

Your Health and Dentistry



Your health practitioner cares greatly about you,
your health, and prevention of disease.
We offer this publication free in order to provide
education and information
that may promote healthy choices
about Whole Body Health.

Published for the benefit of a healthy society by the
Laser Dental Center Association
A Non-Profit Organization

The Mouth . . .

. . . is the largest opening from the external environment . . .



. . . to the internal environment of the body

The Gateway to Our Body

The mouth is a key part of our survival. Everything we need to keep us alive and healthy--food, air, water--comes through the mouth first.

Everything that is bad for us passes through the mouth as well, such as bacteria, viruses, parasites, fungi and molds.



The two basic functions of the mouth, besides communication and expression, are

Digestion and Immunity.

In **Digestion**, the mouth helps to break apart food into tiny particles, mixing it with saliva, which contains enzymes and chemicals that assist the stomach and intestines in the digestion and absorption of nutrients.

For **Immunity**, the mouth provides a major barrier between the outside world and the inner environment of the body. Saliva contains many natural anti-bacterial and germicidal agents.

In addition, the mucosal immune membrane barrier that lines the mouth and surrounds each tooth is probably the most important component of our immune defense system.

Dental Influences . . .



. . . on your health

Research has found that oral health, and the dental procedures performed in the mouth, have a direct impact on the whole body's health. In addition, almost all adult dentistry performed today is working on teeth that dentists have drilled and filled early in life. Infections in the teeth and gums can lower Oral Immunity, your body's first defense against many toxins and diseases that may enter the body.

- Digestion can be affected by changes in the salivary secretions such as altered pH and enzymes.
- Mercury and other chemicals used in traditional dental treatments may be very harmful and toxic to the body in general, the mouth in particular, and interfere with many bodily functions.
- The mixed metals used in fillings, crowns and bridges produce voltage and electromagnetic fields which may influence brain function and brain rhythm patterns.
- TMJ issues may negatively affect body structure, alignment, muscles, and our nervous system.
- Many Root Canal procedures may cause tooth loss, bone death and necrosis (gangrene).
- Standard, traditional dentistry may lead to more dental treatments being needed later, as almost all adult dentistry performed today is working on teeth that dentists have drilled and filled early in life.

Routine dental procedures, done "The Laser Way," may have the potential to change all of this.



Oral Infections



and



Oral Immunity

Infected teeth and gums have been linked to many serious conditions such as heart disease, stroke, and diabetes. Yet even a normal mouth may be exposed to all the external bacteria, viruses, parasites and toxins present in our environment.



Normal dental cleanings use techniques that cut and scrape the gums, and the periodontal ligament/immune membrane of the tooth, which is one of the body's most important immune barriers. This exposes the teeth and gums to invasions of bacteria, viruses and toxic elements that can further compromise the mouth's natural immunity, and may infect the blood stream with every microbe sitting around each tooth.

Sterilase™ laser-assisted dental cleanings are the antidote to the infections one is exposed to during a normal dental cleaning. The laser does not cut or scrape away vital tooth tissue, and helps to disinfect the area, preventing infection and helping keep the mouth's immune system healthy.



