

#### REJUVENATION DENTISTRY

ADVANCED HEALTH, LASTING BEAUTY.

# TOXICITY AND THE MOUTH-BODY CONNECTION BRMI CONFERENCE 2018

DR. GERRY CURATOLA

FOUNDER, DIRECTOR REJUVENATION DENTISTRY, NEW YORK

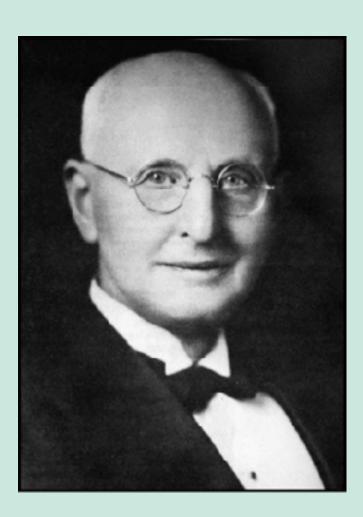
CLINICAL ASSOCIATE PROFESSOR,
NEW YORK UNIVERSITY
COLLEGE OF DENTISTRY, NEW YORK

### Oral Health is the "800 lb. Gorilla" in the Wellness Room.



body.

### Dr. Weston A. Price and The Mouth-Body Connection



THE

### DENTAL REVIEW.

Vol. XXXI.

CHICAGO, APRIL, 1917

No. 4

THE PRESENT STATUS OF OUR KNOWLEDGE OF THE RELATION OF MOUTH INFECTION TO SYSTEMIC DISEASE.\*

BY DR. WESTON R. PRICE, CLEVELAND, OHIO.

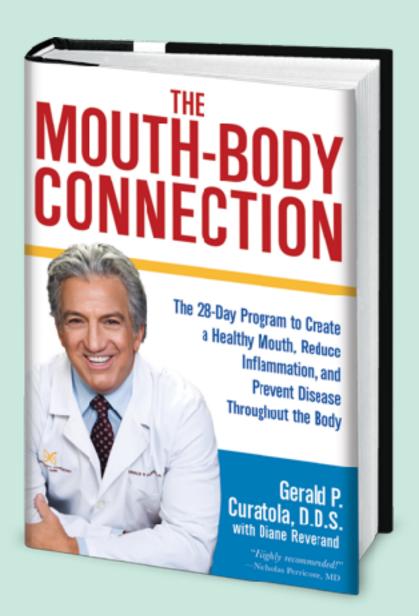
Mr. Chairman, and Members of the St. Louis Dental Society.

Without any introduction whatever of this particular subject, I shall ask you to consider with me one thing: That the acquisition of a new truth is identical with the acquisition of a new sense, for with it you can conceive, perceive and recognize things that you could not recognize before you had that new truth, and with that new truth you can perceive things that people without that truth cannot perceive. Have you got it? The acquisition of a new truth is identical with the acquisition of a new sense.

Let me give you an illustration. You take your little child out into the woods with you in the summertime when everything is dry. And you take your little revolver or your gun along, and you take some matches and a sharp knife or two. You do not leave them where that child can get hold of them. The child knows what a match is, it can strike a match, but the child does not know the danger of a fire.

Another illustration: Some twenty-three years ago next month, I was in Grand Forks, North Dukota, and came down with typhoid fever. One day I found myself lying on a cot in a hospital there with a physician on each side of the cot who were arguing, and almost coming to blows in discussing the question as to whether or not there was any truth in the germ theory of disease. Only twenty-three years ago; and the man who did not believe in the germ theory of disease was perfectly consistent in that belief, for

<sup>\*</sup>Delivered before the St. Louis Deutal Society, 60th anniversary, November, 1916.



The MOUTH acts as a MIRROR and GATEWAY, and reflects what is happening in the rest of your body. Chronic, low-grade oral disease is a major source of inflammation throughout your body, which can result in serious systemic problems, including cardiovascular disease, type 2 diabetes, obesity, and premature birth.



### THE MOUTH AS MIRROR

SYSTEMIC CONDITION/DISEASE	ORAL SYMPTOMS/MANIFESTATIONS
HIV/AID5	OFTEN MANIFESTS AS FUNGI IN THE MOUTH
LOW BLOOD SUGAR	PRODUCES CHARACTERISTIC ODOR IN THE MOUTH
TUBERCULOSIS	CHARACTERISTIC ULCER ON TONGUE/ORAL TISSUES
XEROSTOMIA (DRY MOUTH)	RESULTS IN FORMATION OF RAPID DENTAL DECAY
TETANUS	INJECTION THAT MAY RESULT IN LOCKJAW
DIABETES	DELAYED WOUND HEALING/ADVANCED GUM DISEASE
LEUKAEMIA	CAN RESULT IN THE FORMATION OF ORAL ULCERS
SYPHILIS	TOOTH/PALATE MALFORMATION FOR CHILD IF PREGNANT
STRESS/PSYCHOLOGICAL DISORDERS	GRINDING, CLENCHING, AND TMJ JOINT PROBLEMS
DOWN SYNDROME	OFTEN INCLUDES AN ENLARGED TONGUE
DRUG ABUSE	ASSOCIATED WITH SEVERE CARIES AND TOOTH LOSS
BULIMIA	OFTEN CAUSES CHARACTERISTIC TOOTH EROSIONS
VARIOUS GENETIC SYNDROMES	CAUSES MALFORMATION OF THE TEETH AND JAWS

# SECRETS YOUR TONGUE REVEALS

HEALTH



#### FISSURES

Tongue fissures are a common symptom in 6 to 20 % of patients with psoriasis skin disorder.



### WHITE CREAMY LAYER/PATCHES

A white, cottage cheeselike coating on the tongue, is one of the most common symptoms of "oral candidiasis" (OC) – a yeast infection of the mouth.



### ABNORMAL SMOOTHNESS

Abnormal Smoothness of the tongue is known as atrophic glossitis (AG).



### **BRIGHT REDNESS**

A bright red tongue could be a symptom of a Vitamin B12 deficiency.



### THICK YELLOW COATING

A thick yellow coating on the tongue might just be indicative of excess bacterial activity.



### **BLACK AND HAIRY**

A black and hairy tongue might be caused by excessive smoking and poor oral hygiene.



### PAINLESS BUMP(S)

A painless bump that appears on the side of the tongue & goes away in 2 weeks or less is not a cause for alarm.

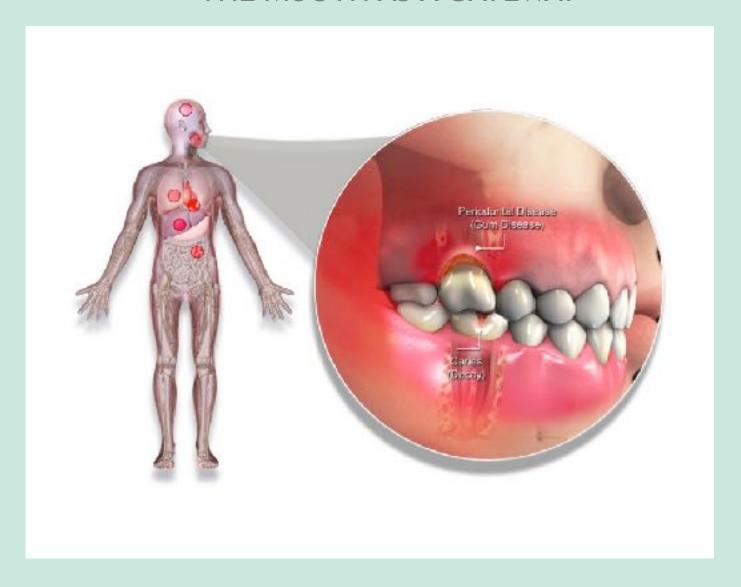
However, if it persists longer then it could be an early sign of oral cancer.



