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# Dr. Evan Kligman's AgeWell Plan Newsletter "A new way of being"

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## TOP OF THE NEWS:

## Adieu and New Beginnings: Update on Our Practice Transition

I hope most of you by now have had an opportunity to "meet and greet" Drs. Leila Ali-Akbarian and Ingrid Patsch who will be taking over our practice as of July 1. The new name of your medical home will be *Banyon Integrative Health*.

As you know from meeting them and reviewing their biographical summaries, both doctors have exceptional backgrounds and will provide the highest quality of care to you as experts in integrative family medicine. Janette Wood, our office manager and Jessica Matteson, our care coordinator, will continue in their current roles and as medical assistants in the new practice.

I will continue to be your physician until July 1, and will be providing you care through routine visits, through responding to portal messages (especially important when I am "commuting" to and from Vancouver), and by working closely with Molly Wheelwright, PA who has already started to see some of you in our office when I was in Vancouver in February. Molly has over 20 years experience in delivering high quality primary care at her previous office, Cushing Street Family Practice.

The practice of family medicine is based upon the building and nurturing of relationships between physician and patient, and the mutual sharing of our stories that are often multi-generational, encompassing the past, present, and future of our lives.

I fully hope that our relationship and stories will continue as I move to Canada and start a new chapter in my life. I will miss all of you, and I promise to

stay in touch with you in various ways (including sharing with you updates of my work in Vancouver through our quarterly newsletters, emailing, and the portal). And, I will look forward to hearing and reading about your ongoing journey in life toward optimal health, healing, and equanimity.

## Next Seminar April 6, 2019 – "Health, Healing, and Spirituality"

Our seminar last October focused on transitioning in later life. As an ordained interfaith minister, I introduced my thoughts on the role of our "inner voice", our interconnectedness with all beings (past, present, and future), and how to nurture our aging spirit. Our seminar in April will expand my thoughts and suggestions on how contemplative practice can play a vital role in our health and healing.

Please let Jessica or Janette know if you will be attending by calling the office at 326-0850 or emailing <a href="mailto:southwestintegrative@gmail.com">southwestintegrative@gmail.com</a>. As usual, our seminar will run from 10am-12pm at our venue: Tucson Osteopathic Medical Foundation <a href="mailto:3182">3182</a> N. <a href="mailto:Swan Rd">Swan Rd</a>. Please bring your water bottle and notebook and a pen to the seminar.

## MindHealth/BrainHealth

## Omega-3, Cognitive Function, and Treating Depression

Just when I gave up on fish oil due to recent studies that omega-3 supplements have no benefit in cardiac health, new research is showing significant impact on:

- Cognitive function and memory
- Reducing symptoms of depression
- ADHD
- Recovery from traumatic brain injuries

Working memory improves, preventing cognitive decline. Omega-3s also play a role in mood regulation by helping the brain communicate through neurotransmitters (serotonin and dopamine), and by reducing inflammation in the brain that is linked to depression.

## Role of our Microbiome in quality of life and depression

We have known for quite a while that the biggest part of our nervous system is not our brain and central nervous system, but rather it is our microbiome. This connection may become the most important function of our gut. In a Flemish study of over 1,000 people (the first human population study), how the microbiome determines quality of life and depression was explored. Gut bacteria like Faecalibacterium and Coprococcus that produce Butyrate were associated with higher quality of life indicators.

Depressed persons had microbiomes depleted in Coprococcus and Dialister species which produce neuroactive compounds. Antidepressant medications had no impact on the microbiome.

## Chronic gum disease and memory

The key bacteria in chronic gum disease is porphyromonas gingivalis. About a third of all people have chronic gum disease. And at least half the population will experience concerning memory loss in their lifetime. Hmm. Could there be a connection?

## Alzheimer's Disease: Is there an infection or insomnia cause?

Dr. Alois Alzheimer first identified dementia with tuberculosis. A 2010 study found that neurosurgeons die from Alzheimer's at a rate nearly 2.5 times higher than that of the general population, People whose spouses have dementia have 1.6 times greater risk themselves. Multiple research teams have been investigating P. gingivalis, and have found that it invades and inflames brain regions affected by Alzheimer's. This same mouth bacteria that causes gum disease in humans causes amyloid plaques in healthy mice. A company called Cortexyme has produced a gingipain blocker now in its initial safety tests that may prevent or reduce symptoms of cognitive decline in people with Alzheimer's who have gum disease.

