Treatment Approaches to Vector Borne Disease and Environmental Illness in the Pregnant and Pediatric Patient
Normal physiological changes in pregnancy

- **Weight gain**
  - Uterus, placenta, fetus, amniotic fluid, breasts, blood

- **Cardiovascular changes**
  - 40-50% increase blood volume (increase in aldosterone)
  - Increased stroke volume due to Starling’s law
  - Cardiac output increases by 50%
    - Rises from 4 to 7 liters in 2nd trimester
  - Decreased peripheral vascular resistance
    - Elevated progesterone
    - Decrease in diastolic blood pressure between 12–26 weeks which increases again to pre-pregnancy levels by 36 weeks
  - Decreased vagal tone with increased sympathetic tone
Normal physiological changes in pregnancy

Renal changes
- Increase in kidney and ureter size
- Glomerular filtration rate (GFR) commonly increases by 50%, returning to normal around 20 weeks postpartum
- Decreased blood urea nitrogen (BUN) and creatinine
- Glycosuria is possible (saturated tubular reabsorption)
- Renin-angiotensin system is up-regulated
  - Causing increased aldosterone levels

Genitourinary changes
- Reduced species/genus diversity of vaginal microbiome
- Greater likelihood of urinary tract infections
Normal physiological changes in pregnancy

- **Gastrointestinal changes**
  - Nausea and vomiting (morning sickness)
    - Due to elevated β-hCG, should resolve by 14 to 16 weeks
  - Prolonged gastric emptying time
  - Decreased gastroesophageal sphincter tone (acid reflux)
  - Decreased colonic motility
    - Increased water absorption can cause constipation

- **Respiratory changes**
  - Minute ventilation increased 40% in the first trimester
    - Effect of progesterone
  - As uterus enlarges there is a greater chance of hypoxia due to low respiratory volume and lower vital capacity
Normal physiological changes in pregnancy

Metabolic changes

- Early pregnancy is like an anabolic state
  - Overall increased requirement for nutrients due to fetal growth and maternal fat deposition (cortisol, lactogen)
  - Small increase in insulin sensitivity
  - Nutrients are stored in early pregnancy to meet the feto-placental and maternal demands of late gestation and lactation

- Late pregnancy is like a catabolic state
  - Decreased insulin sensitivity with increased insulin resistance
  - Increased maternal glucose and free fatty acid concentrations
Normal physiological changes in pregnancy

- Metabolic changes allow for greater substrate availability for fetal growth
  - Protein metabolism
    - One kilogram of extra protein is deposited, with half going to the fetus and placenta, and another half going to uterine contractile proteins, breast glandular tissue, plasma proteins, and hemoglobin
  - Carbohydrate metabolism
    - Maternal insulin resistance can lead to gestational diabetes
    - Increased gluconeogenesis in liver raises maternal glucose levels
Normal physiological changes in pregnancy

- **Immunologic tolerance**
  - Placenta creates immunologically privileged site
    - Despite this, maternal IgG passes to fetus
  - Regulatory T cells may play a role
  - Possible shift from cell-mediated toward humoral immunity

- **Sequelae of insufficient tolerance**
  - Spontaneous abortion – akin to transplant rejection
  - Rh incompatibility – maternal attack on fetal RBCs
  - Pre-eclampsia
    - Autoimmune attack on placenta
    - Hypercoagulability
  - Maternal autoimmune disease increases risk fetal death
Normal physiological changes in pregnancy

- **Placental hormones**
  - Human Chorionic Gonadotropin (hCG)
    - Morning sickness
  - Estrogen
    - Morning sickness, breast duct development
  - Progesterone
    - Made first by corpus luteum, then placenta
    - Necessary for maintaining pregnancy
  - Human placental lactogen (hPL)
    - Stimulates maternal lipolysis and fatty acid metabolism
    - Conserves blood glucose for fetus
    - Decreases maternal insulin sensitivity (gestational DM)
Normal physiological changes in pregnancy

- Maternal hormones
  - Pituitary increases 50% in size
    - Makes more prolactin
  - Parathyroid gland
    - Increases calcium absorption
  - Adrenal gland
    - Increase production of cortisol and aldosterone
  - Thyroid gland
    - 10-15% increase in size of thyroid gland, but palpable goiter requires investigation
    - hCG is a weak stimulator of thyroid (causes a lower TSH in first trimester, then TSH returns to normal)
Normal physiological changes in pregnancy

- Thyroid, cont.
  - Estrogen increases thyroid hormone binding globulin (THBG) – elevates levels protein bound hormone
  - Thyroid autoimmune antibodies do cross placenta
    - Hashimoto’s thyroiditis – common autoimmune disease
  - Check TFTs every 6-8 weeks during pregnancy
  - Increase thyroid hormone therapy dose by 25 – 50%
  - Separate prenatal MVI from thyroid hormone by 2 to 3 hours

- Fetal thyroid
  - Dependent on maternal thyroid hormone until end first trimester then fetal thyroid gland takes over
  - Baby needs iodine throughout entire pregnancy – therefore mother needs at least 200 μgm iodine daily
Normal physiological changes in pregnancy

