Women’s Health

Tieraona Low Dog, MD

Author of National Geographic:
“Fortify Your Life”
“Healthy At Home” and
“Life Is Your Best Medicine”

www.DrLowDog.com

Self Reflection

• How would you feel you are doing when it comes to:
  • Managing your stress
  • Nourishing your relationships
  • Creating space for relaxation
  • Getting regular physical activity
  • Going for preventive/early detection visits
  • Eating healthy food regularly
  • Positive self-talk
  • Feeling good about your body

Women’s health is a state of well-being in which a woman feels creative, strong and wise.
• Her innate healing power is vital and intact.
• She feels valued and heard.
• She is free to choose and decide; she honors her own rhythms and journey.

The First Environment

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Royal College of Obstetrics and Gynecologists 2013

1. Use fresh food rather than processed food
2. Reduce use of foods/beverages in cans/plastic containers, including for food storage
3. Minimize use of personal care products such as moisturizers, cosmetics, shower gels and fragrances
4. Minimize purchase of newly produced household furniture, fabrics, non–stick frying pans and cans whilst pregnant/nursing
5. Avoid the use of garden/household/pet pesticides or fungicides (such as fly sprays or strips, rose sprays, flea powders)
6. Avoid paint fumes
7. Only take OTC analgesics or painkillers when necessary
8. Do not assume safety of products based on the absence of ‘harmful’ chemicals in their ingredients list, or the tag ‘natural’ (herbal or otherwise)

Nutrient Deficiencies

• High frequencies of vitamin E (52 %), magnesium (38 %), iron (57 %) and vitamin D (77 %) deficiency and suboptimal intakes of choline (95 %) and vitamin K (99 %) in pregnant women attending Boston urban clinics.

• You need to have folic acid on board MONTHS before conception. Consider taking a prenatal with methylfolate.

• Make sure you are taking 600-1000 IU vitamin D3 and getting adequate calcium and magnesium.

Iron

• Iron deficiency most common nutrient deficiency in world, affecting ~2 billion people.
• Iron deficiency anemia accounts for 20% of all global maternal deaths. If mother is anemic, increases risk baby born prematurely with lower birth weight and poor neurocognitive development.
• Low iron levels are most common cause of anemia in adolescent girls and is very detrimental to mood and cognition, as well as physical well-being.

To Get 18mg of Iron in Food

- 4 cups of raisins
- 3-5 cups instant oatmeal
- 3 cups Special K cereal**
- 3 cups cooked lentils
- 2.2 cups canned white beans
- 10 ounce beef liver
- 45 ounce chicken breasts
- 15 cups broccoli OR
- 3 cups cooked spinach

Non-heme iron absorption is 2- to 3-fold higher with co-ingestion of 25 to 75 mg of vitamin C.

Calcium in Pregnancy

- Cochrane review: calcium supplementation roughly halves risk of pre-eclampsia and reduces risk of preterm birth and gestational HTN by roughly 35% compared to placebo.
- 1.0 – 1.5 grams/d calcium for those with low intake (taken in divided doses)

Calcium and PMS

Multiple clinical studies show 500-600 mg of calcium 1-2 times per day is effective for reducing many PMS symptoms.


Choline

• Choline critical during fetal development, influencing mood regulation, cognitive development, stress regulation and lifelong memory function.
• 8-10% of adults or pregnant women meet adequate intake. Those eating eggs had highest levels.
• Look for prenatal with 200-300 mg.


• 57 healthy adults fed choline-deficient diets under controlled conditions.
• Results: 77% of men, 80% of postmenopausal women, and 44% of premenopausal women developed fatty liver, liver damage, and/or muscle damage.
• Dysfunction corrected when choline was reintroduced into diet.

Iodine in Pregnancy

• Many reproductive aged women in US have marginal iodine status; salt in processed foods is not iodized.
• Deficiency associated with pregnancy loss and prematurity, and neurocognitive defects in baby.
• Iodine deficiency now accepted as the most common cause of preventable brain damage in the world.
• Mild to moderate iodine deficiency associated with higher incidence of ADHD and lower IQ in the baby.
• American Thyroid Association recommends pregnant/lactating women supplement: 150 mcg/d potassium iodide.

Iodine Intake Pregnancy and Breastfeeding

• Data from National Health and Nutrition Examination Survey 2011-2014 found that the use of iodine containing dietary supplements among pregnant and lactating women remains low in contrast with current recommendations.
  • Among pregnant women, 72.2% used any dietary supplement; however, only 17.8% used a dietary supplement with iodine.
  • Among lactating women, 75.0% used a dietary supplement; however, only 19.0% used a dietary supplement with iodine.