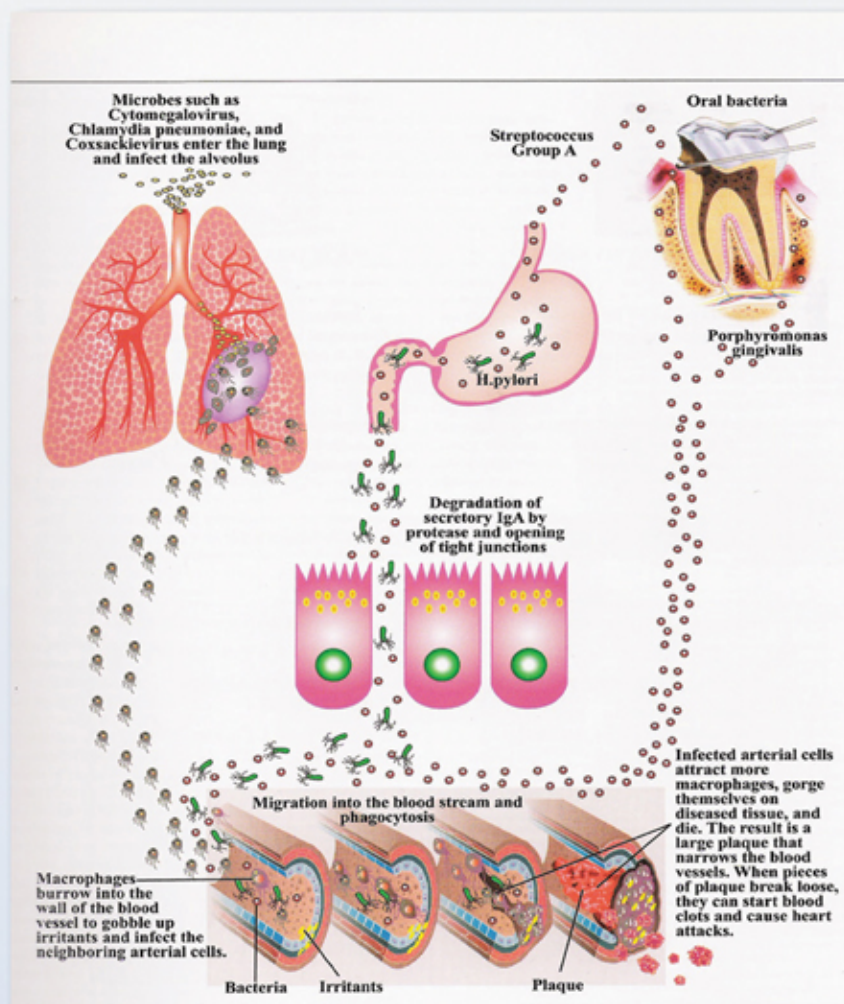


Image courtesy of Aristo Vojdani, PhD
Immunosciences Lab, Beverly Hills, CA

Many scientific studies have shown the direct relationship between many serious, even life-threatening illnesses, and oral bacteria and infection from the mouth.

CONVENTIONAL DENTAL TEETH CLEANING

Uses cutting and scraping tools and techniques that are not only painful, but allow bacteria, viruses, toxins and infectious agents to enter into the blood stream around the tooth and gum area. These standard techniques may damage the immune membrane around each tooth, may severely compromise the mouth's natural immune system, and may infect the body.

STERILASE™ LASER DENTAL TEETH CLEANING

Uses a directed beam of laser light that minimizes discomfort, and does not cut into delicate tissue. The Sterilase™ laser techniques disinfect the area around the tooth and gum tissue, helping to insure that little or no infectious agents can enter the body through damaged immune membranes. Using laser, irrigation and ultrasonic techniques provides a more comfortable and less infective alternative to standard teeth cleanings.

Mercury . . .

has no business being in the mouth

Mercury is a toxic poison that makes up 50% or more of today's so-called "silver amalgam" fillings. Mercury vapors are released from these fillings twenty-four hours a day, and the act of chewing releases even more of these toxic fumes.

Mercury exposure from amalgam fillings may contribute to, among other things, heart disease, hearing loss, neurological problems, digestive problems, fatigue, depression, birth defects, and quite possibly most chronic degenerative diseases such as Alzheimers, M.S., and Parkinson's.

For this reason, the State of California passed Proposition 65, wherein dental patients are now required to be informed about the health hazards of mercury amalgam. Other states are now following suit with similar laws.

The controversy surrounding mercury in fillings is being perpetuated by the American Dental Association and its dentist members, which continues to deny that there is anything wrong with mercury amalgam. However, the ADA has a lot at stake, since they support the major amalgam manufacturers and the dentists who place the amalgams. Statistics continue to mount showing that mercury may indeed be a hazardous substance to have in the mouth, regardless of what ADA-funded studies may show.

The FDA has pretty much skirted the issue by saying it's the individual dentist, not the amalgam manufacturers, who is responsible for how much mercury is in this type of filling, since it is the dentist that actually mixes the amalgam immediately prior to putting it into a tooth as a filling. At the same time, state and federal agencies strictly regulate and enforce the handling of mercury as a hazardous material. Dentists cannot leave unused mixed dental amalgam exposed in the office, yet no one can explain how this harmful substance suddenly and mysteriously becomes safe when it is placed in the mouth as a tooth filling.

