

Integrative Therapies for Nephrotic Syndrome

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NEPHROTIC SYNDROME FOUNDATION, FEBRUARY 2, 2019

Who I am...

The 2 things I'm most proud of:

- ▶ Mom to 2 awesome kids! 😊
- ▶ Integrative pediatrician in the SF Bay Area



Who I am

- ▶ Stanford undergrad in political science/public policy
- ▶ NYU School of Medicine
- ▶ UCSF Pediatric Residency
- ▶ Additional training in:
 - ▶ Functional Medicine
 - ▶ Homeopathy
 - ▶ Traditional Chinese Medicine (acupuncture and herbs)
 - ▶ Western herbs, homotoxicology, essential oils, acupressure, infant massage, clinical hypnosis (SDBP)
- ▶ Lecturer for: CEDH, Academy for Pain Research, IFM, Center for Advanced Acupuncture Pediatrics, Holistic Pediatric Association
- ▶ Started Whole Child Wellness, an integrative pediatric practice in Dec 2005, now Whole Family Wellness
- ▶ Started Healthy Kids Happy Kids in June 2016, an online holistic pediatric resource for parents!



www.wholefamilywellness.org



www.healthykidhappykids.com

Disclaimer

The contents of this presentation are for informational purposes only and are not intended as a substitute for professional medical advice, diagnosis, or treatment provided by your healthcare professional or physician. If you suspect that your child has a medical problem or emergency, you should contact your healthcare provider or physician immediately. Do not disregard professional medical advice or delay in seeking professional advice because of something you have read on this presentation.

Always check for allergies and speak with your physician or other healthcare professional before taking or giving your child any medication or nutritional, herbal or homeopathic supplement, or adopting any treatment for a health problem.

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Disclaimer

- ▶ The integrative treatments I discuss in this presentation are of theoretical benefit but have not been specifically studied for nephrotic syndrome or for interactions with medications used to treat nephrotic syndrome
- ▶ Please discuss with your nephrologist and a knowledgeable integrative and functional medicine practitioner.

Nephrotic Syndrome Basics

IDIOPATHIC	SECONDARY	GENETIC/OTHERS
<ul style="list-style-type: none"> • Minimal change nephrotic syndrome • Focal segmental glomerulosclerosis (FSGS) • Membranous nephropathy (MN) • Membranoproliferative glomerulonephritis (MPGN) • C3 glomerulonephritis (C3GN) • IgA nephropathy • Diffuse mesangial proliferation • Others 	<ul style="list-style-type: none"> • Autoimmune and vasculitic disease (HSP, SLE, ANCA-associated vasculitis, etc.) • Infectious disease (congenital syphilis, malaria, HIV, Hep B, Hep C) • Malignancy • Environmental toxin (mercury) • Drug exposure • Systemic diseases (diabetes, etc.) 	<ul style="list-style-type: none"> • Infantile NS • Congenital NS • Other genetic syndromes

Nephrotic Syndrome Basics

- ▶ Idiopathic nephrotic syndrome further divided into:
 - ▶ Steroid-Sensitive (SSNS)
 - ▶ Steroid-Resistant (SRNS)

Nephrotic Syndrome Pathophysiology???

- ▶ Involves the immune system, esp T-lymphocyte cells and the NF-κB pathway
 - ▶ Glucocorticoid steroids act through blocking the nuclear factor kappaB (NF-κB) transcription pathway, which inhibits inflammatory cytokine and T-cell production and proliferation
 - ▶ NF-κB transcription is up-regulated in INS relapse compared with remission
 - ▶ **Integrative strategy: Reduce overactive NF-κB activity**
- ▶ Involves B-lymphocyte cells
 - ▶ May be why Rituximab can help (anti-CD20 monoclonal antibody that completely depletes B lymphocytes)
- ▶ Cellcept blocks both T- and B-cell proliferation
- ▶ Other cytokines and circulating immune factors

Natural ways to reduce NF-kB activity

- ▶ Antioxidants
 - ▶ Vitamin C
 - ▶ Vitamin E
 - ▶ N-acetylcysteine (NAC)
 - ▶ Alpha-lipoic acid
 - ▶ Zinc
- ▶ Omega-3 essential fatty acids
- ▶ Curcumin
- ▶ Melatonin
- ▶ Cruciferous vegetables
- ▶ Exercise
- ▶ Mindfulness, meditation and stress reduction

Nephrotic Syndrome and Histamine

- ▶ Common association with allergic reactions to bee stings, fungi, poison ivy, ragweed, house dust, jellyfish stings, cat dander
- ▶ Higher incidence of INS in children with atopy (eczema, asthma, allergies)
- ▶ Integrative strategy: Reduce/balance the overactive histamine or “mast cell” response

Natural ways to reduce histamine and mast cell activation

- ▶ Mast cell stabilizers
 - ▶ Quercetin
 - ▶ Ketotifen
 - ▶ Gastrocrom
- ▶ Probiotics that degrade histamine
 - ▶ Seeking Health Probiota HistaminX
 - ▶ GutPro

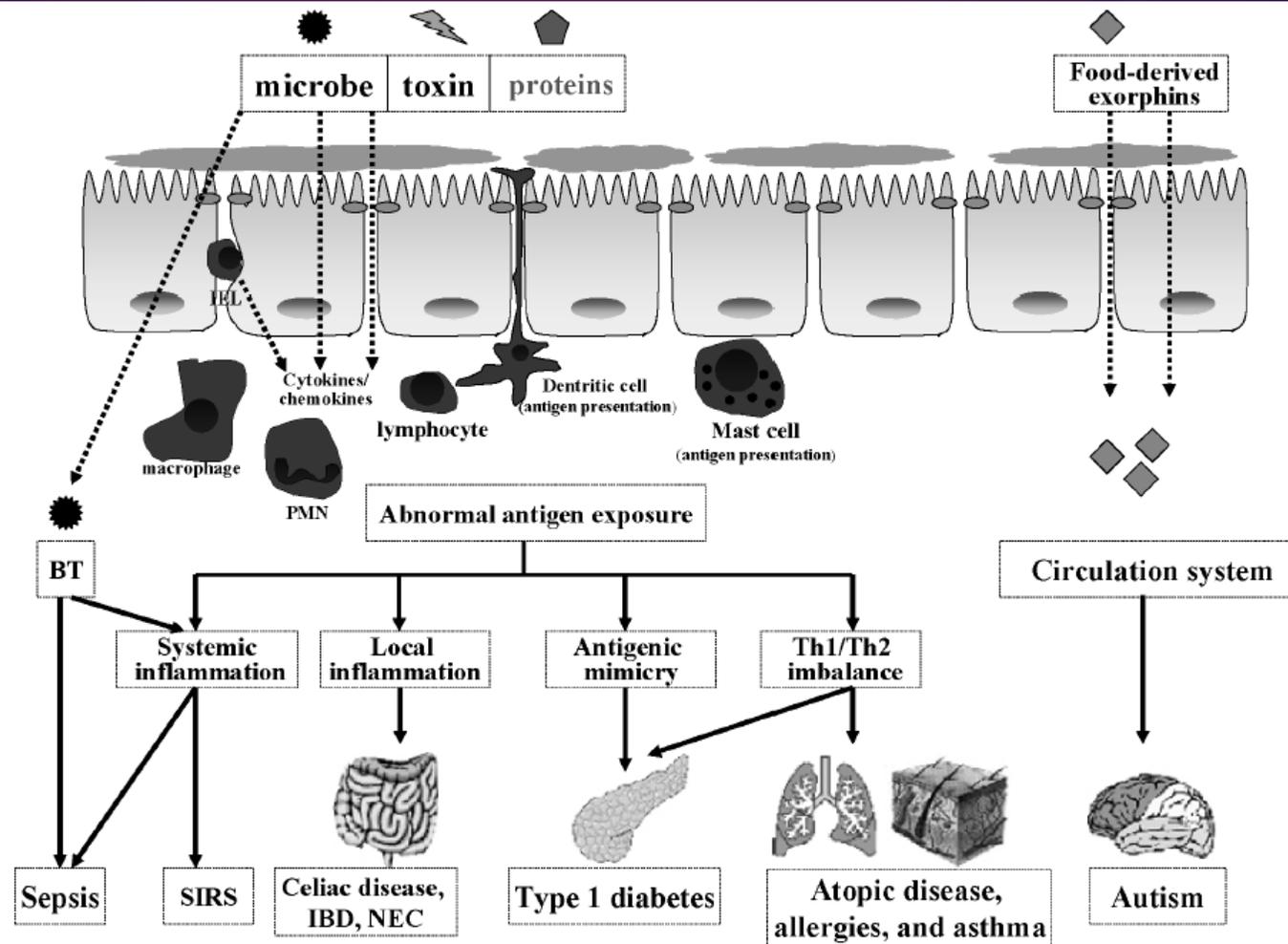
Natural ways to reduce histamine and mast cell activation