Omega 3 and Asthma

• Critical for neurological and early visual development, particularly in 3rd trimester and first three years of life.
• Reduced intake of omega-3 fatty acids may be contributing factor to increasing prevalence of wheezing disorders/asthma.
• Supplementation with omega-3 fatty acids in third trimester of pregnancy reduced the absolute risk of persistent wheeze or asthma and infections of the lower respiratory tract in offspring by approximately 33%.
Vitamin D and Asthma

- **Viral** respiratory infections are a major cause of asthma exacerbations.
- Review and meta-analysis of 8 RCTs found vitamin D supplementation reduced rate of asthma exacerbation requiring systemic corticosteroids among all participants but greatest benefit seen in those with low baseline levels of vitamin D.
- Cochrane review found data suggest vitamin D is likely to reduce both the risk of severe asthma exacerbation and healthcare use in those with mild-to-moderate asthma.

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C-Section Birth

- Children born by C-section at increased risk for respiratory allergies, cow’s milk allergies, asthma, juvenile arthritis, inflammatory bowel disease and leukemia.
- Colonization of GI tract of infants born vaginally similar to mother’s vaginal microbiota; C-section infants GI tract colonized by skin bacteria and takes up to 5 years to mature.

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Magnesium for Migraines

- Migraine disproportionately affects women. Impacts 1 in 4 households. Studies show migraineurs have low brain magnesium during migraine attacks.
- Canadian Headache Society gave magnesium a strong recommendation for prophylaxis of migraine (also for riboflavin). Dose 300–400 mg/d, some up to 600 mg per day.
- Diarrhea most common side effect (glycinate, malate and citrate less GI complaints than oxide). Caution with supplementation in those with poor kidney function.

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Migraine, OCPs, and Stroke

IHS: low-dose estrogen in women with simple visual aura
ACOG: progestin only, intrauterine or barrier contraception
WHO: absolute contraindication in all women with aura

Vitamin B6 (Pyridoxal-5-Phosphate)

- Involved in production of serotonin, dopamine, melatonin, hemoglobin, protein metabolism, energy production, and more.
- Deficiency: depression; impaired cognition, attention, memory, and sleep. Increased risk of heart disease, stroke and colorectal cancer.
- OTC analgesics and OCPs lower B6 levels.
- 30 MILLION Americans are deficient in B6. Seldom ever tested. Research shows ~6 mg/d to maintain normal serum level.

To Get JUST 1.5 mg B6 in Food

- 2.5 bananas
- 12 Tbsp. roasted sunflower seeds
- 8 ounces chicken breast
- 8 ounces sockeye salmon
- 3.5 cups raw diced avocado
- 3 cups sweet potatoes
- 15 cups of milk OR
- 20 Tbsp. peanut butter

Menopause

- Menopause medicalized since 1930s as a “deficiency disease,” recommendation of hormone replacement therapy.
- Keeping women “feminine forever” was the claim, along with promise of preventing heart disease, osteoporosis, and memory loss.
- Estrogen became one of the most frequently prescribed drugs in the U.S.
Menopause: The Disease

- Even when no longer considered a disease, positioned as gateway to disaster - thinning of skin, sagging of breasts, brittling of bones, loss of sexuality, fogging of mind, heart disease.
- Hormones were answer until WHI in 2001 abruptly stopped due to increased incidence of breast cancer and blood clots in women taking Premarin and Provera.

Menopause Symptoms

- Classic symptoms:
  - Change in menstrual cycle pattern and decline in fertility
  - Hot flashes and night sweats
  - Vulvovaginal symptoms, lower libido, painful intercourse
  - Sleep disturbances
- Other symptoms sometimes associated with menopause:
  - Cognitive (memory, concentration)
  - Urinary frequency, incontinence
  - Psychological symptoms (depression, anxiety, moodiness)
  - Dry eye, joint/muscle pain, fatigue, weight gain, dental changes
Current Recommendations for Menopause

• For women with **moderate to severe vasomotor symptoms**, depending on individual risk, and patient’s willingness to accept risk, use the **lowest dose of estrogen (with progesterone, if uterus intact)** effective for the shortest amount of time possible.

