Thank you for joining us for

**Dealing with Depression: Detoxification and the Brain**

We will start promptly at 12 noon EST.
Please note that until that time, the line will be silent.

Thank you!

Proudly Hosted by
1. All attendees are muted. If you have a technical question, please send a message to the host.

2. Questions: If you have a question for Dr Kalish, please message that to the host.

Questions will be answered at the end of the webinar as time allows.
Dealing with Depression: Detoxification and the Brain

October 9th, 2013

Proudly Hosted by Emerson Ecologics
Our Presenter:

Dr. Daniel Kalish, DC

• Founder of the Kalish Method: A Functional Medicine Training Program based on his 20 years of clinical experience
• Learn more by visiting: www.emersonecologics.com/kalish
DEALING WITH DEPRESSION:
DETOXIFICATION AND THE BRAIN

Presented by Dr. Daniel Kalish, DC
THE PROBLEM: We are facing an unprecedented assault on our health and the health of the environment with the generation of billions of tons of chemicals, heavy metals, pesticides, herbicides and petrochemical derivatives.

This is creating a real impact on our food and water supplies and ultimately impacts our health by damaging neuron bundles.
OBJECTIVES

• Review liver function and detox pathways
• Etiology of impaired detoxification
• Learn to design protocols
• Coaching to reduce toxic exposure
THREE LEVELS OF FUNCTIONAL MEDICINE

LEVEL 1
Root Causes

mercury exposure

LEVEL 2
Body Systems

GI/yeast overgrowth
detox overload
adrenal burnout (5-10 years)

LEVEL 3
Symptoms

cravings
cognitive impairment
obesity, fatigue & depression

Following the Arrows: Type 3 - Compound
HEALTHY LIVING INSIDE AND OUT

• **THE PROBLEM ON THE INSIDE:** heart disease, cancer, diabetes, obesity and DEPRESSION are related to poor lifestyle choices and a dramatic increase in toxins in our food and water.

• **THE PROBLEM ON THE OUTSIDE:** destruction of the natural environment is a direct result of poor choices in terms of industrial waste generation and disposal and burning of fossil fuels.
Health effects of pollution

Air pollution

- Nerve damage
- Lead
- Volatile organic compounds
- Particulate matter
- Ozone
- CO
- SO$_2$
- NO$_x$

Water pollution

- Bacteria
- Parasites
- Chemicals

Soil contamination

- Pesticides

Respiratory illness

Cardiovascular illness

Gastroenteritis

Cancer risk

Skin irritation

Headache

Fatigue

By Mikael Häggström [Public domain], via Wikimedia Commons
IMPACT ON THE BRAIN

• A common underlying cause of weight gain, fatigue and depression includes neurotransmitter dysfunction as a direct result of neurotoxin exposure.

• Neurotransmitter dysfunction can result from nutritional deficiencies or neurotoxicity.
DEATH OF A NEURON

“How Mercury Causes Brain Neuron Degeneration”
http://www.youtube.com/watch?v=XU8nSn5Ezd8

• This video was created by the University of Calgary Faculty of Medicine, Dept. of Physiology and Biophysics

• This short presentation available on the University website clearly shows how mercury in fillings can destroy brain neurons as seen with people who have Alzheimer's Disease
SOLUTIONS

• We can help the health of the planet and at the same time improve our health and well being through simple detoxification programs

• Health issues that respond well to detox programs:
  - Obesity
  - Fatigue
  - Depression
TOXICANTS & DETOXIFICATION

Detoxification Pathways

Toxins (fat soluble)
- Required Nutrients
  - B Vitamins
  - Folic Acid
  - Glutathione
  - Antioxidants
  - e.g. Milk Thistle
  - Carotenoids
  - Vitamin E
  - Vitamin C

STEP 1

STEP 2

Waste Products (water soluble)
- Required Nutrients
  - Amino Acids:
    - Glutamine
    - Glycine
    - Taurine
    - Cysteine
    - Sulphurated-phyochemicals e.g., found in garlic & cruciferous vegetables

Eliminated from the body via:
- Gall Bladder
- Kidneys
- Bile
- Bowel actions
- Urine

Toxin List
- metabolic end products, micro-organisms, contaminants / pollutants, insecticides, pesticides, food additives, drugs, alcohol

Courtesy of Dr. Sandra Cabot, www.liverdoctor.com
• If the Phase one and two detoxification pathways become overloaded, toxins build up in the body.

• Many of these toxins are fat soluble and incorporate themselves into fatty parts of the body where they are stored.