A recent observational study found higher levels of beta-amyloid deposits and tau accumulation in the brain in older adults who spend less time in nonrapid eye movement (NREM) slow wave sleep. Reduced slow wave activity may be a marker for the transition between normal and impaired cognitive functioning. However, it is not clear if sleep disturbances increase the risk of developing Alzheimer's, or if changes in our sleepwake activity may be due to brain pathology caused by amyloid and tau deposits. If you have a Fitbit or AppleWatch, you can actually measure your NREM sleep and compare it to normal benchmark levels.

My thoughts are that there are probably a number of "initiators" and "promotors" of dementia of the Alzheimer's type, including genetics, chronic poor sleep, brain trauma including strokes, diabetes and other coronary artery disease risk factors. I doubt there will ever be one "cure" or medication to eliminate the risk. That is why sustained healthy lifestyle behaviors will give us the best chance of reducing our risk and maintaining a healthy brain.

# Vitamins, especially D

Many of us take vitamins and supplements for decades without keeping up with new research about their benefits as well as potential harm. Many of our patients forgot why they started a particular supplement years ago, but usually because of something they read or heard, or a recommendation from a friend or relative. And yet in recent years, study after study have questioned the need for, safety, and efficacy of various supplements such as vitamin A, vitamin C, vitamin E, selenium, beta-carotene, glucosamine, chondroitin, and fish oil. Fish oil was recently "resurrected" (see above article) for its value in brain health, but not for reducing heart disease and heart arrhythmias which had been its "claim to fame".

And now, vitamin D3 – which has been the "holy grail" for many of us, has come into question. My first published research paper, in 1984, was on a study I did to measure the impact of vitamin D3 use, sunlight exposure, and blood level. The finding of that study was that people who use sunscreen and spend a lot of time outdoors but take no D3 supplementation, had actually higher blood levels of vitamin D as compared to those who took the supplement, never use sunscreen, and had spent less time outdoors.

Vitamin D is a hormone manufactured by the skin with the help of sunlight. It is difficult to obtain sufficient quantities through diet. Since we "know" that we need to use sunscreen when we are outdoors, many people take vitamin D supplements.

However, a clinical trial 5 years ago found that over 25,000 patients taking high doses of D supplementation had no benefit re: cancer, heart disease, or stroke risk. They found that those with high levels were getting plenty of sunlight exposure, not from a supplement, and taking a supplement did not induce the same protective effect.

Here is why: the skin uses sunlight to make nitric oxide which lowers blood pressure. 30 minutes of summer sunlight without sunscreen consistently led to lower blood pressure readings. A Swedish study showed that sun avoiders were twice as likely to die prematurely as sun worshippers.

Here are my thoughts: vitamin D is better obtained from sunlight than a supplement. If one can safely spend 15-30 minutes minimum a day in the sunlight, that will be better for your health than a pill. However, for days you spend mostly indoors, a supplement may be beneficial but not as much as sun.

Sunlight triggers not only nitric oxide, but also serotonin and endorphins. It reduces the risk of prostate, breast, colorectal, and pancreatic cancers. It improves circadian rhythms and reduces inflammation and reduces autoimmune responses.

#### HeartHealth

## What is a safe blood pressure?

The "Cochrane" Review evaluates multiple research trials to determine the best evidence-based medicine for practitioners to incorporate into their practice of medicine. We have known that people on medication for hypertension can become "hypotensive" at times, causing sometimes serious falls. We also know that sustained high blood pressure is a major risk factor in heart disease and strokes.

Further, a study from Barcelona found hypertensive patients are more likely to have a marked progression of white matter hyper intensities in their brains (markers of cerebral small vessel disease) as found on MRI, and these lesions caused a sixfold increased risk of developing mild cognitive impairment.

However, the Cochrane Review found that achieving a target BP of 135/85 or less does not decrease the risk of total cardiovascular events, vs

treating only at levels greater than 140 to 160 / 90 to 100. Also, treating to the lower BP target of under 135/85 did not improve total mortality, cardiovascular mortality, or serious adverse effects.

My thoughts are that our blood pressure most of the time can vary significantly throughout a 24 hour cycle for most of us. And the occasional BP reading of 160/100 (common for those with "white coat" hypertension) is not a risk unless these elevated pressures occur throughout the day especially if one is prone to very stressful stimuli. And treating high office BP with medication could lead to low BPs out of the office.

This dilemma points toward the very important evolution of health care, especially primary health care, from a 12-30 minute office visit every 3-6 months to continuous monitoring of random 24 hour periods to more accurately assess physiological markers. Otherwise, doctors may over-prescribe powerful drugs based on very limited data that can contribute to adverse outcomes. A remarkably high percentage of hospital admissions are due to adverse reactions to medications. Future homes will have a meditation center for mind and brain health, and a health center where biomarkers and lab tests will be measured, in addition to a customized computer for measuring vital signs. And, all this data will be directly sent to your primary care office to provide alerts for you and your primary health care practitioner when data is abnormal.

