

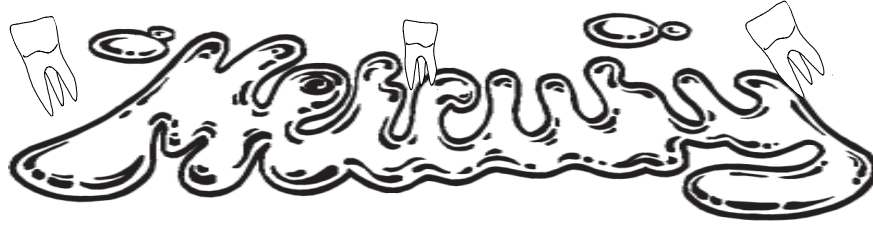


Cutting Edge
Nutritional
Secrets

The Right Dental Choice

Making the Right Dental Choice

Out with Toxic Dental Materials
In with Healthy, Biocompatible Dental Materials



By Bob Marshall, PhD, CCN

Is There Poison In Your Mouth?

Did you know that you may have a potential time bomb in your mouth? It's the silver fillings in your teeth. Common "silver fillings" (silver amalgams) contain approximately 50% mercury and only about 20% silver (with smaller amounts of copper, tin, and zinc). Since mercury is a toxic poison, *what is it doing in your mouth?*

Mercury Vapor Escapes From Fillings

The American Dental Association attempts to quiet the fears of concerned patients and dentists claiming that when mercury is combined with other metals as used in dental amalgam, its toxic properties are made harmless. However, ongoing scientific research spanning many authors and several countries clearly identifies the ability of mercury to slowly leach out of the tooth (even in its combined state with other metals) and end up in the body's organs and glands.

Tests with mercury vapor detectors placed inside the mouth show that mercury vapor does indeed routinely escape from dental fillings -- and the mercury can end up into the sinus, brain, eyes, ears, heart, nervous system, and many other body organs.

80 Times Above Safety Limits

The amount of **mercury vapor** in the average mouth is **80 times above the established safety limits** for mercury vapor exposure, according to our U.S. Government standards. Yes, you read that last sentence right -- 80 times above safety limits. This means that the average person with silver fillings is typically at high risk for mercury vapor exposure -- and its potential pathway of destruction.

Every time you drink liquids (especially hot drinks) or chew food, tiny but potentially dangerous bits of mercury are being mercilessly released into your system. Because mercury is cumulative in the body, the effects of this mercury build-up in the tissues may prove to be devastating over time for many people.

Silver Fillings: Tiny Toxic Batteries

Silver fillings act like small batteries in your mouth. Mixed metals such as those typically found in a silver filling (i.e. mercury, silver, copper, tin, and zinc)

can easily generate electrical currents when bathed in a conducting fluid -- in this case, your own saliva acts as a perfect liquid conductor in the mouth.

Because the chemical reaction of these metals generates electricity, mercury vapor is produced as a by-product. Fillings that are five years old have been shown to contain only 28% mercury (as compared to the original 50% when first placed in the teeth) - - which means that half of the original mercury has been released into your body. Unfortunately, most of this "lost" mercury will remain bound indefinitely at various body sites.

When a gold crown is removed, your dentist may often find that a silver filling has been left as a "base" to help seat the gold crown (a common dental practice). In this case, the silver filling is not visible to the eye when you look inside the mouth (since the silver filling is under the gold crown), but nevertheless, the silver filling still acts as a mercury-leaching source, as well as a pronounced **electrical battery**, interfering with your body's production of its own biological electrical messages.

To make matters worse, scientific research shows that certain bacteria in the mouth and intestines **convert mercury into methyl mercury, a substance 100 times more poisonous than ordinary mercury** (already a toxic poison!). The older the silver fillings, the more methyl mercury can be formed by the bacteria in your body.

Silver Fillings: Banned In Other Countries

Because of the world-wide research of notable researchers such as Dr. Patrick Stortebecker (Sweden) and Dr. Murray Vimy (Canada), various types of silver fillings are now banned in many countries, such as Sweden, Germany, and Japan.

Amazingly, the highly acclaimed dental school in Switzerland has now **eliminated the teaching of silver filling placement** to its dental students. As more mercury research continues, the inescapable conclusion is being reached worldwide: indeed, teeth filled with silver amalgams are a toxic waste site, hazardous to your health!

Mercury And Pregnancy

If a female is pregnant, the baby protects the mother from mercury at the expense of itself. The concentration of mercury in the blood of the newborn is an average of **28% higher** than the mother's blood. Where did the newborn get the mercury? From the mother. Research shows that mercury freely passes the placental barrier and can cause physical and mental birth defects in the newborn.

Many a future mother has opted to clear the mercury out of her mouth with a minimum one or two year detox afterwards **before becoming pregnant** so she can avoid exposure to her baby. If you are already pregnant, many researchers would advise you not to have any dental work done unless absolutely necessary, to avoid exposure to your unborn fetus.

Reactions to Silver Fillings

Whole body reactions to mercury (as contained in silver fillings) are so universal that they have been categorized into five major divisions:

1. Neurological

- a) emotional (such as depression, feeling irritable, suicidal, no tolerance)
- b) motor (such as seizures, muscle twitches and spasms, multiple sclerosis)



- 2. **Cardiovascular** (such as chest pains, altered or rapid heart beats, pounding heart)

- 3. **Collagen diseases** (such as arthritis, joint pains, bursitis, lupus, scleroderma)

- 4. **Immune system problems** (such as easily catching colds, always feeling tired, feeling run down, inability to fight off infections, etc.)

- 5. **Allergies** (such as allergies to food, environment, and /or chemicals; universal reactors)

Do you recognize any of the above symptoms in yourself or in any of your family members?

Even with such a wide range of known mercury-related symptoms, few doctors will link these chronic problems back to long-term mercury poisoning. Although mercury poisoning may commonly be at the root of many illnesses, it is still one of the most frequently overlooked diagnoses.

Silver Fillings:

To Keep Or Not To Keep?

Is the mercury in dental silver fillings (amalgams) really harmful? As the Silver Filling Reactivity list above confirms and after years of worldwide studies on animal and human exposure to mercury, there is no more controversy.

The answer is *yes*, the **mercury in silver fillings is a deadly poison**. However, it is typically a “**slow**” **poison**, gradually leaching from the teeth to bio-accumulate in various tissues of the unfortunate silver filling-bearer - so it is commonly missed as a source of distress.

Over time, mercury slowly deposits throughout the body and plays a major role in causing many troublesome, even life-threatening symptoms. The Final Verdict (based on the overwhelming consensus of worldwide medical opinion): for best health, **remove all your silver fillings** and replace them with biocompatible fillings.

Caution: Before undergoing any amalgam removal, it is critical to find a dentist well-trained in the proper procedure of amalgam removal and use of biocompatible dental materials according to the **Quantum Dental Health System** Protocols as developed by Dr. Bob Marshall and Dr. Randolph Aguilera. [These basic protocols are outlined in this article.]

Fillings Do Release Toxic Mercury

Dr. Murray Vimy, DDS, conducted monkey studies at the University of Calgary in Canada which showed that radioactively labeled mercury was definitely released from fresh, properly placed amalgam fillings.

The mercury quickly appeared in the brain, kidneys and wall of the intestines of the monkeys. Through its affinity for sulfhydryl-groups, mercury bonds firmly to structures in the nervous system. This has been correlated with many human nerve disorders, including problems with memory, joints, and movement.

Nerve Damage

Other studies have shown that mercury is taken up by peripheral nerve endings, such as the hypoglossal nerve of the tongue or the autonomic nerves of the lung or intestinal wall and connective tissue. The mercury is rapidly transported inside the axon of the nerve (axonal transport) to the spinal cord and brain stem.

Mercury has been proven to immobilize the enzyme that is essential for making tubulin, a substance which forms tubular structures within each nerve. These tubes serve as pathways in and out of the nerve cell -- transporting metabolic waste from the cell to the periphery and allowing nutrients to be absorbed from the periphery to the cell. Once mercury has traveled up the axon, the nerve cell is impaired in its ability to both detoxify itself and nurture itself. As the cell becomes toxic, it either dies or continues on in a weakened state of malnutrition.

Once mercury has entered the cell, it can no longer be excreted along the normal axonal transport routes (some can exit via the calcium and sodium channels). Thus the cell's organelles suffer, including weakened mitochondria, the tiny ATP energy generators. As the nerves become weakened and mercury-toxic, a wide variety of illnesses can result, often associated with neurological symptoms.

Heavy Metals and Chronic Infection

Insightful practitioners have often observed that patients with all sorts of **chronic illnesses** have often had dramatic recoveries **after a thorough mercury detoxification program following amalgam removal**.

It is well known that mercury suppresses the immune system. Therefore, clearing mercury from the body can help enhance the immune system so the body can heal itself. The presence of silver amalgam fillings (which contain

approximately 50% mercury) can also impair the body's defense systems.