Post partum thyroiditis

- Occurs in approximately 5-10% of US women
  - Risks include: any autoimmune disease; presence of thyroid autoantibodies; previous thyroid dysfunction; family history of thyroid disease
- First thyrotoxicosis then hypothyroidism
  - 80% are normal in 12-18 months; 20% remain hypothyroid
  - 20% recurrence with subsequent pregnancies
# Normal thyroid test results in pregnancy

<table>
<thead>
<tr>
<th>Thyroid Test</th>
<th>1\textsuperscript{st} trimester</th>
<th>2\textsuperscript{nd} trimester</th>
<th>3\textsuperscript{rd} trimester</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSH</td>
<td>normal or decreased</td>
<td>normal</td>
<td>normal</td>
</tr>
<tr>
<td>Free T4</td>
<td>normal</td>
<td>normal</td>
<td>normal</td>
</tr>
<tr>
<td>Free T3</td>
<td>normal</td>
<td>normal</td>
<td>normal</td>
</tr>
<tr>
<td>Total T4</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>Total T3</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>T3 Resin Uptake</td>
<td>normal</td>
<td>normal</td>
<td>normal</td>
</tr>
<tr>
<td>Free T4 Index</td>
<td>normal</td>
<td>normal</td>
<td>normal</td>
</tr>
</tbody>
</table>
Normal physiological changes in pregnancy

Hematologic changes
- Plasma volume increases by 50%
- Red blood cell volume increases by 20 to 30%
- Hematocrit decreases due to dilution
- White blood cell count increases (up to 20 mg/ml during stress)
- Platelets decrease to low normal values (100-150 mil/ml)

Hypercoagulability
- Changes in liver metabolism
  - Increases in fibrinogen (up to 3x normal), thrombin, Factor VIII, PAI-1, PAI-2 (from placenta)
  - Decreases in protein S
Normal hemostasis

<table>
<thead>
<tr>
<th>Physiological balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clot degradation</td>
</tr>
</tbody>
</table>

Anti-coagulant: |
Pro-coagulant:  

- Anti-thrombin
- Protein S
- Protein C

- Thrombin
- Tissue Factor
- Platelet factors

Fibrinolysis: |
Anti-fibrinolytic:  

- uPA, tPA
- Plasminogen (plasmin)
- Streptokinase
- Lumbrokinase
- Nattokinase

- PAI-1
- Lipoprotein(a)
- α-2 anti-plasmin
- TAF-1
Normal pregnancy is a hypercoagulable state

- Risk of thrombosis 5 times that of non-pregnant state
- Risk is worse with
  - Underlying thrombophilia or prothrombotic state
    - Genetic - antithrombin III deficiency, Factor V Leiden, protein C or S deficiency, elevated lipoprotein a
    - Acquired – infections, toxins, antiphospholipid antibodies or lupus anticoagulant
  - Cesarean section
- Consequences include
  - Maternal hypertension, deep vein thrombosis, pre-eclampsia, recurrent miscarriage, maternal death from pulmonary emboli or eclampsia
  - Placental vascular thrombosis
  - Baby small for gestational age
Chronic illness results in a hypercoagulability state

- Infections causes a pro-coagulant state
  - Fibrin deposition on endothelial membrane can trap toxins and infections
- Heavy metals can cause a hypercoagulable response
- Inflammatory cytokines worsen hypercoagulable state
  - Causing increase in pro-coagulants and anti-fibrinolysis
- Most chronically ill patients have genetic predisposition
  - Protein S or C deficiencies
  - Elevated lipoprotein a
  - Antithrombin III deficiency
  - Factor V Leiden
**Borrelia** infection during pregnancy

- **Borrelia** can pass through the placenta and infect a growing baby at any stage of pregnancy.
- At birth, the baby can die, be anywhere from severely to mildly ill or appear completely well.
- Maternal antibiotic treatment during pregnancy does not guarantee that the fetus will be free of infection.
- Mothers with **Borrelia** infection should be treated throughout pregnancy.
- Breast feeding poses unclear risks as *Bb* has been cultured out of breast milk and newborns produce little stomach acid.
Treat infected pregnant women


“The aim of treatment of early Lyme disease during pregnancy is not only to treat the infection and prevent long-term sequelae but to eliminate the infections as quickly as possible so as to prevent congenital transmission to the fetus.”
Trans placental passage of *Borrelia*


- Barbour, AG, Duray, PH et al., Culture positive seronegative transplacental Lyme borreliosis infant mortality. *Arthritis Rheumatism* 1987; 30(suppl): S50

*Bb* can infect the fetus despite maternal antibiotic treatment


  
  - *Borrelia* spirochetes found at autopsy in fetal brain, liver, adrenal glands, spleen, bone marrow, heart and placenta
  
  - None of the infected tissues showed any sign of inflammation
Bb found in breast milk


Transmission of *Bb* via semen


Fetal tissue from female dogs that had been artificially inseminated with semen from *Borellia burgdorferi* infected dogs were PCR positive for *Bb*
Viable *Bb* found in stored semen

- Three species tested: dog, bull, ram
  - *Borrelia burgdorferi* survived semen cryopreservation
  - *Borrelia burgdorferi* survived significantly better than spermatozoa
Human sexual transmission \textit{Bb}