## **BoneHealth**

Osteoporosis is an age-related skeletal disorder of compromised bone strength, predisposing to an increased risk of fracture. Women are most vulnerable of developing bone strength loss the first five years after reaching menopause, and men are most vulnerable after reaching age 70. Depending on the skeletal site (hip, spine, etc.), peak bone mass occurs by the end of the second or third decade of life.

Optimal nutrition can reduce age-related loss of bone mineral density and thus bone strength. Further, physical activity to prevent muscle loss (sarcopenia) can reduce bone loss and the risk of falling and fracturing. Minerals like calcium, phosphate, and magnesium strengthen the collagen-protein matrix in our bones and provide important ions for bodily homeostasis.

Though many people depend on supplements, getting vital minerals from your food is safer and more effective in building bone density, First, absorption of these minerals through food is better than through supplement. Second, there may be risk of calcium deposits in our blood and vital organs if taken as supplements.

## **List of Minerals Important for Bone Health**

Calcium and Vitamin D taken together as supplements or in our food reduces vertebral and nonvertebral fracture risk.

*Phosphorus* is important for bone "homeostasis" but supplementation is not recommended as it could be detrimental to bone, especially if you have a decreased kidney function or low calcium intake.

*Magnesium* is necessary for calcium and potassium homeostasis. Most people do not consume sufficient magnesium. New studies suggest there is no evidence to support routine magnesium supplementation in healthy adults.

Fluoride is absorbed completely in the GI. At 75 mg/day, it can make bone susceptible to fracture. Excessive consumption of fluoride in tea can cause skeletal fluorosis. Supplementation is not recommended.

Strontium increases bone mineral density by replacing calcium within the lattice structure of bone as a "stronger" mineral than calcium. There is no evidence of bone toxicity at low doses. It is approved outside of the US as a prescribed medication as a strontium ranelate. However, due to concern over increased cardiovascular events on strontium, it is now restricted in Europe to severe osteoporosis, It should only be used judiciously in the US as strontium citrate and monitored closely for those at risk of cardiovascular disease,

Boron is found in plants, nuts, fruits, leafy vegetables, and legumes. It may stabilize and extend the half-life of vitamin D and estrogen. There is insufficient data to recommend it for skeletal health.

Vitamin D is found only in small amounts in foods and is primarily produced in the skin when exposed to ultraviolet B radiation. It also may improve muscle function and balance, thus reducing falls. Optimal and abnormal level ranges are controversial. A conservative upper level for highly sun-exposed adults in 50 to 60 ng/ml. A maintenance dose of 1000 to 2000 IU/day is reasonable and a re-test 3-4 months after is reasonable to determine if higher daily doses of vitamin D3 is warranted. Huge single doses of 55,000 IU of vitamin D2 is not recommended.

*Vitamin K* as K2 is synthesized by the gut and found in fermented soy beans, cheese, and curds.

*Vitamin E* as alpha – tocopherol in high doses may be detrimental to bone in animals. Supplementation is not recommended.

Vitamin C has been shown in multiple studies to improve collagen formation, bone matrix development, and in limiting bone resorption. Its exact effect on bone density is presently unknown.

Protein when low in one's diet was shown to almost double the risk of fragility fractures in postmenopausal women and men > age 50. Greater protein intake has been associated with higher bone mineral density in a 5-year prospective Canadian study,

Flavonoids and isoflavones have not shown a consistent benefit in promoting bone health.

Summary: The three critical nutrients for bone health are calcium, vitamin D, and protein

## The AgeWell Kitchen

## Improving the Health of the Planet by eating wisely

By now, I am sure all of you are quite familiar with my recommendation to maintain essentially a plant-based whole foods diet. I believe, unless you are already 100%, the transition to a healthier and sustainable diet can be incremental and still be of tremendous benefit for you, your family, and our planet.

So here are steps I recommend if you are on the "transitional" path, in order of priority:

- 1. Eliminate red meat (or cut back to no more than 1-2 small servings a week). There is significant research documenting that red meat increases your risk of most health problems. And the production of red meat takes up land and feed to raise cattle, which also emit the greenhouse gas methane. Scientists are discovering that eating meat has dire consequences for the planet, by worsening the devastating earth changes caused by global warming. Researchers from a number of countries have reported that if the world followed primarily a plant-based diet, "more than 11 million premature deaths could be prevented each year", greenhouse gas emissions would be cut and more land, water and biodiversity would be preserved".
- 2. Start to explore sea vegetables grown in salt water. With rising ocean levels and the melting of our polar ice caps and glaciers especially in the upper Northern hemisphere, there will be significant fresh water shortages for the majority of humans on this planet. Traditional planting and growing of our usual vegetables and fruits and nuts, requires substantial fresh water resources. Let's add seaweed and sea vegetables to our meals and to our palate now.

