

## Made in the USA!



- Wyoming Bentonite Clay
- No Baking Soda
- No FI, dyes or artificial flavorings
- Certified organic mint, peppermint, clove and cinnamon
- No triclosan, SLS
- \$15 (3-6 month supply)



## Theobromine

2013, Univ of Texas, San Antonio.  
In Vitro-artificial teeth, can Remineralize  
Cacao extract contains theobromine

No fluoride or chemicals



\$18



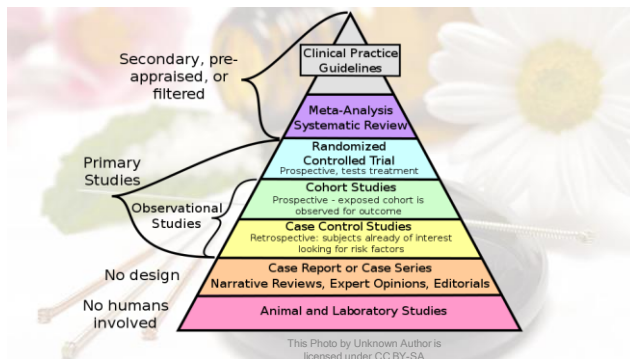
\$14



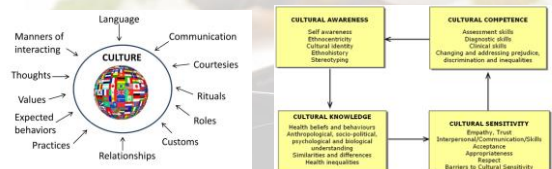
\$119

Can you prove it?

research



## Cultural Competency=Patient Centered Care



## Patient Centered Care

- Institute of Medicine:
  - Providing care that is respectful of and responsive to individual patient preferences, needs, wants, and values and ensuring that patient values guide all clinical decisions

**Cultural Competency allows us to deliver patient centered care**

## Patient centered care

### Risk Assessments

Caries  
Periodontal  
Medical History  
Oral Cancer  
Oral-Systemic Link  
Airway  
Habits/lifestyle  
Healthy Mouth Baseline

## *"Complimentary and Integrated Health"*

- Alternative Medicine
- Homeopathy
- Integrative medicine
- Complimentary and Alternative Medicine (CAM)
- Eastern/Western medicine
- Organic/natural

2016

## Quite a history.....behind the name *Complimentary and Integrative Health*

- 1999-National Institute of Health recognizes Alternative Medicine, had several names
- 2006-National Center for Complimentary and Alternative Medicine falls below the standards of the NIH, discussion on elimination
- Criticized for funding studies of what many consider to be dubious treatments with very little supporting evidence, such as
  - Distant prayer to battle/treat AIDS
  - energy healing to treat prostate cancer
  - shark cartilage extract to treat lung cancer
- 2012-Report released that no discoveries have lead to new areas of medical research or treatment
- 2014: Surveys show that use in US is growing and not declining from increasingly strong interest in more natural healing practices- By 2014 the NCCAM had a \$123.8 million budget
  - Being used in all us communities, hospitals, hospices and the military
- 2016 American Association for the Advancement of Science
  - New name should reflect the mission:

**To enhance overall health, prevent disease and to alleviate debilitating symptoms such as stress, pain and anxiety management**

Washingtonpost.com

# The Washington Post

December 2017  
"FDA takes more aggressive stance toward homeopathic drugs"

3,000-5,000 years ago

Since the beginning of time.....



## History of complimentary\alternative medicine

- Able to survive in wide variety of forms for centuries
- Has always been widely disputed
- Early times (1700-1800)
  - Quackery, fraud
  - Early practitioners: uneducated and did it part time
  - Sole aim was to make money
  - Little or no interest in orthodox medicine

## Alternative Medicine Trends

- CHANGE:
  - Shifted early in the 19th century
  - New emergence of unorthodox medicine-Complementary and Alternative Medicine
    - “Literate and educated empirics who read books”
  - Homeopathy was attractive
    - Safe
    - Simple to understand
    - Easy to use
    - Centered on the patient as a whole and not focused on the pathology

## Birth of Homeopathy

- Rebellion against orthodox medicine taught and practiced in hospitals
- People were getting very sick and dying in the hospitals
- Introduction of beliefs in nature and treatment of disease, self care

## First Founders of Homeopathy

- Traditional Chinese and Indian Medicine
- Samuel Hahnemann: modernization of homeopathy arose in Europe (1755-1843)
  - Graduated from medical school in 1779
  - Struggled first 15 years of practice to make a living
  - Shifted his focus to homeopathy
  - Died a millionaire in Paris in 1843 (88)

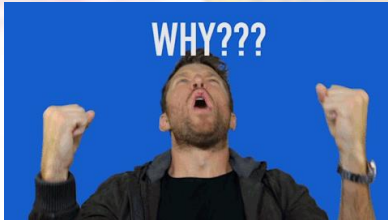
## Professional Recognition\Associations

- American Holistic Medical Association
- National Center for Complementary and Alternative Medicine
- The American Alternative Medical Association AAMA
- Academy of Integrative Health and Medicine, AIHM
- American Association of Naturopathic Physicians
- American Holistic Veterinary Association
- American Association of Acupuncture and Oriental Medicine
- Holistic Dental Association

## Milestones

- 1903: American Medical Association
- 1939: the Food, Drug and Cosmetic Act
- 5 homeopathic hospitals in Britain

## Let's take a look at why...right now.....



- Media
- Drug resistance
- Opioid epidemic
- Global Travel
- Environment
- Politics

## Why do people choose complimentary and integrative health approaches?

- Culture
- Cost
- Trendy
- Ease of use
- Geographic location
- Diet and lifestyle choices
- Health issues

## St. John's Wort



## Safe and cost effective

- St John's Wort
- Not only as effective as conventional antidepressants, but can be obtained at 1/3 the cost.

- » 1996 study
- » Proven to have less side effects
- » Mild to Moderate depression, not appropriate for all cases

2016 meta analysis: 36 studies prove results

## Cautions of using herbal remedies as "medicine"

- Drug-herb reactions
- Not regulated by FDA
- Contamination
- "actual ingredients"
- Limited research: "specific conditions"
- Minimal to no research: "broad spectrum of conditions"

- Known DRUG INTERACTIONS
  - Heart and Blood pressure medication
  - Cholesterol medications
  - ED, GERD, Migraine and Seizure medications
  - Cough medicine
  - Allergy Medicine
  - Antidepressants



## Press Release-Treat the Individual as a Whole

January 18, 2018

*“Naturopathic Doctors Spend Between One and Two Hours with Patients in an Appointment.”*

[https://www.naturopathic.org/files/FINAL%20ANP%20NIM%20FAQ\\_14%20Why%20do%20NDs%20spend%201-2%20hours%20press%20release.pdf](https://www.naturopathic.org/files/FINAL%20ANP%20NIM%20FAQ_14%20Why%20do%20NDs%20spend%201-2%20hours%20press%20release.pdf)

## What to expect in your first visit with a naturopathic doctor Whole Body Wellness

- 1) Health history + detailed questions about your health concerns
- 2) Methodical review of your bodily systems
- 3) Review of prescription drugs and supplements you may be taking
- 4) Detailed questions about your diet and physical activity
- 5) Discussion about your lifestyle, social setting, and support systems
- 6) Active listening as you share your story
- 7) Physical exam, as needed
- 8) Order of appropriate diagnostic tests

# ZIKA VIRUS

## Evidence Based

Repel Lemon Eucalyptus (without DEET), containing 30 percent lemon eucalyptus, stopped bites for 7 hours.



skipping products made with natural plant oils

USE chemically synthesized plant-like ingredients: lemon eucalyptus.

\$5 Target, CVS  
\$8 REI

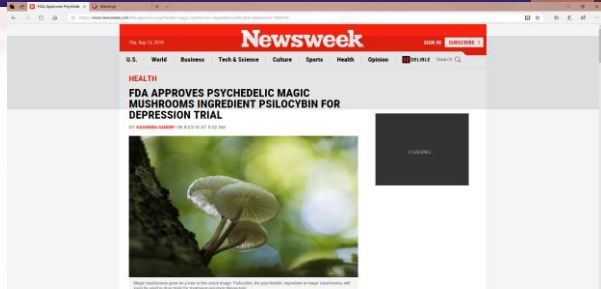
## Tick Repellent



- 20 Drops Lemongrass Essential Oil
- 20 Drops Eucalyptus Essential Oil
- 4 OZ water
- Combine in spray bottle
- Shake well and spray on shoes, socks, pants, shirts
- Safe for humans and dogs

Not evidence-based

August 23, 2018



## How many people take RX drugs?

- 70% of Americans take 1 RX Drug
- 50% of Americans take at least 2 RX Drugs

• Mayo Clinic

## Prevalence

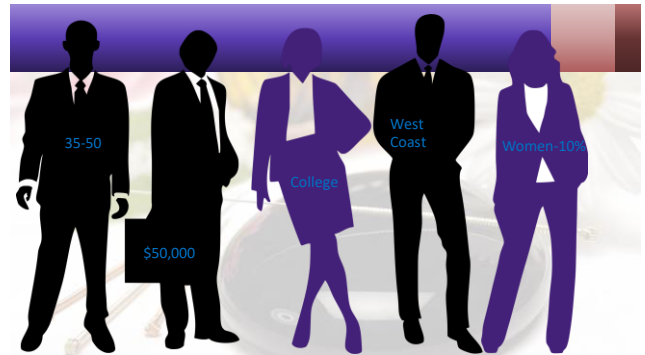
How many people are using complimentary and integrative/alternative health care services?