Babesia gestationally transmitted


Bartonella gestationally transmitted


RF *Borrelia* gestationally transmitted

Gardner’s meta-analysis

- Meta-analysis of 263 pregnancies affected by Lyme
- In mothers with active Lyme disease
  - Treated: 14.6% pregnancies with sequelae
  - Untreated: 66.7% with sequelae
  - Unknown treatment: 30.3% with sequelae
- Highest rate of adverse outcome (72.7%) in women with infection acquired prior to or during first trimester, without treatment
Gardner’s meta-analysis

Specific adverse outcomes included
- Cardiac 22.7%,
- Neurologic 15.2%,
- Orthopedic 12.1%,
- 2nd trimester demise 12.1%,
- Miscellaneous anomalies 12.1%,
- Genitourinary 10.6%,
- Ophthalmic 4.5%
Dr. Jones’ study of gestational Lyme

- 80% irritability
- 80% cognitive problems, learning disabilities and mood swings
- 72% fatigue and lack of stamina
- 68% rashes
- 60% low grade fevers, pallor, dark circles under eyes
- 50% arthritis and painful joints
- 40% gastroesophageal reflux with vomiting and coughing
- 40% noise, light and skin sensitivity
Dr. Jones’ study of gestational Lyme

- 40% frequent upper respiratory tract infections and otitis
- 30% cavernous hemangiomas
- 30% eye problems
  - Posterior cataracts, myopia, astigmatism, conjunctival erythema (Lyme eyes), optic nerve atrophy and optic neuritis and/or uveitis
- 20% abdominal pain
- 18% developmental delays
  - Language, speech problems
  - Hypotonia
Mold toxin exposure during pregnancy

- Medical literature contains little about mold exposure to the unborn human fetus
  - Little consideration that small ionophoric molecules that are both fat and water soluble may easily diffuse through placenta
  - Sickest babies are from mold toxin exposed mothers
    - Floppy or hypertonic and jerky
    - Jaundiced
    - Heart defects
    - Irritable and difficult to console
    - Poor feeder, poor sleepers
    - FTT, developmental delays
    - Bad reactions to vaccines

April 5, 2018
Ann F Corson MD
Illness complexity during pregnancy

- Toxic encumbered matrix, organs and tissues
  - Environmental, metal and biological toxins
- Polymicrobial pathogenic biofilms infecting most, if not all, organ systems
- Unregulated systemic inflammation
- Vasculitis and hypercoagulability
- Mitochondrial dysfunction
- Gut dysbiosis with liver/gallbladder dysfunction
  - Dysbiotic infections
  - Dietary toxins – glyphosate, heavy metals, etc.
  - Methylation faults, genetic and epigenetic
Illness complexity during pregnancy

- **Immune system dysfunction**
  - Anergy and/or up-regulation, confusion
  - Allergic up regulation (toxins, infections)
  - Autoimmunity (thyroid, anti-phospholipid, ANA)

- **Biotoxin illness from biological toxins**
  - Genetic predisposition – HLA type chromosome 6
  - CIRS chronic inflammatory response syndrome
    - Leptin and pro-opiomelanocortin system disruption

- **Hormonal disruption from CNS to periphery**

- **Nutritional deficiencies and deficits**
  - Acquired – dietary toxins, ‘indiscretions’
  - Genetic – methylation defects
General treatment principles

- Restore vitality
  - Rebuild vital heat and energy

- Restore health and function of matrix
  - Clear toxicity
  - Hypercoagulability
  - Biofilms, infections, scars
  - Restore communication and fluidity throughout extracellular matrix

- Restore metabolic function of
  - Intestine, liver, kidney, bone marrow

- Restore regulatory function to
  - Neuro-immune, neuro-endocrine and vascular systems
Pre-conception cleanup

- Treat infections as aggressively as tolerated
  - Pathogenic biofilms
  - Gut parasites and dysbiosis
  - TBD and opportunistic pathogens
- Chelate heavy metals
  - Get rid of amalgams before conception
- Remove toxins of all kinds
  - Bile sequesterants, sauna
  - Methylation and detoxification support
  - Clean up diet and limit toxin exposure
  - Reduce EMR exposure
Pre-conception cleanup

- Drainage and regulation medicines
  - Liver and gallbladder
    - Cholagogues
  - Kidneys
  - Lymphatics
  - CNS

- Mucor suppositories (San Pharma)
  - Start with one night a week and work up to ten in a row (total 20-30 suppositories) to clean up congestion in the pelvis
Patient responsibilities pre-conception

- Clean air – purifiers as needed
- Clean water – filter entire house
- Clean diet
  - Oligoantigenic, organic, anti-inflammatory, fully organic, non-GMO, grass fed meats, wild caught fish
  - Avoid glyphosate as much as possible
- Tick avoidance
  - https://www.lymedisease.org/lyme-basics/
- Toxin avoidance in home, work, school and automobile
  - Household cleaners, personal care products, toothpaste, soaps, shampoos, hair dyes, nail polish, lotions, cosmetics, cigarettes, alcohol
Patient responsibilities pre-conception