Mercury is the only substance ever shown to **induce antibiotic resistance in bacteria** (other than the antibiotics themselves). Although periodontal disease (gum disease) is considered to be caused by harmful bacteria, research shows that removing silver fillings is often curative (due to the elimination of the toxic metal "battery effect" in the mouth).

Scientific research gives circumstantial evidence that mercury can foster chronic infections, especially overgrowth of fungus and bacteria. Certain organisms have a tendency to accumulate heavy metals in their outer cell wall.

The list of organisms with the highest affinity for toxic metals reads like a "Who's Who" of many typical human infections: fungi of the *Candida* species, streptococci, staphylococci, amoebas, etc. Some researchers believe that many chronic infections are not caused by a failure of the immune system, but are an adaptation of the immune system to an otherwise fatal body load of heavy metal contamination.

Candida Traps Mercury

In Europe, practitioners look upon *Candida* overgrowth (candidiasis) **as your friend** because they believe the reason it develops in the first place is to **hold heavy metals and other deadly toxins in check**. If you have developed an overgrowth of *Candida*, they believe it is because you have bio-accumulated too many heavy metals.

Mercury can paralyze and suffocate the intracellular respiratory mechanisms of the cells and cause their death. So your immune system makes a deal. It cultivates fungi and bacteria to bind the large amounts of heavy metals. The good news is that this allows the cells to be able to breathe. The bad news is that the pathogens steal large amounts of nutrition from the body and create "crazy" new symptoms from the toxic waste they give off (which is difficult for the body to excrete).

In an attempt to "kill the *Candida*" or harmful microbes (using medical drugs or other treatments), you may experience a "die-off" reaction. This is often nothing but acute heavy metals being released from the cell walls of the dying organisms -- creating massive irritation in the body. Research is now underway to prove this correlation (using blood and urine studies).

Don't Kill The Candida

Instead of trying to kill the *Candida* or other microbes, many practitioners now recommend undergoing a heavy metal detox. The results of a thorough heavy metal detox are often amazing, using such nutrients as **nanized grade A chlorella**. (See further info on "*Nanized Chlorella*" cited in this article.)

After years of fighting chronic infection, many people report that their symptoms just simply leave. By lowering the heavy metal burden, the *Candida* overgrowth body defense is no longer needed. In fact, many people have been able to clear chronic *Candida* symptoms *only* after heavy metal detoxification and continued soft tissue mineral (especially calcium) support.

What About Viruses?

Many researchers believe that the tendency to contract viral infections may be secondary to heavy metal (especially mercury) toxicity. By suppressing the immune system, the heavy metals may make it easier for viral infection to take place. Any mercury-toxic person is at high risk for chronic viral illnesses.

A thorough heavy metal detox program can significantly improve the health of almost anyone with mercury toxicity (which really includes most all of us). Few people have escaped having silver fillings put into their teeth. After heavy metal detoxification, many practitioners have reported dramatic improvements in patients with chronic viral illnesses.

Become 100% Metal-Free

The Body Reacts To All Metals

Extensive research on mercury was reviewed by the U.S. Department of Health and Human Services called "The Toxicological Profile of Mercury" (1994). They found mercury deposited in the CNS (central nervous system) causes psychological, neurological and immunological problems in *all* humans.

Recent studies with the **MELISA** (Memory Lymphocyte Immune Stimulation Assay) test developed at the Karolinska Institute in Sweden, show that most humans become rapidly **allergic to virtually any metal placed inside the human body: mercury heads the list; titanium is second, gold is number 3**. Skin testing to determine metal allergy has been shown to be inaccurate with too many false negative findings.

This means that you not only want to avoid silver amalgams (a combination of metals), but all metal fillings and restorations in your mouth, such as gold crowns, stainless steel crowns, metal braces, etc.

What Can You Do?

Almost every one of us is faced with the decision of what to do about the silver fillings in our mouths. To make the wisest decision, you must **first become thoroughly informed** about mercury.

Two insightful, well-written books about the hidden risks and long term consequences of silver fillings (and their mercury payload) are [The Toxic Time Bomb](#), by Sam Ziff and [Are Your Dental Fillings Poisoning You?](#) by Dr. Guy Fasciana, D.M.D., available through your local book store. Check the references at the end of this article for further reading.

Two excellent videos detail the story of mercury and its trail of misery for those with silver fillings: a special video from the T.V. program "60 Minutes" entitled "Is There Poison In Your Mouth?" (about 20 minutes long), and also the well-documented BBC video from England on silver-mercury fillings (about 45 minutes).

Careful Removal

After you decide to have your silver fillings removed, do not take the decision lightly. An extremely careful procedure must be strictly followed when removing fillings (as rec-

ommended by the Quantum Dental Health System Protocols).

Remember, mercury is one of the most toxic substances you will ever encounter. It is essential to minimize your mercury exposure when your silver fillings are being removed.

Unfortunately, drilling mercury out of the teeth unavoidably causes a short-term high exposure to mercury vapor mists which can further invade your system. However, this mercury exposure can be drastically minimized by making sure that your dentist follows a careful removal procedure.

We believe the following precautions are not only advisable, but essential for the best protection from this toxic heavy metal.

Recommended Basic Protocols

According to the **Quantum Dental Health Protocols** (formulated by Dr. Bob Marshall and Dr. Randolph Aguilera), the following important precautions and protocols are essential when mercury is being removed (such as found in silver fillings) or other toxic dental materials.

1. Rubber Dam. A rubber dam is a protective latex sheath which the tooth is placed through to isolate it from the rest of the teeth and mouth during dental work. This sheath provides an artificial barrier to help the patient avoid breathing mercury vapor or swallowing silver amalgam fragments while the silver fillings are being removed.

Because of the release of toxic compounds when removing a silver filling, we believe it is imperative to use a rubber dam during every removal. Even if other metals are to be removed, such as a gold crown, we still insist on the use of a rubber dam because toxic compounds may be released from the metal during removal or a silver filling may be hiding underneath the crown that must then be removed.

Clean-Up: For those unable to use a rubber dam (due to fear or feeling overwhelmed), Clean-Up is a smaller plastic device that is inserted over the tooth to be worked on: it provides a reasonable barrier from the rest of the mouth (but not as adequate as the rubber dam) so that toxic dental compounds being released can easily be vacuumed up through the air purification device.

2. High Speed Suction. A high speed suction device is needed to whisk away saliva as well as mercury vapor and silver amalgam fragments while silver fillings are being removed.

3. Miss Elly: Mass Air Vacuum and Filtration System. Since silver fillings and other dental compounds can release toxic vapor or other harmful particulates when they are being removed, a mass air vacuum and filtration system is a must for every dental room. This device is capable of filtering very small particulates from the air and recycles the air in a 12 by 12 foot room every 15 minutes. Even under the toxic strain of removing unsafe heavy metals such as mercury, this device helps ensure maximum safety by creating excellent air quality in the room.

We affectionately call this device the “elephant” or “elly” for short. This is because it has a trunk-like, 4-inch, open-mouthed tube which extends from its base, that looks similar to an elephant. The device sits on the floor near the patient so its bendable “trunk” can be positioned a few inches away from the patient’s mouth during dental work.

The patient usually feels nothing or may note a slight air suction from air being drawn down the “trunk” tubing. This state-of-the-art filtration device is extremely effective in removing air-borne microscopic particulates, toxic metal ions and fumes released during dental work. It protects both patient and doctor from breathing in contaminants.

4. Nasal Oxygen Nosepiece. A nasal oxygen nosepiece supplies a direct source of high quality air directly to the patient through a nosepiece that is comfortably placed over the patient’s nose before dental work. In addition, this device helps the patient avoid breathing in mercury vapor or other small dental material fragments. This provides another level of safety for the patient during silver amalgam removal.

5. Purified Water. When the patient needs to rinse his/her mouth out during dental work, only purified water should be used, not tap water (which often contains various pathogens and other contaminants).

To ensure the best outcome of your dental work, bring your own bottle of purified water to rinse your mouth with during dental work or to drink. (Excellent brands are Arrowhead Spring Water and Ozarka Spring ozonated water.)

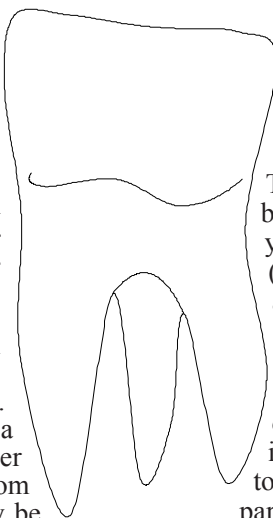
6. Air Purification Unit. A high quality air purification unit is needed to condition the air throughout the entire dental office on a regular basis. An ideal unit contains both an air ionizer and ozonator which together can effectively remove air-borne particulates from dental work and other contaminants by precipitating them out of the air.

This unit serves as a back-up to the Mass Air Vacuum and Air Filtration Device; together these two devices ensure the best air quality for both patient and dental staff.