## Alternative Medicine Trends www.jama.com

- 10 year study
- Extensive use of alternative medical therapies in US
- US insurers and managed care organizations now offer alternative medicine programs and benefits
- Majority of US medical schools now offer courses in alternative medicine

## Alternative Medicine Trends

- Alternative medicine is popular throughout the world
  - Denmark 10%
  - Finland 33%
  - US 42%
  - Australia 49%



## HOW ABOUT YOU?



Today  
National Institute of Health  
National Center for Complimentary and Integrative Health

- Types of complimentary/integrative health approaches
  - **Natural Products**
    - Herbs, spices, vitamins and minerals and probiotics, Dietary supplements (most common practice in US).
  - **Mind/Body Practices**
    - Yoga chiropractic, meditation, massage, acupuncture, tai chi, hypnotherapy
  - **Other:** Traditional healers, Ayurveda medicine, traditional Chinese medicine, homeopathy and naturopathy

usa.gov



## Alternative Medicine Trends

- Top reasons cited for increased use of alternative medicine use
  - Back problems
  - Neck problems
  - Allergies
  - Arthritis
  - Digestive problems

Majority of alternative medicine use is without input from a medical doctor or alternative medicine practitioner (46%)

## Surveys suggest use is drastically increasing

4 in 10

380%

1 in 5

42%

58%

## Dental Hygienists

### 2014 study-RDH Mag

- 81% -MSD
  - Yoga 40%
  - Herbs 40%
  - Chiro 40%
  - Massage 60%

<http://www.rdhmag.com/articles/print/volume-34/issue-11/features/chronic-work-pain.html>

### 2011-PubMed

- 64-93% -CMSP stress/burn out
- CAM may alleviate/reduce pain, stress and MSD

<https://www.ncbi.nlm.nih.gov/pubmed/22309868>

## August 16, 2018 Today's RDH

How to Assist Patients who Prefer an Alternative Approach to Dental Care

- Today'sRDH.com

## Is complimentary and alternative medicine effective?

- **Patient testimonials:** large number of people who claim they were cured or homeopathy at least helped
  - Just as much testimony that it was not helpful
- **Need more scientific trials**
  - Non existent or minimal **credible** data
  - Small group of subjects, not blinded or well controlled

Early trials prove some efficacy

Trials vs patient satisfaction?  
Evidence base vs placebo

## Alternative Medicine

- Types of alternative medicine
  - **Raphaology**
  - **Ayurveda**
    - Primary healthcare system in India
  - Kavala
  - Gandusa
  - And more!

## Raphaology

**Revealed the inter-relationships between people, plants, animals and elements of nature and our health**

- [www.raphaology.info](http://www.raphaology.info)
- Universal College of Indigenous Medicine

## Raphaology

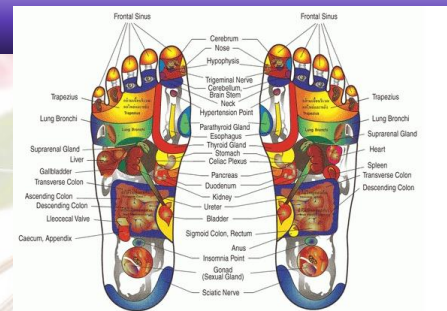
- Herbs
  - Plants that provide medicinal properties



## Raphaology

### Foods

- Fuel with specific nutrients and enzymes, Vitamin Therapy
- Dark berries and fruit, wild caught meats, fish, nuts, seeds



## Raphaology



### Color Therapy

- Light spectrum frequencies that govern hormones
- Gemstones, crystals, water, wands, fabrics
- Specific colors for specific body parts

Glands	FOOT BRIDGES												Glands
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
Organs	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain
	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain
Teeth	1	2	3	4	5	6	7	8	9	10	11	12	Teeth
	1	2	3	4	5	6	7	8	9	10	11	12	
Upper Jaw	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Upper Jaw
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
Lower Jaw	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	Lower Jaw
	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	
Organs	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Organs
	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	
Glands	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Glands
	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	Brain	
Element	Fire	Earth	Water	Wood	Water	Water	Water	Water	Water	Water	Water	Water	Element
	Fire	Earth	Water	Wood	Water	Water	Water	Water	Water	Water	Water	Water	

## Raphaology-Vitamin Therapy

- Vitamin A
  - B Complex Vitamins
  - Vitamin C
  - Vitamin D
  - Vitamin E
- Prevent and cure**
- Lack of one single nutrient= cause diseases
  - Supplementation = cure
  - Deprive our cells of nutrition for long =will pay for it
  - High Dose Vitamin Therapy=health

## Overdose: How safe are Vitamins?

**2004-2009**

10

**2009**

106,000

## Raphaology



## What Raphaology suggest for oral health? Color, Herbs, Food

- [www.peakherbs.org](http://www.peakherbs.org)
- Herbs, food, color therapy
- **Teeth:**
  - Color-Mind/Gold
  - Herbs-Lemon Balm (Melissa)
  - Foods-Red Onion
- **Tonsils:**
  - Color-Mind/Gold
  - Herbs-Blue Flag
  - Foods-Leeks
- **Taste Buds:**
  - Color-Self Identify/Green
  - Herbs-Red Beet
  - Foods-Guava
- **Bones:**
  - Color-Focus/Yellow
  - Herbs-Marshmallow
  - Foods-Barley

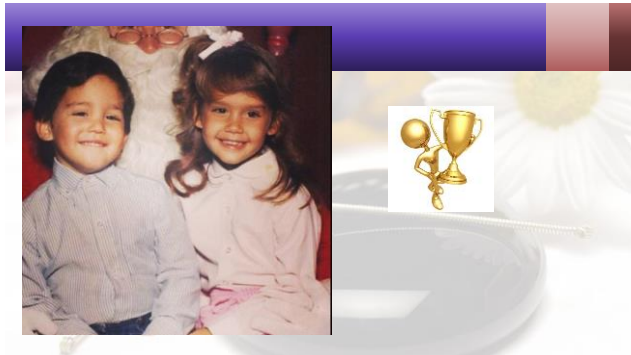
## How to use the herb/plant therapies



Teas  
Food  
Massage Oils  
Aromatherapy  
Homemade beauty  
and cleansing  
products  
Toothpastes and  
Rinses

## Raphaology-Nature's Antidote for Commercial Medicine

- ✓ Should any symptoms persist, consult the services of a professional health care provider
- ✓ None of the information has been reviewed or approved by the FDA
- ✓ Information is offered to educate, inform and support self healing



**THE HONEST CO.**

- Calcium helps **protect and strengthen tooth enamel**
- Baking soda and natural silica gently **polish and brighten teeth**
- Organic aloe and organic ginger
- Fluoride Free

## Ayurveda



Primary healthcare system of India

Based on BALANCE

114

Herbs, mineral or metal, surgical, opium, oils, massage

## Ayurveda

- Regulated as dietary supplements in US
- Not required to meet the same safety and effectiveness standards as conventional medicines

## Ayurvedic Medicine

- 2008 study, 193 products (US or India)

Lead  
Arsenic  
Mercury

**21%**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755247/>

<https://www.npr.org/sections/healthshots/2015/07/31/428016419/toxic-lead-contaminates-some-traditional-ayurvedic-medicines>

## Vitamin and Herbal Supplements: Are they what they say they are?

*Dietary Supplements can be beneficial to your health – but taking supplements can also involve health risks. The U.S. Food and Drug Administration (FDA) does not have the authority to review dietary supplement products for safety and effectiveness before they are marketed.*

**FDA 2016**



## Vitamins, herbal and dietary supplements

**79%**

NBC News 2011, Today Show 2015,  
Forbes 2015, FDA, 2016



Rice, wheat,  
houseplant DNA,  
pine, alfalfa

## Ayurveda Medicine

Dates back to 3-5,000 year old science of Ayurveda system of medicine from India  
Part of one of the oldest health systems in the world

Acknowledgement that many problems  
start from the mouth or are related to the mouth

- Making a come back because in today's world we are overloaded with toxins
  - > Stress
  - > Pollution
  - > Antibiotics
  - > GMO's
  - > Animals

## Ayurveda Medicine



## Oil Pulling Benefits

- Cures tooth decay
- Soothes dry throat
- Kills bad breath
- Whitens teeth
- Heals bleeding gums
- Heals cracked lips
- Prevents heart disease
- Improves acne
- Reduces inflammation
- Strengthens gums
- Boosts Immune System
- Prevents Cavities

## Oil Pulling and Oral Health

- Our body stores these toxins in fat cells as a defense mechanism
  - Toxins: bacterial, viral, fungal, pollution, diet, stress
- Oil pulling provides a solution to get those toxins out so they don't keep building up (PULLS out toxins)
- Coconut oil known to be: Antimicrobial, Antiviral, antifungal due to **lauric acid** found in the oil and coconut oil seems to **inhibit the growth of strep bacteria**

## Oil Pulling and oral health

- 1 tablespoon unrefined cooking oil
  - \*Sesame, \*Coconut, Sunflower
- Place into your mouth and gently swish
  - 2-3 or up to 15-20 minutes ( depending on alternative medicine)
  - Swish for longer after you have gotten used to it
  - Can do 2-4 sessions daily or once in the morning
- Spit, rinse and brush your teeth
- When you oil pull, the fat cells where the toxins are stored release them into the saliva and the oil traps them and are spitted out
- **Kavala**
  - Fill mouth with liquid and hold it there for a few minutes before swishing. Up to 4 minutes and 2-3 times/day
- **Gandusa**
  - Hold liquid in mouth for 3-5 minutes and spit out and repeat