- Mold avoidance – mold toxins are teratogens
  - Can cause miscarriage, intra-uterine demise, congenital birth defects
- Metal amalgam removal by biological dentist
  - [www.iabdm.org](http://www.iabdm.org)
  - [https://iaomt.org](https://iaomt.org)
- Deal with root canals and evaluate for cavitations
- EMR (electromagnetic radiation) reduction
  - [www.mercola.com](http://www.mercola.com) search EMF
  - [www.emfrelief.com](http://www.emfrelief.com)
Nutritional needs pre-conception

- Multivitamin
  - Extra folic acid/folate/5-MTHF
  - Extra Vit D3, Vit K2
  - Extra alpha lipoic acid
- Essential fatty acids – omega 3 (later 3,6,9)
- Phospholipids
- Trace minerals
  - Iodine, manganese, magnesium, zinc, selenium
- Binders
  - Activated charcoal, clays, Microchitosan, chlorella, humic acid
Patient responsibilities while pregnant

- Ongoing compliance with lifestyle modifications
  - Clean diet
    - Organic, Paleolithic, clean meats, rare fish (if at all)
    - No processed food, no glyphosate, no HFCS, no MSG
    - Limit sugar and grains
    - Best to avoid gluten and dairy
  - Toxin avoidance
    - No smoking, no alcohol, no mold exposure, limit EMR
    - Avoid common OTCs, e.g. acetaminophen

- Compliance with treatment protocols
  - Supplements and medicines

- Compliance with referral suggestions
Nutritional needs during pregnancy

- Caloric increase of 300 kcal/day
  - Increase protein to 70 or 75 g/day
  - Increase folate from 0.4 to 0.8 mg/day

- Essential fatty acids
- Phospholipids
- Choline supplementation
  - Phosphatidylcholine
  - Acetylcholine
- Vitamins C, D, E
- Prenatal vitamins with iron and copper
- Trace minerals – Mn, Mg, selenium, zinc, iodine
General pregnancy management

- **Gut health**
  - Mouth care
    - Teeth care, floss, non-toxic toothpastes, no aggressive cleaning or amalgam work while pregnant or nursing
  - Keep bowels moving
    - Support liver/gallbladder function
  - Probiotics, fiber

- **Drainage and regulation medicines**
  - Gently remove toxins, e.g. chlorella
  - Do not provoke deep seated toxins when pregnant or breastfeeding
  - Do not stimulate immune system of pregnant women
  - Avoid all vaccinations
Mold toxin treatment in pregnancy

- Remove patient from ongoing mold toxin exposure
- Remove biological toxins from body
  - Glutathione
  - Bind bile – activated charcoal, Microchitosan, CSM
  - Sweat – far infrared sauna, exercise
- Reduce inflammatory cytokines
  - Flex Now, nrf2 activator, cucurmin products (NO ibuprofen)
- Repair leaky gut
- Reduce effects of hypercoagulability
  - Lumbrokinase or nattokinase with or without proteases
- Individualized nutraceuticals
Hypercoagulability during pregnancy

- Pregnancy is a hypercoagulable state in normal patients.
- In chronically ill population, HC is worsened by up-regulated systemic inflammation from any cause:
  - Infections (esp. of endothelium)
  - Mold toxins
  - Heavy metals
  - Herxheimer reactions
  - Stress
Treatment of hypercoagulability during pregnancy

- Treatment of hypercoagulability:
  - Fibrinolytic enzymes
    - Lumbrokinase
    - Nattokinase
  - Proteolytic enzymes
  - Heparin
  - Herbals

- Treat to reduce complications of:
  - Maternal HTN, pre-eclampsia and eclampsia
  - Placental insufficiency
  - Prematurity, fetal hypoxia, distress/demise
  - Miscarriage
Antimicrobial treatment during pregnancy

- **Antibiotic treatment during pregnancy**
  - Azithromycin 500 - 600 mg daily
  - Cell wall antibiotic
    - Amoxicillin
    - or
      - Cephalosporin (cefuroxime axetil, Cefdinir)

- **Antimicrobial herbs during pregnancy**
  - Vital Guard Supreme (Chrysanthemum)
  - Manjistha Supreme (Rubia cordifolia)
Antibiotics in pregnancy

- **Antibiotics safe in pregnancy**
  - Penicillins
  - Cephalosporins
  - Azithromycin
  - Atovaquone

- **Antibiotics unsafe during pregnancy**
  - Quinolones
  - Clarithromycin
  - Tetracyclines
  - Metronidazole
  - Trimethoprim-sulfamethoxazole
Beyond Balance products safe in pregnancy

??
Supreme Nutrition products safe in pregnancy

- Vital Guard Supreme – Chrysanthemum
  - Broad spectrum antimicrobial, protects against oxidative damage in CNS and heart

- Manjistha Supreme – *Rubia cordifolia*
  - Used for threatened miscarriage up until 3rd trimester

- LuRong Supreme – antler velvet
  - Collagen, minerals, growth factors, anti-inflammatory prostaglandins, anabolic, used in 3rd trimester to ease delivery and aid lactation

- Illicium Supreme – Chinese star anise
  - Used to facilitate birth and increase milk production
Herbs helpful in pregnancy