7. New Drill Burs (Bits). When a silver filling or other dental restoration needs to be removed from a tooth, the dentist must use a special cutting bur on his dental drill. Even though each new bur is relatively inexpensive, most dentists employ used burs which may be partially pitted and/or somewhat dull.

It is essential for the dentist to use a brand new bur for each restoration removed. A new bur helps minimize the trauma to the tooth and also reduces the time to remove the restoration.

8. Digital X-Rays. The use of digital x-rays is a great break-through for dental diagnostic techniques. The quality of digital x-rays is far superior to conventional dental x-rays; its enhanced images provide a better diagnostic capability. In addition, digital x-rays have up to 90% less radiation to the patient.



9. X-Ray Protection: Full Body Lead Apron with Cervical Collar. All radiation from X-rays is cumulative in the body. The best situation is to avoid X-ray exposure whenever possible. When dental X-rays are being taken, you should wear a full body lead apron with an extended cervical collar attachment to protect the thyroid. The lead in the apron absorbs any stray irradiation to protect from unnecessary radiation exposure.

10. Dental Lasers. As worldwide dental research continues, we are beginning to realize the enormous importance of the teeth and their extensive interconnections to the rest of the body. Realizing that teeth are truly a precious gift, we regard dental lasers as essential tools to be used in virtually every dental procedure.

Lasers provide superior disinfection over older techniques. For example, dental lasers have been proven to provide up to a **99.99% disinfection rate** of pathogenic dental bacteria in the mouth as compared to only a 30% disinfection rate using conventional dental techniques such as dental bleach, sodium hypochlorite.

In addition, dental lasers provide a high frequency, light-induced bio-stimulation of the surrounding cells which helps to enhance circulation and promote healing.

11. Intraoral Camera. An intraoral camera contains a small fiberoptic cord with a special lens which the dentist slowly revolves near the teeth inside the patient's mouth. The fiberoptics transmit the image to a television screen so both dentist and patient together can see and discuss the magnified, clearly detailed, color image of each tooth and its surrounding gum area. It also provides a clear image of the front and back of the teeth and gums as well as hard-to-see areas, such as at the back of the mouth.

The intraoral camera is no longer a fancy extra, but an important screening tool to identify in detail problem dental areas -- whether the patient is complaining of them or not. This camera can magnify images up to 30 times and provides clearly superior visual diagnostics as compared to merely looking into the mouth to spot problems. Without an intraoral camera, it is often impossible to see important details on the teeth or gums that need to be addressed. With just visual inspection, it is especially hard to see the posterior surfaces of teeth and gums.

In addition, a magnified photograph can be taken to provide a record of a problem dental area.

13. Caries Detector Dye. A caries detector dye is a safe dye which temporarily stains the teeth to show open margins or even micro-fractures in the teeth. Both open margins and micro-fractures are potential tooth killers since they allow bacteria to infect the tooth structure, burrowing their way to the heart of your tooth's pulp chamber (where the nerve is housed).

As good as the intraoral camera is, it cannot detect micro-fractures. The dye must be used, especially if teeth are filled with composite restorations which are typically so soft that they crack easily. Remember, even if bacteria have reached the pulp chamber of a tooth, a biocompatibility-trained den-

tist may still be able to save the tooth by using laser disinfection and tissue biostimulation.

14. Amalgam Separators. An amalgam separator is a special trap in the water and vacuum lines in the office. It is designed to filter waste amalgam to keep it from being released into the air, either in the dental office or the outside environment.

15. Professional Loops. For the absolute best dental experience, your dentist should be wearing dental loops (which look like a set of round magnifying lenses suspended in front of his eyes) when he is working on your teeth. There is a small light that comes from above the loops that provides ideal illumination for the dental surface in your mouth that he is examining or working on. The loops provide 3 to 5 power magnification for a broad field view up close that normal 20-20 vision is incapable of seeing clearly, such as degradations at the margin of a tooth.

16. The Wand. This is a small, computer-aided injection device for gentle delivery of the dental anesthetic into the gum area. It has a pleasing appearance (as opposed to the too-familiar intimidating "horse syringe" look of older injectors"). It delivers the anesthetic in very small metered doses (even by the drop if needed) into the gums to give a literally painfree injection and often eliminates the need for extra injections.

17. Ceramic Milling Machine. This amazing machine is a chairside dental CAD/CAM system that allows a new ceramic crown or filling to be made and then placed during the same visit.

This means that what used to take 2 dental appointments (i.e. placing temporary fillings in the teeth until the finished fillings could be made and then coming back for a second visit to place the finished fillings) can now be done in one appointment. This saves time and is much less stress to the affected teeth.

18. The Safest Dental Anesthetic. The only dental anesthetic option which is free of aniline homologs (powerful cancer-causing agents) is **Septocaine**. We recommend avoiding the use of Lidocaine, Carbocaine, etc.

Nutrition Protocols

It is essential to protect yourself during the process of removing dental fillings by taking high quality nutritional supplements. Special nutritional supplements can dramatically reduce and protect you from absorbing toxic materials as well as help support and balance your organ/gland meridians.

The Revolutionary "Nanized Chlorella"

New research shows that "nanized chlorella" can mobilize mercury and other toxic metals rapidly from the nervous system and whole body when taken daily over a period of time (generally 2 to 3 months). The mobilized mercury is excreted through the urine, not the intestines. This is a revolutionary discovery and showcases nanized chlorella as a **premier substance to mobilize mercury from the body**. It is the safest, most effective heavy metal detoxifier

(especially mercury) yet discovered. It is very effective for both children and adults, especially those with brain fog, learning, behavioral or memory challenges.

Safer Than Prescription Drugs. Prescription drugs such as DMPS (dimercaptopropane sulfonate) and EDTA, have been used via IV administration; DMSA (dimercaptosuccinic acid) and PCA (peptydal clathration agent) have also been used in heavy metal detoxification, all of which cause the metals to be primarily eliminated through the bowels.

Potential dangers of mobilizing mercury via the bowel include resorption of metals into systemic circulation and thus incomplete detoxification and methylation of mercury by the intestinal flora which renders mercury far more toxic and dangerous in its methylated form. Mercury promotes antibiotic-resistant bacteria, plasmid transference, increased inflammation and continued “leaky gut” (bowel dysbiosis).

In addition, chelating drugs can bind to beneficial minerals and deplete them. With nanized chlorella, there is no risk for resorption of heavy metals because the metals are mobilized primarily via the urine. Also, there is no risk of mineral depletion.

What is nanized chlorella? ‘Nanized’ means “very, very small.” Through a revolutionary new process, broken cell wall chlorella (the most biologically available form) has been micro-digested by beneficial probiotic microorganisms through a process called nanization. The nanized chlorella’s highly bioavailable phytonutrients allow unmatched cellular delivery of its detoxifying factors. Thus, nanized chlorella is exquisitely capable of binding with mercury and other heavy metals released during dental amalgam removal.

A typical, recommended daily amount is 1/2 to 1 teaspoon, breakfast and dinner, mixed in 2 to 3 oz. water. It is best sipped slowly over several minutes (not swallowed quickly) for best absorption. It is best to start taking it several days before the mercury amalgam removal and to continue for at least 3 weeks afterward. No matter what precautions you take, a certain amount of mercury exposure is unavoidable during the removal procedure.

Note: The chlorella used in genuine “nanized chlorella” is grade A chlorella grown in pure ocean water in sunlight (not grown in commercial vats in tap water and darkness).

Other Key Support Nutrients

Coral Minerals. We recommend taking adequate amounts of special ionized coral minerals which are rich in highly ionized, naturally occurring calcium and magnesium as well as many trace minerals. These minerals are profoundly efficient in helping to establish your pH in the alkaline zone (reflected by a 6.5 to 7.0 first-morning urine pH). To get the best results from dental work, your pH should be kept well within the alkaline range. If your pH is very acid (below 6.0), you may find dental work may be much more difficult.

Vitamin D. Vitamin D is absolutely necessary for uptake of calcium. For efficient uptake of calcium, we recommend

taking high quality cod liver oil (which has naturally occurring vitamin D) or mushroom mycelial extracts which also deliver biologically active provitamin D.

Organic Oil of Oregano. Oil of oregano is an essential oil with potent anti-inflammatory and healing properties. You can massage a drop or two into the gums to relieve inflammation or pain following dental work. For those who are sensitive to oil of oregano, we recommend organic neem oil (see below).

Organic Limonene Oil. Limonene is an essential oil extract of orange peel. Its famous anti-inflammatory and healing properties make it a tremendous help during dental work. It can be massaged around painful gums or teeth. Mixing a few drops of oil of oregano, limonene oil, and/or neem oil in your hand then applying it to the gums can provide deeper penetration.

Natural Source CoQ-10. Much research shows the significant effects of CoQ-10 in helping to reverse periodontal disease and promote gum integrity to help save teeth. For best results, use only naturally-derived, temperature-stable CoQ-10. Avoid synthetic CoQ-10, especially found as gel-caps.