## Oil pulling-Ayurveda medicine

- Balance the 3 types of energies (Doshas)
  - Vata-creative, leaders, energetic, new ideas
  - Pita-good decision makers, intellectual, powerful
  - Kapha-calm, thoughtful, loyal, patient, supportive

## Oil Pulling-Research

- 2009 Study
  - Small study, Sesame Oil
  - 20 adolescent boys, plaque induced gingivitis
  - Reduced bacterium *Streptococcus mutans* (which is a major cause of decay and can lead to gum disease)
  - No follow up to determine if caries was reduced
- 2013 Study
  - Larger study, Sesame Oil
  - Similar results to reduce *Streptococcus mutans* and demonstrated short term effect on plaque and gingivitis
- 2017 Study
  - 40 college students
  - Effective at reducing plaque, 7<sup>th</sup> day

<https://www.ncbi.nlm.nih.gov/pmc/?term=cocunut+oil+pulling>

## 2009 Research oil pulling vs chlorhexidine

Randomized, controlled, triple blind study comparing oil pulling to chlorhexidine in the management of gingivitis

- As effective
- Less stain and aftertaste
- No allergies
- 5-6 times more cost effective
- More of a potential preventive modality

## Oil Pulling and Oral Health Side Effects

- Dry Mouth
- Excessive thirst
- Muscular stiffness
- Exhaustion
- Loss of sensation or taste in the mouth
- Upset stomach
- Diarrhea
- Mineral Oil aspiration
- Lipoid pneumonia

## Oil Pulling

- Very limited research
- Small sample sizes
- No long term or follow up studies
- BIOFILM very difficult to disrupt
- Cause and effect difficult to substantiate

## Professional Recommendation: Oil Pulling and Oral Health American Dental Association

- March 2014
  - Due to lack of available evidence

*"Oil pulling is not recommended as a supplementary oral hygiene practice and certainly not as a replacement to standard, time tested oral health behaviors and modalities"*

## Other Ayurvedic remedies

- Eliminate Chin hair
  - Consume 2 tsp blackstrap molasses daily to balance hormones and stop hair growth
- Curry Leaves
  - Improve digestion, control cholesterol and speed up hair growth



**auromère**  
THE AYURVEDA PEOPLE



Auromere offers a line of Ayurvedic products for natural, effective oral hygiene care.

**TOOTHPASTES** : 26 botanical extracts and essential oils and available in 5 unique varieties.

**MOUTHWASH** that is alcohol and sulfate free with no artificial sweeteners or additives.

**TOOTHPICKS** made from birchwood dipped in Neem Bark extract and potent essential oils.

## Why do people choose complimentary and integrative health approaches?

- Culture
- Cost
- Trendy
- Ease of use
- Geographic location
- Diet and lifestyle choices
- Health issues
- Wellness vs Treatment

## Acupuncture in Dentistry



## Acupuncture

- Now considered an adjunctive therapy in western medicine
  - Insurance coverage
- The FDA regulates acupuncture needles the same as other medical devices
  - scalpels, syringes, to ensure good manufacturing practices and single use standards of sterility

## Acupuncture

- Involves the insertion of thin needles through your skin at strategic points on your body
- Most commonly used to treat pain

**Eastern medicine acupuncture**  
intended to allow your energy flow to "re-balance" (chi) and cure disease

**Western medicine acupuncture**  
intended to stimulate nerves, muscles and connective tissue to boost your body's natural painkillers and increase blood flow

## Research on Acupuncture

- Richardson
  - Effective on wide range of muscle skeletal conditions
- Lundeberg
  - May improve immune system/healing
- Tao
  - Helps with stress management (which relates to dental anxiety)



## Research on Acupuncture Systematic review of literature

- At least 75+ published articles on acupuncture in dentistry
- 35 years of neurophysical research
- 15 randomized controlled trials
  - TMD
  - Post operative pain management

## Research on Acupuncture in Dentistry

- Another recent review analyzed 16 trials of the analgesic effect and found that the majority of the studies showed some positive effect

*There is a body of evidence to support the effect of acupuncture within dental practice*

## Acupuncture in Dentistry-Implementation

- 3 ways to introduce it to Dentistry
  - TEETH approach
  - Supplemental/Adjunct or
  - Replacement for

NSAIDS, Nightguards, Muscle relaxers, Pain medication, Physical Therapy, Botox

## Acupuncture in Dentistry



Gag reflex  
Pre op Anxiety



Migranes



Ear Acupuncture

- ✓ Reduction in post op pain
- ✓ Reduction of time in the onset of local anesthesia
- ✓ Shorten recovery time



## Acupuncture

### Acupuncture practical applications

By the  
World Health  
Organization





## Acupuncture-Acute Dental Pain

### • Journal of Acupuncture and Meridian Studies-2013

- Study : After hours emergency dental care clinic at dental school in Brazil, 120 patients
- 6.5 before dental treatment
- 0.96 after 1 session



## Acupuncture in Dentistry

- Acupuncture is not a “cure-all”
- Acupuncture cannot replace traditional dentistry
- Adverse effects are possible and training is necessary
- Few fatalities

## Acupuncture -Education/training

### US: 60 Accredited educational programs

Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM)  
(recognized by the US Dept of Education)

#### 1) Entry-level Masters degree program

- 3-4 years, 2500 hours

#### 2) Post graduate certificate for those already holding a masters degree in health related field - 40 hours

- Basic Course
- PLUS 1 day practical course
- PLUS a Post-basic course
- Doctors, Dentists, Physical Therapists (Dental Hygienists?)

- Board examination required-NCCAOM

## “Acupuncture May Help Reduce Gag Reflex”

*Acupuncture in Medicine, Nov 2013*  
*Italy, Univ of Palermo*

20 patients, age 18-90

History of gag reflex with dental impressions  
Small study, suggests positive outcomes

## Dental Tribune, April and May 2017

### “Acupuncture Probing its Way into Dentistry”

\*Stimulate nerves and neuropeptides, anti-inflammatory, increase blood flow

- 1) Local anesthesia, onset
- 2) Manage TMD
- 3) Manage Orofacial pain
- 4) Manage Post op pain
- 5) Xerostomia: Sjogrens, Radiation Therapy (1980s)

[http://www.dentaltribune.com/articles/specialties/general\\_dentistry/34746\\_acupuncture\\_probing\\_its\\_way\\_into\\_dentistrypart\\_ii.html](http://www.dentaltribune.com/articles/specialties/general_dentistry/34746_acupuncture_probing_its_way_into_dentistrypart_ii.html)

## Botox



## Natural, Organic and Vegan lifestyles=BOTOX?

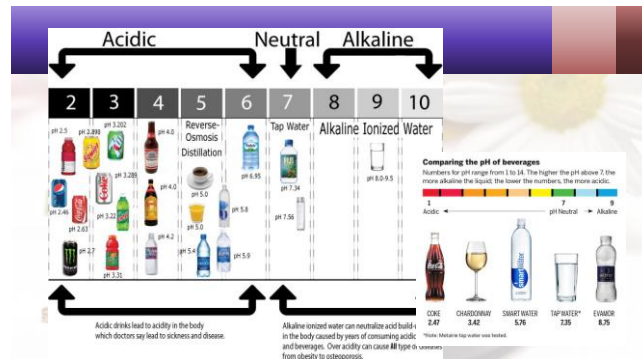


## BOTOX in Dentistry



- Role of the Dentist and Dental Hygienist?
- American Academy of Facial Esthetics (AAFE)
  - Frontline TMJ & Orofacial Pain and Botox and Dermal fillers
    - (2) 8 hour days, plus online basic course
    - Allowed to take course if your state practice act allows you to do it. \$5,500
    - Online course modules and hands on training

- Recently bought the U.S. licensing rights to a product called **Biotulin**, an organic topical gel that claims to rival the effects of the Botox
  - without the loss of facial expression or other potential risks
  - **Botanical extract from herbs, anesthetic properties**



## Antibiotics

- Resistance
- Misuse/abuse



## Probiotics



## Probiotics

- Use of live microorganisms to improve health of the host.
- Heavily studied and proven for intestinal health
- Use of different microorganisms for conditions that you want to control
  - Different microorganisms for gut vs mouth

## Probiotics for Oral Health

- 2013 Spanish Study
  - Probiotic: *Lactobacillus reuteri*
  - Daily doses over 30 days
  - Reduction in all parameters
    - Plaque index
    - Bleeding
    - Pocket depths

## ProBiora-Oragenic White Paper

- Oragenics probiotics
  - "ProBiora Probiotic product for Maintenance of Oral Health" White Paper
  - Blend of **3 naturally occurring oral bacteria** for use in the promotion of oral health
  - Some micro organisms are non pathogenic and **promote health**
  - Oragenics identified species that will promote health by reducing the number of bacteria responsible for dental caries and periodontal disease
  - These strains (3) may be given together or individually

## Probiotics for oral health

- ProBiora
  - 3 probiotic strains
    - » *S. uberis*, *S. oralis*, *S. rattus*
    - » Freeze dried
    - » Strains are not available in food
    - » Not indicated for immune suppressed patients
  - Available as food additive to mouthwashes, gum, lozenges and tablets
  - ProBiora3.com

## Balance the Oral Ecosystem

- **BLIS k12** (mouth health, breath and upper respiratory health)
  - *S. Salivarius*
- **Pro-T-Action** (toothpaste ,Germany)
  - *Lactobacillus paracasei*
- **Sunstar GUM Perio Balance** (mouth health, reduced plaque, fresh breath)
  - *Lactobacillus reuteri*

## PerioBiotic Toothpaste



- Featuring Dental-Lac™, a patent pending functional *Lactobacillus* dental hygiene probiotic not found in any other toothpaste product.
- *Lactobacillus paracasei* strain, has shown that it competes with unhealthy strains of oral bacteria including streptococcus mutans, thereby helping to maintain healthy teeth and gums.
- Like probiotics in the human intestinal tract, beneficial flora in the mouth are critical to maintaining dental and oral health.
- xylitol and calcium glycerophosphate
- NO FLUORIDE OR SLS
- \$14.00

## Other Probiotic Research

- The consumption of probiotic curd and the use of probiotic toothpaste cause a significant decrease in the *S mutans* levels in the plaque around brackets in orthodontic patients.
- Toothpaste vs systemic consumption not statistically significant
- [American Journal of Orthodontics and Dentofacial Orthopedics](#)
- [Volume 144, Issue 1](#), July 2013, Pages 67-72

Does it really matter which products our patients use at home?