- ▶ Increase quercetin-rich foods
 - ▶ Raw onions, apples (especially the skins!), red grapes, kale, spinach, capers, watercress, cherries, green and black tea leaves, bee pollen, and chili peppers
- ▶ Decrease histamine-rich or histamine-releasing foods
 - ▶ It's the total LOAD that matters
 - ▶ Chocolate, wine, strawberries, avocados, bananas, dairy, eggs, oranges, peaches, pineapples, raspberries, spinach, and tomatoes.
 - ▶ Some of these foods are also on the high quercetin list, so you'll have to see how your child reacts.
- ▶ Decrease fermented foods
 - ▶ Tons of health benefits but can potentially cause increased histamine release
- ▶ Decrease artificial flavors, colors, and preservatives

Nephrotic Syndrome and Diet

- ▶ Since 1977, case reports of rapid remission with dairy-free and gluten-free diet
- ▶ *Lemley et al.* The Effect of a Gluten-Free Diet In Children with Difficult-to-Manage Nephrotic Syndrome, *Pediatrics*. 2016 Jul; 138(1): [10.1542/peds.2015-4528](https://doi.org/10.1542/peds.2015-4528)
[e20154528](https://doi.org/10.1542/peds.2015-4528).doi: [10.1542/peds.2015-4528](https://doi.org/10.1542/peds.2015-4528)
 - ▶ Case reports of 3 children on GF diet with clinical improvement and able to reduce or discontinue steroid dosage
- ▶ *Uy et al.* Effects of Gluten-Free-Dairy-Free Diet on Childhood Nephrotic Syndrome and Gut Microbiota. *Pediatric Research* (2015) 77, 252-255, doi:10.1038/pr.2014.159
 - ▶ Improved gut microbiome balance
 - ▶ Decreased production of inflammatory cytokines
 - ▶ Reduced intestinal permeability (aka “Leaky gut”)
- ▶ Increasing evidence for the role of gut dysbiosis and intestinal permeability (“leaky gut”) on autoimmune and inflammatory condition
- ▶ Integrative strategy: Heal leaky gut and optimize diet for kids with Nephrotic Syndrome

Leaky Gut and Pediatric Disease



Does Your Child Have Leaky Gut? Potential Symptoms...

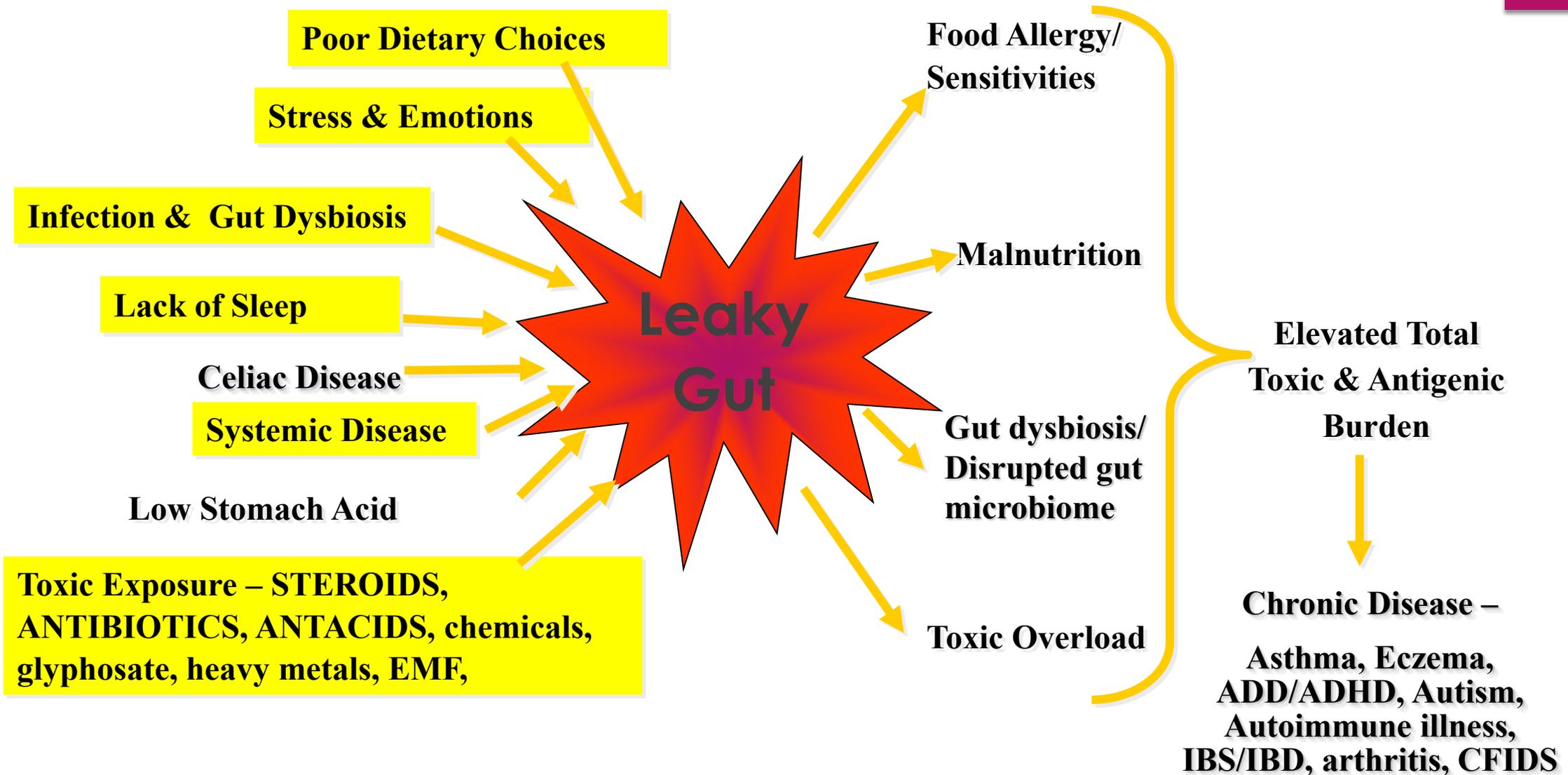
- ▶ Abdominal pain
- ▶ Anxiety
- ▶ Behavioral problems
- ▶ "Brain fog" (toxic encephalopathy)
- ▶ Chronic cough
- ▶ Colic reflux
- ▶ Cognitive and memory deficit
- ▶ Constipation
- ▶ Dark circles under eyes
- ▶ Diarrhea
- ▶ Depression
- ▶ Fatigue
- ▶ Fever of unknown origin
- ▶ Frequent urination
- ▶ GI symptoms
- ▶ Insomnia
- ▶ Joint pains
- ▶ Malaise
- ▶ Chronic mucous buildup (congestion, sinus infections, ear infections, bronchitis)
- ▶ Myalgias
- ▶ Palpitations
- ▶ Phlebitis
- ▶ Pruritis/Hives
- ▶ Dermatitis
- ▶ Seizures
- ▶ Vasculitis