Bifido-Derived S.O.D. Sublingual. A new form of SOD (superoxide dismutase) has been naturally derived from bifido bacteria and concentrates the rare manganese form of SOD, shown to be highly effective. Other forms of zinc-based SOD have been shown to be unstable and not absorbable. The manganese form of SOD is administered sublingually for immediate absorption and reliable delivery into the blood stream. It is a premier anti-inflammatory, helping to clear tissue inflammation, speed healing and clear infection. This can be a great help to speed recovery for sore or aching teeth.

Organic Neem Bark, Neem Oil, Neem Leaf Tea. Organic neem bark, oil and neem leaf tea, when free of solvents and other toxic chemicals used in processing, can deliver premier anti-inflammatory and broad-spectrum anti-infective properties that can be used long term without irritation or inflammation.

Neem is an ideal remedy when struggling to eliminate periodontal and tooth infections. A mixture of neem bark and neem oil (1/8 tsp of bark and a few drops of oil) can be applied locally around the gums or teeth or taken internally to affect the whole body via the gastrointestinal tract. We find many tooth infections (and remember, every cavity is an infection) that originally stemmed from infection or stagnation in the intestinal tract. To clear a problem with a tooth, you must often clear the problem in the intestinal tract first.

“Dental Packs” for Mercury Detox

The use of clay-based “dental packs” are invaluable when undergoing mercury amalgam removal. The use of clay-based “dental packs” are Medi-Dental Pack is A blend of European silica-based montmorillonite (a high cation exchange clay) and zeolite (rare, calcium-based laumontite) are an excellent detox combination, proven to have maximum cat-

ion exchange, including detoxification of mercury and other heavy metals. This is particularly important for detoxification in the oral cavity where toxic dental materials are common and metal ions may have lodged in mucus membranes or gum tissue.

The “dental pack” is simply made by adding water to the clay and zeolite, then mixed into a small “clay ball”. Next, the ball is placed firmly against the affected area in the mouth for approximately 10 minutes. Afterwards, the clay ball is discarded and the mouth is rinsed with purified water.

The natural sorptive power of this clay-mineral combination allows it to chemically absorb a broad spectrum of toxic chemicals, including heavy metals, and thus, provide significant detoxification properties.

Selecting Biocompatible Materials

Most dental materials are selected based on how long they last in your mouth, how durable they are and/or how aesthetic they look, but often little thought goes into whether the body’s owner may be negatively reacting to the dental material itself.

Whatever is inserted inside the mouth, you will be exposed to 24 hours a day -- that’s a lot of hours to react if the material is not biocompatible to your neurological system. As more and more people suffer debilitating symptoms (which can occur anywhere in the body) from the use of toxic dental materials, the bottom-line concern will become the use of biocompatible dental materials. Pain is a great motivator.

Avoid Non-Precious Metals In Your Mouth

In addition to the systemic body damage and toxicity from the mercury leaching from silver fillings, many non-precious metals used in dentistry (such as palladium, stainless steel, nickel alloys, bases for porcelain crowns, etc.) have also been shown to cause systemic damage and toxicity. When a dentist says that you will be getting a “porcelain” crown, often what you *really* will be getting is a porcelain crown fused to a non-precious metal base.

To see if a person has a non-precious metal under a crown, look in his/her mouth to see if there is a white porcelain crown with a small metallic looking band at the bottom of the tooth. If so, the band may be a stainless steel base (a common base metal for crowns) which seats the porcelain crown.

Reactions to Dental Metals

Current research has connected voluminous body symptoms with allergic reactions to dental metals. Stainless steel, which is partially made of nickel, is commonly used as a base metal for porcelain crowns. Nickel has been shown to be highly carcinogenic. Palladium, used as an alloy in some gold crowns for hardness, is well-known to produce allergic reactions.

Our goal is to have all dental metals removed as well as any

other materials which are harmful or allergy-provoking. The type of restorative dental materials that will be used once your silver-mercury fillings are taken out is of the utmost importance. Merely “getting the mercury out,” is not enough. Don’t trade one poison for another.

Composite (Tooth-Colored) Fillings: Buyer Beware!

After silver fillings have been removed, many people choose to replace them with plastic-like (tooth-colored) fillings called composites. Composites are frequently used because they are usually less expensive than gold or porcelain restorations. Composites vary widely in their compositions and may be cured inside or outside the mouth. Several popular types are Heliomolar, Herculite, Conquest and Diamond Crown.

After testing hundreds of people with various types of composite restorations, we **do NOT recommend their use**. Although some individuals can initially tolerate these acrylic (petrochemical) type fillings (for days or even months), most become intolerant later on. We have found this to be the rule, rather than the exception.

The magnificent biochemistry of the human body does not prefer constant exposure to petrochemically based materials (such as dental restorations in the mouth). With round-the-clock exposure in the mouth, the body may be able to tolerate composites for short periods of time, but long term distress reactions are common. Unless pain occurs at the tooth, most people will *not* related their body symptoms back to the toxic materials in their teeth.

Neck Pain Cleared

An interesting example of the toxic effects of composites was Vicki, a 45-year old lady who had frequent neck pain and headaches from very tight, tense muscles in her neck and upper shoulders. Pain killers, massage and many other modalities failed to give her lasting relief.

The neck and head pain had started a few years after she had composites placed in several of her teeth. When she had the composites taken out, to her amazement within 48 hours her neck muscles relaxed and the stiffness went away. With neck and head pain gone, her energy level soared and she could once again exert herself without pain, such as taking long walks.

We find that after placement of composites in the mouth, the patient does not typically complain of symptoms in the tooth or mouth area. Due to the chemical composition of composite fillings, they tend to block and stagnate the body’s natural electromagnetic flow at the site of the filled tooth. This blockage results in a pathological (disease-producing) reflex to a distant body site.

For example, the science of acupuncture has demonstrated that the back molar teeth correspond energetically to the lung meridian. Therefore, a composite-filled molar tooth may block the lung meridian.

The patient may later develop lung deficiency symptoms from this blocked tooth, such as beginning to feel tired frequently or starting to catch colds and flus easily.

“Leaky” Composites

Your natural tooth has a hardness of 300 on the Vickers Hardness Scale. Composites are typically much softer with a hardness of only 30. Therefore, your opposing teeth can quickly wear out and break down the softer composites. This is one of the reasons why composites break down and begin “leaking” so quickly. We have found that composite fillings routinely “leak,” allowing seepage of foreign particles (food, etc.) to slowly erode and decay the tooth.

Composite fillings are often “technique sensitive,” which means that even with the dentist’s careful placement, complete bonding of the composite to the tooth structure may be woefully inadequate. This sets the stage for leaking and further tooth loss.

Amazingly, the patient may often be unaware that this leakage is happening, even though it slowly decays the tooth. By the time pain signals the patient that something is wrong (such as a sensitive tooth), it is often too late. The tooth has often decayed into the pulp chamber, necessitating a root canal or removal of the tooth.

We often see that after only two to three years after a composite filling has been placed, the composite tooth filling needs to be replaced again due to leakage or decay (usually entailing further loss of tooth structure to refill and rebond).

Although the patient may be attracted by the lower cost of initially placing composite fillings, the price will ultimately be much higher, with the need to replace the composites within a few years as well as the risk of further tooth structure loss or even whole tooth loss. For these reasons, many biologically-minded dentists refuse to place composites, knowing their potential harm.

The Hardness Of Teeth Vs. Dental Restorations

On the Vickers Hardness Scale, most porcelain has a hardness of 600 (much harder than a natural tooth which is only 300). A typical porcelain crown (which is a high-temperature fusing ceramic) is much harder than your natural tooth. If a porcelain crown opposes your natural tooth, simple chewing can quickly wear away your natural tooth over time. This is one reason why many dentists dislike using porcelain restorations. They end up significantly eroding precious natural teeth.

The composition of different brands of porcelain dental materials vary widely. Most porcelains contain aluminum silicate metals to lend strength to their composition. These metals typically do not degrade in the mouth, but do present a galvanic response which can disturb the body’s normal electromagnetic signaling system, vital to the intercoordination of the body’s complex systems. Certain porcelains are even radioactive (which are highly toxic, but still legal for a dentist to use in your mouth!).

Ceramics and Ceramic-Resin Hybrids: Truly Biocompatible Materials

We have seen outstanding success with special low-temperature fusing ceramics used as long-term, biocompatible dental restoration materials.

Examples: **Degussa Ceramic** (LFC - a low-fusing ceramic), **Cerec 3-Vitablock Mark II** (LFC) and **MZI100** (an LFC ceramic-resin hybrid - needed when extensive tooth structure is missing).

They can be used as a filling (such as an inlay or onlay) or as a crown (covering the whole tooth). In some cases, they have served well as a bridge. These materials are not typical porcelains, since they do not contain the usual composition of most porcelains.

After testing hundreds of people, we have found without exception, these materials have been **tolerated very well**. None developed allergic or blocking responses either initially or at a later time. These materials typically last for many years, often the lifetime of the person. They even have a “self-healing” ability to repair micro-nicks and fractures.