## What's in your tube?



Which toothpaste do you want **your patients** to use at home?



## NBS News August 2018

"Without fluoride, tooth brushing and other oral care efforts have  
**NO IMPACT** on cavity prevention"



<https://www.youtube.com/watch?v=q7PU1uYVtb8>

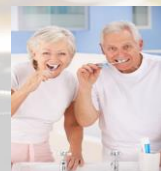


## Frequency

Patient Office Visits  
2-4x/Year



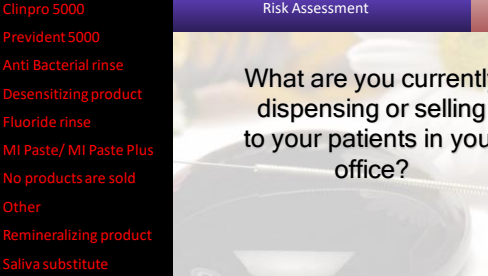
Home Care - 2x/Day





## How many patients a week present with any of the following:

1. Caries
2. Gingivitis
3. Sensitivity
4. Orthodontic - White Spot Lesions (WSL) & Gingivitis
5. Dry Mouth
6. Acid Reflux/GERD
7. Abrasion/Erosion



- 1. Clinpro 5000
- 2. Prevident 5000
- 3. Anti Bacterial rinse
- 4. Desensitizing product
- 5. Fluoride rinse
- 6. MI Paste/ MI Paste Plus
- 7. No products are sold
- 8. Other
- 9. Remineralizing product
- 10. Saliva substitute
- 11. Sensodyne

# Caries

## Perio Patients

- 31% of 60+ aged periodontal patients experience root caries.<sup>1</sup>

## Pedo Patients<sup>1</sup>

- 41% of children have caries in the **PRIMARY** dentition (ages 2-11 yrs.)
- 42% of children have caries in the **PERMANENT** dentition (ages 6-19 yrs.)


1. Betts-Jagual ED, Barker LK, Carro MT, et al. Surveillance for Dental Caries, Dental Sealants, Tooth Retention, Edentulism, and Enamel Fluorosis — United States, 1988–1998 and 1999–2002. *National Dental Survey* 2003;11:144.

2. von Toth B, Needleman J, Siroc M. A systematic review of the prevalence of root sensitivity following periodontal therapy. *J Clin Periodontol*. 2002;29 Suppl 3:173-7.

3. Chhabra MB, Gillam DG, Bulman DS, Newman HN. Prevalence of cervical dentine sensitivity in a population of patients referred to a specialist Periodontology Department. *J Clin Periodontol*. 1996;23(11):989-92.


# Sensitivity Patients

- 25–30% of the adult population<sup>1</sup>
- 60% to 98% of periodontal patients<sup>2</sup>
- Peak onset between 30 – 45 years of age.
- Women are slightly more affected than men.
- Maxillary surfaces are affected to a higher extent.
- Buccal surfaces show the highest prevalence rates.



1. Currimis D. Dentin hypersensitivity: from diagnosis to a breakthrough therapy for everyday sensitivity relief. J Clin Dent. 2009;20(1):1-9.  
2. Splieth CH1, Tachou A. Epidemiology of dentin hypersensitivity. Clin Oral Investig. 2013 Mar;17 Suppl 1:S3-8.

## Orthodontic Patients



- 25 - 50% of all orthodontic patients develop WSLs.<sup>1,2</sup>
- 97% of all Orthodontic patients experience decalcifications. 2005 study
- Increased level of gingivitis with bleeding on probing.<sup>4</sup>




1. Julien KC<sup>1</sup>, Buschang PH, Campbell PM. Prevalence of white spot lesion formation during orthodontic treatment. Angle Orthod. 2013 Jul;83(4):641-7.
2. Gienakis L, et al. Incidence of white spot formation after bonding and debonding. Am J Orthod. 1982;82(2):93-98.
3. Boersma JG, van der Veen MH, Lagerweij MD, Bakhoor B, Prahl-Andersen B. Caries prevalence measured with QLF after treatment with fixed orthodontic appliances: influencing factors. Caries Res. 2005;39(1):41-47.
4. Ho HP, Niederman R. Effects of the Statocare sonic toothbrush on reduction of plaque, gingivitis, probing pocket depth and subgingival bacteria in adolescent orthodontic patients. J Clin Dent. 1997;38(1 Spec No):15-19.

# Dry Mouth

Patients suffering from dry mouth are at increased risk for cavities and periodontal disease.<sup>1</sup>

- 21 - 27% of the population suffer from Dry Mouth.<sup>2</sup>
- 3.1 million Americans suffer from Sjögren's syndrome. (2008 CDC study)



50% of USA takes Rx drugs and 75% of those Rx drugs cause dry mouth.<sup>1</sup>

- high blood pressure
- high cholesterol
- depression
- asthma
- attention deficit disorder

**UNDER-TREATED CONDITION** - dental professionals do not always have the confidence to discuss dry mouth with their patients.

1. <http://www.tufts.edu/articles/author-discussion/dry-mouth/dry-mouth.pdf>
2. Professor Mimi Lane, Caring for patients with "dry mouth." Dental Nursing June 2014 Vol10 No 6

## Acid Reflux/GERD

- 10 - 20% of the population suffer from GERD.<sup>1</sup>
  - up to 59% of the population reports heartburn monthly
  - 18% use prescription drugs to manage their symptoms.
- 49% of the patients with Sjogren's syndrome have GERD.



**UNDER-TREATED CONDITION** – requires greater awareness and collaboration between dental and medical professionals.

1. QUANTITATIVE ANALYSIS OF TOOTH SURFACE LOSS ASSOCIATED WITH GASTROESOPHAGEAL REFLUX DISEASE: A LONGITUDINAL CLINICAL STUDY. *Journal of the American Dental Association (JADA)* Mar 2012, Vol. 143, Issue 3, pp295-295.3/4p.
2. <http://now.nyu.edu/articles/other/fluoridebushashABm6dgp.dpuf>

## How do you choose an at home product for your patients?

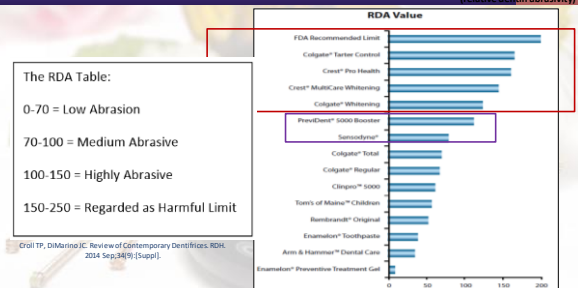
- be effective and remain effective
- Safe (non-toxic) for every age - from very young to the senior patients
- low abrasivity - to protect enamel and root surfaces
  - RDA = relative dentin abrasives
- easy to use for home applied use=Compliance
- A special plus is having a product that demonstrates "multiple benefits"

## Current Therapies should Target



- Dental caries
- Dentinal hypersensitivity
- Dental erosion
- Plaque & gingivitis
- Xerostomia (dry mouth)

## 2014 Dentifrice RDA Values-Abrasive



## Caries Protection: Current Home Use Paste and Gel Options

- OTC Pastes and Gels
  - Typically 1000 – 1150 ppm fl
  - Fluoride toothpastes
  - Fluoride home-use gels
- Prescription-level Pastes and Gels
  - 5000 ppm fluoride



## Efficacy Against Caries: Fluoride toothpaste= caries reduction

- Options:
- Sodium fluoride (0.23%)
  - Sodium monofluorophosphate (0.76%)
  - Stannous fluoride (0.4%)
- Efficacy:
- Effective in children and adults
  - Effective on coronal and root surfaces

- Caries Reduction in Review of 70 trials (under-17s):
- 24% caries reduction in permanent dentition

Marinho VC et al. Cochrane Database Syst Rev. 2003;(1):CD002278. Jensen ME, Kohout F. J Am Dent Assoc. 1988 Dec;117(7):829-32. Holica P, Ahlström S. Int J Paediatr Dent. 1992 Dec; 2(3):145-9.

## Children Age 0 to 6 Years: Fluoride Use

- Use of 5000 ppm fluoride is contraindicated
  - increases risk of over ingestion of fluoride
  - increases risk of fluorosis
- Use of fluoride rinses is contraindicated

## Children Age 0 to 6 Years: Fluoride Use

**NEW  
2014**

### ADA Recommendations:<sup>3</sup>



"Smear"  
amount!  
(0.125 g)  
Up to age 3



"Pea-size"  
amount!  
(0.25 g)  
Ages 3 to 6

"Strip" amount - Age 6 and older

\*Dose based on age

**Fluoride ion comparison of a pea-size amount (0.25 g)**

- Enamelon® Gel = 0.24 mg F
- 5000 ppm F toothpaste = 1.25 mg F

<sup>3</sup> American Dental Association Council on Scientific Affairs. Fluoride toothpaste use for young children. JADA 2014;145 (2):190-191.

