

Now that makes sense!  
Creating a healthy sustainable  
environment



#### Key concepts:

*There is no one-size-fits-all solution.*

*Identify the patient's goals.*

*There are many products and strategies  
that can achieve a wide range of goals*

Our "WHY":  
Meet people where they are

Their interest level?  
Their goals?



- acknowledge concerns
- not that many hypochondriacs
- believe in their discomfort

Haleberg M, Cunha L. Dental anxiety and pain related to dental hygienist treatment. Acta Odontol Scand. 2008

Complex patients – complex solutions

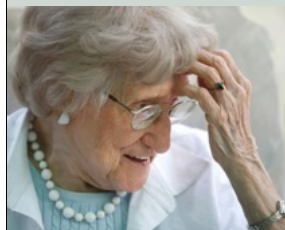


#### Candice



- 45 years old
- high stress legal career
- Ironman athlete
- lives in Wisconsin
- travels to Arizona and Idaho
- eats out a lot
- caring for aging parents
- crowded lower anterior teeth

#### Phyllis



- 80 year old female
- complex polypharmacy
- cognitive decline
- depression
- extremely sensitive tissues
- has removable partials
- many poor crown margins
- loves to snack
- arthritis in her hands
- in assisted living

#### Chase



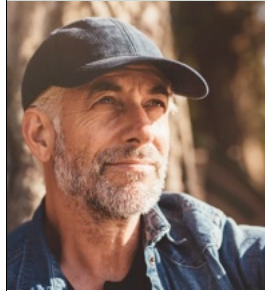
- 10 year old male
- soccer player
- tournament player
- loves snack food
- frequent sinus headaches
- older dog - sheds a lot
- grandparents - heavy smokers
- drinks sports drinks
- snores while sleeping

## Brittany



- 15 year old female
- secretly vaping
- concerned about weight
- social media 24/7
- eats pickles to loose weight
- prone to anxiety
- drinks energy drinks
- wants white teeth
- does not use string floss
- has a new boyfriend

## Bubba



- 52 years old
- manager of a tire shop
- works 6 ten hour days
- snores
- poker night - cigars and beer
- lives near Lake Ponchartrain
- fast food diet
- getting divorced
- high credit card debt

## Justin



- 27 year old male
- software engineer
- avid tennis player
- 3 cups coffee before noon
- stand up comedian - open mic night
- apartment with 3 others in Silicon Valley
- vegan diet
- drinks kumbacha daily
- lots of college debt

## Respect their concerns



- stick with the facts
- don't try and convert
- look for alternatives



- look past legacy options
- consider options
- reinforce natural physiology
- **support homeostasis**



- in-depth health history
- tell the truth
- assess total needs
- **provide all options**



## New ways to fight back

### Key concepts:

*Customized care strategy*

*Focus on diagnostic needs*

-----

*benefit plan is secondary*

## There is just so much to know!



## Dry mouth – prevalence



- ▶ 30% population
- ▶ more women

Thomson WM, Lawrence HE, et al. The impact of xerostomia on oral health-related quality of life among younger adults. *Health Qual Life Outcomes*. 2006 Nov;4:86.  
 Anil S, Vellappally S, Hashem M, et al. Xerostomia in geriatric patients: a burgeoning global concern. *J Invest Clin Dent*. 2014 Sep 1.  
 Mandel ID. The functions of saliva. *J Dent Res*. 1987 Feb;66 Suppl No 623.

## Insufficient saliva



- increased acidogenic microbes
- aciduric microbes thrive
- decreased buffering capacity
- sticky plaque biofilm

Saliva and the Control of Its Secretion. Skjerve (ed.), *Dysphagia, Medical Radiology: Diagnostic Imaging*, Springer-Verlag Berlin Heidelberg 2012  
 Graham I, Mount WH. (2005). *Preservation and restoration of tooth structure*. 2nd Edition. Queensland, Australia: Knowledge Books and Software.

## Or this.....



- disruptive breathing
- dry climates / AC / heat
- OSA - CPAP therapy
- salivary gland pathology
- hormone imbalances
- laxative/diuretic abuse
- medications - over 700
- sodium intake
- nursing / pregnancy
- dehydration
- cancer therapy
- coughing / COPD
- cognitive impairment
- radiation treatment
- chronic renal failure
- autoimmune

Steady LM, Vissink A. Dry mouth. The evoked symptom. A clinical guide. Wiley, Blackwell; May 2012.