### SORES

Tongue sores usually result from eating something sharp or from accidentally biting your tongue. However, they may also signify stress, anxiety or a hormonal imbalance.

### THE MOUTH AS A GATEWAY





# Connection

#### Periodontal Disease

The Surgeon General reports that at least 80% of American Adults have gum disease



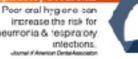
#### **Heart Disease**

People with gum disease are 2x as likely to die from Heart Attack and 3x as likely to die from stroke.



#### Respiratory Problems

increase the risk for pneumonia & respiratory Journal of American Dental Association



#### Diabetes

Diabetes & bleecing gums increases your risk of premature death by 400-700% American Academy for Systemic Health



#### **Rheumatoid Arthritis**

Research has tound an association between cum disease and rheumstaid arthritis. American Academy of Samity Physicians



# Gum Disease: The Oral-Systemic

### Link

MEDICAL CONDITION	INCREASED RISK
Stroke	300%
Heart disease	72-168%
Fatal coronary heart disease	50%
Preterm birth	700%
Oral cancer	400%
Diabetes	Increased risk
Arthritis	Increased risk
Pneumonia aspiration	Increased risk



# If you do not have a **healthy mouth**, you cannot **effectively detoxify** the body.





# 1. GUM DISEASE



## 3 ALARMING STATISTICS IN ORAL HEALTH:

- 1. 85% of Adults Over 35
  Have Some Form of Gum
  Disease.
- 2. The Link Between Gum Disease To Systemic Illness is Well Established.
- 3. Past Approaches (i.e., Antibiotics and Antimicrobials) Have Been Shown to Be Both Ineffectual and Harmful.

 Normal, Healthy Gingles (Gues) Healthy guns and bose archor teeth firmly in place.





# Gingivens Plaque and its bypewducts irritate the game, making their tender, trilimed, and libely to bleed.





J. Periodontitis

to be extracted.

Unremoved, plaque hardenniatiexiculus (meter). As plaque and executus continue to build up, the gums begin to receive (pullaway) from the teeth, and packets from between the beeth and gums.





Advanced Periodontitis
The gums recedefur by, destroying more bore and the periodonal
ligament. Teeth—even healthy
teeth—may become laces and need

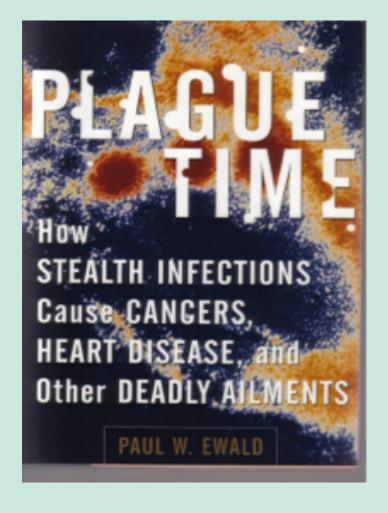






# Gum Disease: a Major Source of Chronic Low-Grade Inflammation



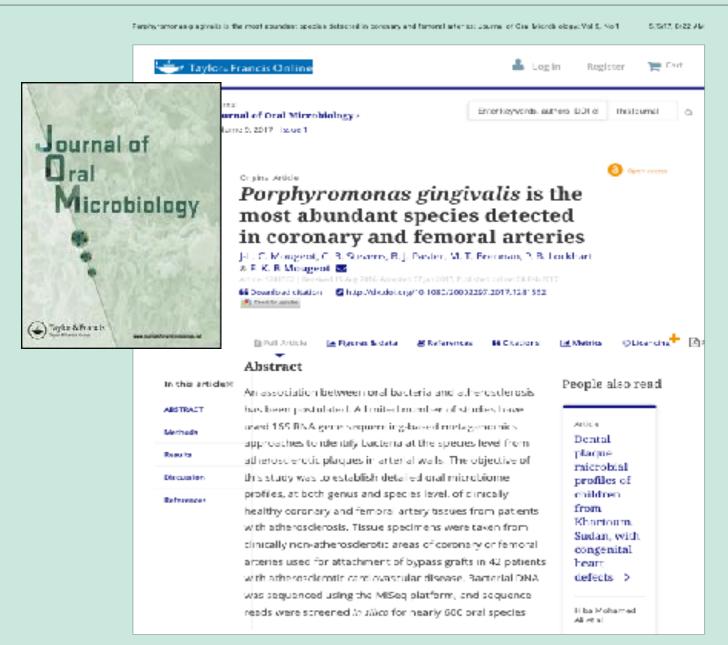


# Oral Disease: a Major Source of Chronic Low-Grade Inflammation



# Inflammation, the powerful mediator for the association of periodontal disease to systemic disease

- 4 mechanisms and pathways:
- 1. Direct effects of oral infectious pathogens
- 2. Inflammatory response to oral pathogens.
- 3. The inflammatory effects on vascular integrity.
- 4. The effects on gene polymorphisms to a more pro-inflammatory genotype. (IL-genes)



### Research Article

### Chronic Exposure to Oral Pathogens and Autoimmune Reactivity in Acute Coronary Atherothrombosis

### Ivana Burazor1 and Aristo Vojdani2

Correspondence should be addressed to Ivana Burazor; ivana.burazor@gmail.com

Received 26 November 2013; Revised 18 January 2014; Accepted 20 January 2014; Published 25 February 2014

Academic Editor: K. Michael Pollard

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Background. It has been hypothesized that various infective agents may activate immune reactions as part of the atherosclerotic process. We aimed to investigate the interrelationship between chronic exposure to oral pathogens and immune inflammatory response in patients with acute coronary atherothrombosis. Patients and Methods. The study included 200 participants from Serbla:

<sup>&</sup>lt;sup>1</sup> Cardiology Department, Institute for Rehabilitation, Sokobanjska 17, 11000 Belgrade, Serbia

<sup>&</sup>lt;sup>2</sup> Immunosciences Lab Inc., Los Angeles, CA 90035, USA

# Periodontal Disease and Preterm Labor

- Maternal periodontal disease is associated with increased risk of preterm labor
- Anaerobic oral gramnegative bacteria cause inflammatory response
- Inflammatory response stimulates prostaglandin and cytokine production to stimulate labor





# So how does this happen?



The progression from health to disease

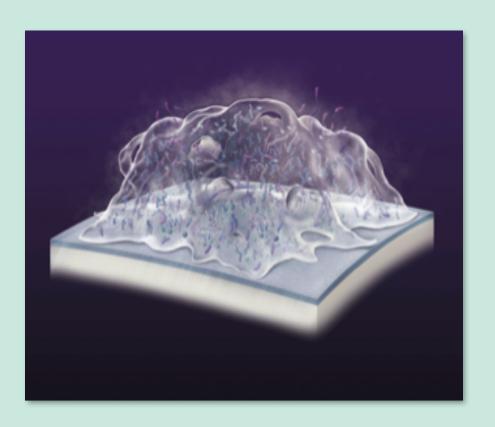
### SO HOW DO WE GET FROM THIS.....