IMPORTANT!!!

Safe removal of this toxic substance from the mouth is critical! If you have mercury amalgam fillings, and you elect to have them removed, make sure your dentist knows, understands and follows all safety protocols for the removal of mercury from the mouth. Improper removal may result in the greatest exposure to mercury you've ever had at any point in your life.



Dental Restorations

It used to be that there was very little choice in how teeth were restored. If you had a small to medium-sized cavity, there was the mercury amalgam filling. The problem with that type of filling, health issues aside, is that amalgam eventually cracks and breaks down, often causing the tooth structure itself to crack and break. This eventually leads to the need for more aggressive and extensive dental work. When more extensive treatment was needed, the tooth was ground down, a root canal procedure may have been performed, and a metal crown was put in, made from gold or other mixed-metal alloys. If the tooth was too far gone for that to work, the only other alternative was extraction.



Before Restoration



Same Teeth After Restoration

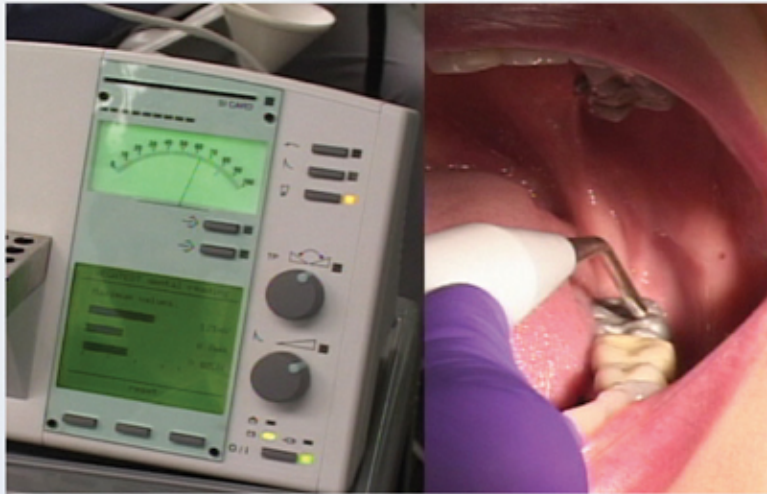
Even the act of drilling on the tooth with coarse, cutting tips, may crack the fragile crystals of tooth enamel.

Now, restorations can be performed using toothlike, or “biocompatible” materials that can be directly fused to the tooth, eliminating the need for unsightly fillings and many times eliminating the need for crowns.

Many of these restorations can be performed using the *Cerec 3*, a machine that takes a 3-D optical impression of the tooth needing restoration, then fabricates biocompatible inlays that are fused to the tooth using a laser or other focused high-intensity light source. The tooth is then restored to as close to its original strength and beauty as possible.



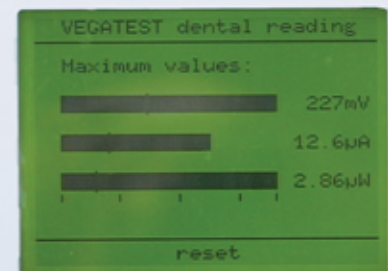
Electromagnetic Voltages and Currents



A Vegatest readout showing high voltage levels from metal fillings and crowns in the mouth.



Major stressors on the body may be the electrical currents and voltages produced by the mixed metals placed in the mouth. This galvanic effect may not only adversely affect the oral area, but may interfere with the electromagnetic or neural patterns from the brain itself, which in turn would have a direct effect on the entire body and its health.



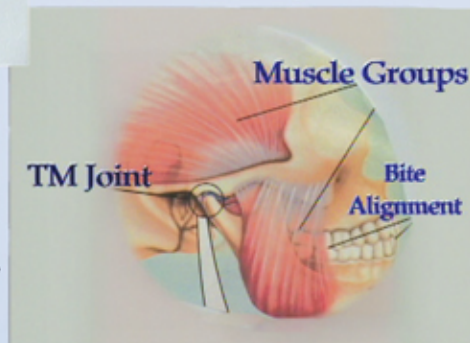
TMJ - Structure and Muscles



The Temporal Mandibular Joint can affect the body's overall structural alignment and the whole body's well-being.