Does Your Child Have Leaky Gut – Associated Diseases

- ▶ Acne/rosacea
- ▶ Arthritis
- ▶ Asthma
- ▶ ADD/ADHD
- ▶ Autism
- ▶ Autoimmune disease
- ▶ Behavioral problems
- ▶ Breast cancer
- ▶ Recurrent ear infections
- ▶ Chronic abdominal pain/constipation/diarrhea
- ▶ Chronic pancreatitis
- ▶ CFIDS
- ▶ Colon cancer
- ▶ Cystic fibrosis
- ▶ Dermatitis herpetiformis
- ▶ Eczema
- ▶ Fibromyalgia
- ▶ Food allergies
- ▶ Hepatic dysfunction
- ▶ HIV/AIDS
- ▶ Migraine/headaches
- ▶ Mood disorders
- ▶ Multiple chemical sensitivities
- ▶ Multiple sclerosis

Does Your Child Have Leaky Gut – Associated Diseases

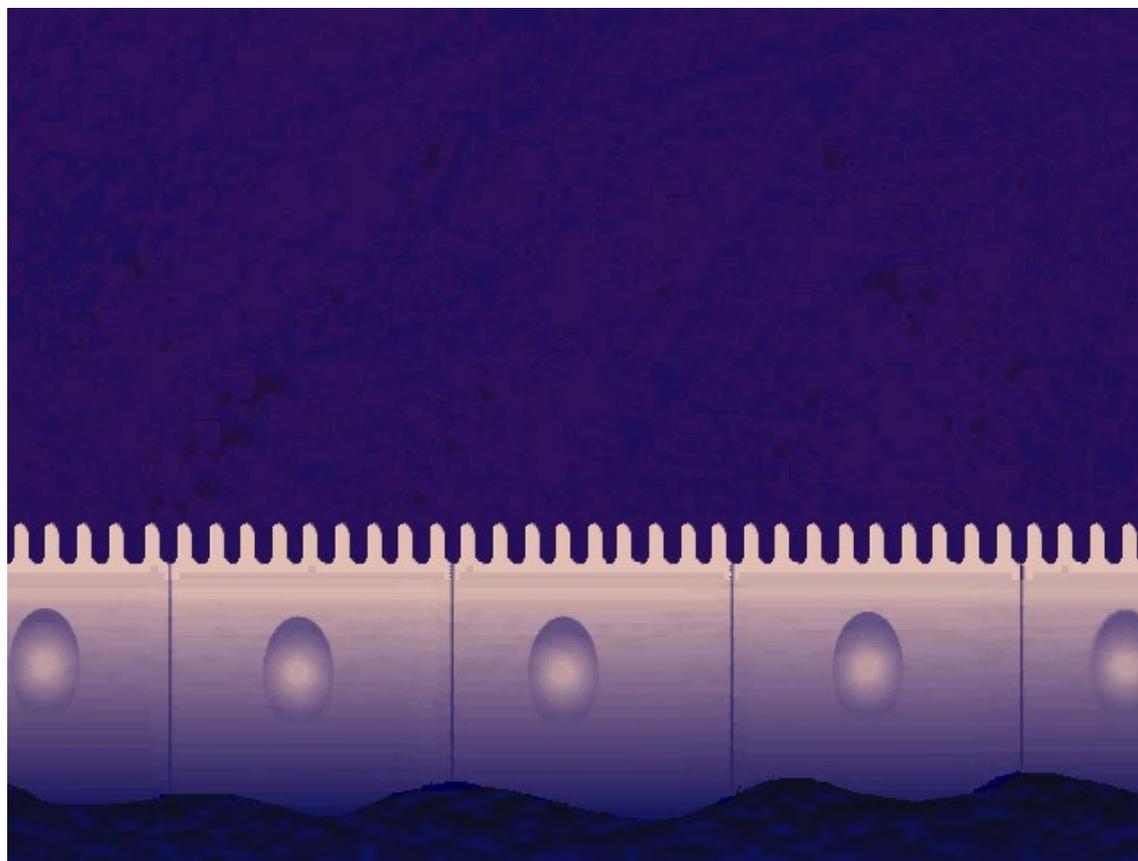
- ▶ Pancreatic insufficiency
- ▶ Pernicious anemia
- ▶ Peripheral neuropathy
- ▶ Psoriasis/psoriatic arthritis
- ▶ Rheumatoid arthritis
- ▶ Sleep disturbance/OSA
- ▶ Spondyloarthropathies
- ▶ Systemic lupus
- ▶ Thyroid disease
- ▶ Urticaria
- ▶ Autoimmune disease
- ▶ And others...



With Permission, Patrick Hanaway, MD

What is a Healthy Gut?

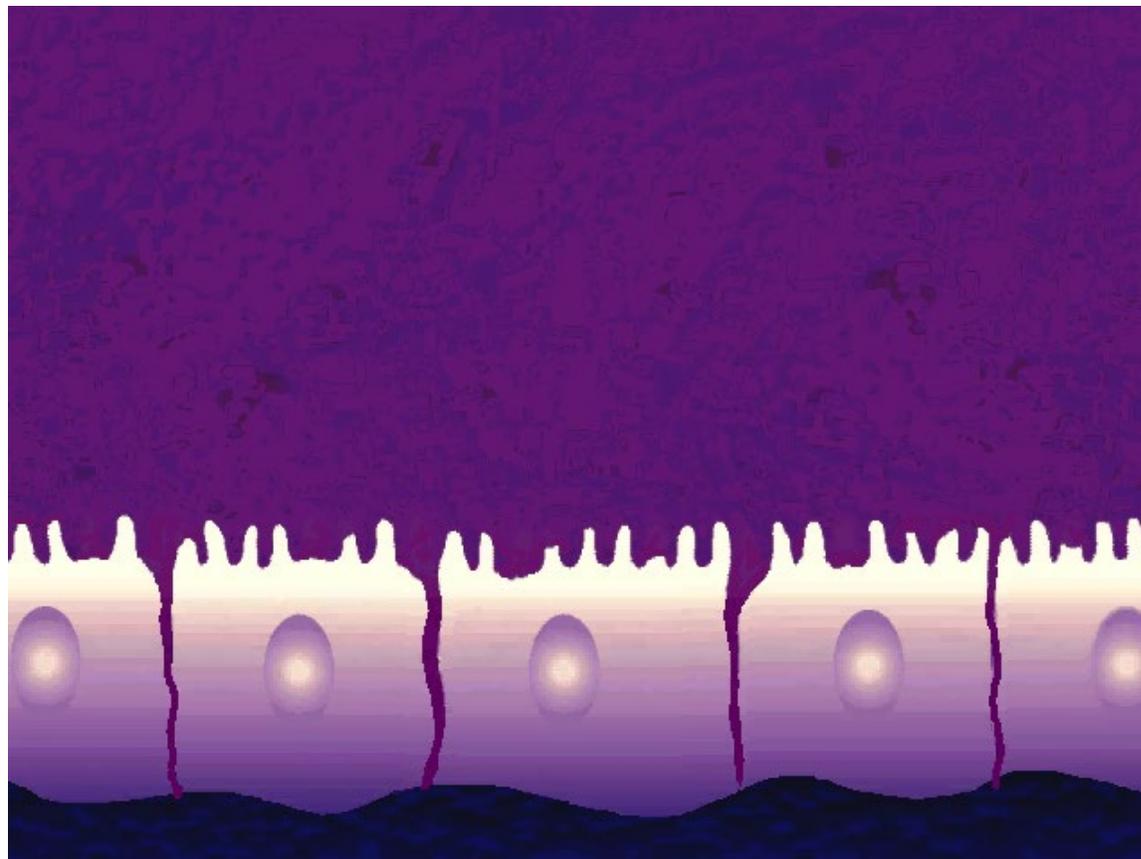
Healthy small intestine cells with no leak between them allow small digested food particles into the bloodstream, but keep larger allergenic particles out



What is a Leaky Gut?

