your bones, from previous exposure.

I've stated that bone lead contributes to your blood lead levels, and I've mentioned my wife's chelation cookies, but I haven't yet done a proper job of telling you what chelation is all about. That's next on the list but I want to finish the story on bone lead first.

There have been a lot of clinical studies where they've looked at the effects of chelation on children's blood lead levels. They showed that chelation lowers the blood lead level, **but when chelation is stopped**, blood lead levels go back up. They don't rise as far as before chelation, but that wasn't noted and the increase in blood lead levels after chelation was stopped was called **rebound**. Typically, after 2-3 months the symptoms that had been relieved by chelation often reappeared.

The conclusion in far too many of the studies was that chelation wasn't effective because of the rebound and that "symptoms" returned. The sad fact that really showcases the ignorance about bone lead, is that lead in bone wasn't mentioned. This is despite earlier cadaver analysis that showed that most of the body's lead was in the bones.

Where did they think that the lead responsible for an increase in blood lead levels and the renewed symptoms came from?

In medicine, in any disease condition, we can either treat the symptoms, or look for a cure. Chelation will treat the symptoms, but if we want a cure for lead-poisoning then chelation has to be continued until it gets rid of ALL the lead in bone. The challenge is that it is a very slow process and Medicine likes quick solutions.

If you have a lot of lead in your bones from previous exposure, it can take a long time (many months to years) to get rid of all the lead, even with chelation. But you can speed things up.

< **Kids with Lead Poisoning**





Anything that increases bone resorption will release lead from bone, and IF a chelator is there to remove the lead, it will speed up removal from the body. Calcium competes with lead, so if you have more calcium in your diet, lead is more likely to be replaced by calcium. Vitamin D increases bone resorption and calcium (and lead) absorption from the gut, so If a chelator is present that lead will be removed.

One very real scenario where lead is released more quickly from bone is during pregnancy and breastfeeding, and IF a chelator is present to remove the lead, the risk to the child is much lower. Osteoporosis and blood cancer also release lead from bone, and again, if a chelator is present, it will remove lead.

There have been case studies where older post-menopausal women with dementia symptoms were actually found to be lead-poisoned due to lead released from bone. There are also many neurological conditions which are caused by lead and improved by the removal of lead.

That's perhaps not terribly relevant to children, but overall I'm trying to point out that "natural" processes and situations that cause lead to be released from bone can be used as an opportunity to remove more lead from the body and provide protection.

I'd better add that sulphur-containing foods help displace lead from sulphur-enzymes and a bit of extra zinc is helpful as well in competing with lead in zinc-enzymes. Things like zeolites (TRS) that stop lead being absorbed are quite effective, as long as you're aware that zeolites bind a lot of stuff, some of which is beneficial. There are most certainly toxins (including lead) in the gut and TRS can remove them. But it doesn't remove lead from the body.

The most important goal has to be ridding the body of lead, which ultimately means ridding the bones of lead. A lot of things can help that process, but the most efficient and cost-effective way to remove lead that is in the circulation due to release from bone is using a chelator.

If you're trying to get rid of lead in your children's bodies, you have to be aware there is no quick fix. Chelation will remove the lead affecting their organs and produce fast results in terms of symptom relief, but your children aren't cured of lead poisoning until their bone lead is gone.

COMMENT:

Elizabeth O'Brien

That's very well explained thanks Rick. I would add that if you've requested a blood lead series referral from your child's doctor, then by retesting their blood lead level as frequently as circumstances allow, you track and can figure out when that period of many months or years of chelation can end. And that all the while that you are chelating, you of course need to be ensuring no new lead is coming in - typically by lab testing surface dust wipes, soil, degraded paint, drinking water and foods - AND, most importantly, you need to be doing everything you can to overcome the symptoms of lead poisoning eg by talking and reading to children (a lot!), singing with them, playing puzzles, doing gym or martial arts or dancing and other balance activities, art and writing activities and having their hearing and eyesight tested so you can overcome any deficits early.