Leaking problems, commonly seen with composite placement, are rare with these materials. In addition, up-to-date dental techniques can minimize tooth structure loss in preparing the tooth for an LFC restoration. In contrast, unnecessary tooth structure loss is common when placing silver fillings. In order to “seat” the silver amalgam, undercuts to “wedge in” the amalgam and loss of tooth structure beyond the bounds of the actual decay are common.

Bonding Agents. Equally important to the type of dental restoration is the cement and bonding agent used. We have seen excellent success with the following bonding agents:

Se Clearfil (A strong bonding system)

RelyX ARC (Do not use its accompanying etch, prime and bond; use Se Clearfil)

***RelyX-Unicem** (Has slightly stronger bond; contains all four agents together: etch, prime, bond, adhesive; do not need Se Clearfil)

*Preferred System

“Root Canal” Teeth

In addition to toxic fillings and crowns, another way your body may suffer chronic symptoms is due to root canaled teeth. Teeth which have undergone root canal therapy commonly present systemic stress (regardless of how expertly they have been done) and may constitute a significant hazard due to the well-documented effect of thiol ethers. Thiol ethers are extremely toxic vapors released by the “dead tissue” of root canal teeth.

In one major research study of the notable late Dr. Josef Issels, patients suffering from cancer were found to have a minimum of two root canals or more. Dr. Issels believed that slowly leaking root canal toxins can depress the immune system which can then pave the way for cancer and other degenerative diseases. Other researchers, such as the late Dr. Weston Price and Dr. George Meining, also warn against the toxic systemic effects of root canaled teeth.

Many root canal fillings and sterilizing techniques are harmful in and of themselves, such as the placement of gutta percha (which may contain **mercury, lead, and barium**, all which can slowly leach into the body via the tooth), silver point (made of pure silver which also leaches into the

body, producing symptoms similar to mercury poisoning) and creosote used as a sterilizing agent (a powerful carcinogen).

Researchers have proven that most root canal fillings, such as gutta percha, cannot adequately fill the millions of microscopic tiny tubules inside the root canal tooth. With many spaces left in these tubules, bacteria can multiply and create toxic by-products which slowly poison your system over time.

Our Heroes: EndoCal-10 And Dental Lasers

EndoCal 10. Non-harmful, yet effective root canal techniques are now available in the U.S. using EndoCal 10 (which replaces Biocalex 6/9). EndoCal 10 is a nontoxic calcium oxide (called "heavy calcium") which has the ability to gently expand into the tiny root canal tubules, offering an effective sealing agent of the dental tubules without toxicity.

It is also capable of adequately sealing the end of the root tip, ensuring specific internal asepsis which can effectively treat even the most stubborn periapical infections (which are typically due to infectitious organisms living inside the root tip). This material has been used successfully for over 20 years in Italy as a filling for root canal teeth. It has been used successfully in other countries as well.

Dental Lasers. Secondly, state-of-the-art dental laser techniques make it possible to disinfect the inner tooth structure of a root canal easily, without using harmful chemicals. Laser sterilization also eliminates the need to shave down the inner walls of the root canal tooth which is typically done before placement of root canal fillings. Shaving the tooth's inner walls weakens the overall strength of the remaining tooth, making it more susceptible to cracking or failing at a later time. When possible, the goal is to preserve as much of the tooth structure as possible.

Warning: It is essential to laser-disinfect the dental canal before the placement of EndoCal 10. Laser disinfection is necessary to kill pathogens present in the tiny dental tubules in the canal (over 99% disinfection rate) which cannot be killed by other means. This prevents infections from building up in the tooth later on.

The common dental practice of using sodium hypochlorite (dental bleach) in the dental canals is not adequate (it has only an approximate 30% disinfection rate). When laser sterilization was not done before placing Biocalex, the root canal tooth had to be redone at a later date, most commonly due to infection.

Biocompatibility-Trained Dentists

"B.T." (biocompatibility trained) dentists are dentists who have been thoroughly trained in the careful removal of silver fillings as well as other toxic dental materials. Secondly, B.T. dentists are also thoroughly trained in replacing toxic dental materials with state-of-the-art biocompatible dental materials -- restorations which are compatible with your body. The goal of biocompatible dentistry is to place only biocompatible dental restorations of a patient's teeth, safely

and skillfully.

Beware Of Poor Dentistry

Beware of poorly trained dentists. Too often a dentist may claim to be a holistic or "mercury-free" dentist, but he/she may have taken only a weekend course or maybe just read a book about biocompatible dentistry. Learning the true art of biocompatible dentistry requires much training and time.

We continue to hear horror stories about untrained, but well-meaning family dentists who removed silver fillings without proper precautions -- exposing both parties unnecessarily to high levels of mercury vapor. Some were even chastised by their dentists for wanting to remove those "harmless" silver fillings.

Even when the dentist claimed to be skilled in nontoxic biocompatible dentistry, we have found that many were not adequately trained and demonstrated numerous unacceptable shortcomings, such as:

- a) improper, unsafe removal techniques;
- b) incorrect testing of biocompatible dental materials;
- c) improper dental restoration methods;
- d) lack of proper dental equipment such as rubber dams, room air filtration, nasal oxygen, etc.

Avoid Poor Dentistry -- The First Time

Unfortunately, we have seen numerous people who have suffered from poor dentistry. For example, in certain cases, the dentist improperly removed silver fillings or other hazardous dental materials, which led to the patient's unnecessary exposure to mercury and/or other toxic materials. This led to months of new, severe symptoms for the patient. In many cases, the patient may already be mercury-toxic, so additional unnecessary exposure to mercury may make it very difficult for the patient to recover.

Secondly, in other cases, the dentist removed much more tooth structure than was necessary in preparation for a dental restoration. Loss of tooth structure further weakens the tooth. Thirdly, in some cases, teeth were pulled when it was not necessary or desirable. Fourthly, in other cases, dental materials were used that were NOT biocompatible to the patient -- so later, the dental materials had to be replaced AGAIN -- with additional tooth loss for the preps and at increased expense to the person.

Fifthly, in other cases, the dental materials used *were* biocompatible, but were improperly placed on the teeth. Consequently, they had to be removed and replaced only one to two years later, due to leaking and decay around the bonding on the teeth.

Sixthly, in yet other cases, the dentist left some of the mercury in the base of a tooth to help "seat" a new crown to give it more strength. Although this might seem logical, a mercury base with a gold alloy crown sitting on top has a disastrous mixed-metal effect, with **80 times the outgassing of mercury vapor** (according to research) when mixed metals are present as well as producing a disruptive galvanic effect.

Our list of examples of poor dental practices goes on and

on. In some cases, the patient did not readily have the funds to replace a “botched” job.

Finding A “Good” Dentist

For those wishing to have top quality, biological dentistry, we feel morally obligated to eliminate the above problems in order for each person to have proper biocompatible dental restorations done the right first time, without incurring additional harm. Our goal is to save time, money and teeth, and to take steps to ensure that each person’s physical problems do not get worse.

We have worked extensively with **Dr. Randolph Aguilera, D.D.S.**, a pioneer in the use of nontoxic, truly biocompatible, tooth-conserving dentistry. Together with Dr. Marshall, he is the co-originator of the Quantum Dental System Protocols. He is available in the Los Angeles, California area or in Austin, Texas at 512-244-7105 or 888-793-7339. Dr. Aguilera strictly follows proper dental protocols and uses only state-of-the-art dental equipment, including dental lasers.

Working together, we have discovered novel, cutting edge ways to overcome the many toxic dental pitfalls associated with standard and so-called “alternative” dental care. We highly recommend Dr. Aguilera and have found that he will go the extra mile to get the job done right the first time. We have seen excellent dental results with hundreds of people under his care.

If you live out of state or out of the country, your best option is to plan to see Dr. Aguilera and stay for a period of time in order to have a segment of dental work completed each time you come.

Removing toxic metals and materials from the teeth and replacing them with durable, biocompatible materials is a critical, essential step to rebuilding a solid foundation of a healthy body.

Selecting Bio-Compatible Dental Materials

We have extensively tested hundreds of dental materials and determined those which are most biocompatible and well tolerated by literally everyone. The current, most up-to-date dental materials including dental restorative materials as well as bonding agents are listed on our summary sheet; **“Dental Materials: The Best Choices.”**

Blood Testing: Neurologically Inadequate. To identify biocompatible dental materials, immunological blood testing has proven inadequate since it is unable to assess neurotoxicity. When blood testing alone was used to assess individual biocompatible dental materials, we have found that various people reacted later (sometimes days or months later) to their supposedly biocompatible dental materials (as shown by the same blood test - repeated again).

In contrast, the dental materials we have identified, when completely outgassed and used properly, are extremely biocompatible and tolerated by literally everyone.