Damaged small intestine cells with leaks let larger allergenic food particles into bloodstream and don't efficiently allow digested nutritious food particles in

- Eventually the immune system gets overloaded
- Food sensitivities and chronic symptoms



With Permission, Patrick Hanaway, MD

How to Heal a Leaky Gut

- ▶ The 5 R Program
 - ▶ Remove
 - ▶ Repair
 - ▶ Replace
 - ▶ Reinoculate
 - ▶ Rebalance (and Restore)

Healing a Leaky Gut – Remove

- ▶ Dysbiotic organisms
 - ▶ Herbs, antimicrobials
- ▶ Food sensitivities → Elimination/Rotation diet
- ▶ Toxins (mold, heavy metals, other environmental toxins, stress!)
 - ▶ Gentle daily detox
 - ▶ Green smoothies
 - ▶ Pee, poop, and sweat!
 - ▶ Epsom salt baths

Remove – the Elimination/Rotation Diet

- Do an Elimination/Rotation Diet
 - Remove the allergenic food for 2-3 months (may take up to 6-9 months)
 - ROTATE non-allergenic foods
- Elimination/Rotation Diets are **DOABLE!** 😊
- Plan for **SUCCESS**
 - ▶ Stock up on all the foods you **CAN** have
 - ▶ Get rid of the foods you **CAN'T** have – 100%
 - ▶ “Out of sight, out of mind”
 - Make it a **FAMILY AFFAIR**
- Work with a good Nutritionist
- Start slowly if needed
 - Set a target date for complete elimination
 - The 2-3 month countdown starts here
- Always add in food substitutes before taking away
 - Emphasize what kids CAN eat, not what they can't
 - Kids should NOT be hungry if done properly

Gluten-Containing Grains

- ▶ Wheat
- ▶ Spelt
- ▶ Barley
- ▶ Rye
- ▶ Kamut
- ▶ ?Oatmeal

Gluten-Free Grains

- Acorn
- Amaranth
- Arrowroot
- Artichoke
- Buckwheat (Kasha)
- Cassava
- Chestnut
- Chickpea (Garbanzo)
- Corn
- Job's Tears
- Kudzu
- Manioc
- Millet
- Teff
- Milo
- Oat
(www.glutenfreeoats.com)
- Potato
- Quinoa
- Rice (including glutinous rice)
- Sago
- Sorghum
- Soy
- Sweet Potato
- Tapioca
- Taro
- Water Chestnut

Cow's Milk Substitutes

- ▶ Pea milk
- ▶ Nut & Seed Milks (try making your own!)
 - ▶ Almond
 - ▶ Hempseed
 - ▶ Hazelnut
 - ▶ Cashew milk
 - ▶ You name it!
- ▶ Coconut milk
- ▶ Rice milk ???
- ▶ Goat/Sheep milk ???

Healing a Leaky Gut – Repair

- ▶ Repair the “leaks” or “heal and seal” the gut lining
 - ▶ Omega-3 essential fatty acids
 - ▶ Glutamine
 - ▶ Zinc

Healing a Leaky Gut – Replace

- ▶ Replace what's missing
 - ▶ Digestive enzymes
 - ▶ +/- HCl

Healing a Leaky Gut – Reinoculate

- ▶ Probiotics – how to choose?
 - ▶ As many strains of Lactobacillus and Bifidobacterium as possible
 - ▶ Billions of colonies (CFU's)
 - ▶ <2 years – infant probiotic
 - ▶ > 2 years – same as adults
- ▶ Prebiotics
- ▶ Fermented foods

Reinoculate

- ▶ Free guide to choosing your child's probiotic:
- ▶ <http://healthykidshappykids.com/probiotic-guide/>

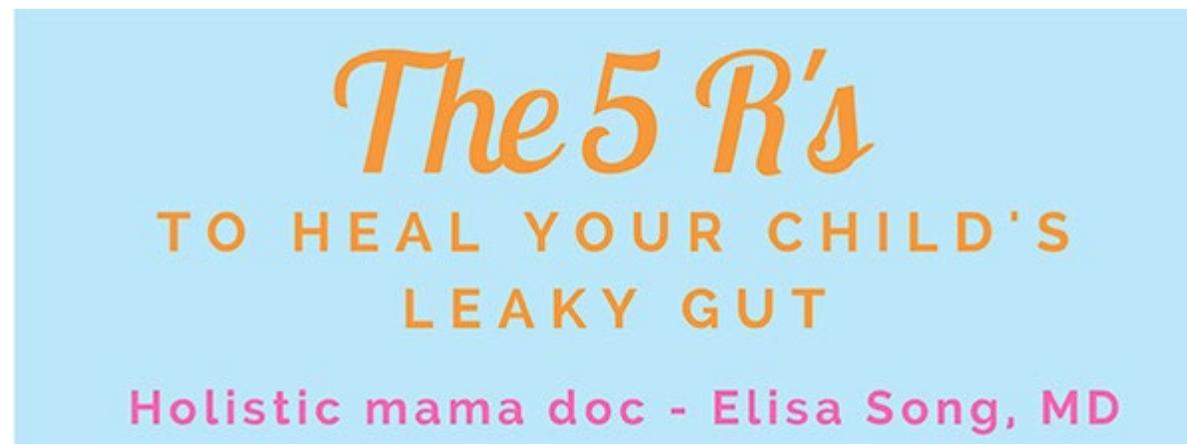
Choosing Your
CHILD'S
PROBIOTIC

Healing a Leaky Gut – Rebalance & Restore

- ▶ Stress reduction/mindfulness
 - ▶ Dawn Huebner, What To Do series of CBT exercises, Outsmarting Worry
 - ▶ Lori Lite, The Good Night Caterpillar
 - ▶ Progressive relaxation, meditation
 - ▶ Amy Saltzman – Still Quiet Place CD and workbook for kids and teens
 - ▶ Calm app
 - ▶ Headspace app
 - ▶ Heartmath
- ▶ Sleep
- ▶ Exercise
- ▶ Time in nature

The 5 R's in a Nutshell

- ▶ Free guide to the 5 R's to Healing Your Child's Gut
- ▶ <http://healthykidshappykids.com/leaky-gut-guide/>



Integrative management of the complications of NS

- ▶ Edema
- ▶ Hyperlipidemia
- ▶ Thrombotic events
- ▶ Infections



Our Natural Medicines toolkit

- ▶ **Diet/Lifestyle**
- ▶ **Homeopathic medicines**
- ▶ **Herbal medicine**
- ▶ **Acupressure**
- ▶ **Essential oils**

Homeopathy – “Like Cures Like”

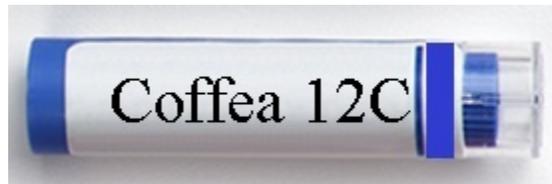
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Over-
stimulation,
ADD, anxiety