- Ginger root – for nausea
- Spearmint, peppermint – helps relieve nausea
- Lavender – calming
- Chamomile, marshmallow root, and lemon balm for heartburn and indigestion
- Witch hazel – for soaking hemorrhoids
- Chamomile and calendula in oil – massage on itchy skin and stretch marks
- Chamomile – for sleep
- Cranberry – for bladder
Herbs helpful in pregnancy

- Stinging nettle – high in iron
- Oat straw – high in calcium
- Red raspberry leaf – helps prepare for birth, rich in iron, helps tone the uterus in third trimester, increase milk production
Herbs to avoid in pregnancy

- Aloe (*Aloe Barbadensis*)
- Anise seed (*Pimpinella anisum*)
- *Artemisia annua*, artemisinin and derivatives
- Black Cohosh (*Cimicifuga racemosa*)
- Barberry (*Berberis vulgaris*)
- Blessed Thistle (*Cnicus benedictus*)
- Bloodroot (*Sanguinaria canadensis*)
- Cascara Sagrada (*Rhamnus purshiana*)
- Comfrey (*Symphytum*)
- Ephedra (*Ephedra vulgaris*)
Herbs to avoid in pregnancy

- Fennel (*Foeniculum vulgare*)
- Fenugreek (*Trigonella foenum-graecum*)
- Feverfew (*Chrysanthemum parthenium*)
- Goldenseal (*Hydrastis canadensis*)
- Horsetail (*Equisetum arvense*)
- Juniper (*Juniperus communis*)
- Lady’s Mantle (*Alchemilla vulgaris*)
- Licorice (*Glycyrrhiza glabra*)
- Nutmeg (*Myristica fragrans*)
- Oregano Oil (*Origanum vulgare*)
Herbs to avoid in pregnancy

- Oregon Grape (*Mahonia aquifolium*)
- Pennyroyal (*Mentha pulegium*)
- Rue (*Ruta graveolens*)
- Sage (*Salvia officinalis*)
- Senna (*Cassia acutifolia*)
- Sweet wormwood (*Artemisia annua*)
- Thyme Oil (*Thymus vulgaris*)
- Wormwood (*Artemisia absinthium*)

Note: this is only a partial list
Researched Nutritionals products to avoid in pregnancy

- Artemisinin
- Microbinate
- BLt
- Crypto-Plus

- Don't use transfer factors during pregnancy due to the relative unregulated TH2 state in pregnancy.
- Check uric acid levels in pregnant women before using RibosCardio
Supreme Nutrition products to avoid in pregnancy

- Ashwagandha
- BFB-1
- BFB-2
- Body Guard Supreme (*Phyllanthus niruri*)
- Endo Supreme (*Pfaffia paniculata*)
- Golden Thread Supreme (coptis)
- HemoGuard Supreme (ginko, ginger, papaya)
- Melia Supreme (neem)
- Morinda Supreme (noni)
- Mucuna Supreme
Supreme Nutrition products to avoid in pregnancy

- Olive Leaf Supreme
- Schisandra Supreme (causes uterine contractions)
- Tulsi Supreme (holy basil)
- Woad Supreme (*Isatis*)

http://www.supremenutritionproducts.com/
Normal breastfeeding

Colostrum:
- Low in volume, rich in protein, calories, vitamins, minerals
- High doses of antibodies, esp. IgA which protects baby’s mucous membranes of throat, lungs and intestines
- Normal bacteria to help the baby digest the milk as it increases
- Laxative effect that helps the infant to pass early stools, aiding in the excretion of excess bilirubin, which helps prevent jaundice
- By the third or fourth day after birth, the colostrum will have changed to more mature milk
- After six weeks, milk supply is settled and breast size decreases somewhat
Treatment during breastfeeding

- Continue antimicrobials and supplements
  - Replace azithromycin?
- Continue to limit toxic exposures
- Ongoing treatment of mother can continue to help protect baby
  - Not because of medication transfer via milk but by keeping mother’s infections being transferred via milk
- Use best clinical judgment regarding which antimicrobials to add
- Avoid aggressive detoxification of mother until baby weaned

April 5, 2018  Ann F Corson MD
Herbs that assist breastfeeding

- Nursing tea
  - Fennel seed
  - Goat's rue (galega)
  - Red raspberry leaf
  - Alfalfa
  - Nettle
  - Chamomile
- Chinese star anise
  (Illicium)
- Rubia cordifolia
  (Manjistha)
- Fenugreek seed
- Blessed thistle
- Lemon grass
- Borage leaf
- Marshmallow
- Coriander
- Comfrey leaf

April 5, 2018
Ann F Corson MD
Supreme Nutrition products contraindicated while breastfeeding

- Ashwagandha
- BFB-1 & BFB-2
- Endo Supreme
- Golden Thread Supreme
- Melia Supreme
- Mucuna Supreme
- Olive leaf Supreme
- Schisandra Supreme
- Woad Supreme
Infant testing at birth