Hormone Route and Type

• **Transdermal estrogen** has least effect on lipids as it avoids first pass effect on the liver, permitting lower doses to be used with equal efficacy.
• **Estrogen alone** does not increase risk of breast cancer.
• **Natural progesterone** is associated with **less risk of breast cancer and blood clots** compared to synthetic progestogens.
• If symptoms are primarily **urinary and/or vaginal**, vaginal estrogen can be used with minimal systemic absorption.

Current “Best” Recommendations

• Transdermal estrogen: less impact on lipids, less impact on clotting
  • Estrogen alone **NOT** associated with increased risk of breast cancer.
• Natural progesterone associated with lower risk of breast cancer and clots, when compared to synthetic progestogens. Take at bedtime.
• Genitourinary symptoms controlled locally with little systemic absorption.


Bioidentical Hormones

• **Compounded bioidentical hormones** not FDA regulated
• Many FDA approved prescriptions contain bioidentical hormones
  • Estrace (vaginal and oral)
  • Climara
  • Estraderm
  • Estragel
  • Estrazorb
  • Estring
  • Femring
  • Vagifem
  • Prometrium
Salivary Testing

- NAMS – does not recommend saliva testing to determine hormone levels
- Endocrine Society – “salivary hormone tests are inaccurate and should not be considered reliable measures of hormones in the body.”
- ACOG - *No biologically meaningful relationship* between salivary sex steroid hormone concentrations and free serum hormone levels. Salivary hormone levels vary with diet, time of day, and other variables.
- Just no real reason to have salivary estrogen/progesterone done

Genitourinary Syndrome of Menopause

- Dryness, burning, irritation; lack of lubrication, discomfort or pain, with intercourse; and urinary symptoms of urgency, dysuria and recurrent urinary tract infections.
- Vaginal estrogen can be continued as long as needed to relieve symptoms and considered when systemic estrogen is contraindicated.
- Vaginal lubricants and moisturizers can be used alone or in conjunction with vaginal estrogen. Osmolarity of personal lubricant not to exceed 380 mOsm/kg and pH should be 3.8-4.5

Soy and Hot Flashes

• Meta-analysis: soy isoflavones (median, 54 mg) significantly reduced frequency of hot flashes by 20.6% and severity by 26.2% (P = 0.001) compared with placebo.
• Isoflavone supplements providing > 18.8 mg of genistein twice as potent as lower doses.


Soy and Cancer

• European Food Safety Authority concluded after a multi-year investigation that in postmenopausal women, soy isoflavones do not adversely affect the breast, thyroid or uterus.
• North American Menopause Society concluded that soy isoflavones do not increase risk of breast or endometrial cancer.
• American Cancer Society and American Institute for Cancer Research confirm soy foods can be safely consumed by women with breast cancer.


RESEARCH* AND TRADITIONAL USE

• Soy isoflavones* reduce severity and frequency of hot flashes
• Black cohosh* never traditionally used for menopause, best studies negative
• Kava* is effective for anxiety.
• St John’s wort* for hot flashes, moodiness, etc.**
• Maca* for sexual dysfunction and low libido
• Siberian rhubarb* for hot flashes
• Ginseng* for quality of life

**Note: watch for drug interactions
Hypnosis

- 187 menopausal women with minimum of 7 hot flashes/d randomized to 5 weekly hypnosis sessions or structured control.
- At 12 weeks: mean reduction in physiologically monitored hot flashes 5.92 (57%) for clinical hypnosis and 0.88 (10%) for controls.
- Significant improvement in sleep quality and treatment satisfaction compared to controls.

Acupuncture

- Numerous studies found acupuncture beneficial for relieving hot flashes and improving quality of life.
- Review and meta-analysis of 31 RCTs found acupuncture significantly reduces sleep disturbances during menopause.

Osteoporosis

- Literally "porous bones," characterized by low bone mass and structural deterioration of bone tissue, with an increase in susceptibility to fragility fracture.
- Multifactorial disease arising from genetic, hormonal, metabolic, mechanical and immunological factors.
- 75% hip, spine and distal forearm fractures occur in those 65 years or older
- Roughly 30% of people over age 65 fall annually, with 10-15% of these falls resulting in fracture.

Over Treatment?

- New definition of osteoporosis in 1994 based on low bone mineral density, expanded indications for pharmacotherapy.
- Under US guidelines ~75% of white women over 65 years are now candidates for drug treatment.
- Heightened fear has led physicians to prescribe bisphosphonate drugs to prevent women with osteopenia from developing osteoporosis. Despite being at very low risk of experiencing a fracture, many women have been prescribed drugs with serious side effects for years.
One of best predictive tools for evaluating fracture risk is FRAX

Vitamin D: Bones and Balance

- Low vitamin D increases risk of falls and gait instability. Exercise, calcium and vitamin D supplementation all decrease falling in elders.
- Meta-analysis National Osteoporosis Foundation: calcium plus vitamin D supplementation produced a significant 15% reduced risk total fractures and 30% reduced risk hip fracture.