The TMJ is a joint that hinges the upper part of the jaw to the lower part, which is almost like a free-moving bone suspended with several major groups of muscles that pull the jaw down, biting and clenching and breaking apart food.

There are other muscles that balance and stabilize to move it in many different directions, to help the lower jaw function.



Chronically tight muscles may lead to headaches and other painful conditions.

Many of these muscles, as they are pulled and stretched, can alter the head's relationship to the spine which then may indirectly affect structural relationships of the whole body. Conversely, the structural relationships of the body can alter the direction, force and position of the jaw. Dental practitioners need to look at all these things, and how they are interrelated, to maximize the patient's oral health and whole-body health.



Root Canal Issues

Perhaps one of the most feared and misunderstood dental procedures of all is the Root Canal Treatment. A root canal is generally done when decay and bacteria have infected the nerve, or pulp, in the tooth root. Pain and/or an abscess will result, and most dentists will automatically do a root canal without a second thought. In that procedure, the tooth roots are completely cleaned out, removing all the nerve/pulp tissue, infection and abscesses. Then the root interior is cleaned out with harsh chemicals to sterilize it, after which a filling of gutta percha is placed into the roots. The tooth is then sealed and a crown, made of a metal alloy or a porcelain/metal combination, is placed over it and cemented in place.

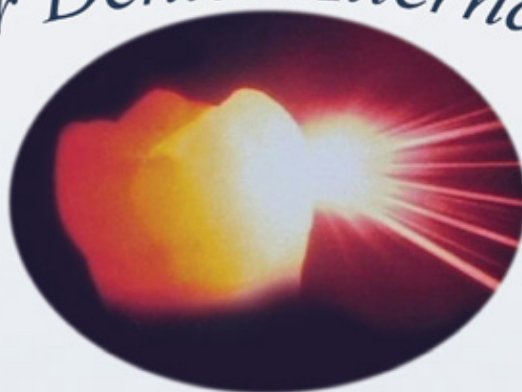
There are many weaknesses in this commonly done procedure. For one thing, the chemicals used to sterilize the root interiors are toxic and harmful to the human body. Another problem is the gutta percha material used to fill the roots. It is made of a latex material that many people may be sensitive to, and may shrink or leave voids which may leak and breed more bacteria. Additionally, gutta percha is mixed with heavy metal salts, which may include mercury, barium and lead so that it will show up well on an X-Ray. All blood flow and lymphatic drainage to the area surrounding the tooth may be reduced, which may cause bone death and degradation around the tooth. The cement that fastens the permanent crown is not foolproof, either. It may crack and leak over time, allowing microbes to enter the remainder of the tooth underneath, and cause further decay and breakdown.

In addition, many times a root canal procedure may not be necessary. Pain and swelling doesn't necessarily indicate that the tooth is dead and can't be revived. Many times, there is still viable tissue in the pulp chamber, with blood flow to provide oxygen and healing to the area. Through therapies such as the Laser Nerve Treatment, the tooth can be healed and repaired without the need for such drastic measures as a root canal. The laser can disinfect and remove the dead, infected tissue while disinfecting the tooth interior much more thoroughly than any combination of chemicals can. Materials that repair and heal the nerve tissue can then be injected into the root, after which the outside of the tooth can be repaired with biocompatible inlays or onlays.

When a root canal is absolutely necessary, it can be done in a way that is much more biologically friendly to the body. After the root chamber is cleaned out, a laser and oxygen can be used to disinfect the interior. Biocompatible materials can then be inserted, that will promote blood and lymphatic flow to the area surrounding the tooth. The root can then be filled with a calcium-based, tooth-like substance that is bonded to the root walls. Many times, a crown is not even necessary, and instead, a biocompatible restoration can be fused and bonded to the tooth. If a crown is needed, a biocompatible non-metal crown that does not cause galvanic problems can be placed and fused to the tooth so that there may be no leakage or further degradation to the tooth.