- Cord Blood to several labs
  - Advanced Labs *Borreliia* culture
  - Igenex PCRs for TBDs
    - www.igenex.com
  - Fry Labs smears and molecular diagnostics
    - www.frylabs.com
  - Galaxy Diagnostics for *Bartonella*
    - www.galaxydx.com
  - PCRs for other infectious organisms (EBV, HHV-6, Parvo, Chlamydia, Mycoplasma, etc.) to Medical Diagnostics Labs, LabCorp or Quest
    - www.mdlab.com

- Baby’s first urine for *Bb* PCR (Igenex)
- Placenta and foreskin biopsies for *Bb* PCR (Igenex)
Vitamin K is necessary for newborns to prevent Hemorrhagic Disease of Newborn (HDN)

- Occurs in first week of life, although rare (0.25 to 1.7%)
  - Risk factors include: preterm delivery, low birth weight, forceps or vacuum extraction delivery, extremely fast, or extremely prolonged labor, particularly during the pushing phase, delivery by C-section, maternal use of antibiotics, anticoagulants, and anticonvulsants during pregnancy, undetected liver disease
  - Infant’s prothrombin levels reach normal levels near day 5 or 7 of life, peaking on day 8
    - Establishment of Vit K production by baby’s gut microbiome so clotting factor can be made occurs by day 8
Infant management in hospital

- Vitamin K1 injection – Mephyton IM
  - Synthetic Vitamin K1 – generic name phytonadione
  - Dose is over 100 times infant RDA for Vitamin K
  - Contains aluminum, polysorbate 80

- European protocols for oral Vit K1:
  - 1 mg oral Vitamin K at birth followed by daily doses of 25 mcg from week 1 to 3 months in breastfed infants
  - 3 doses of 2 mg oral Vitamin K1 at birth; 4-6 days; 4-6 weeks
Infant management in hospital

- Parents have the right to refuse vaccinations
  - Vaccine Liberation Organization
    - www.vaclib.org
  - National Vaccine information Center
    - www.nvic.org/
- Hepatitis B immunization – refuse
- Antibiotic drops to eyes – ask for delayed administration
  - Erythromycin
- Security sensor – check hospital policy
Initial infant evaluation

- **History**
  - Labor and delivery
  - Apgar scores, temperature and glucose control, jaundice, breast or bottle fed
  - Vit. K shot, immunizations *(hopefully, neither)*
  - Feeding, sleeping, voiding, stooling patterns

- **Physical examination**
  - Cry, skin color and temp, skin infections *(cradle cap, diaper rash)*
  - Muscle tone, red light reflex, suck, grasp
  - Heart, lungs, abdomen, hip click, joints
  - Birth marks, hemangiomas
Subsequent infant evaluations

- Sequential examinations bimonthly
- Follow baby’s urine for Bb PCR monthly for first 6-12 months
- Again, serologies not helpful until after about 15 months
- Follow for normal growth and developmental stages
- Long term follow up necessary as *Borrelia* may remain dormant and symptoms may not develop immediately but months to years later, presenting as
  - Psychiatric or behavioral problem
  - Feeding problem
  - Autoimmune problem
Treatment of infected infants

- **Probiotics**
  - Klaire Infant Formula powder

- **Fibrinolytics**
  - “Pinch” of Boluoke on nipple before latching on
  - Fraction of or one drop into mouth or onto nipple
    - Bb-1, Bb-2, Bar-2, Toxease-GL, Cognease Detox,
    - BFM-P

- For first 4-6 months, breast milk is best for baby
Treatment of infected infants

- Herbs that are safe for infants
  - Chamomile (Matricaria chamomilla)
  - Lemon balm (Melissa officinalis)
  - Spearmint (Mentha spicata)
  - Rose petals (Rosa species)
  - Lavender (Lavandula species)
  - Catnip (Nepeta cataria)
  - Vervain (Verbena officinalis)
  - Fennel (Foeniculum vulgare)
  - Dill seed (Anethum graveolens)
  - Caraway seed (Carum carvi)

“The results of this new investigation show the presence of micro- and nanosized particulate matter composed of inorganic elements in vaccines’ samples which is not declared among the components and whose unduly presence is, for the time being, inexplicable. A considerable part of those particulate contaminants have already been verified in other matrices and reported in literature as non biodegradable and non biocompatible.”
Vaccines

Vaccines are full of toxins
- Aluminum, mercury, other metals
- Formaldehyde, MSG
- Neomycin, gentamycin, streptomycin, polymyxin B
- Polyethylene glycol, squalene
- Killed and/or live viruses, viral contaminants
- Animal or human tissue
- Glutamate
- Glyphosate
  - Manganese depletion by glyphosate (and Bb?) prevents glutamate breakdown

April 5, 2018
Ann F Corson MD
Glyphosate in vaccines

“The most serious consequence of glyphosate in collagen is likely to be glyphosate contamination in vaccines. Gelatin is an additive in many vaccines, and the measles, mumps and rubella (MMR) vaccine contains an especially high level of gelatin.”

“Many vaccines test positive for glyphosate, but MMR stood out as having more glyphosate by an order of magnitude than any of the others. The live measles virus is grown on gelatin, and this provides the virus with the opportunity to incorporate glyphosate into its own proteins.”

