CE Course Handout

Better Perio Outcomes through Host Modulation and Nutrition

Thursday, June 18, 2015
2:30pm-5:30pm

Arthur Schopenhauer (1788-1860) Father of Pessimism

“All truth passes through three stages.”

it is ridiculed.
it is violently opposed.
it is accepted as self-evident.

RISK FACTORS
BACTERIAL BURDEN
TX SUCCESS

BACTERIA BYPRODUCTS MEDIATORS

INF - α IL PG's

INFLAM DEPENDENCY

The problem with quotes on the internet is you can never be certain they're authentic.
"an unbelievably great company of living animalcules, a-swimming more nimbly than any I had ever seen up to this time."

September 17, 1683

1865

Cause of disease

Modifying factors

Genetics

gene polymorphisms

Environmental

stress, exercise

Hyperinflammatory Response

Nutrition

Drug

Nicotine

Nutrition

Drug

Nicotine

Drug
**EVIDENCE BASED REVIEW**

“SDD is vital component of any effort to keep patients inflammation-free.”

**FACTS:**

Perio destruction is inflammatory based.

Oral inflammation has serious systemic effects.

↓ in inflammation by sub-dos doxycycline is undeniable.

Improvement in periobeyond SRP is undeniable.

There is virtually no risk

**SMOKING, STRESS, DIABETES, GENETIC, OBESITY**

MMP's

Every tobacco user...
**BLOOD SUGAR CONTROL**

MMPs

**Every pt w**

Diabetes

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**FOR HOW LONG?**

- Part of overall program
- No rebound if debrided
- Safe to repeat if relapse

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**RX**

DOXYCYCLINE 20MG

Oracea.com

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**WHAT I’VE SEEN IN MY PRACTICE**

Post-menopausal
Rheumatoid
Arthritis
Tobacco  Diabetes  Stress  Genetic  Post-menopausal  Rheumatoid arthritis

Pro-inflammatory cytokines

↑ Serious disease
Hypertension  T2D  Dyslipidemia  Coronary Heart Disease

↑ Perio disease

BM I = (703 x lbs)/(inches)^2
18.4 or below  Underweight
18.5 to 24.9  Healthy weight
25.0 to 29.9  Overweight
30.0 and above  Obese

“Since obesity is acknowledged as a multiple-risk-factor syndrome for overall and oral health, risk assessment in the dental office should include the evaluation of body mass index on a regular basis.”

NIH 2012
Since you are overweight:

Already ↑ systemic diseases
We now know ↑ for CIPD
If CIPD is allowed to persist, it
further ↑ systemic disease risk.

Really important for us to
• Tx you aggressively

Really important for you to
Make some changes

SECRETS TO LONG & HEALTHY LIFE

• Keep cholesterol & BP low
• Avoid tobacco
• Diet / Exercise
• Adequate sleep
• Keep gum inflammation at bay

7-8 hours Non- apnic
Mindset is not to exercise to burn calories

Exercise benefits:
- Artery/heart health
- Appetite Control

www.CDC.gov

Gibala HIIT

3 min Warm up to a moderate rate for you
1 min 20 sec full out/40 sec recovery
1 min 20 sec full out/40 sec recovery
1 min 20 sec full out/40 sec recovery
+ 4 min Cool down

10 minute workout!

Martin Gibala
Chairman, Dept Kinesiology
McMaster U Ontario

Take steps to get healthy
One-quarter of what you eat keeps you alive. The other three-quarters keeps your doctor alive.

“CR dampens the inflammatory response and reduces active periodontal breakdown.”

“I’m at my best when I have less on my plate.”

Lose 10% of your body weight - your body burns 250-400 less calories/day
We have always known that insulin was the link between obesity and inflammation. But it turns out we may have it backwards!