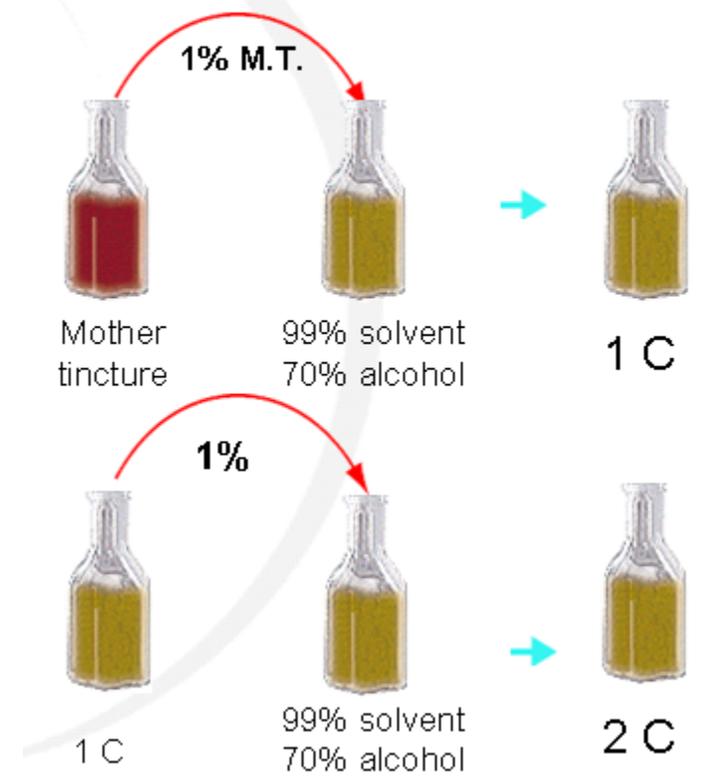


Hyperactive, mind racing.
Difficulty sleeping

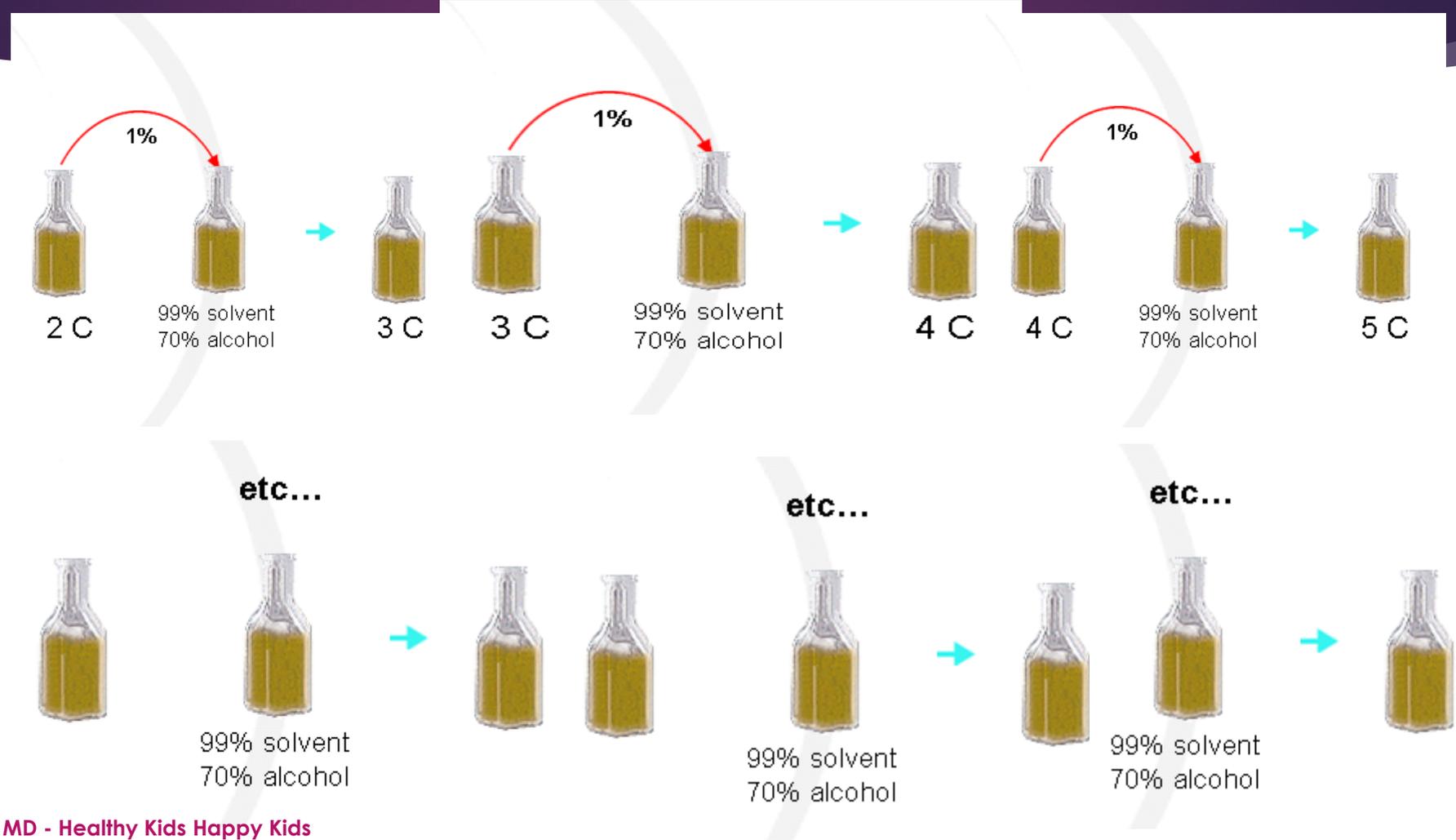


How Homeopathic Medicines are Made

Hahnemannian Dilutions



How Homeopathic Medicines are Made



How Homeopathic Medicines are Made

Raw materials

Lactose 15%
Saccharose 85%

In a rotary turbine:
To start, a lactose crystal.
Pulverization of simple syrup.
Powdering of sucrose + lactose.
Drying.
50 cycles/day.



Sucrose

1 tube
(approx. 80 large pellets) 3,4g

5 large pellets 0,21g

1 unit-dose 0,85g

As a reminder,
One sugar cube = 5g of sucrose

Commonly used dilutions

Dilutions

$$6C = 10^{-12}$$

***** beyond Avogadro's # (6.023×10^{23})

$$9C = 10^{-18} \quad (\text{diluted } 1:100 \text{ } 18 \text{ times})$$

$$30C = 10^{-60}$$

Choosing & using the right homeopathic medicine

- ▶ Choosing the right homeopathic medicine
 - ▶ Homeopathic medicines work best when individualized to how your child is experiencing their unique symptoms
 - ▶ Pick the medicine that best fits the description of your child's symptoms
- ▶ General Guidelines on How to use homeopathic medicines
 - ▶ Dilution
 - ▶ In general, use a 9C or a 30C unless otherwise indicated
 - ▶ REMEMBER: the RIGHT MEDICINE is more important than the dilution
 - ▶ Dosage = 3 pellets, regardless of age
 - ▶ Frequency
 - ▶ Depends on the severity of the symptoms
 - ▶ Generally start with 3 pellets every 2-3 hours and space out the interval between doses as your child improves