## Or this.....

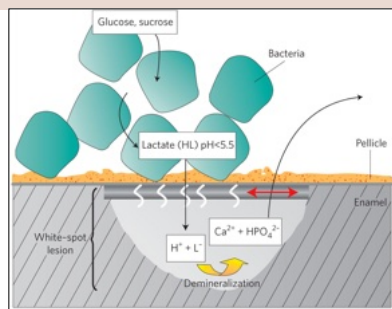


Blame Shame Frustration



Drill Fill Bill

## Caries —



Hanning M and Hanning C. *Nature Nanotechnology* 5, 585-589 (2010)

## Erosion



- ▶ progressive loss of hard tissue
- ▶ **chemical loss - not bacterial**
- ▶ **most important factor - hypersensitivity**

Lund A, Schieler N, Rattetadillo S, Giese C. Dental erosion—non-carious loss of tooth structure: chemical and histopathological aspects. *Caries Res*. 2011;45 Suppl 1:9-13.


Reis W. Dental erosion: Etiology, diagnosis and prevention. *Ann of Dent Ther* 2006; April 2011.

Carvalho TS, Cohen F, et al. Consensus report of the European Federation of Conservative Dentistry: Erosive tooth wear diagnosis and management. *Saliv Dent J*. 2016;126(3):340-346.

## Salivary pH basics




## Salivary pH - impact on tooth structure



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## When do teeth melt???



- root structure - pH 6.7
- enamel - between pH 5 and 5.5
- fluorapatite - pH 4.5

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## Critical pH



- critical pH – is a dynamic number
- dependent - salivary calcium and phosphorus
- average resting salivary pH 6.4 – 7.2

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## Healthy salivary pH



- resting - pH 6.8 - 7.2
- favors homeostasis
- supports remineralization
- suppresses pathogens

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## Getting preliminary data

## Saliva testing

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## Problem saliva?

## Identifying risks



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## The Decay Family

OSA  
Silent gerd  
Dark circles  
Sleepy / fatigued  
Sugar intake  
Minimal visible biofilm  
Shiny red mucosa  
Melting teeth / erosion  
HBP meds  
Depression - BiPolar dx  
CPAP

Ed deceased + Kay 75

Jenna Eric Shannon Ursula deceased Clark


What would you do?

Clara 11 No caries Past 1yr  
Laur Caries Hx  
Hanna Current caries pH 5  
Brenn Caries Hx  
Sara 20 Caries Hx  
Noah 13 Caries Hx Complex H Hx

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## Salivary

- Baseline data
- Snapshot in time
- Data can change
- Monitor for trends



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## Healthy - daily flow rate




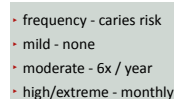
- 0.5 to 1.5 liters
- resting - 0.25 to 0.4 ml /min
- stimulated - 1 - 3 ml / min
- **establish a baseline!**

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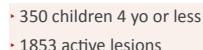




*What are the patients actual needs?*

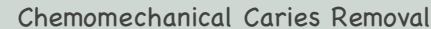
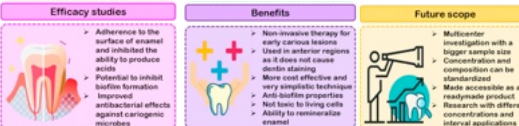
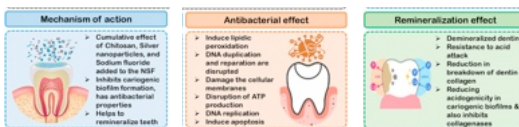
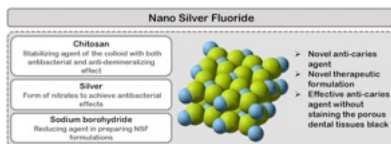


AA-SDF  
0.1ml  
150CFP04



- NSF - 1 application
- SDF - baseline & 6 mo

- NSF vs SDF - 12 mo  
71% vs 56% arrest rate



- ▶ enzyme based - papain
- ▶ introduced in 2003 in Brazil
- ▶ FDA cleared - 2024

- decreased pain perception
- reduced fear / anxiety
- no aerosol generation
- no noise
- no anesthesia

- reacts-infected dentin
- breaks down denatured protein
- improves bond strength

- split mouth design
- 25 children age 5-9
- 50 primary molars
- CMCR - no pain - 92%
- 100% liked treatment



## Chemomechanical Caries Removal

- slow speed bur vs enzyme gel
- gel application - 30 - 60 sec
- spoon excavator - hand burs
- until gel is clear - dentin is shiny
- glass ionomer restoration

## Guided enamel regeneration

- incipient lesion
- non-cavitated
- no flavor
- quick etch
- rinse / dry / apply
- 5 min wet time