The next couple of pages show some health-centered, laser-based therapies that are available as alternatives to standard dental treatments, and may prevent the need for root canals.

Laser Dental Alternatives



"Experience the Magic of the Laser"

Sterilase™ - Laser Dental Cleaning

The *Sterilase™* laser assisted dental treatment is a great alternative to the normal dental cleaning, which cuts and scrapes around the immune membrane and subjects the mouth and body to the millions of infectious microbes that exist around the teeth. Instead, the *Sterilase™* can clean and disinfect teeth without infecting the body, and is a much kinder, gentler method of cleaning.

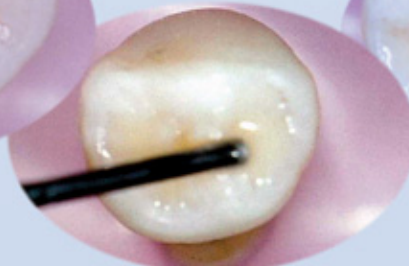


Cavilase™ - Laser Dental Filling

Instead of filling teeth with toxic mercury amalgam, which can crack and break down the tooth, the *Cavilase™* laser dental filling procedure can pinpoint and target the decayed area without damaging the surrounding tooth structure. After cleaning out and disinfecting the decayed area, a biocompatible filling material can be injected into the area and fused to the tooth with a laser, restoring the tooth to as close to its original strength and appearance as possible.



Traditional Mercury Filling



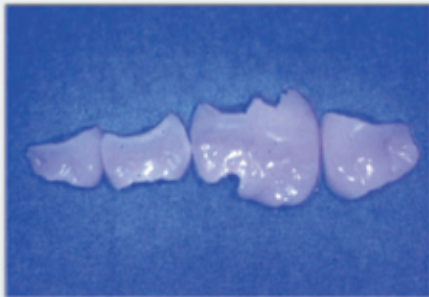
Laser Dental Filling



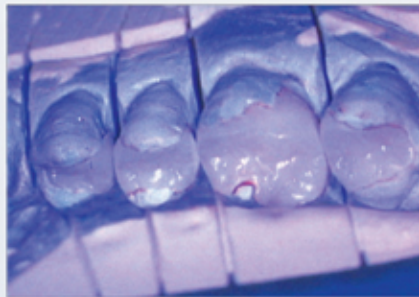
Which would you rather have?

Restoralase - Laser Dental Restoration

For teeth that have been badly damaged by failed amalgam fillings or advanced decay, instead of traumatizing them further by grinding them down for metal crowns, the *Restoralase* procedure can replace the missing, decayed or damaged parts of teeth using inlays and onlays, and fusing them to the teeth using high-strength adhesion techniques.



Biocompatible Onlays



Fitting Onlays onto Models of Patient's Teeth



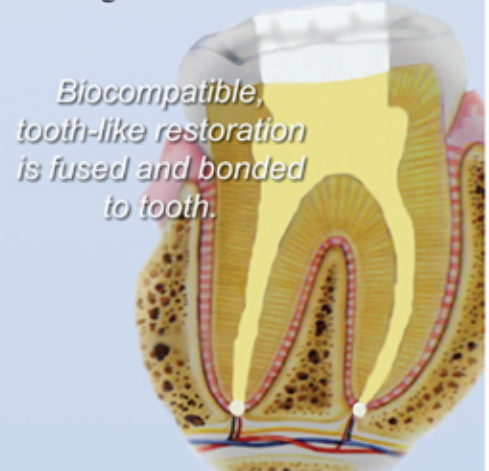
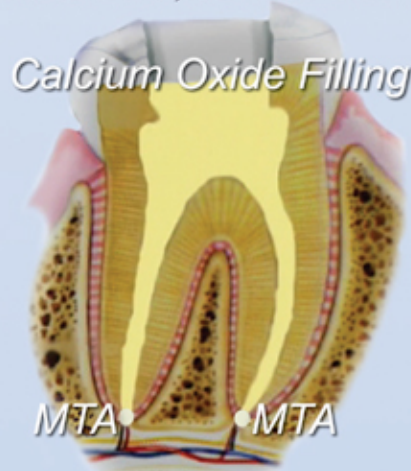
Onlays Fused Onto Teeth with Laser, Teeth Restored to Natural Appearance and Strength

Root Calcification Therapy

Many teeth that have had large amounts of drilling and filling, or crowns, are in a state of nerve death. There may also be death of the surrounding bone tissue. This is a breeding ground for infection, but since the nerve is dead there may be no symptoms of pain or discomfort, and it is very difficult to see in an X-Ray. In Root Calcification Therapy, the goal is not just restoring the tooth or its root, but also trying to restore the immune membrane and the surrounding bone, getting rid of disease conditions within it, and restoring blood flow, oxygen and nutrients to the bone tissues so they can survive.