## Stannous Fluoride

	Stannous Fluoride	Sodium Fluoride	Sodium MFP
Anti-caries	✓	✓	✓
Anti-gingivitis	✓		
Hypersensitivity	✓		
	Enamel strengthening and desensitizer		

## Calcium and Phosphate Technology

ACP	Amorphous Calcium Phosphate
CPP-ACP	Casein Phosphopeptide - Amorphous Calcium Phosphate (Recaldent®)
CSPS	Calcium Sodium Phosphosilicate (Novamin®)
TCP	Beta Tri-calcium Phosphate

## Amorphous Calcium Phosphate - ACP

When added to fluoride-containing systems, can:

- Potential in preventing demineralization and increasing remineralization
- Increases fluoride uptake

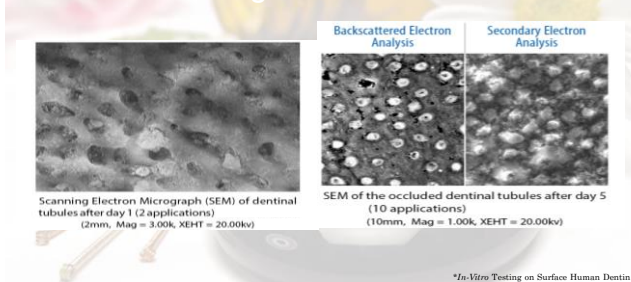
Winston, Anthony E. "The Origins of Enamel Remineralizing Fluoride Toothpaste."

## Innovative Options: Fluoride + Calcium and Phosphate Technology

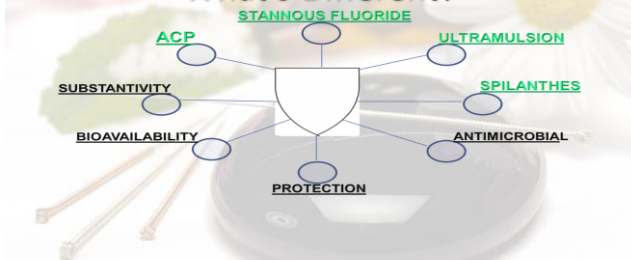
### New options:

- 970 ppm stannous fluoride gel delivering ACP
- 1150 ppm stannous fluoride paste delivering ACP

## Stannous Fluoride delivering ACP: Occluding Dental Tubules



## What's Different?



## SnF<sub>2</sub> delivering ACP

### Stannous Fluoride

- Reduces dental caries

### Stannous

- Protects against acid challenges
- Antibacterial
- Occludes dental tubules

### Amorphous Calcium Phosphate

- Increases fluoride release and uptake
- Works with stannous fluoride to increase fluoride uptake and reduce enamel solubility, helps occlude tubules

Schemehorn BR, Orban JC, Wood GD et al. Remineralization by fluoride enhanced with calcium and phosphate ingredients. J Clin Dent. 1999; 10(1 spec.no.):13-16. 8 Tung PG, Torres J. Effect of Calcium Phosphate Containing Fluoride Varnish on Dentin Permeability. J Dent Res. 2008;86 (Spec Iss A):0985.

## Ultramulsion®

- Contains polydimethylsiloxane
- Contains 2 copolymers
- Reduces surface tension
- Reduces dental plaque adhesion
- Alters dental plaque structure
- Gives a smooth feeling to the tooth surface
- Increases substantivity
- Encourages sustained release of ingredients



## Spilanthes

- Flowering herb extract
- Naturally stimulates saliva
- Gives a pleasant and cooling sensation that lasts
- Enhances vanilla mint flavor



Source: an agent that "stimulates" the secretion of saliva from the salivary glands.  
<http://thefamilyherbalist.wordpress.com/2011/09/12/getting-acquainted-with-spilanthes/>



## Additional Benefits

- No sodium lauryl sulfate (SLS)
- No gluten
- No milk proteins
- No dyes
- Low/Nonabrasive
  - RDA of 8 = prevention gel
  - RDA of 39 = dentifrice
- Pleasant refreshing clean mint flavor



*the skinny on*  
**AMBER**  
*teething necklaces*

## Teething Jewelry

- Bracelets
- Necklaces
- Beads/stones



## Baltic Amber Teething Beads

- Amber beads are a fossilized resin, specifically Baltic amber (Baltic Sea)
- Gained popularity in recent years from hipsters, "crunchy moms", celebrities and the homeopathic community
- Amber beads make up bracelets and necklaces for babies to wear to help ease discomfort during the teething process
- Have additionally become a fashion trend
- Beads are not intended to chew on, but to be worn around neck or wrist to allow for skin absorption of amber from body heat

## Baltic Amber Teething Beads

- Advertiser claims
  - Pain relief from teething
  - Improves body's immunity and blood circulation
  - Fights infections, irritations, respiratory disease
  - Helps with muscle pains and arthritis
  - Transmuting negative energy to positive
  - Relieves depression
  - Supports detoxification
  - Alleviates liver, spleen and adrenal disorders

## Problems with the claims?

- Trans-dermal absorption
  - No evidence to support
  - Amber is VERY HARD and succinic acid melts at 368 degrees Fahrenheit (187 degrees Celsius)
  - No evidence that succinic acid is released at body temperature
  - For Succinic acid to work, 3-8% is supposed to be absorbed trans-dermally. Must go through the entire bloodstream and be delivered to inflamed gums
- Pain relief
  - No evidence to support that it can even get into the body.
  - If it does, there is no evidence to support that succinic acid assists in pain relief in humans
- Testimonials
  - For as many parents claiming the amber beads have worked miracles, there are as many claiming that it was a waste of money and potential deadly.

## Baltic amber teething beads

- Canada 2010
  - Risk of strangulation
  - Advised that jewelry of any kind not be used under the age of 3
- Ireland 2015
  - Strangulation concern



## Baltic amber teething necklaces

### Survey Results:

**Many families in the study who were educated about the strangulation dangers 'no research to support the claims' They still preferred to continue to use them because of their fear of seeing their child in distress**

### Why do parents believe they work?

1. Parent feels they have control to stop pain for child
2. Online marketing fails to educate about the dangers
3. Holistic, homeopathic beliefs that if something is ancient practice it is safe and accurate
4. Natural approach is always better than medications (topical analgesics or ibuprofen, etc)

## What we know-Baltic amber teething beads

- No scientific evidence
- Skin irritant by the FDA
- Cannot be transmitted through skin
- Serious choking and/or strangulation hazard
- Can we prove teething??

## Essential Oils

Modern Essentials, 2015 5<sup>th</sup> edition



Studies: 1994, 2004, 2005, 2008, 2014

## Essential Oils

- Oil Pulling
- Topical-stress, pain relief
- Aromatherapy
  - Memory, mood, hormones
  - Diffused
  - Anxiety- blends

## Essential Oils- Dentistry IQ 2017

- Peppermint
  - Antioxidant, antibacterial, antifungal
- Clove
  - Staph bacteria
  - Dry socket
  - Numb and soothe
- Tea Tree
  - Anticariogenic
  - Inhibit formation of biofilm
  - Wound care
  - Ulcer healing
  - WaterPik
- Lemon
  - Candida, denture wearers
- Cinnamon
  - Inhibits Gram +/- bacteria
  - May improve insulin sensitivity in diabetics
  - May protect DNA from mutation

## What are essential oils?

- **Volatile liquids distilled from plants**
  - Seeds, stems, roots, flowers, fruit, bark
- **Therapeutic value comes from it's components**
  - Dependant on soil locations, chemicals, part of plant, climate, harvest method, distillation process
- **Only pure, therapeutic grade** oils should be used for holistic health care
  - Safer, less toxic
- **Difficult to find pure oils, expensive**
  - Several hundred/thousands of pounds of the plant material extract to produce one pound of pure oil
  - More inexpensive oils may smell better but processed faster and with less quality and may not have therapeutic value

## What are the benefits of therapeutic-grade essential oils?

- Small molecular size, lipid soluble and quickly penetrate the skin
- Penetrate the cell membranes, hardened
- 20 minutes, hours
- Blood/brain barrier
- Placenta

## Essential Oils

- **Very powerful antioxidants**
  - Neutralize free radicals
  - Help diminish oxidative stress and free radical production
    - Help body fight disease and damage
    - Help fight damage to DNA and tissue
    - Helps ward off triggers of many diseases

## Essential Oils

- **Essential Oils can be:**
  - antiviral
  - antifungal
  - antimicrobial
  - antibacterial
  - antitumor
  - antiseptic
  - antiparasitic

## Essential Oils How long have they been around?

- Since the beginning of time.....*
- 35 jars found in King Tut's tomb
  - Many references to aromatics, ointments and incenses in the Bible and Torah
    - Frankincense, rosemary and myrrh

## Essential Oils Route of Administration



- GRAS, FL, FL
- 100% Pure



## Essential Oils Possible Drug Interactions

Essential Oil Safety by Robert Tisserand and Young 2014

- Anticoagulant
- Aspirin
- Selective Serotonin reuptake inhibitors
- Antidiabetic drugs
- Dermal medications
- MOA antidepressants
- And more!