Other Nutrients

- Calcium, magnesium, vitamins D and K contribute independently and collectively to bone health.
- Beneficial role of vitamin K, particularly vitamin K2 as MK-7, in bone and cardiovascular health reasonably well supported scientifically, with several preclinical, epidemiological, and clinical studies published over the last decade.

Tai Chi

- Multiple studies show tai chi reduces the risk of falls in elders, post-stroke, and Parkinson's.
- Systematic review found effective for relieving pain and improving physical function in those with osteoarthritis.


D-mannose for Recurrent UTI

- After antibiotic treatment for acute cystitis, 308 women with history of recurrent UTI randomized to one of three groups:
  - 2 g/d mannose powder in 200 ml water
  - 50 mg/d nitrofurantoin
  - No prophylaxis
- ~15% recurrent in D-mannose, 20% in nitrofurantoin and 61% no treatment group.


Strength and Balance Training Programs for Preventing Falls in the Elderly (NNT=11)

In summary, for at-risk elderly community dwellers who used balance and strength training:

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<thead>
<tr>
<th>Benefits in NNT</th>
<th>Harms in NNT</th>
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<td>311 elderly were helped (avoid suffering a fall over a one-year period)</td>
<td>None were harmed</td>
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<table>
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<tr>
<th>Benefits in Percentage</th>
<th>Harms in Percentage</th>
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<tr>
<td>99% saw no benefit</td>
<td>9% were harmed</td>
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• Go to usprobiotics.com to determine what products have been studied.
• Gastrointestinal
  • Reduce symptoms of irritable bowel syndrome
  • Reduce incidence of antibiotic associated diarrhea
• Genito-urinary
  • Reduce the risk of recurrent bladder infections
  • Help reduce recurrent yeast infections
• Pregnancy
  • Reduce allergies and eczema in high risk children, especially if born by Cesarean section, if taken last 2 months of pregnancy.


**Make Friends with Your Microbes!**

**The World Today**

• We strongly emphasize biological explanation for depression and anxiety, as evidenced by extensive use of antidepressants and anxiolytics.
• There remains little focus on physiological, nutritional, societal, communal, familial and spiritual underpinnings.
• “I take my Effexor and go to a job I hate and then home to a house full of kids that are out of control and a husband that barely talks to me. Is my depression better? Yea, I guess.”
• Complex world. We often have unrealistic expectations. Isolation is common, financial problems, lack of purpose, meaning, a sense of despair, hopelessness – the world has less color and texture.
“But until a person can say deeply and honestly, “I am what I am today because of the choices I made yesterday,” that person cannot say, “I choose otherwise.”

Stephen Covey

A good way to deal with anxiety and high stress is to occasionally sidestep the analytical part of your brain by practicing relaxation, meditation and/or using guided imagery.

John Wooden

The privilege of a lifetime is being who you are.

Joseph Campbell
Be patient with yourself. Self-growth is tender; it’s holy ground. There’s no greater investment. — Stephen Covey

1. **Move more.** Whether it’s the 7 minute workout, cycling, yoga, or taking long walks - one of the surest ways to maintain heart, brain, bone and muscle health is daily exercise. It’s not optional. **Just do it.**

2. **Eat food.** Minimally processed, **low glycemic load**, diverse, and largely **plant based diet.** Organic, **local**, and/or **humanely raised** when possible,

3. **Meditate.** Meditation widens the gap between trigger and response, allowing you to feel a greater calm and awareness. It’s a **game changer** for almost anyone.

4. **Stay connected.** Social isolation and loneliness is as dangerous as being an alcoholic or being obese. **Invest in your friends and family.**

5. **Take a multi.** Many women lack when it comes to micronutrients. A food based multi can be insurance against the gaps. **Age and gender** appropriate.

6. **Be tech smart.** Technology makes life easier and more complex. Use **blue light blocking glasses** at night, make one day each week **tech free** or tech “light”, and **limit work email in the evening.**

7. **Nurture spirit.** The search for meaning and purpose is a fundamental part of being human. A **richly nourished inner life** is a source of strength during hard times. **Look inward. Honor mystery.**