Stephanie Seneff, PhD
Vaccines

Flu shots harm mother and baby

- Flu vaccines still contain thimerosal
- Only work against 10% of the viruses that cause flu-like symptoms
- Have questionable efficacy against flu viruses
- Elicit inflammatory reactions that may harm the human heart, the pregnant woman, the developing fetus and the fragile immune system of infants

http://www.greenmedinfo.com/blog/studies-find-flu-shots-can-harm-your-heart-infant-and-fetus

April 5, 2018
Ann F Corson MD
Malfeasance in research: “thimerosal in vaccines is safe”

- Over 165 studies have found thimerosal to be harmful:
  - Death, allergic reactions, malformations, autoimmune reactions, developmental delay
  - Neurodevelopmental disorders, including tics, speech delay, language delay, attention deficit disorder, and autism

- Six studies used by the CDC to support safety of thimerosal are flawed
  - B Hooker et al., *BioMed Research International* 2014
    https://www.hindawi.com/journals/bmri/2014/247218/
Vaccines

- Aluminum adjuvant in vaccines
  - DTaP: 170 to 625 mcg, depending on manufacturer
  - Hepatitis A: 250 mcg
  - Hepatitis B: 250 mcg
  - Hib: PedVaxHib brand): 225 mcg
  - HPV: 225 mcg
  - Pediarix (DTaP–hep B–polio combo): 850 mcg
  - Pentacel (DTaP–Hib–polio combo): 330 mcg
  - Pneumococcus: 125 mcg

- **FDA safety limit** for aluminum from parenteral sources is **5 pg/kg/day**
Vaccines

Adverse health effects aluminum

  - “This review covers the occurrence of aluminium in soil, air, water and food. In addition, aluminium levels in body tissues and its movement within the body have been considered. The adverse effects of aluminium that have been reported in recent years include Alzheimer's disease, dementia and hyperactivity and learning disorders in children.”

- https://vactruth.com/2012/01/02/aluminum-fda-got-it-all-wrong/
Vaccines

Adverse health effects aluminum


- “Concerns linked to the use of alum particles emerged following recognition of their causative role in the so-called macrophagic myofasciitis (MMF) lesion detected in patients with myalgic encephalomyelitis/chronic fatigue/syndrome. Some patients with MMF are of the HLA-DRB1*01 group which is associated with an increased risk to develop autoimmune diseases.”
Epidemic of inflammatory diseases associated with vaccines?

“There has been an epidemic of inflammatory diseases that has paralleled the epidemic of iatrogenic immune stimulation with vaccines.”

“The author believes that the sum of the data described and reviewed in this paper supports a causal relationship.”

Classen JB. Review of Vaccine Induced Immune Overload and the Resulting Epidemics of Type 1 Diabetes and Metabolic Syndrome, Emphasis on Explaining the Recent Accelerations in the Risk of Prediabetes and other Immune Mediated Diseases. *J Mol Genet Med* 2014; S1:025.
Stephanie Seneff PhD hypothesizes

- Cumulative glyphosate exposure sets up a weakened immune system, a leaky gut barrier and a leaky brain barrier
- Vaccines introduce foreign proteins, including glyphosate as contaminants
- Children develop overactive antibody response to foreign protein contaminated with glyphosate and autoimmune disease through molecular mimicry
Management and treatment for mandatory vaccination

For mandatory vaccinations that you cannot avoid even with medical or religious exemptions:

- Delay for several months
  - Refuse Hep-B at birth
  - Only give one at a time several months apart
  - No MMR before 3 years of age
- Preservative free – single use vial
- Prevent and reduce reactions
  - Homeopathics (thuja)
  - Phosphatidyl serine 10 days pre and 3 weeks post
  - Chelate metals for fecal elimination
  - Drainage medicine for toxin removal
Falun Dafa for spiritual perfection
FalunDafa.org

Zhen
Truthfullness

Shan
Compassion

Ren
Tolerance
Appendix 1
Lyme and pregnancy resources

- Dr. Jones’ gestational study:

- Full reference of gestationally acquired Lyme and other vector borne diseases:
Appendix 2
Thyroid disease in pregnancy

Hyperthyroidism – Graves’ disease – in pregnancy

- Uncontrolled hyperthyroidism in mother can cause the following in the baby
  - Tachycardia
  - Small for gestational age
  - Prematurity
  - Stillbirth
  - Possibly congenital defects
Appendix 2
Thyroid disease in pregnancy

Hypothyroidism – Hashimoto’s – in pregnancy

- Inadequately treated hypothyroidism can cause
  - Maternal anemia
  - Myopathy
  - Congestive heart failure
  - Pre-eclampsia
  - Placental abnormalities
  - Miscarriage

- Significant association between the presence of thyroid autoantibodies, infertility and higher miscarriage rate
Appendix 2
Thyroid disease in pregnancy

Hypothyroidism – Hashimoto’s – in pregnancy, cont.

- Inadequately treated hypothyroidism can cause
  - Preterm delivery
  - Low birth weight infants
  - Postpartum hemorrhage
  - Neonatal respiratory distress
  - Fetal abnormalities
    - Hydrocephalus
    - Hypospadias
Appendix 2

Thyroid disease in pregnancy

Hypothyroidism – Hashimoto’s – in pregnancy, cont.