## Essential Oils-Oral Health

- Mouth Ulcers
- Teething
- Plaque
- Periodontal
- Bruxism
  - Topically or aromatically
    - Apply under nose and to bottom of feet, back of neck or navel
    - Diffuser by bedside
  - Calming Blend
    - Lavender, Sweet Marjoram, Roman Chamomile, ylang ylang, Hawaiian sandalwood, vanilla bean
    - Aids nervous system
    - Calms nerves and emotions

## Essential Oils- Gum health

- All oil use topical only
- Primary recommendations
  - Myrrh
  - Lavender
  - Melaleuca

[www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)

- Antibacterial, antifungal and antiviral effects of 3 essential oil blends
- Cinnamon, Eucalyptus and Rosemary
- Gram + and Gram -

## Essential Oils-Smoking

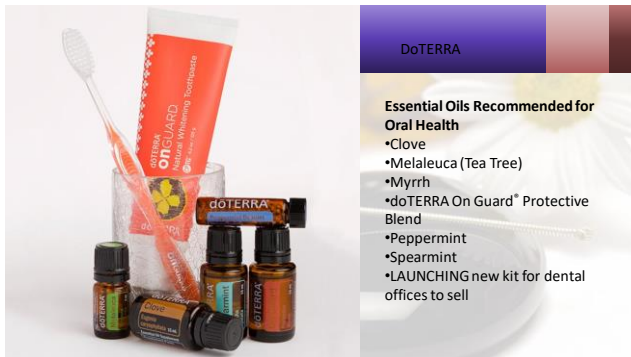


# VAPING

# ESSENTIAL OILS



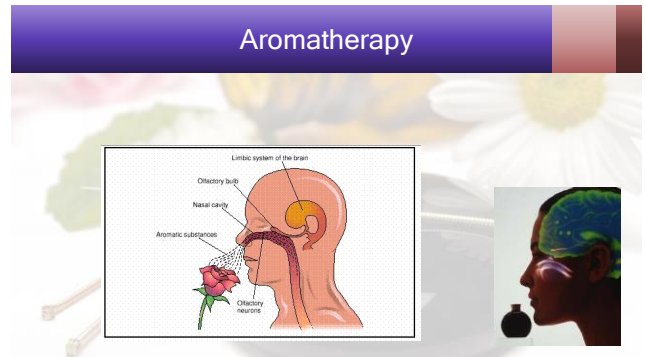




doTERRA

#### Essential Oils Recommended for Oral Health

- Clove
- Melaleuca (Tea Tree)
- Myrrh
- doTERRA On Guard® Protective Blend
- Peppermint
- Spearmint
- LAUNCHING new kit for dental offices to sell



## Aromatherapy



## Aromatherapy

- Limited studies on health benefits of aromatherapy
- Lavender has been proven to help sleep, lower vital signs and reduce anxiety
  - In nursing homes and hospitals
  - Research suggests that it be used in health care centers with no adverse effect
  - Some people do not like the smell
- There are a few studies that show effective in:
  - managing labor pain
  - Faster in doing math problems, but not more accurate
  - Improving self esteem
- Lavender in essential oil form is one of the only oils to have positive/enhanced interaction with most other oils
- Allergies to Lavender have been observed



## Staying Relevant

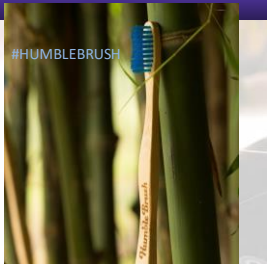
### The Environment



**The Environmental Impact of Toothbrushes**  
 3rd August 2015  
 50 Million Pounds of Toothbrushes Enter US Landfills Every Year

<http://www.ecoplanetbamboo.com/news/the-environmental-impact-of-toothbrushes>

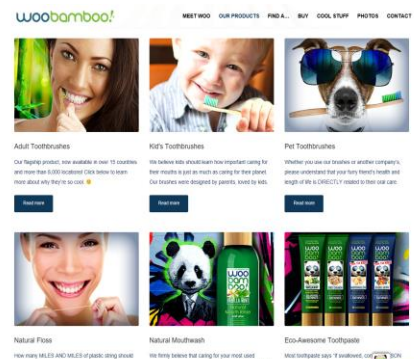
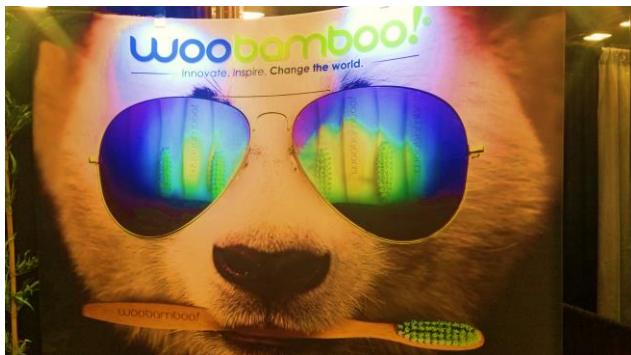
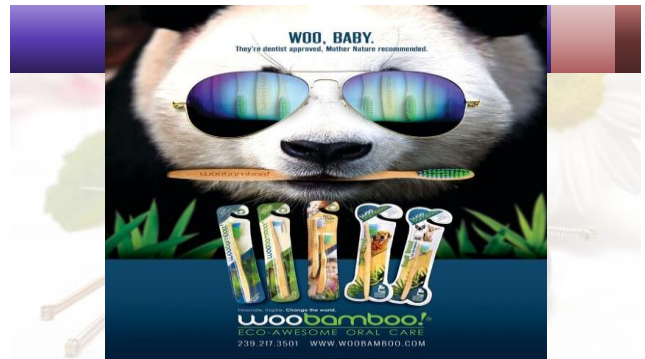
## Made by Nature



<https://www.instagram.com/p/8e8ttohNQW/>



<https://www.facebook.com/bambootoothbrushes/photos/a.886218788090229.1073741828.862875307091244/1881152160859687/?type=3&theater>



[https://www.youtube.com/watch?time\\_continue=17&v=fnLQJmxjXGc](https://www.youtube.com/watch?time_continue=17&v=fnLQJmxjXGc)

## Customized Toothbrushes for your Practice

- Offer eco friendly products
- Appeal to all generations



## Global Travelers

- Many reasons to smile
- Plastic free
- Naturally whitening
- TSA Friendly
- Vegan
- Always the perfect amount
- Delivered to YOU

Help your teeth and help the Earth



Bar shampoos  
No liquids/pastes  
Small sizes  
Disposable

- Recycled Yogurt Cups in to toothbrushes

- Boie: the Future Toothbrush



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4149172/>

“As long as you are green.....you are growing”





<http://ecodentistry.org/green-dentistry/>

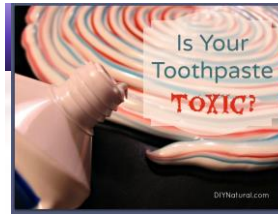
## • Eco dentistry Association

### Green Dentistry

**Reduces waste and pollution** You'd be surprised how much waste and pollution is generated by a single dental practice. **Saves water, energy, and money** It's time for every industry to conserve resources, and dentistry has an important role to play.

**Is high-tech** Many innovations on the leading edge of dental technology are also better for patients and the planet.

**Supports a wellness lifestyle** A growing community of consumers seeks dental professionals who share their values of personal and planetary wellness



**Triclosan** – This is an antibacterial agent and preservative used in some toothpastes

**Sodium Lauryl Sulfate (SLS)** – SLS is a foaming agent and detergent that is added to most commercial toothpastes. This ingredient is dangerous because the production of SLS results in [contamination with a carcinogenic by-product](#)

**FD&C Blue Dye No. 2** –ADHD behavior issues in children, allergies

**Fluoride** – This ingredient in toothpaste deserves the attention



## TRICLOSAN

- \*synthetic antibacterial compound
- \*registered in 1969 as pesticide
- \*endocrine + muscle function disruptor
- \*potential carcinogen
- \*creates antibacterial resistance
- \*produces chloroform gas when mixed with water

commonly found in :



All Organic Manual - LABEL DECODE - [www.tasha-k.com](http://www.tasha-k.com) @tashakofficial

“Cut the Waste Out of Your Life!”



## Make Your Own Toothpaste

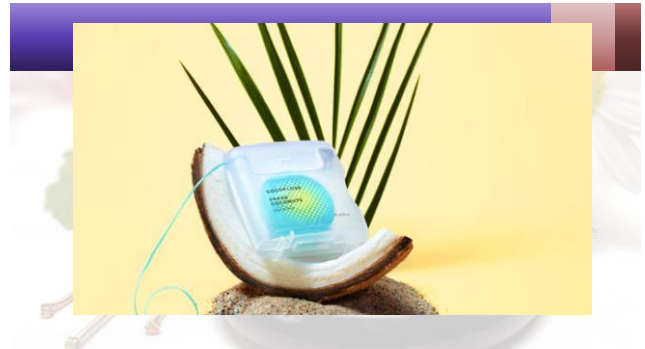
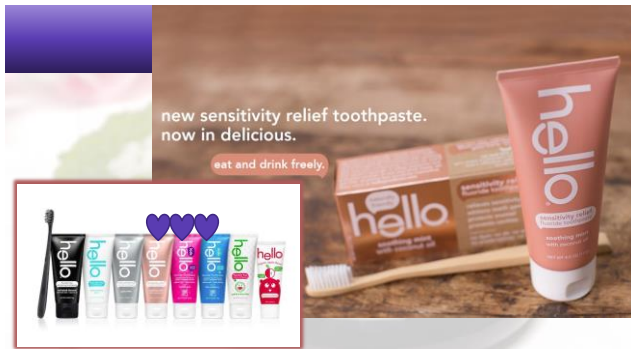


- About 1/2 cup coconut oil (softened)
- 2-3 Tablespoons of baking soda
- 2 small packets of stevia powder or xylitol
- 15-20 drops of [peppermint](#) or [cinnamon essential oil](#)
- 10 drops myrrh extract (optional)

# AN INCONVENIENT TOOTH

presented by hello!