The Relationship Of The Teeth To The Rest Of The Body

Ancient Chinese medical science states that the body’s electromagnetic energy flows along invisible channels called acupuncture meridians throughout the whole body. This con-

cept was unacceptable to the scientific Western mind for many decades until two French medical doctors scientifically proved the existence of these channels through radioisotope tagging in the 1970’s. Since then, the art and science of acupuncture has continued to soar as more and more medical practitioners world-wide have studied the healing benefits of acupuncture for their patients.

The ancient Traditional Chinese Medicine (TCM) taught that the main cause of sickness is an imbalance of energy in the body. Some parts of the body may become oversupplied or “jammed” with energy while other parts may have too little energy. This theory that disease is caused by an imbalance of energy is over 5,000 years old. Before a disease actually occurs, first an alteration or disturbance must take place in the body’s electromagnetic fields. Many things can disturb these fields, such as poor nutrition, chemicals in your food, pesticides, harmful electromagnetic fields (such as power lines), bad bacteria, fungus, viruses, poisons, toxins, trauma, stress, and many other factors.

Acupuncture is one of the oldest therapeutic means to restore these energetic imbalances which have been disturbed by disease. The acupuncture points are a whole network over the entire body interconnecting all the electromagnetic fields. In addition, many researchers such as Dr. J. Thompsen, D.D.S. and Dr. Reinhart Voll, M.D. of Germany have mapped the electromagnetic connections between every tooth and the specific organs, glands, muscles, and joints in the body.

Front Teeth = Kidneys, Prostate & Sexual Dysfunction

For example, they found that the front teeth (numbers 7, 8, 9, 10) are connected to the uro-genital tract through the acupuncture meridians. If you had a blockage such as a silver filling in a front tooth, they found that this disturbance could eventually lead to a problem with your kidneys, prostate or sexual dysfunction.

The chart at the end of this article shows many of the known interconnections between the teeth and the body which they discovered. After studying this chart and the vast tooth-body interconnections, it is easy to see the need to eliminate hazardous dental materials in teeth which can negatively influence the whole body.

Getting The Bite Right

When old fillings are taken out of your teeth and new materials are put in, the occlusion or your “bite” (the way your teeth fit together) can be accidentally thrown off. Your teeth may feel like they just don’t come together right. This can have disastrous effects on your health.

Improperly aligned teeth can create front loading and torque on the jaw muscles of the jaw joint. Because of the relationship of the jaw joint to the nerves of the spine, this can produce symptoms throughout the body from chronic headaches to low back pain, due to the altered nerve pathways. Obviously, the correct position of the bite is extremely important.

Some dentists recommend cranial treatments to realign the bony plates of skull before adjusting the “bite.” We recom-

mend checking the position of the vertebrae in the spine of the neck and back before adjusting the bite. If any of the vertebrae are subluxated or "out of position," it is critical to adjust the vertebrae into proper alignment as much as possible. Otherwise, your dentist may adjust your bite to fit the poor position of your spine. It is interesting to note the change in the way your mouth feels and the position of the teeth after a chiropractic adjustment.

Getting The Best "Bite" Position

Before adjusting the bite, we also recommend loosening (through massage or acupressure) any tight muscles of the head or neck, which can also adversely affect or alter the bite. In particular, the trapezius or shoulder muscles are often stiff and tight. Establishing the proper nerve supply to your head and neck will help to allow you to obtain the best "bite" position. In some cases, this makes the difference between a successful bite adjustment by your dentist -- or not.

Insuring Successful Dental Work

Because almost all dental work is stressful to the body, especially drilling of the teeth, we recommend a session or two of body work (such as massage, triggerpoint therapy, acupuncture, or chiropractic) both before and after dental work. The body work sessions before dental work help to loosen tight muscles, establish proper spinal alignment, and stimulate nerve pathways so that your dental session is a "breeze," with the best results and least amount of pain.

Bodies with poor nerve supply to the jaw, jaw joint, and teeth areas or those with stiff neck and shoulder muscles may be less able to handle dental stress and be more likely to end up with "bite" misalignment. Bodywork sessions after dental work help to reestablish stressed nerve pathways, loosen stressed muscles, relieve pain, and speed healing.

Neutralizing Mercury with Nutrition

We like to emphasize the importance of superior nutrition for good health, but especially under toxic conditions such as chronic mercury exposure from silver fillings and other toxic dental materials.

What can you do while you still have silver-mercury fillings in your mouth? The silver filling removal process may take weeks, months or even years for some people due to financial problems, physical debilitation, or other factors. While you are waiting to start the removal, or if you are in the middle of removal, nutrition is a powerful mercury adversary.

Nutrition To The Rescue!

We recommend products from Premier Research Laboratories because they have a proven track record of performance. PRL's products contain world-class quality nutrients and come only in non-toxic vegetable capsules. They are guaranteed free of solvents, radiation and toxic chemicals. These products are clinically tested with hundreds of people.

Vegetable Capsules: The Superior Choice

Before using any nutritional product, first check to see whether it is made as tablets or capsules. Tablets are back in the dinosaur ages. They are made using up to 20,000 pounds

of pressure per square inch. This pressure and heat can degrade up to 25% of the nutrients. In addition, questionable excipients and binders are typically used to hold the tablet together and to help it slide through the machine. Does polyvinylpyrrolidone sound like something you'd like to eat? But you'll rarely find it on the label. The tablet-makers would rather you didn't know about this. And of course, it's cheaper to make a tablet than a capsule.

Capsules are the superior choice. They are 50% easier to absorb than tablets, and do not need to contain toxic binders or glues. Since tablets must be pounded and "glued" together, no wonder they are often found in the toilet -- undigested. Vegetable capsules are also 50% easier to absorb than gelatin capsules.

Relentless Damage

But remember, no matter what top nutritional supplements you take, brain and kidney damage may be slowed down considerably, but will still proceed due to mercury slowly leaching out of your silver fillings. Other toxic heavy metals from dental materials can also create systemic damage over time. The best decision is to remove the toxic dental materials from your mouth as soon as the body is strong enough to undergo the task.

Becoming Mercury-Free

Once all the mercury (from silver-mercury fillings) has been carefully removed from your mouth and biologically compatible dental materials have been used in place of them, now the real battle begins! No, you're not done. You have just started! Although your teeth may be mercury-free, the toxic mercury ions that have deposited for years in other tissues are still in your body. Now comes the task of clearing as much of the body burden of mercury as possible.

Although some people feel much better immediately after silver-mercury filling removal, most need several months and sometimes years to detoxify adequately. This is one of the most important tasks you will ever undertake. When mercury (and other heavy metals) are cleaned out of your body stores and pathways, only then can you achieve maximal improvement in proper nerve functioning and nutrient uptake.

Testing For Mercury and Tooth Stress

To evaluate the extent of the body's heavy metal burden, different kinds of tests have been devised. Hair Analysis (taking a small sample of hair from the nape of the neck) analyzes the amounts of various toxic metals such as mercury, lead, cadmium, and aluminum which have been pulled out of the body through the hair. This test is easy to do but does not necessarily reflect true body stores of heavy metals.

The EDTA Challenge Test entails obtaining a "before" and "after" 24-hour urine test to see the difference after EDTA is given. EDTA is a known chelator of mercury. However, this test may be hazardous for some individuals, especially if mineral deficient, since EDTA can also pull out other needed minerals. This test also does not necessarily reflect the whole body burden of heavy metals.

A DMPS Challenge Test uses the drug, DMPS, intravenously to mobilize mercury stores from the body. However, it can cause mobilized mercury to relocate to other sites, such as the brain and kidneys, which may then be much harder to eliminate.

Indirect tests such as the SpectraCell Test (a blood test), measures the mineral stores inside the blood cell. If mineral levels are low, heavy metals may be suppressing mineral uptake or utilization. Once again, it does not reflect the body's true heavy metal burden.

Another indirect test is the Immune Competence Test which measures how adequately your immune system is functioning. Poor values may mean heavy metal toxicity. This, too, cannot assess true body heavy metal stores.

Other specialized tests are also available to help determine the functioning and stress loads on your immune and nerve systems.

The most excellent and reliable method we have found is **QRA™(Quantum Reflex Analysis)**. This method is very cost effective and can quickly screen the body's control points to pinpoint-target the sites affected and the types of amounts of nutrients needed to safely clear heavy metals.

Individualized Nutritional Programs

Once your nutritional imbalances and toxic metal burden have been identified by QRA™, an individualized nutritional program can help your body to rebuild and gently detox chronic accumulations of heavy metals to help you regain your rightful heritage of feeling great with abundant energy.

Recommended Reading

Abraham, J.E., Svare, C.W., Frank, C.W., and Frank, C.W. "The Effect Of Dental Amalgam Restorations of Blood Mercury Levels." *J Dent Res*, 1984; 63: 71-73.

Arvidson, K. "Corrosion Studies Of A Dental Gold Alloy In Contact With Amalgam Under Different Conditions". *Scand J Dent Res*, 1975;68: 117-26.