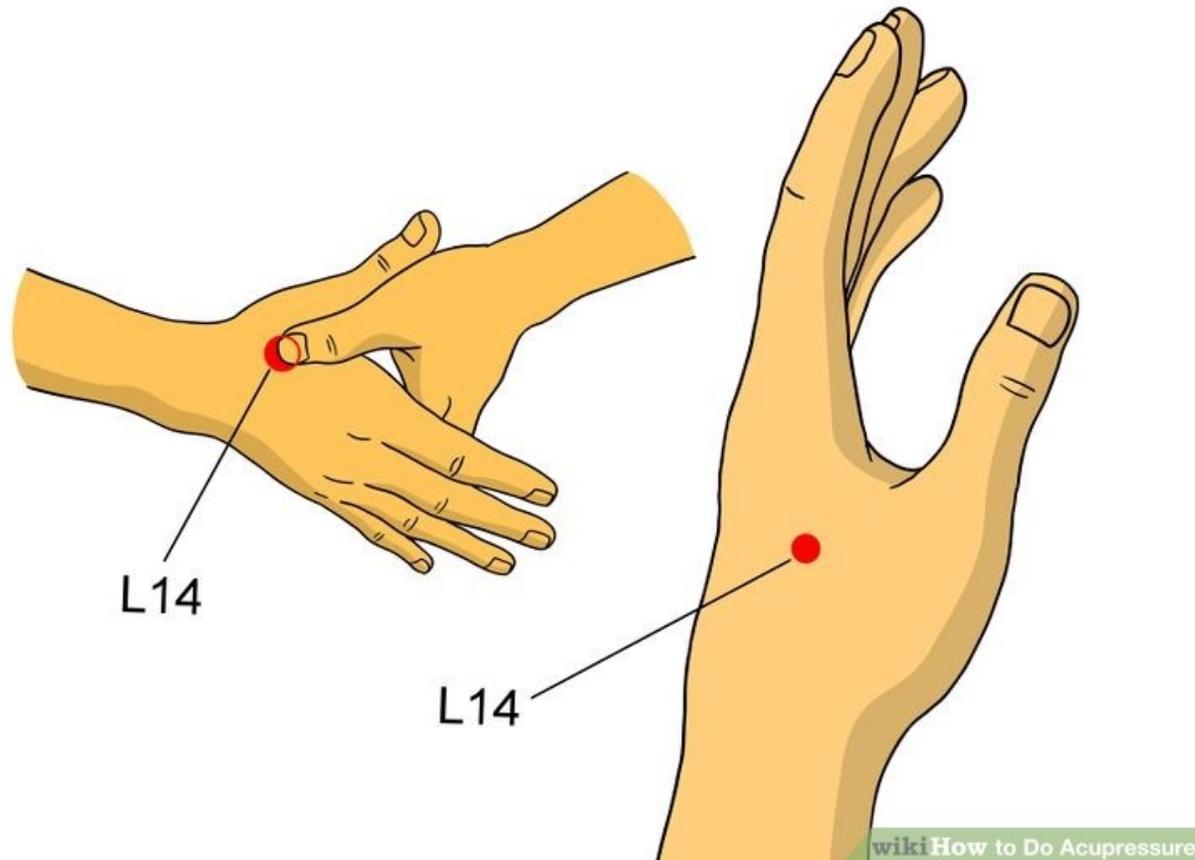


Herbal Medicine



- Natural ≠ Safe (necessarily)
 - Herbs are natural drugs
 - Contaminants
 - Buy from a reputable manufacturer!
 - Kan, Gaia, HerbPharm, Eclectic Kids, Herbs for Kids
 - Side effects and toxicities
 - Herb-drug interactions
 - Herb-herb interactions

Acupressure



- ▶ Loving touch
- ▶ Effective means of symptom relief
- ▶ Uses acupuncture points
 - ▶ Apply firm yet gentle pressure with the flat pads of your fingers or thumbs

Essential Oils



- Direct stimulation of the brain
- Many therapeutic actions
- Use only natural and pure essential oils
 - Elizabeth van Buren
 - Doterra
 - Young Living
- Ways to use essential oils
 - Diffused
 - Inhaled
 - In bath
 - Massaged
- Always dilute oils for kids
- Caution with eucalyptus in children

Integrative manage of edema

- ▶ Apis mellifica 15C
 - ▶ Reduces histamine release
 - ▶ Reduces edema
 - ▶ Dosage: 3 pellets every 2-3 hours as needed



Integrative management of hyperlipidemia

- ▶ Diet/Lifestyle
 - ▶ Omega-3 essential fatty acids
 - ▶ Fiber, Flaxseed
 - ▶ Garlic
 - ▶ Exercise
- ▶ Herbal medicines
 - ▶ Guggul
 - ▶ Red yeast rice (WITH coQ10)

Integrative management of thrombophilia

- ▶ Omega-3 essential fatty acids
- ▶ Curcumin
- ▶ Garlic
- ▶ Bromelain
- ▶ Proteolytic enzymes – Nattokinase and Serrapeptase
- ▶ Fibrinolytic enzyme – Lumbrokinase (need to monitor coagulation labs)

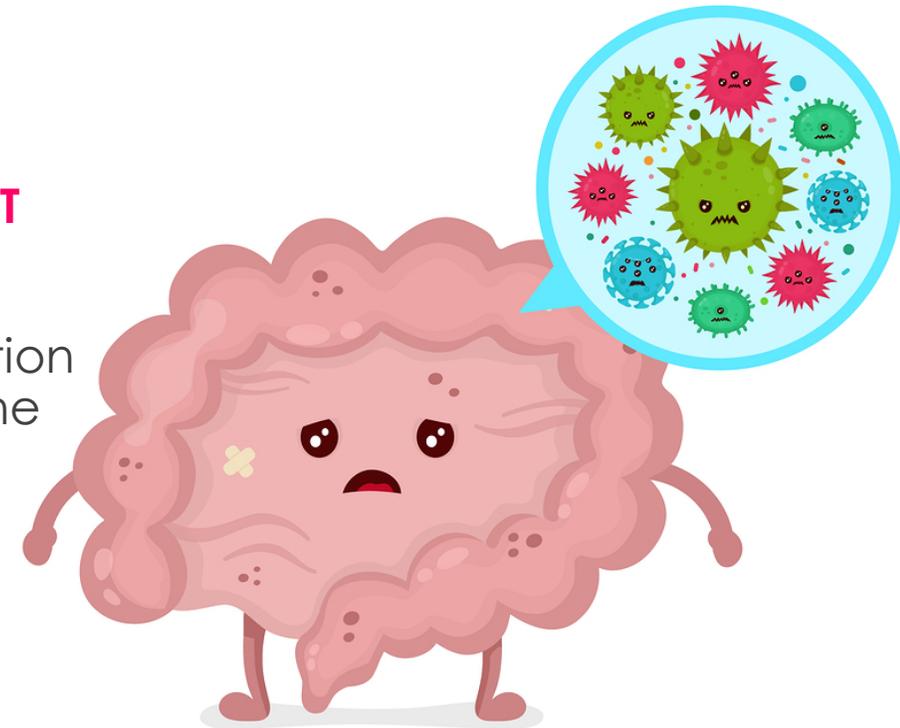
Integrative management of infection

- ▶ Avoid inappropriate antibiotic use
- ▶ Strengthen the immune system to prevent infections in the first place
- ▶ Heal the gut after antibiotics

The problem with antibiotics

- ▶ Antibiotics can be LIFE-SAVING, But...
- ▶ They kill “bad” AND “good” bacteria → **GUT DYSBIOSIS**
 - ▶ Overgrowth of yeast and abnormal gut bacteria
- ▶ They can cause increased intestinal permeability → **LEAKY GUT**
 - ▶ Resulting in food sensitivities
- ▶ BOTH may increase your child's risk of asthma, allergies, attention and behavioral problems, anxiety/depression and autoimmune illness

**If antibiotics are needed...
Protect your child's gut...**



How do I know if my child needs antibiotics?

Your child might need antibiotics if...