The procedure involves disinfecting the inner part of the tooth safely, using lasers, oxygen therapy, ozonated water and other chemicals that are non-toxic to the body. As the root is treated, the bone and immune membrane surrounding the tooth is also treated. The bone is infused with oxygen, calcium sulfate and other bone development agents, and is then stimulated to cause new bone cells to grow around the root.

The root is then sealed and calcified. The root tips are sealed with MTA, a compound which promotes growth and circulation of the surrounding tissues. The body of the root is filled with calcium materials that will, over time, provide a calcified root structure, just as nature does throughout life. The immune membrane surrounding the tooth is also regenerated by using this calcium material and oxygen, so that the body will treat it as a normal tooth root, and the immune system will regenerate.





Functional Dentistry.org

Functional Dentistry was created to bridge the gap between mainstream dentistry that is satisfied with the status quo, and alternative, biologic dentistry that believes in quickly removing all mercury fillings, root canal teeth, and removing surrounding bone. Neither side addresses the fact that the mouth is an integral part of the entire body, and that performing many dental procedures may stress and compromise functioning areas of the body and affect the patient's overall health.

The functional dentist understands the intimate relationship between the mouth and every biologic system of the body. The techniques, materials, timing and quantity of treatment need to be addressed in relation to their impact on the whole body, as well as how to support other biologic systems so they can help achieve optimum dental and oral health.



Our **Mission** is to integrate our functional dentistry, our research and education, into all aspects of healthcare so that all may gain a comprehensive appreciation for the entire functioning human body. Prevention of disease and restoration of health requires practitioners to be architects of health rather than specialists of single entity systems. Each "health architect" should have a knowledge and understanding of all the health "tools and techniques" available and know what, when, where and how much each should be used to achieve the optimized desired result. Different areas of expertise should be recognized when it is time to seek other knowledge or assistance. Functional Dentistry and Medicine will then be able to provide complete health restoration as well as develop a new type of healthcare system. These new health concepts may be the only way to eradicate the crisis caused by our overburdened, expensive and less-than-stellar healthcare system.

What is Functional Dentistry? It's an approach to dental care that recognizes the complete intergration of the mouth with all the functioning systems of the human body, identifying and treating any oral stressor that may adversely affect a patient's overall health. It also screens for and recognizes unbalanced, dysfunctional systems of the body that interfere with the achievement of optimal oral health. By applying scientific principals, current research, and common sense, our founders have devoted years of research and study into how the mouth, and oral health, have a direct relationship to the whole body and its well-being and optimal functioning, and that oral health cannot be achieved without a healthy body.

Foundation Principals of Functional Dentistry

1. The mouth may be one of the most important, functional, sensory-rich systems of our biologic orchestra.
2. Functional Dentistry recognizes the importance of the oral area to the health of the body and looks for the underlying pathways that lead to disease, and strives to restore the mouth and oral function with techniques and materials that do not harm biologic function.
3. Functional Dentistry educates dental and other health professionals to recognize the disease and dysfunction patterns which influence health and work to restore normal function.
4. Functional Dentistry views stress patterns and cellular toxicity as perhaps the most important aspects of whole body dysfunction and the disease process.
5. Functional Dentistry believes that prevention and overcoming any disease process or weakness, as well as restoration of health, begins with an understanding that the diet, lifestyle, spiritual beliefs, and environmental choices of the patient are paramount in achieving a life free of disease.