## Natural Toothpastes : Safe and Effective?

- Numerous studies have shown herbal toothpastes and rinses to be effective in reducing infection, bleeding, plaque and stains.
- 2011 Study in Sri Lanka
  - double blind, randomized study
  - multi herb toothpaste containing oak, ginger, clove and black pepper used 2/day for 12 weeks
  - resulted in reduction of anaerobic and aerobic bacterial counts, lower plaque index, reduction in bleeding and pocket depths.
- Studies do not include reduced caries risk, usually gingival scores only

## Paleo



- Science based nutritional solutions, education, counseling and products
- Paleo based supplements, cleanses, stool analysis kits, antioxidants, weight management, eye and oral health

## Prevention

Licorice Root and Cranberry

Aloe, polyphenols

L-Arginine

## Wild Blueberry Polyphenols

- Journal of Agriculture and Food Chemistry, 2015
- Propyl rich
  - Antibacterial,
  - Antiinflammatory, antiproteinase
  - Inhibit bacterial growth
  - Alter ability to create biofilm
  - Could replace antibiotics in treating periodontal disease

Research being done on slow release of blueberries extract in treating periodontal disease.

Developing a device that could be used after deep cleanings to deliver slow release



## Natural Preventive Care-Cranberry

- Cranberry (*Vaccinia macrocarpon*)
  - Emerging as a leading natural decay treatment
  - 1999 Journal of the American Dental Association
    - » Constituent of cranberry prevented plaque bacteria from adhering to the teeth and forming colonies
  - In 2009, Israel researchers
    - » Confirmed that cranberry inhibited plaque bacteria from creating sticky film
  - In 2010, University of Rochester Medical Center, Eastman Department of Dentistry
    - » Proanthocyanidins in red cranberry pigment were responsible for inhibiting biofilm
  - In 2010, Canadian researchers published a paper on cranberry polyphenols for a plethora of anti cavity actions



## Aloe Vera-Perio

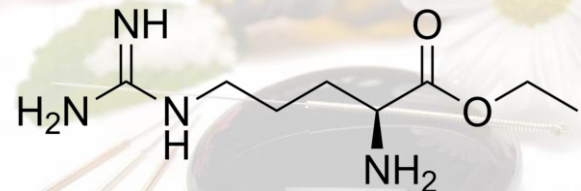
- *Oral Health Dent Manag.* 2014 Mar;13(1):14-9.
- **Effect of Aloe vera mouthwash on periodontal health: triple blind randomized control trial.**
- Our result showed that Aloe vera mouthrinse is equally effective in reducing periodontal indices as Chlorhexidine. The results demonstrated a significant reduction of gingival bleeding and plaque indices in both groups over a period of 15 and 30 days as compared to placebo group. There was a significant reduction on plaque and gingivitis in Aloe vera and chlorhexidine groups and no statistically significant difference was observed among them ( $p > 0.05$ ). Aloe vera mouthwash showed no side effects as seen with chlorhexidine.
- CONCLUSION:**
  - The results of the present study indicate that Aloe vera may prove to be an effective mouthwash owing to its ability in reducing periodontal indices.
- *J Int Soc Prev Community Dent.* 2016 May-Jun;6(3):251-5. doi: 10.4103/2231-0762.183109. Epub 2016 May 30.
- **A randomized clinical study for comparative evaluation of Aloe Vera and 0.2% chlorhexidine gluconate mouthwash efficacy on de-novo plaque formation.**
- **OBJECTIVE:**
  - To comparatively assess the antiplaque efficacy of Aloe vera mouthwash and 0.2% chlorhexidine gluconate mouthwash on de novo plaque formation.
- **CONCLUSIONS:**
  - Herbal mouthwash containing Aloe vera mouthwash has comparable antiplaque efficacy as the gold standard 0.2% chlorhexidine gluconate with fewer side effects and can be considered as an alternative

## Aloe for health benefits

“There’s not enough evidence to show whether aloe vera is helpful for most of the purposes for which people use it.”

*National Institute for Health  
2017*

## L-Arginine



## Antioxidants Oxidative Stress and free radicals

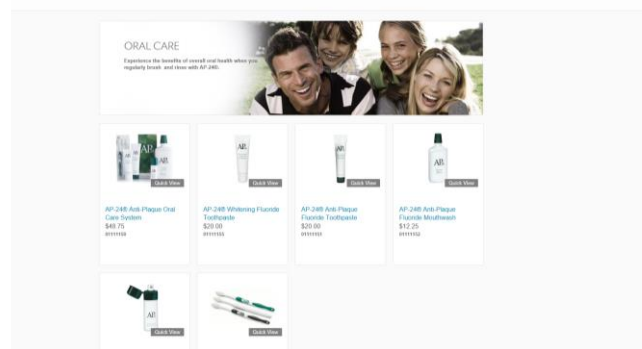
- Chronic inflammation has many contributing factors
- Oxidative stress may play a role in the oral-systemic link
- Antioxidants may be helpful in reducing chronic inflammation

## Oxidative Stress

- Imbalance of too many free radicals that leads to damage of DNA, cell membranes and fats.
- Free radicals are created by our immune system to battle viruses and bacteria
  - Found in severe periodontal disease and systemic conditions such as cardiovascular disease, diabetes, degenerative aging process

## Antioxidants

- Green tea, black tea
- Polyphenols
- Red wine
- Rosemary, Sage, Citrus and other fruits
- Onions and olives
- Pomegranates, ginger, sunflower seeds,



## NuSkin and Periosciences

- AO Gel, toothpaste and rinse
  - Aloe, essential oils, antioxidants
- AP24



Antioxidants as studied in the article are very important in health.

Data regarding the beneficial role of antioxidants in oral as well as general health is very scarce. Therefore, further studies should be conducted to know the beneficial role of antioxidants in the oral cavity, as we know it can hugely change the scenario of treatments related to diseases of oral cavity like cancers and the periodontium

*International Journal of Contemporary Medical Research* 2015

## Gluten Sensitivity or Allergy: hard to absorb nutrients

### Symptoms:

Canker Sores  
Joint Pain  
Mood swings  
Fatigue  
Vitamin Deficiencies  
Skin rashes and itching  
Migraines  
Tingling in hands and feet  
Digestive problems  
Constipation/Diarrhea



[www.celiac.com](http://www.celiac.com)

Journal of Gluten Sensitivity Winter 2014

Labeled?

Diet and  
non  
Dietary

## Invisalign



## Xylitol

Inhibits strep bacteria to produce acid  
Oral health and  
Upper respiratory infections

Not a remineralizing product  
May increase moisture  
Need 6-8 exposures

2017 Pediatric Dentistry  
Meta Analysis-small and low  
Quality evidence



## Beauty From Within



<https://www.nutritioninsight.com/news/oral-health-natural-products-rising-and-good-for-your-teeth-sweets.html>

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**nutrition insight**  
food ingredients packaging ingredients

Givaudan, your natural partner

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You are in: [TRENDS](#) > Oral health: Natural products rising and good for your teeth sweets

**Oral health: Natural products rising and good-for-your teeth sweets**

15 May 2018 — In line with the personal care market, oral health products are increasingly marketing themselves as natural products. In fact, all natural products are marketed as natural products. This is a more holistic understanding of wellness and consumers are increasingly looking for natural health benefits from natural ingredients which carry better for you appeal. **Nutrition Insight** covers a range of innovative products and suppliers helping drive the health-care market. When it comes to health, more than a shiny, white smile is the goal.

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**Rhodiolife**  
rhodiolife.com





## Cannabis Extracts

Relief for Chronic Pain  
Calms Childhood Epilepsy  
Anxiety, depression  
Reduces Inflammation  
Reduce oxidative  
Stress/cancer  
Weight  
Heart health  
Skin

Thinkorganiclife.com




## TURMERIC



## Green Tea

- Fights cancer
- Lowers cholesterol
- Prevents cavities
- Protects against heart disease
- Speeds metabolism
- Prevents diabetes
- Antiviral agent
- Maintains a healthy circulatory system
- Strengthens tooth enamel
- Reduces plaque and bacteria in your mouth
- Prevents dementia
- Full of antioxidants
- Prevents food poisoning
- Gives healthy skin
- Prevents bad breath
- Detoxifies



## Dry Mouth

- Mint Flavor Lozenge
- Sugar Free
- Xylitol + Slippery Elm Bark + Cranberry
- Great Tasting Mints to Moisturize the Mouth
- Vegan Friendly
- No Artificial Ingredients
- Gluten Free

**Hyaluronic Acid (HA)** is known as "Nature's Moisturizer." HA's water-loving properties attract more than 1,000 times its weight in water, making it a moisture magnet



## Au Naturelle for PETS too!

Delmopinol  
Forms a barrier that blocks bacteria from adhering to tooth surface.  
Chews and plaque prevention gel

PerioShield

OraVet

**FRESH KISSES**  
cleans teeth • freshens breath

**DOUBLE-BRUSH**  
infused with COCONUT • BOTANICAL OILS



## Natural oral health remedies FOR PETS TOO!

- About 70% of American households support one or more furry companions
- 20% of American households spend more than \$5.6 billion/yr on herbal products
- Popularity on herbs for animals is on the rise—usually in the form of a tea
- Herb Smith, Honest Kitchen and Animal Essentials—manufacturers