- Eat too much
- Make themselves fat
- Insulin stops working
- Inflammation rages
- Get diseases

ADDED SUGAR IS THE PROBLEM
Inflammation Reduction Strategy

Carbohydrates
Fats
Flavanoids

Anti-Oxidants

ROS

Excessive sugar
Insulin resistance
Obesity
Inflamm mediators
Systemic disease
Periodontal disease

Oxidative Stress

Diets:
Refined/processed foods rich in glucose and lipids

Antioxidant intake

“...boosting antioxidant intake has measurable adjunctive therapeutic benefits”
Cranberries, Blueberries, Blackberries, Beans, Artichokes, Russet potatoes, Pecans, Walnuts, Hazelnuts, Ground cloves, Ground cinnamon, Oregano

Inflammation Reduction Strategy

STOP THİNK

↑ Antioxidant intake
↓ Intake of ROS generators

Where is the added sugar coming from?

Whole Fruit
No problem

Added Fructose
Huge problem

ROS Triglycerides Circumvents app regulating systems

5/4/2015
Concord grape juice concentrate (HFCS)

Coco sap sugar

Coco sugar

Coconut syrup

Coconut sugar

Coconut sap sugar

Coconut palm sugar

Coarse sugar

Chicory (HFCS)

Cellobiose

Castorsugar

Caster sugar

Carob syrup

Caramel

Cane sugar

Cane juice crystals

Cane juice

Cane crystals

Buttered syrup

Brown sugar

Brown rice syrup

Blonde coconut sugar

Blackstrap molasses

Beet syrup

Beet sugar

Beet molasses

Berry Sugar

Bar sugar

Barley malt syrup

Barley malt

Barbados Sugar

Bakers special sugar

Arenga sugar

Apple syrup

Apple butter

Anhydrous dextrose

Amber liquid sugar

Amasake

All natural evaporated cane juice

Agave syrup (Often with HFCS)

Agave nectar (Often with HFCS)

Condiments

Fruit juice (Often with HFCS)

Fruit fructose (HFCS)

Fructose sweetener (HFCS)

Fructose crystals (HFCS)

Fructose (HFCS)

Fructamyl

Free flowing brown sugar

Free Flowing

Florida Crystals

Ethyl maltol (HFCS)

Evaporated organic cane juice

ECJ

D-xylose

Dried evaporated organic cane

D-mannose

Dixie crystals

Disaccharide

Diatase

Diastatic malt

D-fructose

Dextrose

Dextran

Demerara Sugar

Dehydrated sugar cane juice

Decorating sugar

Date sugar

Dark molasses

Dark brown sugar

D-arabino-hexulose

Crystallized organic cane juice

Crystalline fructose

Crystal dextrose

Creamed honey (Often with HFCS)

Cornsweet 90 ® (really HFCS 90)

Corn sweetener (HFCS)

Corn syrup solids (HFCS)

Corn syrup (HFCS)

Corn sugar (HFCS)

Confectioner's sugar

juice

High-fructose corn syrup

High dextrose glucose syrup

HFCS 55

HFCS 42

HFCS

Gur

Grape juice concentrate

Grape sugar

Granulated sugar cane juice

Granulated sugar

Gomme syrup

Golden syrup

Golden sugar

Golden molasses

Glucose-fructose syrup (HFCS)

Glucosweet

Glucose-fructose syrup (HFCS)

Glucoplus

Glucomalt

Glucodry

Galactose

Fruit syrup (Often with HFCS)

Fruit sugar (Often with HFCS)

HFCS)

Isomaltotriose

Isoglucose (HFCS)

Icing sugar

Invert syrup

Inverted sugar syrup

Inulin (HFCS)

Icing sugar

HSH

Honey powder

Honey comb

Hydrogenated starch hydrosylate

Hydrogenated starch

Hydrolyzed corn starch

Liquid sugar

Liquid maltodextrin

Liquid honey

Liquid fructose syrup (Often with HFCS)

Liquid fructose (Often with HFCS)