Arvidson, K., and Johannsson, E.G. "Galvanic Currents Between Dental Alloys In Vitro". *Scand J Dent Res*, 1985;93: 467-73.

Compeau, G., and Bartha, R. "Methylation And Demethylation Of Mercury Under Controlled Redox, pH, And Salinity Conditions". *Appl Environ Micro*, 1984;48: 1203-1206.

Fascianana, G. *Are Your Dental Fillings Poisoning You?* (Keats: Brooklyn, NY), 1986.

Gay, D.D., Cox, R.D., and Reinhardt, J.W. "Chewing Releases Mercury From Fillings". *Lancet*, 1979;1: 985-986.

Hansen, K., and Stern, R.M. "A Survey Of Metal-induced Mutagenicity In Vitro And In Vivo". *J Amer Coll Toxicol*, 1984; 3: 381-430.

Huggins, H. *The Price Of Root Canals: A Compilation Of The Work Of Dr. Weston Price* (Colorado Springs, CO).

Huggins, H. *Mercury And Other Toxic Metals In Humans* (Life Sciences Press: Tacoma, WA), 1990.

Inouye, M., Murao, K., and Kajiwara, Y. "Behavioral And Neuropathological Effects Of Prenatal Methylmercury Exposure In Mice". *Neurobehav Toxicol Teratol*, 1985;7: 227-232.

Kennedy, D., D.D.S. "How to Save Your Teeth: Toxic-free Preventative Dentistry". *Health Action Press*, 1993.

Khera, K.S. *Teratogenic And Genetic Effects Of Mercury Toxicity. The Biogeochemistry Of Mercury In The Environment*. Nriagu, J.O., Ed. Amsterdam: Elsevier, 1979.

Koos, J.B., and Longo, L.D. "Mercury Toxicity In The Pregnant Woman, Fetus, And Newborn Infant". *Am J Obstet Gynecol*, 1976; 126: 390-409.

Lumb, G.D., Sunderman, F.W. St., and Schneider, H.P. "Nickel-induced Malignant Tumors". *Annal Clin. Lab Sci.*, 1985; 15: 374-380.

Malamud, D., Dietrich, S.A., and Shapiro, I.M. *Low Levels Of Mercury Inhibit The Respiratory Burst In Human Polymorphonuclear Leukocytes*, 1985: 128; 1145-1151.

Marlow, M., Jacobs, J., Moon, C., and Errera, J. *Main And Interaction Effects Of Metal Pollutants In Emotionally Disturbed Children. Monograph In Behavioral Disorder*, Rutherford, R.B., Ed., Reston, VA: Council for Children With Behavior Disorders, 1984;7: 76-80.

Meinig, G. *Root Canal Cover-Up Exposed* (Bion: Ojai, CA), 1993.

Milleding, P., Wennberg, A., and Sasselgren, G. "Cytotoxicity Of Corroded And Non-Corroded Dental Silver Amalgams". *Scand J Dent Res*, 1985;93: 76-83.

Moffa, J.P., Beck, W.D., and Hoke, A.W. "Allergic Responses To Nickel Containing Dental Alloys". *J Dent Res*, 1977;56 (B); 78 (#107).

Pelletier, L., Pasquier, R., Hirsch, F., Sapin, C., and Druet, P. "In Vivo Self-Reactivity Of Mononuclear

Cells To T Cells And Macrophages Exposed To H₂Cl₂". *Euro J Immunol*, 1985: 460-465.

Pinto, O.F., and Higgins, H.A. "Mercury Poisoning In America", *J Int Acad Prevent Med*, 1976;3: 42-58.

Sarkar, N.K. "Creep, Corrosion And Marginal Fracture Of Dental Amalgams". *J Oral Rehabil*, 1978;5: 413-423.

Smialowicz, R.J., Rogers, R.R., Riddle, M.M., and Stott, G.A. "Immunologic Effects Of Nickel: I. Suppression Of Cellular And Humoral Immunity". *Environ Res.*, 1984;33: 413-427.

Smialowicz, R.J., Rogers, R.R., Riddle, M.M., Garner, J.R., Rowe, D.G., and Luebke, R.W. "Immunologic Effects Of Nickel: II. Suppression Of Natural Killer Cell Activity". *Environ Res.*, 1985;36: 56-66.

Soremark, R., Wing, K., Olsson, K., and Goldin, J. "Penetration Of Metallic Ions For Restorations Into Teeth". *J. Prosthet Dent*, 1986;20: 531-540.

Stortebecker, P. *Dental Caries As A Cause Of Nervous Disorders*. (Bio-Probe, Inc.: Orlando, FL), 1982.

Stortebecker, P. *Mercury Poisoning From Dental Amalgam: A Hazard To Human Brain* (Bio-Probe, Inc.: Orlando, FL), 1985.

Svare, C.W. *Dental Amalgam Related To Mercury Vapor Exposure*. (ADA/NIDR Workshop on Biocompatibility of Metals in Dentistry: Chicago, IL), 1984.

Togna, G., Dolci, N., and Caprino, L. "Inhibition Of Aortic Vessel Adenosine Diphosphate Degradation By Cadmium and Mercury". *Arch Toxicol*, 1984: Supple 7; 378-81.

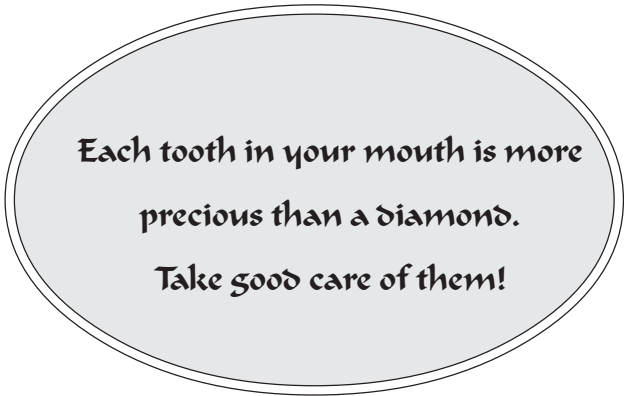
Vimy, M.J., Takahashi, T., and Lorscheider, F.L. "Maternal-Fetal Distribution Of Mercury²⁰³ Released From Dental Amalgam Fillings". *Journal of American Physiology*, 1990.

Waku, K., and Nakazawa, Y. "Toxic Effects Of Several Mercury Compounds On SH- And Non SH-Enzymes". *Toxicol Lett*, 1979;4: 49-55.

Ziff, S. *Infertility And Birth Defects: Silver Dental Fillings As A Cause* (Bio-Probe, Inc.: Orlando, FL), 1987.

































Ziff, S. *The Missing Link: Heart Disease As It Relates To Mercury* (Bio-Probe, Inc.: Orlando, FL), 1991.

Ziff, S. *Silver Dental Fillings: The Toxic Time Bomb* (Aurora Press: Santa Fe, NM), 1984.