- Fever for > 4-5 days
- Prolonged congestion/runny nose or cough for 2-3 weeks
 - Possible sinusitis or bronchitis/pneumonia
- Your child is getting better, but then suddenly worsens, or develops a new or higher fever
 - Possible sign of a viral infection becoming bacterial and needing antibiotics...



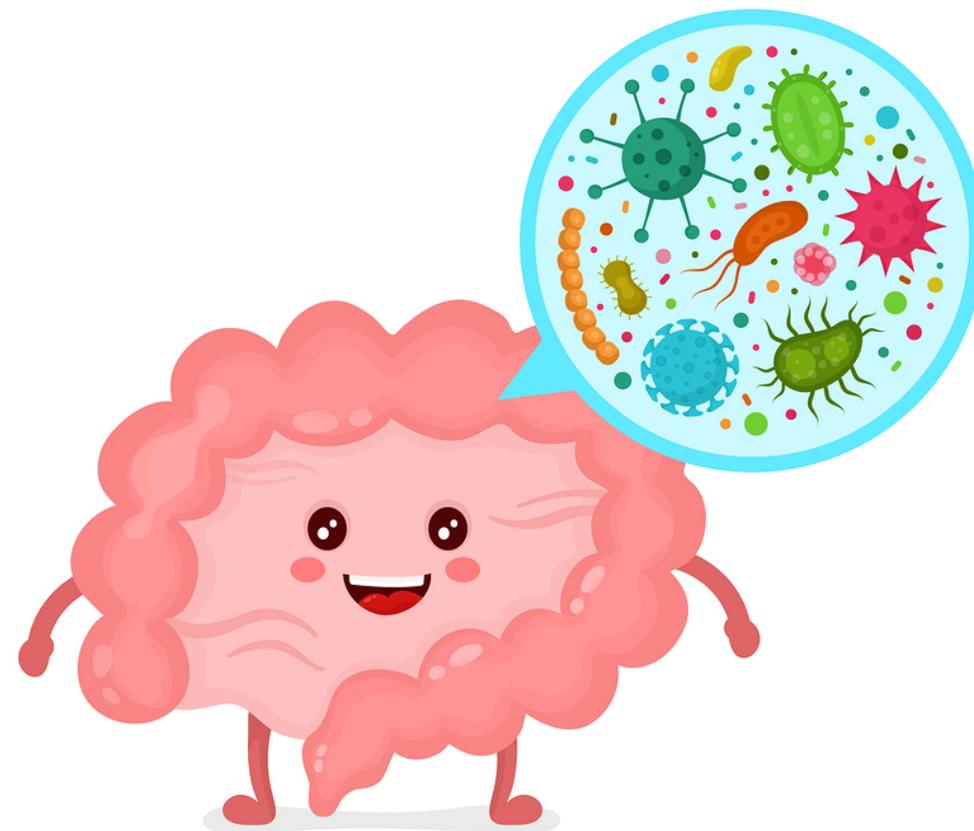
How to protect your child's gut if she needs antibiotics

▶ Prevent gut dysbiosis

- ▶ Take a broad-spectrum probiotic
 - ▶ At least 1-2 hours after each antibiotic dose
 - ▶ For at least 1 month after stopping antibiotics
- ▶ Add *Saccharomyces boulardii*
 - ▶ A beneficial yeast probiotic
 - ▶ Prevents antibiotic-induced diarrhea and yeast dysbiosis
 - ▶ No need to take away from antibiotics

▶ Prevent leaky gut

- ▶ L-glutamine 500-1000mg daily
- ▶ Zinc 10-30mg daily
- ▶ Bone broth



Preventing Infection: The Top 3 Immune-Supporting Supplements

A holistic pediatrician's guide to
BACK-TO-SCHOOL SUCCESS



Part 1: Boost Your Child's Immune System

*Thursday, September 13th
6pm PST / 9pm EST*

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Catch it on:

FB: <http://bit.ly/BTSImmuneFB>

YT: <http://bit.ly/BTSImmuneIG>

Top Immune-Boosting Supplement #1

Vitamin D3

- Best source: SUNLIGHT
- Supplementation usually needed
- Food Sources
 - Cod liver oil
 - Sardines, salmon, fatty fish
 - Cow's milk and Dairy products
 - If you're not sensitive
 - Avoid when sick
 - Eggs
 - Caviar
 - mushroom
- Vitamin D Council recommends a **maintenance** dosage of ~ 1,000IU per 25lb
 - Consider checking levels
 - Optimal 25-OH Vitamin D level → 60-80



Top Immune-Boosting Supplement #2

Fish oil (Omega-3 Essential Fatty Acids)

- ▶ Reduce inflammation
- ▶ Supports healthy immune response
- ▶ Optimize brain and cognitive function
- ▶ Supports mood
- ▶ Healthy skin and hair



Choosing a FISH OIL

- ▶ Caution – check for impurities
- ▶ Use reputable brands:
 - ▶ Nordic Naturals, Metagenics, Designs for Health, Bioceuticals
- ▶ Typical Dosage?
 - ▶ Depends... (usually higher than what's on the bottle, but that's a safe start)
 - ▶ i.e., Cod liver oil average dose ½ tsp per 25 lbs.

Top Immune-Boosting Supplement #3

PROBIOTICS

- ▶ Supports the brain, immune system, digestive tract, detoxification pathways, antimicrobial and anticancer compounds
- ▶ Use reputable brands
 - ▶ Metagenics, Klaire Labs, Orthomolecular Products, Designs for Health, Designs for Health
- ▶ < 2 yrs – use an infant-specific probiotic
- ▶ > 2 yrs – use the same as for adults
- ▶ Dosage
 - ▶ Varies depending on health concerns
 - ▶ Think MANY STRAINS & BILLIONS of colonies...
- ▶ Download my Guide to Choosing Your Child's Probiotic
 - ▶ <http://healthykidshappykids.com/probiotic-guide/>

Probiotics for the cold/flu season

- ▶ Specific strains prevent cold and flu-like symptoms!
 - ▶ Shown to reduce the rates of fever and upper respiratory symptoms when taken daily throughout the cold/flu season.
 - ▶ Found in Metagenics Ultra Flora Children's chewable probiotic, Ultra Flora Balance capsules, Ultra Flora Synergy powder
 - ▶ Dosage is the same for kids and adults
 - ▶ Ultra Flora Children's probiotic 1 chew 2x.day
 - ▶ Ultra Flora Balance 1 cap 2x/day
 - ▶ Ultra Flora Synergy ¼ tsp 2x/day
 - ▶ Use during cold/flu months
 - ▶ **PLUS** a broad-spectrum general probiotic



The #1 MYTH about being sick...

FEVER IS DANGEROUS!!!

OMG! My kid has a fever!!!



Fever Phobia is rampant among
parents AND practitioners

Don't panic!

Know the facts about fever

- ▶ Fact 1: Fever is your body's natural response to infection – it slows germs down and increases our immune system's ability to fight infections.
 - ▶ **BOTTOM LINE:** Fever can help your child get over their illness faster
- ▶ Fact 2: In a neurologically normal child fever CAN'T rise high enough to cause brain damage
 - ▶ **BOTTOM LINE:** Unless your child has a neurologic disorder, fever CAN'T get "too high"
- ▶ Fact 3: The height of the fever does not indicate how serious the infection is
 - ▶ **BOTTOM LINE:** Look at how your child is acting. NOT how high the fever is

The problem with suppressing fevers

- ▶ **PROBLEM 1:** Reducing fevers artificially with acetaminophen (Tylenol) or ibuprofen (Motrin or Advil) has been shown to PROLONG the duration of illness
- ▶ **PROBLEM 2:** Fever reducers reduce fevers, BUT that's ALL they do
 - ▶ They DON'T:
 - ▶ Help fight the infection that is causing the fever
 - ▶ Strengthen our kids' immune systems
 - ▶ They DO:
 - ▶ Help our kids feel better so they run around like "normal" when they should be couch potatoes
 - ▶ Further stress our kids' immune systems and liver detoxification capacities
- ▶ **PROBLEM 3:** Acetaminophen (Tylenol) is particularly problematic
 - ▶ Stresses the liver
 - ▶ Reduces levels of glutathione – one of our most important antioxidants
 - ▶ Making it harder for our bodies to fight infection AND detox

When should I consider giving my child a fever reducer?