Liquid dextrose

Light molasses

Light brown sugar

Lesys

Levulose

Lactose

Lactitol

Jaggery powder

Jaggery

Isosweet

Sorghum molasses

Sorghum

Sorbitol syrup

Sorbitol

Sirodex

Simple syrup

Shakar

Sanding sugar

Saccharose

Raw honey

Rice syrup solids

Rice Syrup

Refiner's syrup

Raw sugar

Rapadura

Raisin syrup

Promitor

Powdered sugar

Piloncillo

Pearl sugar

Panocha

Pancake syrup

Panela

Palm syrup

Palm sugar

Orgeat syrup

Organic raw sugar

Organic sugar

Organic sucanat

Organic palm sugar

Organic coconut palm sugar

Organic cane juice crystals

Organic brown rice syrup

Organic agave syrup

Oligosaccharride

Nigerotriose

Mylose

Yellow sugar

Xylose

Wood sugar

White sugar

White refined sugar

White grape juice concentrate

White crystal sugar

Unsulphured molasses

Unrefined sugar

Turbinado sugar

Trisaccharides

Triose

Trimoline

Trehalose

Treacle

Tagatose

Table sugar

Sugar hat

Sugar cane natural

Sugar cane juice

Sugar beet syrup

Sugar

Sucrosweet

Sucrose

Sucre de canne naturel

Sucanat

Sorghum syrup

Whole grain good

White flour bad

White flour bad

Whole grain good
100% Whole Wheat Grain

Healthy alternative is hard to find

Healthy alternative is hard to find

Coconut sugar
“No Fructose” (70% Sucr)
Iron, Zinc, Calcium and Potassium
Polyphenols, Antioxidants, Inulin

“Slightly less bad than table sugar”
I00% No Added Sugar is healthy

Is it possible?

These aren't Weight Watchers diet pills. You've been reading them upside down.
Dietary Interventions

**Carbohydrates**
- Boost antioxidant intake
- Reduced processed sugar
- Use pure stevia
- Cut out processed flour

**Fats**
- Polyunsaturated fatty acids
  - Omega-6: Linoleic Acid, Arachidonic Acid
  - Omega-3: Eicosapentaenoic Acid (EPA), Docosahexaenoic Acid (DHA)

**Flavonoids**
- 1. Boost antioxidant intake
- 2. Reduced processed sugar
- 3. Use pure stevia
- 4. Cut out processed flour

Good Fats vs. Bad Fats

**Good Fats**
- Conventional
- Polyunsaturated
- Monounsaturated

**Bad Fats**
- Conventional
- Polyunsaturated
- Monounsaturated

**Polyunsaturated fatty acids**

**Omega – 6**
- Linoleic Acid
- Gamma-LA GLA

**Omega – 3**
- Eicosapentaenoic Acid (EPA)
- Docosahexaenoic Acid (DHA)

**LDL Cholesterol**
- Green leafy veg, flax, walnuts, canola oil
Omega - 6

- Cardio disease
- Type 2 diabetes
- Obesity
- Metabolic syndrome
- Irritable bowel syndrome
- Inflammatory bowel disease
- Rheumatoid arthritis
- Asthma
- Psychiatric disorders
- Autoimmune diseases
- Periodontal disease

Polyunsaturated fatty acids

Omega – 6

Omega – 3

Dietary Interventions

- Polyunsaturated fatty acids
  - Omega – 6
  - Omega – 3

- Green tea, berries, apples, grapes, dark chocolate
- Resverotrol
Dietary Interventions

Carbohydrates

Fats

Flavonoids

1. At least 70% cacao
2. Sugar not first ingredient
3. Not “alkali” processed

Cacao = ↑ Flavanoids = ↑ Bitter
For better oral/overall health

1. Exercise and 7-8 hours sleep
2. Buy real one ingredient foods
3. Sugar not in the first 3 ingredients
4. No condiments/White bread/rolls
5. Sweeten – Stevia
6. Cook with Canola/Olive
7. Flax/chia/walnuts
8. Dark chocolate/red wine