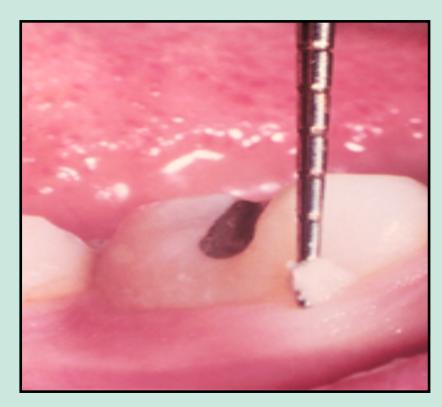


### ......TO THIS? (HINT: IT'S ALL ABOUT THE ENVIRONMENT)

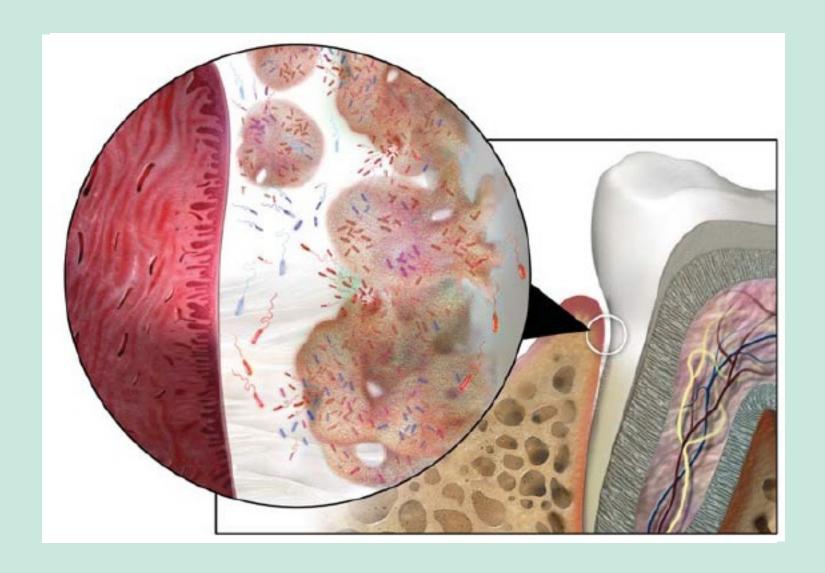








The oral microbiome is made up of water, salivary proteins, crevicular fluid, immune complexes, minerals, and vast numbers of microorganisms, approximately 700 species and anywhere from 6 to 10 billion in number.



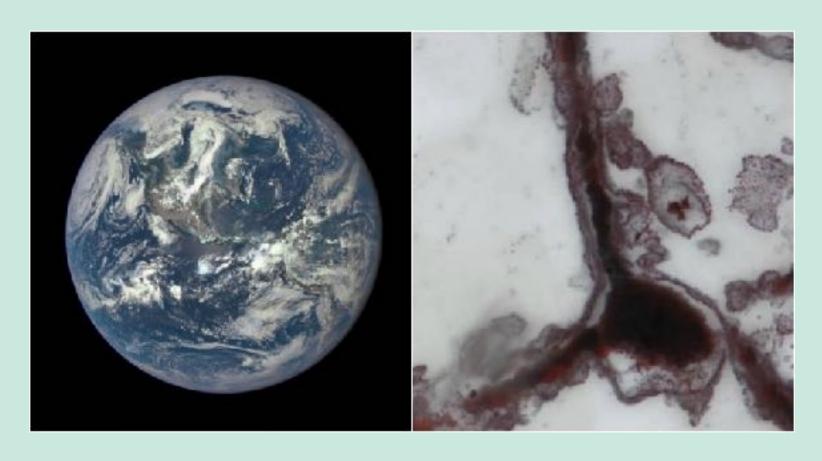


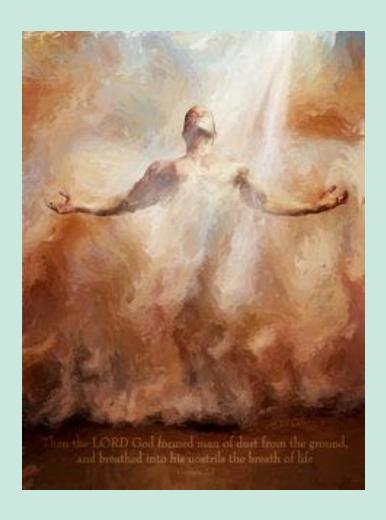
### Man is made of microbes



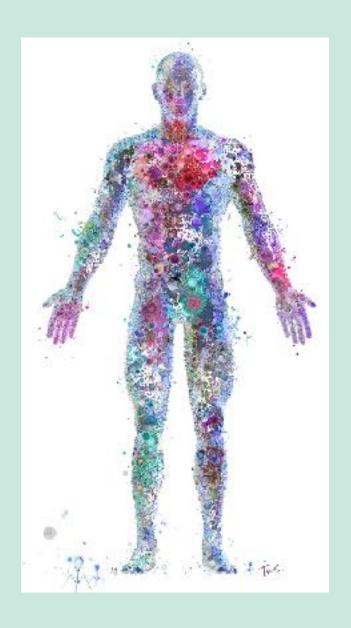
# Slimy Microbes Carpeted Earth 3.2 Billion Years Ago

By Charles Q. Choi, Live Science Contributor I February 18, 2015

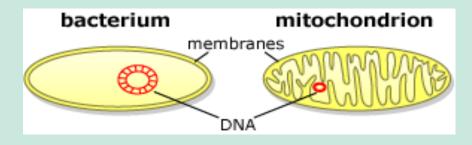


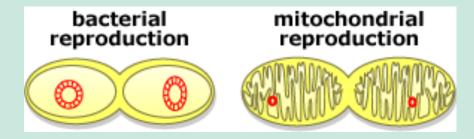


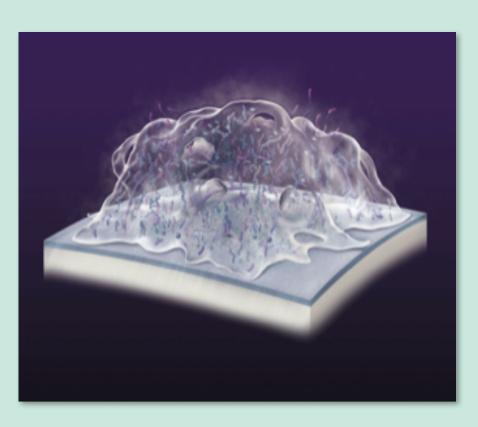
Genesis 2:7
And the Lord God formed man of the <u>slime</u> of the earth: and breathed into his face, the breath of life, his spirit, and man became a living soul.



Man is made of microbes.

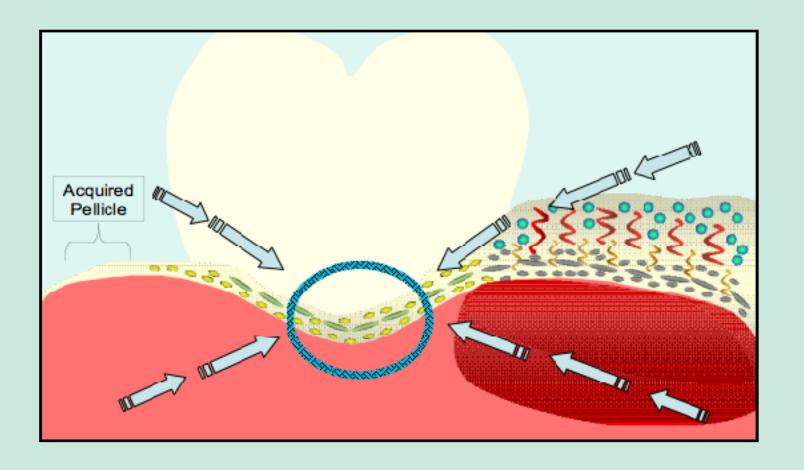




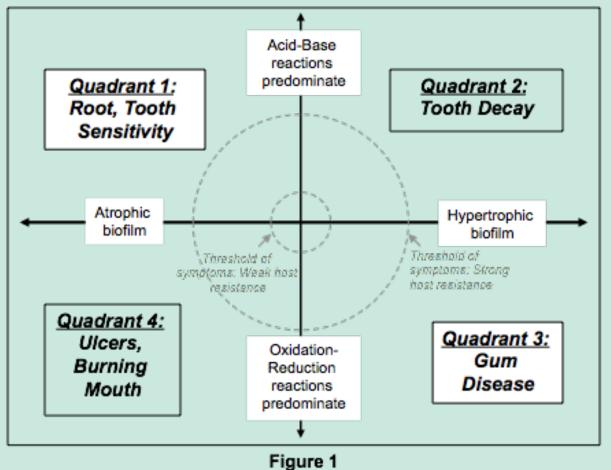


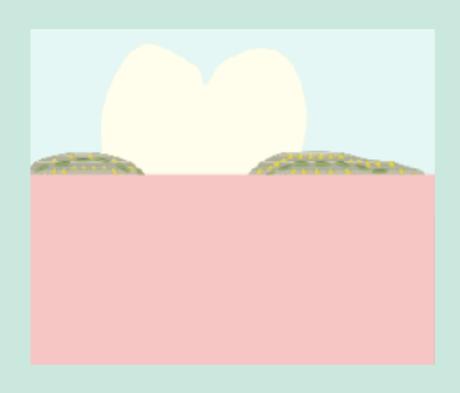
- Essential for life.
- Essential for protection against harmful environmental pathogens.
- Essential component of mammalian digestion pathways.
- Essential component of salivary immune system regulation.