- ▶ Remember, there's a time and a place for everything
- ▶ Consider using fever reducers when:
 - ▶ Your child is so uncomfortable that they can't sleep. A good night's rest trumps everything!
 - ▶ Your child is so uncomfortable that they don't want to drink anything.
 - ▶ Hydration is key to recovery
 - ▶ Dehydration itself can worsen fever
- ▶ My preference – use ibuprofen (Advil or Motrin) instead of acetaminophen (Tylenol)
 - ▶ Ibuprofen does not deplete glutathione like acetaminophen does
 - ▶ Ibuprofen has anti-inflammatory properties
 - ▶ Be sure to check with your nephrologist if ibuprofen is safe for your child
 - ▶ If acetaminophen is preferred, you can reduce side effects by supplementing with glutathione or taking Epsom salt baths

When to call the doctor...

- ▶ TRUST YOUR MAMA OR PAPA “GUT”
- ▶ Fever in a child < 3 months old
- ▶ Fever for >3 days
- ▶ Your child’s immune system is compromised
- ▶ Seizures
- ▶ Signs of difficulty breathing
 - ▶ Rapid breathing (>40 breaths per minute), flaring of nostrils, grunting with exhalation, wheezing, blue lips
- ▶ Signs of dehydration
 - ▶ BEST INDICATOR: urine output (no urination in over 6-8 hours)

When to call the doctor...

- ▶ Unusual sleepiness or difficult to arouse – true “lethargy”
- ▶ Unusual irritability or fussiness – true “inconsolability”
- ▶ Acting confused, not answering questions appropriately, not making good eye contact
- ▶ A new rash (which can be normal!)
 - ▶ Especially a red pinpoint rash that doesn’t “blanch” or looks like bruises
- ▶ Pain or stiffness in the back of the neck when bending neck forward to touch chin to chest
- ▶ Your child is getting better, but then suddenly worsens, or develops a new or higher fever
 - ▶ Possible sign of a viral infection becoming bacterial and needing antibiotics...

Why Natural Medicines...

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- ▶ They DON'T artificially suppress fever
- ▶ They DO help your child's immune system fight the infection more effectively
- ▶ They DO help your child feel better faster and provide symptom relief
- ▶ They DO strengthen your child's immune system for the next round...



Homeopathic medicine for fever

Safe, Effective AND Evidence-based

At the **START** of any fever/flu/illness:

- ▶ Oscillococcinum
 - ▶ 1 vial 3x over a 24-hour period
 - ▶ 1 dose = 1 vial
 - ▶ Not just for the flu or flu-like illnesses
 - ▶ Some trials show 63% improvement in symptoms within 48 hours and reduction in illness duration
 - ▶ Best if started **IMMEDIATELY** at the onset of symptoms



Herbal medicines for fever



Vclear or Umcka Coldcare Syrup

- ▶ Pelargonium sidoides 1X
 - ▶ Shortens duration and reduces severity of colds/flu and fever



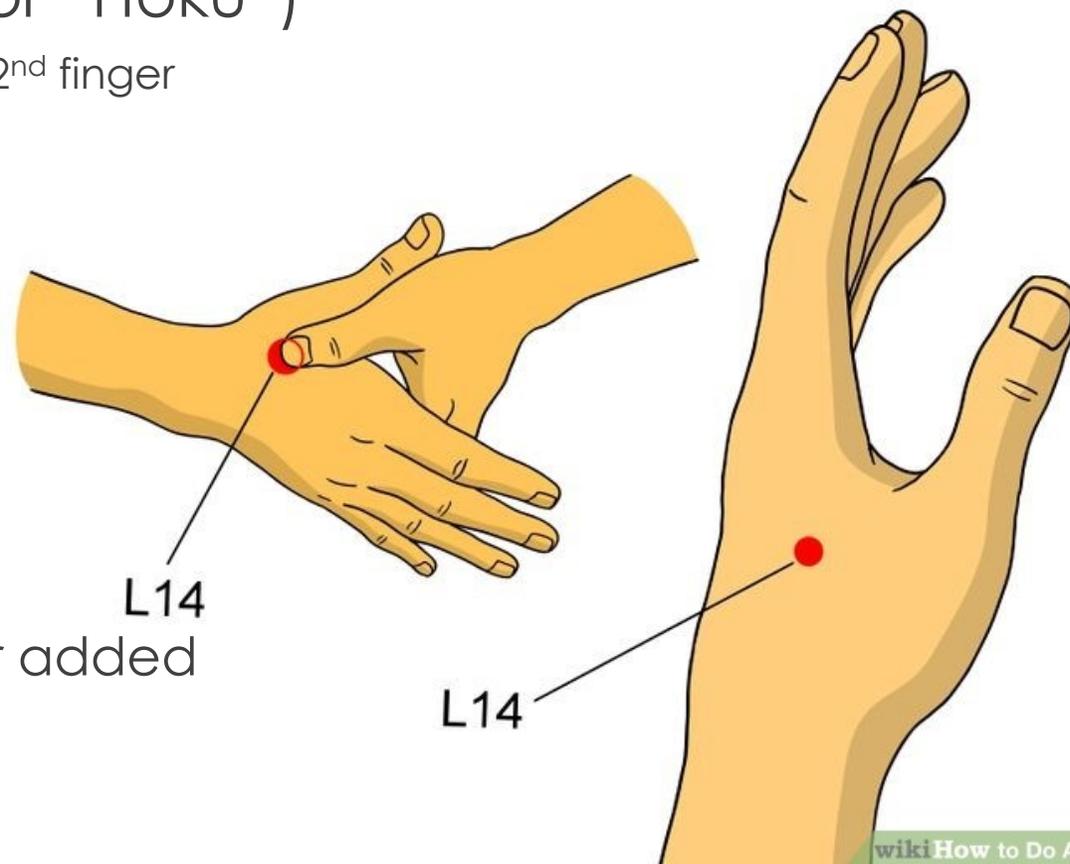
Windbreaker

- Strengthens immune system, fights fever, cold, flu, shortens duration of illness

Acupressure for fever

Large Intestine 4 (“Joining the Valley” or “Hoku”)

- ▶ Back of hand in web space between thumb and 2nd finger
- ▶ Relieves fever, cold/flu, head congestion, headache (especially frontal), constipation, strengthens immune systems
- ▶ Use firm yet gentle pressure
- ▶ Circular motions, or steady pressure
- ▶ 30-60 seconds
- ▶ Apply essential oils to acupressure points for added therapeutic benefit!



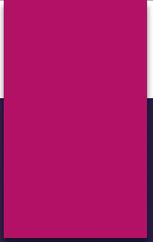
Essential oils for fever

- ▶ Always dilute oils for kids
- ▶ Caution with eucalyptus in young children
- ▶ Reminder – can be diffused, inhaled, used topically, or in the bath

Essential oil options:

- ▶ **Lavender** – reduces fever, pain, inflammation, relieves stress, calming, helps restore sleep
- ▶ **Peppermint** – reduces fever, cools the body, boosts WBC activity, relieves bronchitis and nausea
- ▶ **Cinnamon** – stimulates circulation, heats the body and helps fever to “break” if chilly and shivering





QUESTIONS?

Thank you!

healthy kids  happy kids

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