- 3. The dairy industry has been a bit "over-rated" in terms of its role in maintaining our health. There is plenty of calcium, vitamin D and flavor in non-dairy options. It is commonplace to see non-dairy milk made out of oatmeal (my favorite!), peas (my second favorite), or almonds (third on list since growing almonds requires a lot of fresh water). Non-dairy "cheezes" have come of age! There are a variety of brands to choose from at markets like Natural Grocers, Sprouts, and Whole Foods. Also, non-dairy yoghurt from cashews and almonds are tasty and nutritious and also provide calcium and probiotics.
- 4. Eliminate or markedly reduce consumption of processed foods. Remember Michael Pollan's recommendation: don't consume foods made of ingredients your grandmother never heard of!
- 5. Markedly reduce your daily intake of sugar. Whether it is a drink, dessert, bread or cereal in a box or can, read the "nutrition facts": total sugars per serving can range from 0 to 20 or more. Try to select prepared foods in containers to less than 10, and preferably, 6-8 grams of sugar per serving.

#### **Gluten-Free Diets and Rice**

Rice has been found to be naturally high in arsenic, mercury, and glucophosphates. Rice flour is a common substitute for wheat flour in gluten-free products, such as pasta and bread. If you are on a gluten-free diet, I encourage you to seek products using quinoa and other ancient grains, cassava flour or starch, and coconut flour, rather than products with rice.

## **Vegan Meal Plans from VegBox**

Whether you are interested in transitioning to a whole food plant-based diet gluten-free and soy-free, or you are a committed vegan and would like to have meals prepared for you due to your busy schedule, I recommend the VegBox Meal Plan. Chefs Erik Korchmaros and Tara Kligman are currently in Costa Rica "producing" the *Mann-Fest* food and music festival and return next month. If you are interested in a weekly meal plans for delivery to your home or workplace or for pick-up, contact their partner Chef Mark McKenna at 520-313-4151. Brochures for more information are available at our office. Mention you are part of our AgeWell Plan for special attention!

# The AgeWell Medicinary

## **UltraCell CBD Ointment; Dreams**

We are carrying two new products from Zillis

The hemp CBD ointment is good for muscular and arthritic pain and discomfort. I use it like voltaren gel or Biofreeze twice a day.

Dreams is for sleep support. Combined with a liquid GABA and melatonin, and chamomile extract, a proprietary formula of green tea leaf extract, hops flower extract, turmeric root extract, ginger roof extract, and Echinacea leaf extract, Dreams can be taken with hemp CBD to improve your sleep and cognitive function.

## **Recommended Books**

Women Rowing North: Navigating Life's Currents and Flourishing as We Age, by Mary Pipher.

The Monk Within: Embracing a Sacred Way of Life, by Beverly Lanzetta. Beverly is my pre-eminent spiritual teacher, and wrote this book for people who are seeking a deeper, contemplative orientation to daily life. I will be referencing this book at our April 6 seminar. Her book draws on four interlocking themes: embodied spirituality grounded in the sacred web of life; the mystical path of the feminine; the archetype of the monk that is the deep truth of every person; and the interdependence of the world's wisdom traditions, expressed through interfaith, interspiritual dialogue.

# New and Ongoing Services and Classes At Southwest Integrative Healthcare

#### Mindfulness Classes

Our in-office mindfulness course helps bring greater awareness to our lives. Sherril Howard continues to offer our beginner as well as intermediate classes periodically. Our patients continue to give the course excellent ratings! She guides participants through a deepening practice with meditations, homework, and all receive weekly recorded guided meditations. Look for emails about future offerings.

#### Alexander Technique and Movement Re-Education

Rochelle Reea continues to practice and teach to patients the Alexander Technique to improve people's posture and movement, and focuses on the prevention of musculoskeletal problems so we can age more gracefully. If interested, please call Rochelle at (520) 425-1690 or email her at <a href="mailto:Rochelle@painreliefthroughmovement.com">Rochelle@painreliefthroughmovement.com</a>. Mention you are an AgeWell Plan member for a discount.

## **Nutritional Counseling**

Tara Kligman is available after April 12 to see patients at our office for personal counseling on cooking and transitioning to a plant-based diet. If interested in scheduling a counseling session, please call her at 520-338-3739, or email her at taraveda@gmail.com.

## Somatic Yoga, with Stuart Moody

Stuart has taught yoga classes that have been very well received at our office and will continue to offer classes in the future. Look for emails about future classes.