• Toxic overload leads to fatigue, depression, anxiety, allergies and skin reactions, accelerated aging, and promotes the onset of degenerative diseases.

• Congested liver has difficulty metabolizing cholesterol, hormones.
When do we begin body system 3 repair?
- Begin liver detox when gut programs are finished
- Or start off entire program with liver support

2 possibilities:
- Most common = once diet is in place, infections are cleared, adrenal protocol is followed, begin liver detox
- If the patient is very sensitive, s/he won’t be able to handle toxic burden from digestive program – must begin liver detox before or in conjunction with digestive program (or they may start hormone program or digestive program and crash)
INTERNAL TOXINS

- Bacterial, yeast, fungal overgrowth
- By-products of metabolic reactions (carbon dioxide, ammonia, hormones)
- Undigested food
- Stress fries neurons, remember the egg?
- Unresolved trauma or abuse
- Unhappy relationships
DETOXIFICATION CAPACITY

Signs that your detoxification capacity might be impaired:

ANY SYMPTOM THAT HAS TO DO WITH YOUR BRAIN:
• memory
• concentration
• focus
• ADD, ADHD
• depression
• fatigue
• overeating
SO WHAT CAN YOU DO?

- Reduce your exposure to toxins
- Remove some of the accumulated toxins in your body
- Improve the functioning of your main organs of elimination (digestive system, liver and skin)
- Use general detox and anti-oxidant support supplements
Toxins are correctly detoxified and consequently excreted.
UNHEALTHY LIVER

- Incomplete detoxification of toxins
- Toxins leave the liver and are stored in tissues such as fat, the brain and the nervous system
WHY SHOULD YOU DETOXIFY?

- To feel better
- To improve brain, liver and digestive health
- To maintain optimum sense of well being
- Can use general detox and antioxidant support programs or can test detox pathways using Comprehensive Organix Profile
HOW DO WE MEASURE LIVER DETOX FUNCTION?

• Metametrix Comprehensive Organix Profile detox markers
  - Arginine, NAC, Methionine, glycine, Mg + antioxidants

• Deficiencies or elevations in these markers indicates abnormalities in Phase I & Phase II detoxification

• At the end of the report, a list of supplement suggestions, tailored to the specific needs of the patient, is provided
**LIVER DETOX PATHWAYS**

1. Phase One: B vitamins, glutathione, antioxidants, vitamin C, vitamin E

2. Phase Two: glycine, taurine, glutamine, cysteine
WHICH DETOX PATHWAYS ARE BLOCKED?

Through the Organix Profile you can determine which detox pathways require support.
ANTIOXIDANT LEVELS

Oxidative Damage/Antioxidants
  • Vitamin C, E + other antioxidants
  • C+E are easily burned through under stress of detox programs, need to support
ANTIOXIDANTS AND DETOX

The liver’s detoxification pathways:
- Phase 1 & 2: filtering the blood to remove large toxins, enzymatically breaking down unwanted chemicals
- Synthesizing and secreting bile for excretion or fat-soluble toxins and cholesterol

During phase I iron-dependent enzymes perform the initial breakdown of toxins - as a result, free radicals are produced

This first step is depended on B vitamins, folic acid, carotenoids, vitamins C and E

During phase II, free radicals are converted for final excretion from the body through the process known as the “conjugation pathway,” where liver cells add an amino acid, or glutathione, or a sulphur molecule – whichever is necessary – to a toxic chemical, so it becomes water-soluble

This second step is dependent on amino acids and sulphur phytochemicals (found in garlic and cruciferous vegetables)

During the third detoxification pathway, liver produces bile that serves as a carrier to eliminate toxic substances from the body
Free radical: an atom or group of atoms that have one or more unpaired electrons

Can have a positive, negative or neutral charge

Formed as necessary intermediates in a variety of normal biochemical reactions, but when there are too many or they are not controlled can cause damage to a broad range of macromolecules

Radicals have extremely high chemical reactivity, which is why they inflict damage on cells
OXYGEN RADICALS

• There are many types of radicals, but the main ones are derived from oxygen and are known as reactive oxygen species

• Oxygen has two unpaired electrons in separate orbitals in its outer shell - this electronic structure makes oxygen especially susceptible to radical formation

• Sequential reduction of molecular oxygen (equivalent to sequential addition of electrons) leads to formation of a group of reactive oxygen species:
  - superoxide anion
  - peroxide (hydrogen peroxide)
  - hydroxyl radical
SELENIUM

• Important for detoxification and for antioxidant defense mechanisms
• Can be toxic in high doses
• Helps detoxify heavy metals in the body (e.g. mercury, cadmium)
• Is a co-factor for glutathione peroxidase
• Has anti-inflammatory properties and has been shown to be a modulator of the inflammatory response in some immune system disorders
You can use both supportive supplements that help liver function improve, coupled with detoxification products that will stimulate the body to dump toxins out of storage.

