



In Geoff's Words...

Why You Must Get The Lead Out

Metal is so prevalent in our society we tend to forget how unnatural it is in its pure form. Take pure lead. It has wonderful properties: easy to form, easy to melt, doesn't corrode easily. Ancient Romans used lead to make water pipes¹ and water tanks.² Lead carbonate, $(\text{PbCO}_3)_2 \cdot \text{Pb}(\text{OH})_2$, called white lead, has been used for over 2000 years as a white pigment.³ More recently, lead tetraethyl $(\text{Pb}(\text{C}_2\text{H}_5)_4)$ was the chief constituent of the anti-knock compound added to gasoline to prevent premature detonation in internal-combustion engines.⁴

Today, all of these uses and more are illegal in the United States because of the dangers of lead poisoning. Lead taken internally in any of its forms is highly toxic; the effects are usually felt after it has accumulated in the body over a period of time. The symptoms of lead poisoning are anemia, weakness, constipation, colic, palsy, and often a paralysis of the wrists and ankles. Flaking lead-based paints and toys made from lead compounds are considered serious hazards for children. Children are especially at hazard from lead, even at levels once thought safe. Lead can reduce intelligence, delay motor development, impair memory, and cause hearing problems and troubles in balance. In adults, one lead hazard at levels once thought safe is that of increased blood pressure.⁵ Was lead a factor in the decline of the Roman Empire?

Unfortunately, there may be a secret source of lead poisoning still in your home! Lead is used as a wick stiffener in some candles. As they burn, the lead goes into the air you breathe, and not insig-

nificantly. The Public Citizen's Health Research Group (HRG) found the level in indoor air sufficient to raise blood levels of lead above the threshold level for brain damage.

In 1974 the candle-making industry promised to stop using lead for stiffening wicks, but HRG found about 10% of candlewicks still contain lead. HRG also found that people who frequently burn candles have higher than normal blood levels of lead.⁶

If you burn candles regularly, have everyone in your family get a blood test to see if you need treatment for elevated lead levels. Best would be to postpone burning candles until we have protective legislation in this area. Given how much we have learned about how dangerous this common metal is, I think it should be a crime to knowingly use lead in anything that humans (or animals!) come in contact with.

Chocolate Is Looking Better

As previously reported, chocolate may have health benefits, and that is spurring interest in more studies. A recent study showed a "chocolate-flavored, low-fiber breakfast cereal" might have cholesterol lowering and blood pressure lowering properties.⁷

News From the Testing Division

Syncrometer classes continue to be scheduled as needed. The classes are each week on Tuesdays and Wednesday, 10:00 A.M. until 3:30 P.M. The cost is \$175.00. The class is limited to six students and a \$50.00 deposit is required when you make your reservation.

What's New

Our web site finally got a make over. We plan on continuing to add information to it. Check us out at www.shrc.net. We have added iron, potassium and oregano tooth powder to our product list, and several new slide kits. With flu season approaching, make sure your family has plenty of vitamins and minerals to stay healthy with!

¹ "Lead," Microsoft® Encarta® Online Encyclopedia 2000 <http://encarta.msn.com> © 1997-2000 Microsoft Corporation. All rights reserved.

² www.ehs.pvt.k12.ca.us/projects/9798/AnCiv6/Rome/ACyan

³ Encarta, *ibid.*

⁴ Encarta, *ibid.*

⁵ Encarta, *ibid.*

⁶ JAMA, 284:180, 2000.

⁷ Archives of Internal Medicine 2000;160:2374-2379.