

Introduction to the International Academy of Oral Medicine and Toxicology Fundamentals of Biological Dentistry

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*Biological dentistry is a thought process, an attitude, and
a guide for making choices in dental practice.*

Oral Medicine, Dental Toxicology, and Biological Dentistry

A more biocompatible approach to oral health is the hallmark of "biological dentistry." In using that term, we are not attempting to stake out a new specialty for dentistry but rather to describe a philosophy that can apply to all facets of dental practice and to health care in general: Always seek the safest, least toxic way to accomplish the mission of treatment, all the goals of modern dentistry, and do it while treading as lightly as possible on the patient's biological terrain.

By making distinctions – some obvious, and some subtle – among the available materials and procedures, we can reduce the impact on our patients' biological responses. Our sense of duty to advocate for the well-being of our patients should make biocompatibility a high priority, and the fact that there are now so many new ways to make dentistry work better gives us the opportunity to do just that.

The International Academy of Oral Medicine and Toxicology (IAOMT) is an organization for that group of dentists, physicians, and allied researchers who consider biocompatibility to be their first concern and who demand scientific evidence as their key criterion. Members of this group have, since 1984, examined, chronicled, and supported research into the distinctions that can make dental practice more biologically acceptable. This "biological dentistry" attitude can inform and intersect with all topics of conversation in health care where the well-being of the mouth is an integral part of the health of the whole person.

Please consider IAOMT membership and accreditation:

Accreditation by the IAOMT certifies to the professional community and the general public that you have been trained and tested in the comprehensive application of biocompatible dentistry, including current methods for safe removal of dental amalgam.

Thus, IAOMT Accreditation establishes you at the forefront of twenty-first century dentistry and demonstrates your commitment to furthering your knowledge of dentistry's undeniable role in systemic health.

To assist you in this endeavor, our Fundamentals course is divided into ten units designed to provide you with the education and resources to offer biological dentistry to your patients.

Overview of IAOMT Accreditation Units

The didactic program for IAOMT Fundamentals is now completely on line, as the e-Learning Core Curriculum. For CE credits, you will enter the curriculum through the CE button at the [IAOMT On Line Learning Center](#), and register on line. Once you have registered your log- in information, you can re-enter at any time. The fee for each one credit-hour course is \$29. USD.

The courses are offered in a format with the following components:

1. **Orientation** to navigation controls, and finding the supplementary text material. You can save your place and exit at any time, and return to where you left off when you're ready.
2. A short “**teaser quiz**” to introduce the topics to be discussed.
3. The **video presentation**, augmented by text boxes and “topic documents,” that present the text material in downloadable pdf format.
4. **Supplemental reading** and videos, accessible by links throughout the presentation.
5. The **Unit Quiz**. Multiple attempts are allowed, no nitpicking. Concept development is encouraged.
6. **CE credit** is granted at the end of the course. There will be a link to find an AGD completion code. The presentations are worth one hour of credit, not counting the endless hours of extra reading you might be interested in.

The syllabus:

Unit 1: Mercury 101

Unit 2: Mercury 102

Scientific evidence has established beyond any doubt two propositions: 1) Amalgam releases mercury in significant quantities, creating measurable exposures in people with fillings, and 2) Chronic exposure to mercury in the quantity released by amalgam causes physiological harm.

Unit 3: Safe Removal of Amalgam Fillings

Dentists who engage in elective replacement of amalgam fillings have been criticized by their peers for unnecessarily exposing their patients to additional mercury during the process of grinding the old fillings out. Yet, the “mercury-free” dentists are the ones who are most aware of the problem. We present scientifically verified procedures for minimizing mercury exposure which all dental office personnel should learn and follow for their own protection and for the protection of their patients.

Unit 4: Environmental Impact of Dental Mercury

Wastewater authorities around the world are on to dentists. Dental offices have been collectively identified as the major source of mercury pollution in municipal wastewater, and they're not buying the excuse that amalgam is stable and doesn't break down.

Units 5: Clinical Nutrition in Dentistry

Nutritional status impacts all aspects of a patient's ability to heal. Biological detoxification depends heavily on nutritional support, as does periodontal therapy or any wound healing. While the IAOMT does not advocate that dentists necessarily become nutritional therapists themselves, an appreciation of the impact of nutrition on all phases of dentistry is essential to biological dentistry.

Unit 6: Mercury Detox

IAOMT members should be familiar with the methods and challenges of reducing systemic toxicity deriving from mercury exposure. For some patients, eliminating the exposure by removing the amalgam fillings is sufficient; for others, it is just the tip of the iceberg.

Unit 7: Fluoride

Mainstream public health science has failed to verify that a protective effect of water fluoridation on children's teeth actually exists, despite the constant public relations statements and resulting widespread belief among the general population. Meanwhile, evidence of the harmful effects of fluoride accumulation in the human body continues to mount.

Unit 8: Biocompatibility and Oral Galvanism

In addition to using dental materials that are less overtly toxic, we can raise the biocompatibility quotient of our practice by recognizing the fact that individuals vary in their biochemical and immunological responses. We present a discussion of biochemical individuality and sound methods of immunological testing to help determine the least reactive materials to use with each individual patient.

Unit 9: Biological Periodontal Therapy

Where is a line to be drawn in periodontal therapy to distinguish the biological approach from the basic mechanical therapies that prevail in dentistry? Primarily, it is the line between those therapies that involve excision of tissue, and those that involve enabling those tissues to heal.

Unit 10: Hidden Pathogens in Jawbone and Root Canals

Breaching the barriers between the oral cavity and the internal medullary spaces of the bone marrow by dental infection, root canal treatment and extraction, allow microbes to invade and persist where they don't belong. Thinking about the problem may ultimately force us to totally re-evaluate our understanding of the relationship between the tooth and the bone.

Conclusion: We are Twenty-First Century Dentistry

In the old days, when the only restorative materials were amalgam or gold and the only esthetic material was denture teeth, our profession was challenged to fulfill its mission and be biologically discriminating at the same time. Today, we can do better dentistry, in a less toxic, more individualized, and more environmentally-friendly way than ever. We have as many choices of attitude before us as we do dental techniques and materials. By choosing to put biocompatibility first, we can look forward to practicing effective dentistry while knowing that we are providing patients with the safest experience for their overall health.