Balance these two approaches:
- Basic Rule, “Do No Harm”
TEST FOR PRESENCE OF HEAVY METALS

- 6-8 Hour challenge test with DMSA
- Detects lead, mercury, arsenic, cadmium etc.

### Highly Toxic Heavy Metals

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HEAVY METAL DETOX PROGRAMS

• Kinder, gentler versions:
  - apple pectin fiber
  - chlorella
  - antioxidants
  - liver support products

• More aggressive approach:
  - DMSA - use carefully
  DANGEROUS!!! RISKY!!!
What detoxification pathways are blocked?

What anti-oxidant protection does the patient require?

Tying the patients symptoms back to the detox issue
LAST PIECE…PROTOCOL DESIGN

• This takes time and practice
• You can’t learn it in a single lecture or weekend seminar
• The Kalish Institute was built to give you that same mentorship experience, including:
  • Patient communication techniques
  • Lab interpretation skills
  • Confidence designing protocols
  • Business guidance for practice setup
WRAP UP

• HERE’S WHAT WE COVERED…

• HERE’S WHAT ELSE THERE IS…
The Kalish Method Mentorship

Program begins Wednesday, November 7th

TO BECOME A PRO, YOU NEED:
• Repetition
• Guidance
• Resources

MENTORSHIP INCLUDES:
• TWO MAJOR COMPONENTS TO THE LEARNING:
  • Substantive, recorded content
    • 24 weekly lectures detailing all aspects of the Three Body Systems:
      • Adrenal and Female Hormones, GI, and Detoxification
      • You can do as much learning as you want: 2-5 hours per week, more?
  • Live, practical application
    • 24 live, weekly, small-group practical Q&A calls
      • Send in all of your lab results and practice questions
      • You’ll have 4 possible times to choose from for your Q&A call
      • All Q&A calls are recorded and available to listen to for up to a year

HOW TO LEARN THESE TECHNIQUES…
The Kalish Method Mentorship
Program begins Wednesday, November 7th

ADITIONAL BENEFITS:
• Access to over 50 hours of recorded Q&A calls
• Practice set-up, marketing, and business coaching
• An introduction to our advanced Amino Acid therapies
• Certification of completion for The Kalish Method Mentorship
• The ability to become part of The Kalish Community
  • Become listed in our Practitioner directory
  • Attend weekly Clinical Rounds calls
  • Attend monthly Advanced Case Study lectures
  • Continued access to forums and journal pieces produced by Kalish Method graduates

“Enrolling in the Mentorship Program was the best professional investment that I have ever made. I'm now helping my patients dramatically improve their lives. I'm enjoying a substantial increase in revenue. And, I've found an enthusiasm for my practice that I thought I'd never feel again.”
  – Dr. Glenn D. Hyman, DC
The Kalish Method Mentorship
Program begins Wednesday, November 7th

JOIN US FOR AN INTRODUCTORY CLASS DETAILING THE MENTORSHIP
• Register for free at www.KalishInstitute.com/LiveEvents

In the intro class, we’ll show you how the Kalish Method will not only make you a better practitioner, but also a more successful business owner, by helping you succeed at the 5 key steps in the patient relationship:

1. Marketing & Advertising
2. Patient Communication
3. Effective, Efficient, Administration
4. Coaching and Follow Up
5. Conquering Complex Cases
Once you’ve gone through our training program you’ll…

- Have a clear message about what differentiates your practice
- Start with confident communication with every new patient
- Order the right lab tests & source proven, clinically effective supplements
- Design impactful supplement protocols, leading to consistent outcomes
- Learn coaching for essential diet and lifestyle changes
- Have an efficient practice management system that will save money
- Gain trust, and as a result, years of valuable referral business
We look forward to having you in class…

See the success other practitioners are having with the Kalish Method at…

www.KalishInstitute.com/Testimonials

THANKS FOR ATTENDING!
Thank you for joining us for:

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Visit [www.emersonecologics.com/events](http://www.emersonecologics.com/events) to periodically to view any upcoming webinars that we will be hosting.

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