Homeostasis (balance) is the center of health.



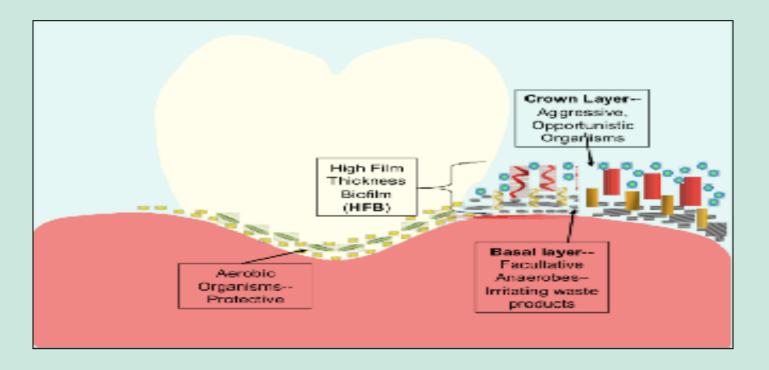
Homeostasis (balance) is the center of health.





Emerging human microbiome science has identified our oral ecosystem, the oral microbiome (or oral biofilm), as an intelligent semi-permeable membrane.





- If the oral microbiome becomes unbalanced— the early colonizers get matted down and convert from aerobes to facultative anaerobes. These form the 'soil' in which true anerobes take root such as Fusobacterium and Spirochetes.
- The opportunistic organisms pile up and destroy the architecture of the basal layer and an entirely different metabolism begins.



Available online at www.sciencedirect.com

### ScienceDirect



### Fusobacterium nucleatum: a commensal-turned pathogen

Yiping W Han1,2,3



Fusobacterium nucleatum is an anaerobic oral commensal and a periodontal pathogen associated with a wide spectrum of human diseases. This article reviews its implication in adverse pregnancy outcomes (choricamnicriitis, preterm birth, stillbirth, neonatal sepsis, preeclampsia), Gl disorders (colorectal cancer, inflammatory bowel disease, appendicitis), cardiovascular disease, rheumatoid arthritis, respiratory tract infections, Lemierre's syndrome and Alzheimer's disease. The virulence mechanisms involved in the diseases are discussed, with emphasis on its colonization, systemic dissemination, and induction of host inflammatory and tumorigenic responses. The FadA adhesin/invasin conserved in E. nucleatum is a key virulence factor and a potential diagnostic marker for E. nucleatum-associated diseases.

#### Addresses

Martin Control of the Control of the

- <sup>1</sup> Division of Periodontics, Section of Oral Diagnostics & Sciences, College of Dental Medicine, Columbia University Medical Center, United States
- <sup>9</sup> Department of Microbiology & Immunology, College of Physicians & Surgeons, Columbia University Medical Center, United States
  <sup>9</sup> Herbert Irving Comprehensive Cancer Center, Columbia University

animalis, is fusiforme, is nucleatum, is polymorphum, and is vineratii, whose prevalence in disease vary  $[3^{**},4-6]$ . This article reviews the infections implicating F, nucleatum, along with the virulence mechanisms involved.

#### Diseases implicating F. nucleatum

Summarized in Table 1 are diseases in which F. nucleatum has been implicated.

#### Oral infections

F. uncleatum is one of the most abundant species in the oral cavity, in both diseased and healthy individuals [7–10]. It is implicated in various forms of periodontal diseases including the mild reversible form of gingivitis and the advanced irreversible forms of periodontitis including chronic periodontitis, localized aggressive periodontitis and generalized aggressive periodontitis [8–15] (Table 1). It is also frequently associated with endodontic infections such as pulp necrosis and periapical periodontitis [16–22] (Table 1). The prevalence of F. nucleatum increases