Working With Your Healthcare Practitioner



Optimum dental health can ideally be attained by your dentist working in partnership with your health practitioner. Both should realize that the mouth and the body are intricately connected, and what is done in one area can and does affect all other areas of the body. Functional Dentists will be able to recognize, through oral symptoms and examination, when treatment from a medical doctor or other health professional should be sought. At the same time, health professionals are able to identify symptoms and diseases that have their root causes from dental or oral problems. Recently, there has been much media and scientific research making people aware that their oral health is directly related to the health of the rest of their bodies. Encourage your doctor, chiropractor, osteopath, or naturopath to explore and learn about this connection, and to work hand-in-hand with your dentist to help make you be as healthy as you can be.

The patient should also be aware of all the treatment options and innovations that are available. Your health practitioner will be able to provide much-needed health support for our dental care, and we will communicate and consult with each other to provide optimum coordinated care. We will be able to keep each other informed about what's new, not only in our field, but in our colleagues' fields as well. Functional Dentistry and Functional Medicine is dedicated to this. Visiting websites such as www.functionaldentistry.org, www.functionalmedicine.org, and www.functionalbrain.org will help keep the patient and the patient's practitioner up-to-date.

Dental health support services are an important part of one's dental recovery, and must involve physicians, dieticians, osteopaths, chiropractors and/or specialists in many fields. The patient's practitioners should be consulted and work together for a positive health outcome.

Comparing Costs

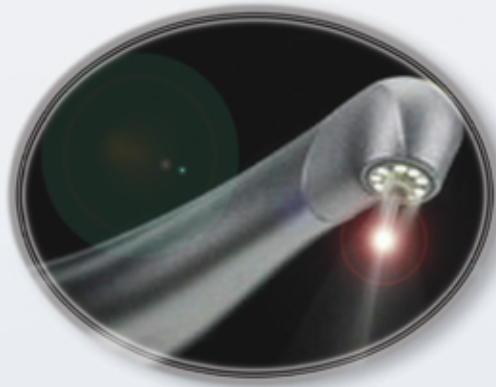
Dental Care That Makes You Smile



Many times, the costs for these state-of-the-art treatments becomes an issue for patients who feel they can't afford them. But the old adage "An ounce of prevention is worth a pound of cure" rings true in this case. Because many, if not most, of all adult dental treatment is working on teeth drilled apart early in life, if we provide precise laser care, this may be prevented. The quality of care is another consideration. Patients' needs are considered on a personalized, case-by-case basis, and progress is carefully monitored and followed.

Although the initial expense of treatment may be somewhat higher than normal, over time the patient may actually save money because of not having to return for more aggressive and expensive treatment. Our philosophy is one of prevention, and returning the body to its natural, healthy state so that it can deal with the everyday problems of toxic, viral and bacterial exposures the way it is supposed to, successfully fighting off all challengers with a strong, healthy immune system. Once the body has achieved that healthy balance, it can and will do just that, and repeated trips to a health practitioner for the same returning problems may become a thing of the past. This is the goal that we at Comprehensive Dental Center and Comprehensive Health Center strive for with all of our patients.

Laser Dental Center Association



“Changing Dentistry into a Kinder, Gentler, Healthier Experience”

Our vision is for a bright future in Dentistry, with the opening of Laser Dental Centers that will focus on health-centered dental care. The standard of treatment will depart from the old ways of drilling apart and cutting teeth for toxic fillings, and metal crowns that turn a mouth into a battery. Instead, a kinder, gentler treatment paradigm will be used, where lasers are utilized instead of drills, and lasers disinfect teeth and gums during cleanings, avoiding the sharp, poking probes that promote more infection. Every treatment will be done with the patient's whole body health as the number one priority.

These Dental Centers will subscribe to the philosophies of Functional Dentistry and Functional Medicine, striving to work together with other health practitioners to optimize each patient's treatment.

This is not a pie-in-the-sky dream--these methods are all tried and true and have been used at our center for over ten years now. We know it can be done. Support for health-based treatments and outcomes in dentistry is gaining support as patients become more aware of how their bodies and immune systems work, and take a more active role in their health and dental treatments. We encourage you to find out all you can about this field, and find out what you can do to help expand and further develop this exciting, rapidly growing area of healthcare.



Laser Dental Center Association
“It's all about the smile”

Compliments of:

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