## Rebuilding hydroxyapatite - incipient lesions

- peptide scaffolding
- calcium and phosphate precipitate
- lesion rebuilt in 6 months

## Balance the oral ecology

## Taste and see....why not?

- flavors
- textures
- foaming
- SLS / fluoride

- 44% xylitol
- 5000 ppm fluoride
- no SLS
- pH 7
- super saturated 44% xylitol
- muco-adhesive complex
- more viscous
- 2 oz bottle
- viscous / protective film
- lubricates / hydrates

## When faced with this.....


## HYDROSONIC PRO

- Hydrosonic Pro -
- Ultra small tear drop head
- Angled






### Importance of strain specificity



Indication	<i>L. reuteri</i> ATCC PTA 5289 <i>L. reuteri</i> DSM 17938	<i>Streptococcus uberis</i> KJ2 <i>Streptococcus oralis</i> KJ3 <i>Streptococcus rattus</i> JH145
Gingivitis*	<b>HIGH EFFECT</b>	Not studied
Periodontitis*	<b>HIGH EFFECT</b>	NO EFFECT
Implantitis*	<b>HIGH EFFECT</b>	Not studied
Caries*	MODERATE	MODERATE
Halitosis*	LOW	Not studied


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### *L. reuteri* Prodentis – human-derived probiotic strains



*L. reuteri* DSM 17938

Isolated from the breastmilk of a lactating woman from a rural, non-Westernized area of the Andes mountains




*L. reuteri* ATCC PTA 5289


Isolated from the saliva of a Japanese woman with excellent oral health despite poor oral hygiene

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### What sets BioGaia apart?




**246**  
Clinical Trials



**20,345**  
Individuals



**11** International  
Clinical Guidelines



**54**  
studies in  
6,854 subjects

**INFANTS**  
(0-12 mos)

**24**  
studies in  
2,719 subjects

**TODDLERS**  
(13-36 mos)

**42**  
studies in  
4,512 subjects

**CHILDREN**  
(4-18 yrs)

**126**  
studies in  
6,260 subjects

**ADULTS**  
(>18 yrs)

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- Gingivitis, peri-implant mucositis, caries
- Non-surgical perio - adjunct
- 1 lozenge - twice daily - 1 to 3 months

- Maintenance
- 1 lozenge daily



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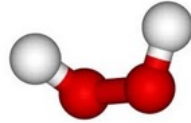
A history lesson.....

Or a lesson in current events




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### Hydrogen Peroxide

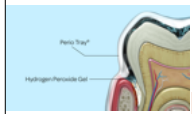


- antiseptic
- debridement
- reduces inflammation


- naturally occurs - breast milk, saliva, liver
- no allergic reactions
- no known bacterial resistance

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### Prescription trays




**Problem: "Therapeutic delivery of H<sub>2</sub>O<sub>2</sub> to prevent periodontal disease required mechanical access to subgingival pockets."**




- trays create hydraulic seal
- eliminates dilution
- up to 9mm


- 10 min therapeutic
- 15 min full O<sub>2</sub> release

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January 2015







Photos courtesy of Bruce Cochrane, DDS - Fort Dodge IA

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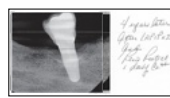
### Prescription trays – implant



3/13/2018



10/14/2020



1/20/2022

- 77 year old male - suppurative / 7 threads
- H Hx - OSA, CPAP, Simvastatin, Symbicort, Picoair HFA, Aspirin 81 mg, Zoloft, and Omeprazole


- prescription tray - started June 2019
- PerioGel plus doxycycline

Photos courtesy of Lynn Hanstey, DMD - Rutland, VT

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- get the facts
- develop positive energy
- coaching not scolding
- create a legitimate spin



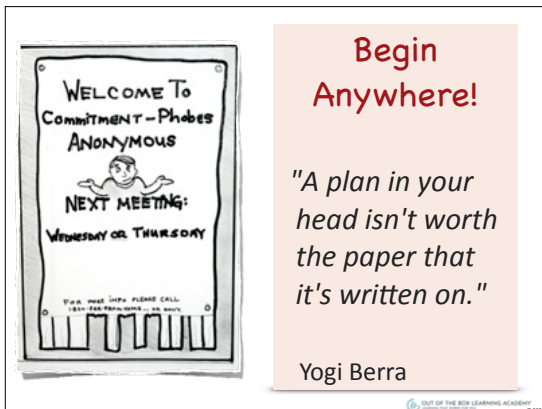
- current scientific information
- patients must make the final choice

***How would you treat your family?***

## Cheese and chocolate



Rockefeller U, Todorik V, Todorik P, Todorik A, Chaudhry M. Effect of consuming different dairy products on calcium, phosphorus and pH levels of human dental plaque: a comparative study. J Dent Res. 2012;91(12):1281-6.  
Sato K, Kawanishi K, Kawanishi M, Kawanishi M, Kawanishi M, Kawanishi M. The effect of chocolate on plaque and gingivitis after a sugar challenge. J Clin Dent. 2011;66(12):1281-6.



