

## Denture Adhesive Health Risks: How to Avoid Them

It's in the news again, just like it was almost exactly one year ago. Health risks from using zinc containing denture adhesives. What are the risks and how can they be avoided?

First, zinc is a mineral that is necessary for good health. There is a saying in toxicology that the dose determines the poison. Acetaminophen is a great pain reliever, but too much can kill you. Blood thinners are great medicines, but massive doses are what's in rat poison. Botox is good for cosmetics and even has some therapeutic uses, but in larger doses it is the deadly botulism toxin.

The same is true of zinc. We all need zinc, but massive doses cause problems such as anemia, fatigue, nausea, metallic taste in mouth, and most important ... copper deficiency. Copper is also necessary to good health and a deficiency can lead to permanent neurological damage, called neuropathy. The specific symptoms can be numbness and tingling in the feet, balance problems, and difficulty walking. There are some people confined to wheel chairs for the rest of their lives due to denture adhesive zinc toxicity causing copper deficiency neuropathy (that's a mouthful).

Denture adhesive related neuropathy is not thought to be common, but when it occurs it's in people who have been using large quantities of zinc containing adhesive daily for years. Fortunately, most products became zinc free last year when this first hit the news, and the others soon will. The packaging of zinc free products says "zinc free" The unfortunate thing is that nobody should have been using large quantities of any denture adhesive to start with, zinc containing or not. Let me explain.

When teeth are removed, usually 60% of the jaw bone around the teeth will resorb (be absorbed by the body) in the first two years. Jaw bone resorption then continues at a much slower pace for the rest of the person's life.

Success in being able to chew reasonably well with dentures (they're not real teeth) varies widely due to individual anatomy, individual adaptability, and fit of the denture. Many people will always feel more secure with some adhesive, especially on lowers, where even well fitting dentures usually lift up.

A small bead line of any denture adhesive is useful for this purpose and even the zinc products would not cause a problem. The problem arose for people whose dentures no longer fit (due to ridge resorption), so they would really load up the dentures with adhesive to fill the open space. During the day, most of that would dissolve and be swallowed.

Anyone who feels the need to place more than a small bead line of denture adhesive in their denture has a denture that no longer fits well. On average, the initial resorption

requires a reline within 6 months. The continual long term bone loss then requires a denture reline every 3-5 years to maintain a decent fit. Also, significant weight loss will

necessitate at reline. This is not due to bone loss, but fat loss from the gum tissue. Many people will need a whole new denture after about 10 years due to wear and tear on the teeth or denture base.

There are two ways to limit the bone loss, and thus reduce the loss of jaw bone volume over the years. Grafting the tooth extraction sockets at the time the teeth are removed can often eliminate that 60% bone loss that occurs in the first 2 years. For someone going to dentures in their 30's, 40's, or 50's this is especially helpful, because they will be wearing dentures for many decades. There are many virtual "dental cripples" who have lost so much bone over the decades that they may not even be able to wear dentures.

Another way to preserve bone, and greatly enhance function and stability, is with dental implants. Implants, like tooth roots, maintain the volume of bone. The great news is that with as few as 2 regular implants, or 4 mini-implants, denture stability and satisfaction greatly increases.

If you are tempted to use a lot of denture adhesive, see your dentist to see if you need a reline or perhaps a new denture. Find out if you are a candidate for implants. If you are about to go to dentures, find out about preserving your bone with socket grafting or perhaps implants. Don't swallow mass quantities of any denture adhesive.

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