## Holistic Dentistry-Book

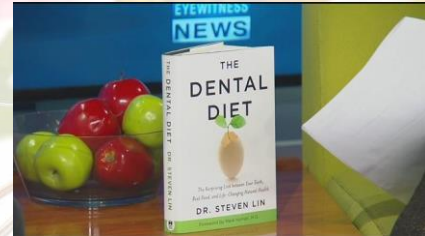
- “Holistic Dental Care”
  - Nadine Artemis (aromocologist)
  - 8 Steps to successful self dentistry
  - Learn the truth about toothpaste, toothbrushes and mouthwash
  - Discover botanicals and plant extracts that protect your teeth and reverse tooth decay and gum infections

## Holistic Biological Dentists

- Greenpeople.org
- Holisticdental.org
- Dentalwellness4u.com
- Naturaldentistry.org
- Toxicteeth.org
- Ortho: aacfp.org, orthotropics.com, cranio.com

## Holistic Dental Practices

- Ozone Therapy
- Reflexology
- Laser use
- Crystal beds



## Saliva



## Next Generation

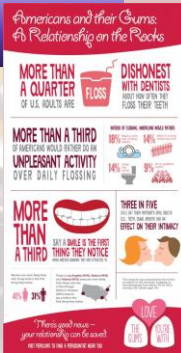
- Dental Materials
- At home oral health products

## Love the Gums you're with!

June 2015

National survey released reveals:  
27% of US adults lie  
to their dentists  
about  
how often they floss

There is clearly more work to be done in  
educating the importance of oral hygiene  
and the 500+ bacterial species that can be  
found in plaque/biofilm



Perio.org

American Academy of Periodontics

- 36% of people would rather do an unpleasant activity over daily flossing
  - Cleaning the toilet-14%
  - Waiting in a long check out line-14%
  - Washing a sink full of dirty dishes-18%
  - Sitting in gridlock traffic-nearly 1 in 10
  - Doing taxes-9%

## Oral Health & Overall Health



## Do It Yourself



## DIY Teeth Bleaching



How to do it:  
USE capsules, tablets (1-2) or powder and pour in to cup  
Add just enough water to make a paste  
Dab paste on all surfaces of teeth  
Let sit for 3 minutes  
Rinse and repeat as needed



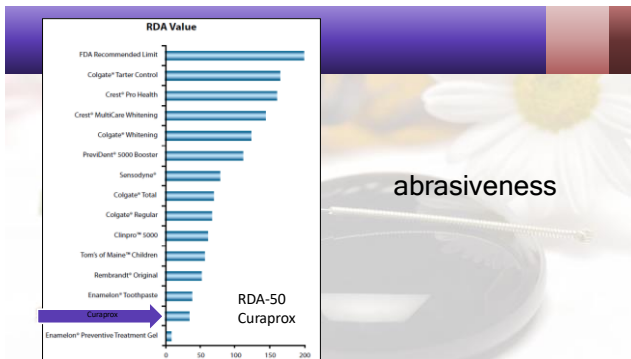


## ADA Recommendations on Charcoal bleaching

- As far as safety goes, the fine, odorless and tasteless powder is kosher to ingest—it's sold in health food stores in tablet form. But Banker and ADA officials warn that until we know if it's gritty enough to damage enamel, you need to avoid actually scrubbing it on your teeth.

*"Right now, no charcoal teeth whitening products have been evaluated and accepted by the ADA."*

*"Our biggest concern is abrasiveness—you don't want it to wear away at the enamel."*



## Charcoal- What else?



## Silver or Gold Teeth

- <https://www.facebook.com/superdeluxevideo/videos/594603587550862/>





<http://www.teethgap.com/>



You Tube Videos  
New Beauty, Readers Digest  
AOL Health  
\$6.99  
Wrapping rubber bands around  
teeth to close spaces

- can lead to bone loss
- tissue damage
- potential tooth loss

## DIY-Orthodontics: Orthofill

- **How to Place and Use Orthofill**  
[click here to know more](#)

- **Place the Band**
- **Go to Sleep**
- **Remove the Band**
- **Smile!**



<http://orthofill.net/how-to-use-orthofill-teeth-gap-bands.php>

## DIY trends

- **DIY Ortho**



## Ortho at home- no dental visits required



**1/3 the cost, no visits  
Orthodontists?**

**No x-rays, Selfie is not diagnostic tool**



## Myofunctional Therapy

The Academy of Orofacial Myofunctional Therapy (AOMT) is a leading post-graduate training academy for allied health professionals who want to treat orofacial myofunctional disorders

Offer Comprehensive 4 day course to learn techniques and ways to incorporate in to your practice

- **OMT is a program used to correct** breathing, swallowing, and chewing disorders, normalize freeway space, help stabilize the bite, and eliminate noxious oral habits such as tongue-thrusting and thumb-sucking. OMT stabilizes orthodontic, surgical, and dental results

## Exercises for breathing, swallowing and the tongue



## Oral Health Plans offered by companies GEARED to help the consumer

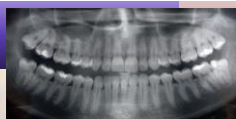
- Automatic refills/shipped to your home
  - Toothpastes, floss, rinses
- Discounts for yearly plans
- Reminders for re-orders
- Cost appears to not be a factor for consumer
  - They want more options for natural products
  - “you get what you pay for”
  - \$20+ for toothpaste every month
  - \$22 for fun, funky flavored floss
  - Will pay more for perception of “more natural approach to health”

## What role will the licensed dental professional play in educating patients and recommending products?

- Livionex (antioxidants, fluoride free)
- Arbonne (pure, safe and natural-healthy from inside-out)
- NuSkin (antioxidants and fluoride)
- DoTerra (essential oils-antimicrobial, antifungal, anti-inflammatory)
- Curaprox (enzymatic ingredients)
- Periosciences

Next Generation Oral Care

## ADA Policy on Radiographs



- **ADA / FDA Guide to Patient Selection for Dental Radiographs**
- <http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/ucm116503.htm>

## Professional Recommendations Antibiotic Premedication

- 2015: antibiotics prior to dental work in patients who have had joint replacements, in general, are not recommended

**Journal of the American Dental Association (JADA)**

2007 :JADA guidelines printed regarding prevention of infective endocarditis

2004: Statement on Antibiotic resistance

Volume 146, Issue 7, Pages 508-524



- **Systematic review and meta-analysis on the nonsurgical treatment of chronic periodontitis by means of scaling and root planing with or without adjuncts**

July 2015



- Fake News
- Antivaccination
- Lack of Trust
- Psychology

## Patient Centered Care

### Medical Model

Patient's role is passive  
(Patient is quiet)

Patient is the recipient of treatment

Physician dominates the conversation  
(Does not offer options)

Care is disease-centered  
(Disease is the focus of daily activities)

Physician does most of the talking

Patient may or may not adhere to treatment plan

### Patient-Centered Model

Patient's role is active  
(Patient asks questions)

Patient is a partner in the treatment plan  
(Patient asks about options)

Physician collaborates with the patient  
(Offers options; discusses pros & cons)

Care is quality-of-life centered  
(The patient focuses on family & other activities)

Physician listens more & talks less

Patient is more likely to adhere to treatment plan  
(Treatment accommodates patient's cultures & values)

<https://www.pinterest.co.uk/pin/137500594844734272>

## References/Additional Reading

- “Nature’s Recipe for Peak Health”
- “Alternative Medicine” August 2015 Issue 23
- “Herbal Remedies for 2015” Country Collectibles #97
- Journal of the Royal Society of Medicine
- “Modern Essentials” 2015, 5<sup>th</sup> Edition
- “Holistic Dental Care” Nadine Artemis, 2013
- “Nature’s Remedies” Newsweek Special Edition, 2017
- The Dental Diet, Dr. Steven Lin, 1<sup>st</sup> Edition, Jan 2018

## References/Additional Reading

- [www.Joinaama.com](http://www.Joinaama.com)
- [www.holisticdental.org](http://www.holisticdental.org)
- [www.hipcanada.org](http://www.hipcanada.org)
- [www.Cchh.org](http://www.Cchh.org)
- [www.Naturopathic.org](http://www.Naturopathic.org)
- [www.Faim.org](http://www.Faim.org)
- [www.Ahha.org](http://www.Ahha.org)
- [www.cdc.gov](http://www.cdc.gov)
- [www.cancer.gov](http://www.cancer.gov)
- [www.nacams.org](http://www.nacams.org)
- <https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements>
- <https://www.npr.org/sections/health-shots/2015/07/31/428016419/toxic-lead-contaminates-some-traditional-ayurvedic-medicines>
- [www.Spiritualityinhealthcare.net](http://www.Spiritualityinhealthcare.net)
- [www.naturaldentistry.org](http://www.naturaldentistry.org)
- <https://www.unilad.co.uk/articles/teenagers-are-making-dangerous-diy-braces-using-elastic-bands/>
- <http://www.oneviewhealthcare.com/the-eight-principles-of-patient-centered-care/>
- <https://www.nih.gov>
- <https://nccih.nih.gov>
- [http://www.dimensionsofdentalhygiene.com/2012/03\\_March/Features/The\\_Alternative\\_Approach.aspx](http://www.dimensionsofdentalhygiene.com/2012/03_March/Features/The_Alternative_Approach.aspx)
- <https://www.waterpik.com/oral-health/experts/alternative-medicine-oral-health-csoke/>
- <http://www.rdhmag.com/articles/print/volume-34/issue-11/features/chronic-work-pain.html>

*Thank You!*

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