A Change in Assumptions

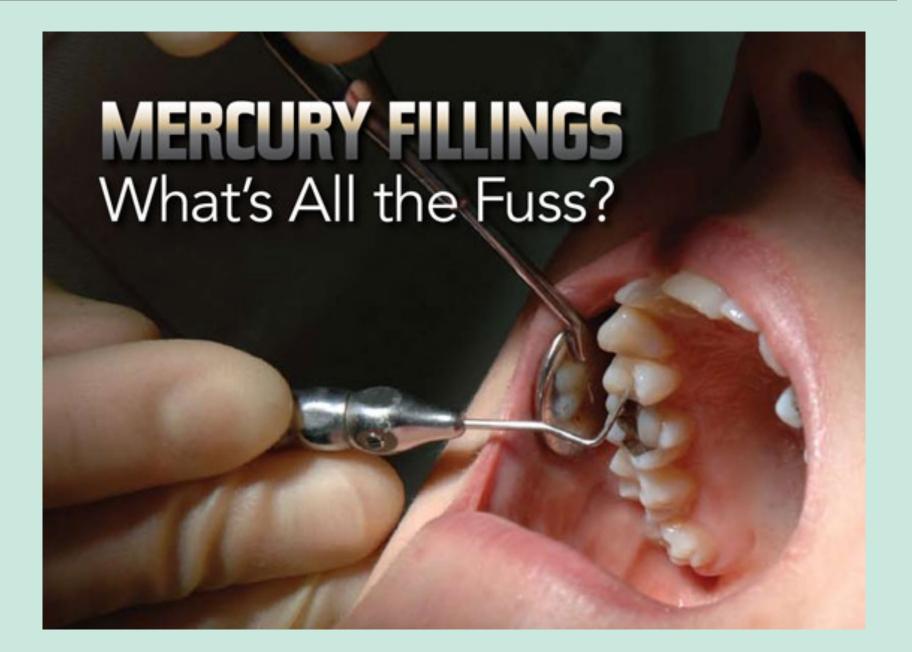




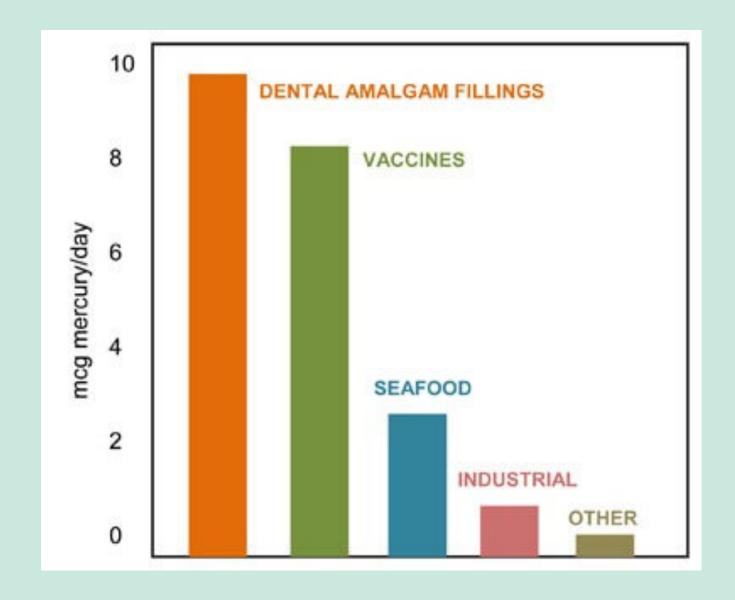


# 2. DENTAL MERCURY











# FDA caught hiding dangers of Dental Mercury since 2011

**ANN BOULDER** 

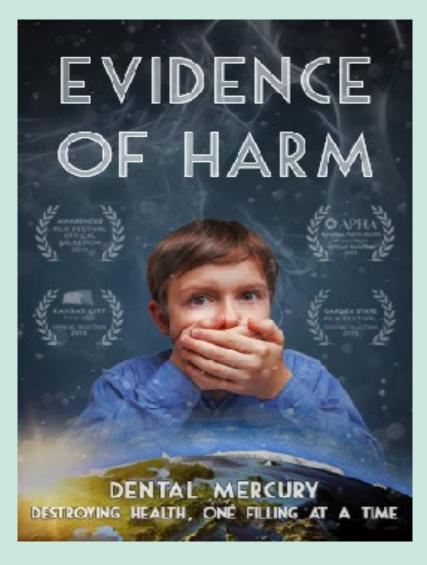
FDA KNEW BUT HID FACTS BREAKING MEWS

MERCURY DENTAL FILLINGS CYBERLINK

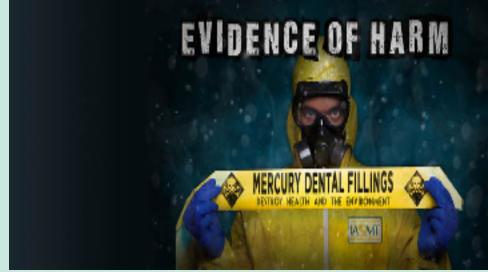
W MERCURY DENTAL FILLINGS WERE BAD SINCE 2011 BUT HID FACTS



Mercury Fillings Can Cause Toxic Gas



https://www.facebook.com/ evidenceofharm/videos/ 1632498930367113/? video\_source=pages\_finch\_trailer





# MERCURY POISONING & ALZHEIMER'S DISEASE

IT ISN'T A COINCIDENCE

#### SYMPTOMS OF MERCURY POISONING

IRRITABILITY
ANXIETY
DEPRESSION
MEMORY LOSS
AGITATION
PHYSICAL OR VERBAL OUTBURTS
EMOTIONAL DISTRESS
RESTLESSMESS
SLEEP DISTURBANCES
DELUSIONS

#### SYMPTOMS OF ALZHEIMER'S DISEASE

IRRITABILITY
ANXIETY
DEPRESSION
MEMORY LOSS
AGITATION
PHYSICAL OR VERBAL OUTBURTS
EMOTIONAL DISTRESS
RESTLESSNESS
SLEEP DISTURBANCES
DELUSIONS









## Supplement Power

Hydrolyzed Clinoptilolite Fragments To Eliominate Cellar Toxins



Cytodetox™ supports the body to naturally capture and eliminate cellular toxins throughout the body.

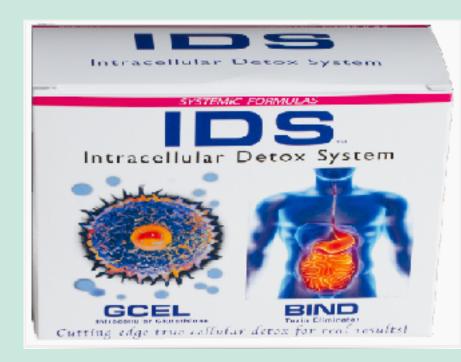
Hydrolyzed Clinoptilolite Fragments go beyond the colon and intestines to sweep away dangerous toxins.

## Supplement Power

GCEL and BIND: a glutathione "supersystem" for your body's main detoxification.

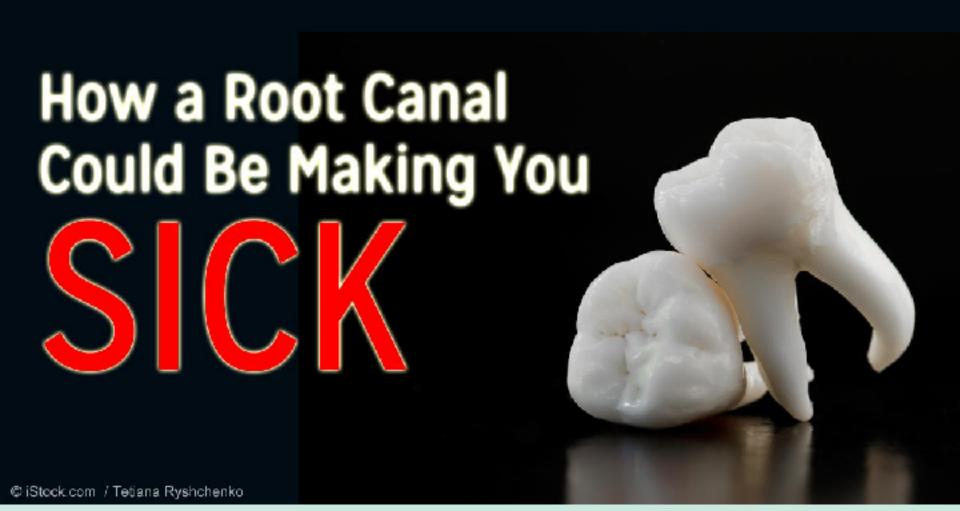
GCELL (Intracellular Glutathione) a powerful glutathione booster to raise intracellular GSH, GCEL to naturally eliminate toxins from cells.

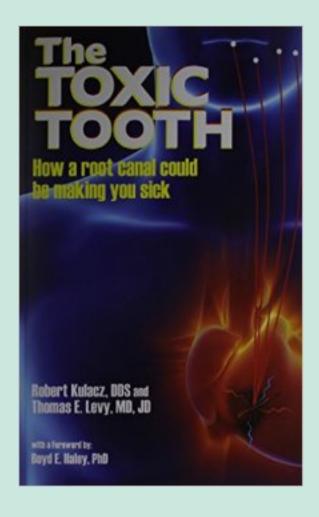
BIND (Toxin Eliminator) provides a specialized form of super activated carbon and powerful humates along with key botanicals that effectively bind organic and inorganic toxins, myotoxins, chemicals, heavy metals and prevents re-toxification. Also helps remove bio-toxins from the GI tract.



## 3. ROOT CANALS











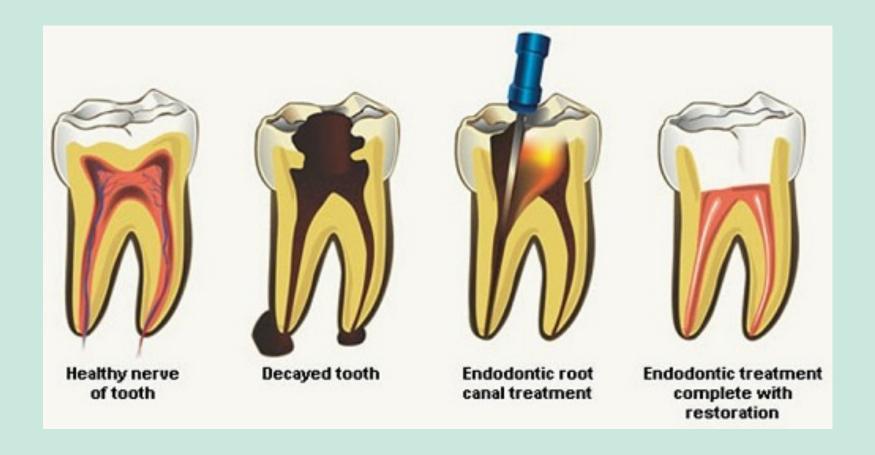








Fig 1. Healthy pulp within tooth (root canals)

Fig 2.
Cavity caused
pulpal
inflammation/
infection (abscess)

Fig 3.