- Pregnant women with autoimmune thyroid antibodies
  - Prone to subclinical or overt hypothyroidism
    - Due to reduced functional reserve of thyroid unable to meet increased hormone requirement of pregnancy
  - TPO titers are on average 60% lower at parturition than when first pregnancy

- Thyroid Autoimmunity, Infertility and Miscarriage
  Gerasimos E. Krassas; Petros Perros; Athina Kaprara


- [http://www.thyroid.org/thyroid-disease-pregnancy/](http://www.thyroid.org/thyroid-disease-pregnancy/)
Appendix 2
Thyroid disease in pregnancy

Post partum thyroiditis
- In the United States, postpartum thyroiditis occurs in approximately 5-10% of women
- Postpartum thyroiditis can cause first thyrotoxicosis then hypothyroidism
- 20% reoccurrence with subsequent pregnancies
- Risks include:
  - Any autoimmune disease
  - Thyroid autoantibodies (higher levels = higher risk)
  - Previous thyroid dysfunction
  - Family history of thyroid disease
Appendix 3
Hypercoagulability references


Appendix 3
Hypercoagulability references

- http://www.springboard4health.com/notebook/health_hypercoagulation_ill.html


- Researched Nutritionals April 2011 DVD
  - Available from Researched Nutritionals
Appendix 4
Mold references

- www.survivingmold.com

- Public Health Alert August 2011

- Gordon Medical Assoc. DVD 10/22-23/2011
  - http://www.aaimed.com/resources_and_events.html#Anchor-Biotoxin
Appendix 5
Vaccine resources

- http://www.vacinfo.org/
- http://www.nvic.org/
- http://www.vaccinesrevealed.com/
- http://robertf kennedyjr.com/mercury-vaccines/
- http://vaxxedthemoviemovie.com/
Appendix 5
Vaccine resources


Pdf available at:
Appendix 5
Vaccine resources

- http://www.greenmedinfo.com/blog/studies-find-flu-shots-can-harm-your-heart-infant-and-fetus
- http://search.mercola.com/search/Pages/results.aspx?k=vaccines
Appendix 5
Vaccine resources

- http://drsuzanne.net/dr-suzanne-humphries-vaccines-vaccination/


Appendix 6
Glyphosate facts

- Chelates important minerals
  - Iron
    - Leads to anemia
  - Cobalt
  - Zinc
  - Manganese
    - Mn deficiency suppresses growth of lactobacilli, contributing to gut dysbiosis
    - Mn deficiency can cause CNS ammonia and glutamate toxicity as glutamine synthetase is Mn dependent enzyme
  - Sulfate deficiency
Appendix 6
Glyphosate facts

- Kills beneficial gut bacteria allowing pathogens to overgrow
- Interferes with function of cytochrome P450 enzymes
  - Leads to impaired bile flow
  - Impairs detoxification of toxic chemicals
- Interferes with synthesis of aromatic amino acids and methionine
  - Leads to shortages in glutathione, critical neurotransmitters and folate
Appendix 6
Glyphosate references

- Glyphosate, as a glycine analogue, is inserted in glycine’s place in proteins, importantly, collagen
  - Gelatin is made from animal collagen
  - Gelatin is found in:
    - Many foods
    - Main constituent of gel caps
    - Vaccines
- Glyphosate is a teratogen
  - Microcephaly in chick embryos

Appendix 6
Glyphosate references

- U.S. researchers find Roundup chemical in water, air, and honey
  - www.reuters.com/article/us-glyphosate-pollution-idUSTRE77U61720110831
  - www.huffingtonpost.com/carey-gillam/fda-finds-monsantos-weed_b_12008680.html

- Glyphosate: Unsafe on any Plate
Appendix 6
Glyphosate references

- Depletes manganese and zinc in plants

- Severely depletes Mn and cobalt in cows – all had glyphosate in urine? leads to cobalamin deficiency
  - M. Krüger et al., *J Environ Anal Toxicol* 2013, 3:5

- Mn deficiency suppresses growth of lactobacilli
Appendix 6
Glyphosate references

- Glutamine synthetase depend on Mn
  - Deficiency Mn can cause CNS ammonia and glutamate toxicity
- Interrupts production Vit K2
  - http://chriskresser.com/vitamin-k2-the-missing-nutrient
  - www.greenmedinfo.com/blog/roundup-weedkiller-brain-damaging-neurotoxin
- D Cattani et al., Toxicology 2014; 320: 34-45.
- H Gerlach et al., J Environ Anal Toxicol 2014, 5:2
Glyphosate references

www.westonaprice.org/health-topics/environmental-toxins/glyphosate-in-collagen/ Stephanie Seneff Feb 1, 2017

Glyphosate is glycine analogue, inserting itself into proteins where glycine should be – Collagen, most abundant protein in the body, is loaded with glycine.


Various specific proteins would be adversely affected by glyphosate substitution, and how these could account for the steep rise that we are currently seeing in a number of diseases and conditions such as diabetes, obesity, autism, celiac disease, Alzheimer’s disease and cancer.
Appendix 6
Glyphosate references

- https://people.csail.mit.edu/seneff/
- S. Seneff et al., Entropy 2012, 14, 2227-2253.