Tooth-Organ Chart

The relationship of the teeth
to organs and other body areas

| | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|
| SENSE ORGANS | Inner ear | Maxillary Sinus | Ethmoid cells | Eye | Frontal sinus | Frontal sinus | Eye | Ethmoid cells | Maxillary Sinus | Inner ear | | | | | | | | |
| JOINTS | Shoulder Elbow | Jaws | Shoulder Elbow | Back of knee | | Back of knee | | Shoulder Elbow | Jaws | Shoulder Elbow | | | | | | | | |
| | Hand, ulnar Foot, plantar Toes, sacro-iliac joint | Front of knee | Hand, radial Foot Big toe | Foot | | Foot | | Hand, radial Foot Big toe | Front of knee | Hand, ulnar Foot, plantar Toes, sacro-iliac joint | | | | | | | | |
| SPINAL SEGMENTS | C8 T1 T5 T6 T7 S1 S2 S3 | T11 T12 L1 | C5 C6 C7 T2 T3 T4 L4 L5 | T8 T9 T10 | L2 L3 S4 S5 Coccyx | L2 L3 S4 S5 Coccyx | T8 T9 T10 | C5 C6 C7 T2 T3 T4 L4 L5 | T11 T12 L1 | C8 T1 T5 T6 T7 S1 S2 S3 | | | | | | | | |
| VERTEBRAE | C7 T1 T5 T6 S1 S2 | T11 T12 L1 | C5 C6 C7 T2 T3 T4 L4 L5 | T9 T10 | L2 L3 S3 S4 S5 Coccyx | L2 L3 S3 S4 S5 Coccyx | T9 T10 | C5 C6 C7 T2 T3 T4 L4 L5 | T11 T12 L1 | C7 T1 T5 T6 S1 S2 | | | | | | | | |
| ORGANS | Heart -R | Pancreas | Lung -R | Liver -R | Kidney -R | Kidney -L | Liver -L | Lung -L | Spleen | Heart -L | | | | | | | | |
| | Duodenum | Stomach -R | Large Intestine -R | Gall-bladder | Bladder -R Urogenital area | Bladder -L Urogenital area | Bile ducts -L | Large Intestine -L | Stomach -L | Jejunum Ileum -L | | | | | | | | |
| ENDOCRINE ORGANS | Pituitary, Ant. lobe | Para-thy-roid | Thy-roid | Thy-mus | Pituitary, Post lobe | Pineal gland | Pineal gland | Pituitary, Post lobe | Thy-mus | Thy-roid | Para-thy-roid | Pituitary, Ant. lobe | | | | | | |
| OTHERS | CNS Psyche | Mammary Gland -R | | | | | | | Mammary Gland -L | CNS Psyche | | | | | | | | |
| UPPER TEETH | R | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | L |
| | R |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | L |
| LOWER TEETH | R |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | L |
| | R | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | L |
| OTHERS | Energy Metabolism | | | Mammary Gland -R | | | | | | | Mammary Gland -L | | | Energy Metabolism | | | | |
| ENDOCRINE GLANDS TISSUE SYSTEMS | Peripheral nerves | Ar-teries | Veins | Lymph vessels | Gonad (Testes or Ovary) | Adrenal gland | Adrenal gland | Gonad (Testes or Ovary) | Lymph vessels | Veins | Ar-teries | Peripheral Nervous System | | | | | | |
| ORGANS | Ileum -R | Large Intestine -R | Stomach -R Pylorus | Gall-bladder | Bladder -R Urogenital area | Bladder -L Urogenital area | Bile ducts -L | Stomach -L | Large Intestine -L | Jejunum Ileum -L | | | | | | | | |
| | Ileocecal region | | | | | | | | | | | | | | | | | |
| VERTEBRAE | Heart -R | Lung -R | Pancreas | Liver -R | Kidney -R | Kidney -L | Liver -L | Spleen | Lung -L | Heart -L | | | | | | | | |
| | C7 T1 T5 T6 S1 S2 | C5 C6 C7 T2 T3 T4 L4 L5 | T11 T12 L1 | T9 T10 | L2 L3 S3 S4 S5 Coccyx | L2 L3 S3 S4 S5 Coccyx | T9 T10 | T11 T12 L1 | C5 C6 C7 T2 T3 T4 L4 L5 | C7 T1 T5 T6 S1 S2 | | | | | | | | |
| SPINAL SEGMENTS | C8 T1 T5 T6 T7 S1 S2 S3 | C5 C6 C7 T2 T3 T4 L4 L5 | T11 T12 L1 | T8 T9 T10 | L2 L3 S4 S5 Coccyx | L2 L3 S4 S5 Coccyx | T8 T9 T10 | T11 T12 L1 | C5 C6 C7 T2 T3 T4 L4 L5 | C8 T1 T5 T6 T7 S1 S2 S3 | | | | | | | | |
| JOINTS | Shoulder and elbow | Front of knee | Back of knee | | Back of knee | | Front of knee | Shoulder and elbow | | | | | | | | | | |
| | Hand, ulnar Foot, plantar Toes, sacro-iliac joint | Hand, radial Foot Big toe | Jaws | Foot | | Foot | | Jaws | Hand, radial Foot Big toe | Hand, ulnar Foot, plantar Toes, sacro-iliac joint | | | | | | | | |
| SENSE ORGANS | Ear | Ethmoid cells | Maxillary Sinus | Eye | Frontal sinus | Frontal sinus | Eye | Maxillary Sinus | Ethmoid cells | Ear | | | | | | | | |

Nine Key Questions to Ask Your Dentist *Before Getting Dental Work Done*

- 1.** Does the dentist use a digital dental X-ray system?
(Digital X-rays produce 90% less radiation than old analog X-ray machines.)
- 2.** Does the dentist use Septocaine as the anesthetic?
(Lidocaine and Carbocaine are extremely toxic (carcinogenic) and block lymphs in the retromolar areas [where the injection is given] and can compound infection in other teeth areas.)
- 3.** Does the dentist use a rubber dam when removing silver amalgam fillings?
(If a rubber dam is not used, significant amounts of vaporized mercury ions can be absorbed into the sinuses, brain, etc. -- which can create distressing symptoms.)
- 4.** Does the dentist use an exhaust system, placed near the mouth while removing silver amalgam fillings?
(If an adequate exhaust system is not used, significant amounts of vaporized mercury ions can be absorbed into the sinuses, brain, etc. - which can create distressing symptoms.)
- 5.** Does the dentist use a medical-grade tubing delivering purified air (placed into the nasal passages) while removing silver amalgam fillings?
(If not, then the patient has a higher possibility of breathing in toxic air-bourne metal particulates from the drilling procedure.)
- 6.** Does the dentist use dye-staining (which later rinses away) to identify infection in the teeth?
(Typical dental X-rays are notoriously inaccurate in terms of showing dental decay -- being accurate only about 30% of the time, regardless if digital or old analog X-rays are used. Dye-staining the teeth helps show decay that X-rays routinely miss.)
- 7.** Does the dentist use a dental laser to disinfect a newly drilled tooth?
(A dental laser is approximately 99.9% disinfective. If a dental laser is not used, typical dental disinfection using hydrogen peroxide is only about 30% effective -- meaning that some infection will often remain.)
- 8.** Does the dentist use low-fusing ceramics or ceramic/hybrids to replace the fillings?
(The LFCs [low-fusing ceramics] are a special, truly biocompatible, nontoxic dental restorative material which has a built-in shock-absorbing capacity to prevent cracking under maximum biting pressure. Especially avoid metal fillings, crowns, etc.)
- 9.** Does the dentist use a laser to permanently bond a new inlay or crown?
(If the dental restoration is not bonded by laser, the typical dental cements that are used will commonly wash out from underneath the crown or filling within about 5 years -- eliciting slow decay underneath the crown or filling and more loss of the tooth. Laser bonding is permanent and will not do this.)

Note: Although the previous article details many recommended dental procedures to be used for the best outcome, the above 9 questions are the key areas to address.

Dental Materials: The Best Choices

Recommended Biocompatible Dental Materials

Please remember – every dental material that is used in your mouth is of critical importance and must be carefully chosen. You (and your immune system) will be exposed to these dental materials 24/7 nonstop – continuously via your mouth. If a material tests even slightly poorly, it can negatively impact your body's health over time. NOTE: Identifying nontoxic bonding agents is equally important as dental restoratives.

Although the following list appears very small, very few materials are able to meet our minimum standards for truly biocompatible dental materials which do not impede ideal cellular resonance for human beings. The following materials do not need to be allergy-tested because they are nontoxic; we have thoroughly tested them to be sure they do not impede the cellular resonance of the human body. Note: Certain dental materials may test toxic in their “wet” or pre-formed state, but once they have hardened (and outgassed) they may then test OK. Therefore, testing dental materials must be done in their final state.

After testing hundreds of people over many years, we have found the following dental materials have proven to be reliably biocompatible for most people and are all part of the **Quantum Dental Health System** (as taught by Dr. Marshall and Dr. Aguilera). These materials are used in the dental offices of Dr. Randy Aguilera in Austin, TX and in Orange County, CA. (To contact his office for further details, call: 888-793-7339)

For Onlays, Inlays, Crowns

a) Ceramics and Resin Ceramic Hybrids

Luminesse Ceramic (LFC - low-fusing ceramic)

Vitablock (LFC; milled on Cerec milling unit, a chairside dental CAD/CAM restorative system)

MZ100 (LFC ceramic/resin hybrid - needed when extensive tooth structure is missing; milled on Cerec milling unit)

Cristobal+ (ceramic/resin hybrid)

Degussa Ceramic (LFC; its trade name is Ducera Gold -- a confusing name since it contains no gold)

b) Composites

Esthet-X

For Bridges

Solidex with Ribbond (ceramic/resin hybrid)

Cristobal+ with Ribbond (ceramic/resin hybrid)

Cercon (ceramic)

For Dentures

(Avoid pink dyes in the denture base material which typically contain cadmium, a toxic metal.)

Dentsply Lucitone 199 (for base material of denture)

Valplast (for unilateral partials or full dentures)

For Implants

We firmly recommend against using titanium implants which can create significant metallic and electrical distress.

We are currently investigating the best implants (for missing teeth); we are especially looking at low-fusing ceramic dental implants which are biocompatible with the human body.

Dental Bonding System (Needed for use with ceramic restorations or composites as listed above)

Se Clearfil (A strong bonding system)

RelyX ARC (Do not use its accompanying etch, prime and bond; use Se Clearfil)

*RelyX-Unicem (Has slightly stronger bond; contains all four agents together: etch, prime, bond, adhesive; do not need Se Clearfil) *Preferred System

Disinfection Methods (needed before bonding dental materials to the tooth structure)

Research shows that the use of hydrogen peroxide (typically used in dentistry) is *not* adequate – yielding only about 40% disinfection at best. For disinfection after dental procedures, we recommend that you go to a dentist who uses dental lasers (3 key types of dental lasers: Diode, Nd-Yag, Erbium) which yields 99.9% disinfection.

Rev 4-27-05

*Excellence is doing ordinary things
extraordinarily well.*