Root canal

treatment removes

unhealthy pulp,

heals abscess

Fig 4. Cleaned root canal filled with gutta percha



#### THE DANGERS OF ROOT CANALS

During a root canal, the inside of the tooth is cleaned and sealed. Sealing this main canal does not account for the thousands of side canals that branch off each tooth.

These microscopic channels are left untouched and made up of dead rotting nerves. Bacteria feed off this dead tissue and the toxic waste created leaks into your bloodstream. Unknowingly, you've simply installed a condominium for bacteria.

#### The Dangers of Root Canals

- Arthritis
- Heart disease
- Neurodegenerative disease
- Digestion disorders
- Mental disorders
- Cancer



www.undergroundhealthreporter.com

#### Advantage of Dental Laser Disinfection in performing Root Canal Treatment

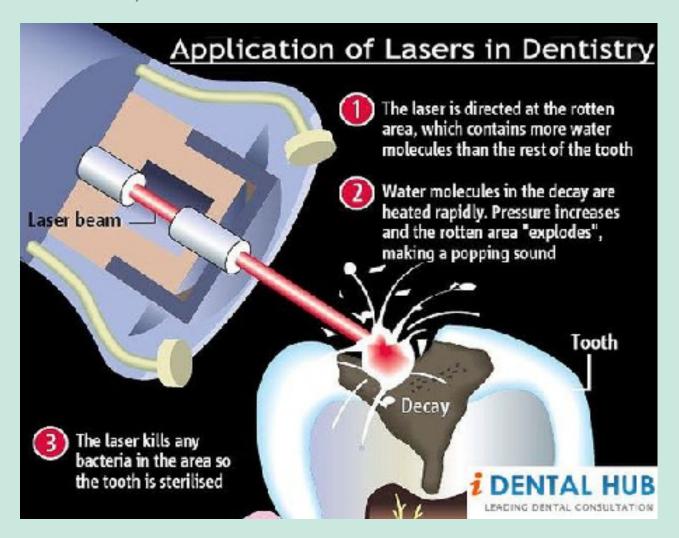


#### **Diode Lasers in Endodontology**



- Bacterial reduction after root canal treatment
- The penetration depth into the dentine tubuli of a conventional rinsing is only ≈ 100 µm
- The penetration depth into the dentine tubuli of laser light is
   ≈ 1000 µm

## BIOLASE WATERLASE 2.0: HEALING ROOT CANALS, EXTRACTION SITES AND CAVITATIONS.



## 4. FLUORIDE





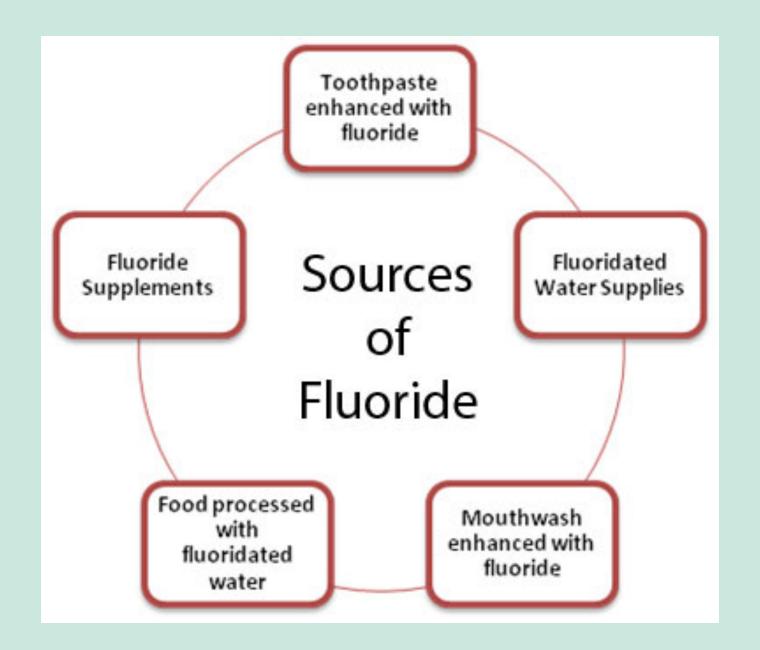
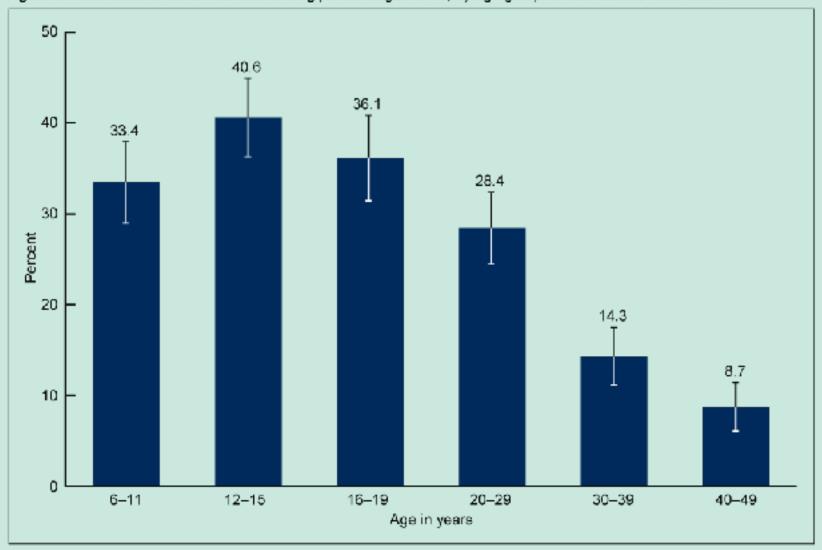


Figure 2. Prevalence of dental fluorosis among persons aged 6-49, by age group: United States. 1999-2004



NOTES: Dental fluorosis is defined as having very mild, mild, moderate, or severe forms and is based on Dean's Fluorosis Index. Error bars represent 95% confidence intervals.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 1999–2004.



### **Dental Fluorosis**

#### MILD FLUOROSIS



#### SEVERE FLUOROSIS



## THE TRUTH ABOUT FLUORIDE

We are being overdosed on fluoride.
This "beneficial" drug has been linked to

- Lower IQ in children
- Learning disabilities
- Behavioral disorders
- Rapid aging
- Decrease in bone density and strength
- Metabolic dysfunction
- Autoimmune disease
- Cognitive decline
- Increased risk of cancer...







Like most other urban areas in the United States, Flint adds a corrosive fluoride chemical to its water in the name of preventing tooth decay (aka "water fluoridation"). This fluoride chemical is not only a neurotoxin, its repeatedly been found to leach lead from water pipes and increase the levels of lead in children's blood.



## 5. TOOTHPASTE



## Why is there a "poison warning" on toothpaste?

(hint: because it's poison)



### Did You Know?

Given the average weight of a six-year-old, a dose of 100mg, or 70 percent of a tube of toothpaste, at one sitting could be deadly.