## Begin Anywhere!

*"A plan in your head isn't worth the paper that it's written on."*

Yogi Berra




anne@anneguignon.com

## Product Resources – 2025

### **Personal Care Products**

XyliMelts and XyliGel  
Professional Sample Box  
[oracoat.com/pages/contact-us](http://oracoat.com/pages/contact-us)

Basic Bites Arginine Chews  
[basicbites.com/professional/sample-request/](http://basicbites.com/professional/sample-request/)  
Basicbites.com  
516-484-5600

Salese and Dentiva Lozenges  
877-419-2646  
[nuvorainc.com](http://nuvorainc.com)

Curaprox Velvet toothbrush, 5460 brush,  
Hydrosonic Pro power brush, Samba  
[curaprox.us/info/toothbrushes](http://curaprox.us/info/toothbrushes)

BioGaia Probiotics  
<https://www.biogaia.com/health-areas/probiotic-oral-health/>

WaterPik Water Flosser  
<https://www.waterpik.com/oral-health/pro/trial-offers/>

### **Additional Care Products**

CariScreen - Gum, varnish, rinse, gels,  
spray, lollipops  
Carefree.com

Ice Chips xylitol candy  
[Icechipsandy.com](http://Icechipsandy.com)  
866-202-6623

SalivaMAX saliva support  
[forwardscience.com](http://forwardscience.com)

Elevate Oral Care  
All Day Dry Mouth Spray/Gel,  
5000 toothpaste with xylitol  
[elevateoralcare.com](http://elevateoralcare.com)

Tom's/Maine Rapid Relief  
Sensitive Toothpaste  
OTC at drug stores

Colgate  
Preident 5000 / Varnish

Spry xylitol mints,  
gum, nasal spray  
[Xlear.com](http://Xlear.com)

Theodent toothpaste  
[Theodent.com](http://Theodent.com)

### **Diagnostics /Therapeutics**

Perio Protect RX Trays  
[Providers.perioprotect.com](http://Providers.perioprotect.com)  
877.434.GUMS (4867)

pH paper – 0.0 to 6.0  
[microessentiallab.com](http://microessentiallab.com)

Guided Biofilm Therapy – EMS

Cavity pHighter Test Strips  
[CAOGroup.com](http://CAOGroup.com)

Synapse Dental Pain Eraser  
[dentalpaineraser.com/dental/](http://dentalpaineraser.com/dental/)

Teethmate Desensitizer  
Dental supply companies

Perio DT Desiccation Gel  
Clear Defense Silver Fluoride  
[youngspecialties.com](http://youngspecialties.com)

Papacarie Duo Caries Removal,  
Povi-One Iodine, Advantage  
Arrest – Silver diamine gel,  
Black Diamond Silver Fluoride.  
[elevateoralcare.com](http://elevateoralcare.com)

Cervitex Plus CHX Thymol  
Varnish  
[Ivoclarvivadent.com](http://Ivoclarvivadent.com)

NoGag  
[nogag.com/dentists](http://nogag.com/dentists)

Infinity cordless polisher  
Young polishing handpiece  
Dental supply companies

Loupes and Headlights  
Orascopic.com  
800-369-3698

Crown Seating saddle stools  
[info@crownseating.com](mailto:info@crownseating.com)  
303-693-1104

Parkell DuraTips –  
magneto ultrasonic tips –  
Dental supply companies





**BioGaia**



Scan Me  
For a **FREE**  
Lunch & Learn



waterpik.com/LnL



**Synapse Dental Pain Eraser**



**Parkell Dura Tip**

THE NEW DENTAL ANTIBIOTIC GUIDELINES  
Prophylaxis, Stewardship and Appropriate  
Clinical Use

<https://www.dentalceacademy.com/antibiotics-dentistry-prophylaxis-dentalceacademy>

Desiccation Therapy 1.0 – May 6, 2025  
Desiccation Therapy 2.0 – May 20, 2025

CLOSTRIDIUM DIFFICILE: DENTISTRY'S  
OVERLOOKED THREAT

<https://www.dentalceacademy.com/clostridium-difficile-in-dentistry>