Fluoride is a deadly poison and has no place in our water or our toothpaste. Use a non-fluoridated toothpaste. If you stil think fluoriude is good for teeth see this link - http://goo.gl/Q5p9U

## Why is there a "poison warning" on toothpaste?

(hint: because it's poison)

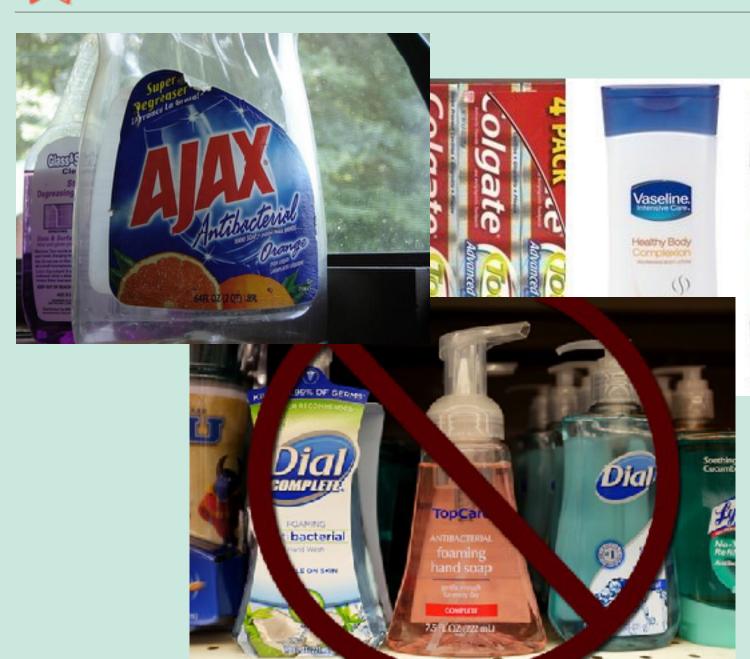
#### Purpose Active ingredients Sodium fluoride 0.24% (0.14% w/v fluoride ion)......Anticavity Triclosan 0.30%......Antigingivitis Uses aids in the prevention of: · plaque · gingivitis · cavities Warnings Keep out of the reach of children under 6 years of age. If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Center right away. Ask a dentist before use if you have · bleeding or redness lasting more than 2 weeks · pain, swelling, pus, loose teeth, or more spacing between teeth These may be signs of periodontitis, a serious form of gum disease.



# Chemical used by Colgate Total toothpaste to fight off gum disease is linked to cancer

- •Colgate Total contains triclosan, which has been linked to cancer and growth malformations in animals.
- •The toothpaste was approved by the FDA in 1997 - but the toxicology summary reveals the FDA used company-backed evidence to approve it.









## Truth in advertising?

Current approaches in Oral Care are not only ineffectual but harmful.





# Why You Should Never Use Products Containing Triclosan



- 1. Triclosan Has an Almost Indefinite Afterlife in Human Tissue: Swedish studies found Triclosan in 60% of women's breast milk, even years after mothers had stopped using antibacterial products due to toxicity concerns. The body stores Triclosan in fat cells. (Toxicity is a common cause of inability to lose weight as the body refuses to lose its protective layer of fat in order to avoid flooding the body with toxins).
- 2. Triclosan is a Known Endocrine Disruptor: Multiple scientific studies have proven that Triclosan negatively affects thyroid function in frogs, specifically the metabolism of the thyroid hormones.
- 3. Triclosan Is Associated With Antibiotic Resistance: Other studies have proven that continual use of Triclosan (an antibacterial product) creates antibiotic resistance bacteria. Other studies proved that people who use products containing Triclosan on a daily basis have a higher incidence of resistance to antibiotics than people who do not.

# Why You Should Never Use Products Containing Triclosan



- 4. Triclosan forms carcinogens when exposed to chlorine in tap water: When Triclosan is exposed to tap water, such as when you brush you teeth with triclosan toothpaste, it releases chloroform gas, a known carcinogen. Studies also showed the effect is stronger with hot water.
- 5. Triclosan is strongly linked to human disorders: Although further research is needed to confirm the full effects of Triclosan on the endocrine system, existing research proved Triclosan is dangerous to humans and linked its use to increased rates of asthma, allergies and eczema.
- 6. Triclosan was recently linked to cardiac and skeletal muscular weakness and disorders: Recent studies found that Triclosan impairs muscular contractions in human cardiac and skeletal muscle cells. Heart muscle strength was reduced by 25% and grip strength by 15% is studies on mice. These effects are already seen in the environment in the form of slower swimming fish and other abnormalities.

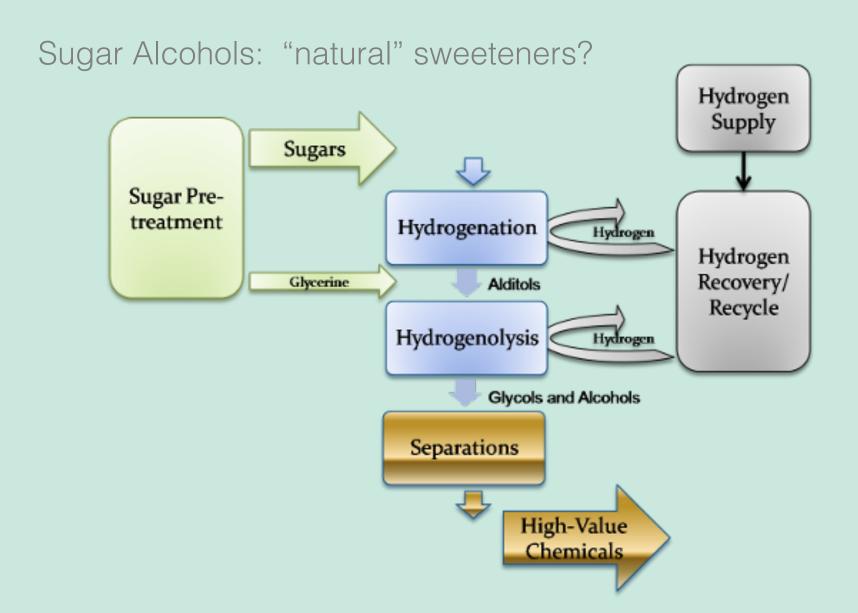
# 6. SUGAR ALCOHOLS



# The most harmful ingredients in "NATURAL" toothpaste: Are the sugar alcohols the new "margarines" of the sugar substitute industry?

XYLITOL: The "darling of sugar substitutes," commercial xylitol is a sugar alcohol produced by the industrialized process of sugar hydrogenation with the use of a heavy metal catalyst. In the case of xylitol, Raney nickel, a powdered nickel-aluminum alloy, is often used.





FDA Marns Sweezener Xylitol Can Kill or Pelson Dogs - WSJ

5/26/16, 1:11 AM

#### THE WALLSTREET JOURNAL

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LEE | HEALTH | HEALTH & WELLNESS

#### FDA Warns Sweetener Xylitol Can Kill or Poison Dogs

Warning comes after sugge in carrier deaths and severe liberues from ingredient



A light of singler allumed, uplicates an imprediment in many fluxes. PROTO CAMBELL MONDERCTED HAR MICES

#### By MARK MAREMONT

May 12, 2016 4:38 p.m ET

The U.S. Food and Drug Administration issued a stronger warning that a common sweetener inchewing gum, mints and other products could kill or severely being logs.

The warming comes on the beels of a surge in deaths and severe illnesses from degs accidentally imposting the sweet aner, aylited according to get poison-control centers. The increase in pet aylited poisonings was reported last November in The Wall Street Journal.

The PDA warning, titled "Aylitol and Your Dog: Danger, Faws Off," was issued tilturally by the agency as a "consumer update." A prior PDA warning, issued in 2011 by the agency's Center for Vatorinary Medicine, briefly warned of potential illness in dogs and ferrets from eating sylital.

Atype of sugar alcohol, swifted is an ingredient immany foods but "can have devastating effects on yourpet," the FDA said in the latestalert.

Dwgs often ext hooks and other items that their owners don't intend. Ingesting justs few pieces of gum can poison even a large dog, expects say, with effects including low blood sugar, seizures, come, liver damage and possibly death.

The FDA also called attention to the inclusion of spitial in some authoriters. Owners often give pearest butter to their peto as a true; to get them to take medication.

"We love that [the PDA warning] contains better, more direct language," said Dr. Jasen Nichelise, a Portland, One, votorinarian who runs a website, Proventive Vet.com, which has called for more action on which poissonings.

Dr. Nicholas said he hopes the FEA will require that food packaging include the weight or amount of a litel years wing, and a dear symbolou text samning of the danger sylitel.

## natural toothpaste is safe right?

(read the label ingredients and learn)

Tea Tree Oil: volatile oil with powerful antimicrobial not suitable for Eyes, Mouth, Nose, Pets, Allergies, destroys bacteria, denatures oral microbiome.

Licorice root: powerful antimicrobial properties. Two natural isoflavone compounds derived from licorice root, glabridin and glabrene, demonstrate estrogenlike activities.

Tulsi Oil: volatile oil with antimicrobial properties.

Xylitol: antimicrobial (bacteria inhibitor).

## The World's First Prebiotic Oral Care Formulation.



## The World's First Prebiotic Oral Care Formulation.



A biologically effective, prebiotic formulation promoting homeostasis (balance) of the naturally occurring oral microbiome.

Combines essential antioxidants and cell energy enhancers CoQ-10, Vitamin C, Vitamin E, MSM, as well as a unique blend of microminerals, in a natural and organic base flavored with organic stevia.

Analysis of Capacity of Novel, Antioxidant Toothpaste to Reduce Gingival Inflammation in Pilot, Small-population Clinical Study: Comparison to Levels of Gingival Inflammation Reduction Reported in Historical Control and Therapeutic Toothbrushing Studies.

#### Anita H. Daniels, R.D.H.

Adjunct Clinical Instructor University of Miami, School of Medicine Department of Dental Implants

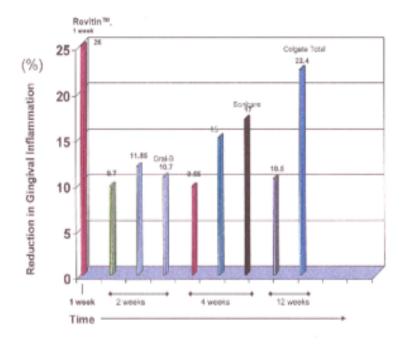
#### Steven R. Jefferies M.S., D.D.S.<sup>†</sup>

Temple University, School of Dentistry
Professor, Department of Restorative Dentistry
Dir. of Clinical Research & Biomaterials Research Laboratory

#### Background

Despite decades of effort, gingivo-perio dysfunction remains a significant threat to oral health, lifetime tooth retention and systemic health including effects on vascular endothelium and complications of pregnancy<sup>1,2,3,4,5</sup>. Treatment of this spectrum of disorders typically involves oral hygiene measures designed to reduce plaque retention, antimicrobical therapy to suppress bacteria, scaling and root planing where indicated to remove mineralized bacterial colonies, and surgical approaches to debride inaccessible areas. At the basis for these therapies is an underlying assumption that plaque is fundamentally pathogenic and must be stripped away and disinfected as part of any long term strategy of managing this disease.

Fig.1: Reduction in Gingival Inflammation vs. Various Oral Hygiene Therapeutic Modalities







## An Evaluation of the Effectiveness of an Experimental Oral Therapy Paste (Revitin™ with NuPath® Biosotives) on Oral Soft Tissue Health

C. H. Pameijer (1), N. Grande (2), G. Plotino (2). A. Butti(2), A. Lerda(3), V. Pasquali(3) (Professor Emeritus University of Connecticut; Hartford, CT; 2School of Dentistry, Catholic University of Rome, Italy, 3 Private Practice, Rome, Italy

#### Background

Emerging science has linked the breakdown in oral health to a degenerating oral biofilm where the ecology of the microbial community taken as a collective, rather than as specific putative species, seems to be the best model for understanding the dynamics and thus for designing effective treatment. Standard detergent-based toothpastes attempt to eliminate the oral biofilm which precludes any valuable function that a healthy biofilm might perform in maintaining oral health. An experimental oral therapy paste designed to shift a degenerative oral biofilm towards an ecology compatible with oral health, has been proposed. An initial pilot study in humans showed a 25% reduction in gingival inflammation after 7 days of use (p<0.05). This study seeks to evaluate the effects of this paste (R), on plaque index (PI), gingival index (GI), and bleeding index (BI) as compared to a standard detergent-based toothpaste (Crest® Whitening Expressions) as control (C).

Mothod





42%
Reduction In
Gingival
Inflammation



46%
Reduction In Plaque



72.5%
Reduction in Bleeding

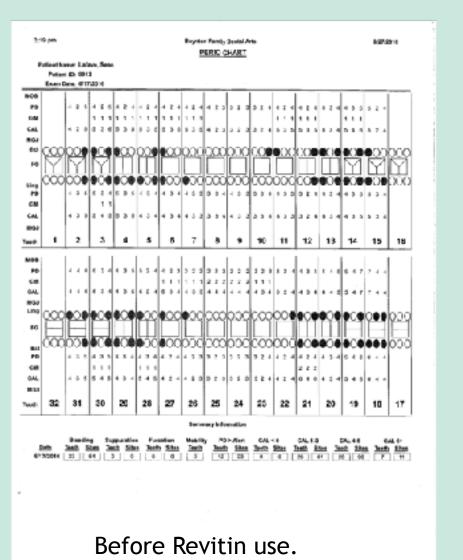
After fourteen days over a leading toothpaste\*

(\*Crest Pro-Health Toothpaste)

Red, bleeding gums become pink, firm, and healthy.

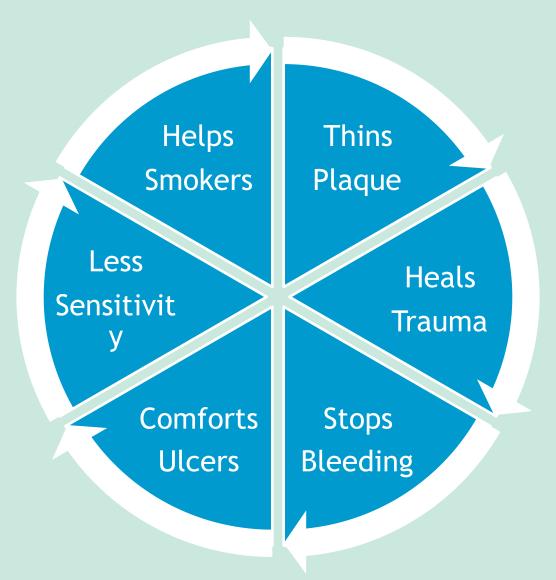


Four Days, Revitin Only



After Revitin use.





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Twitter: @Revitin

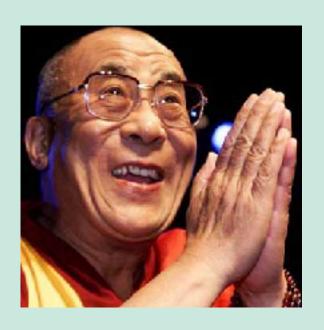
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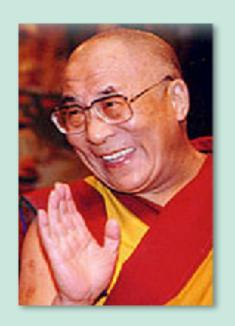
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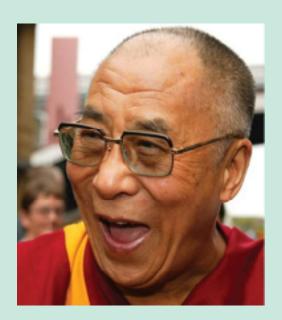
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## THANK YOU!







"Smile if you want a smile from another face."

- Dalai Lama