L-MTHF AND FOLIC ACID: Implications for Folate Status in Women with MTHFR Variants  
By Lacy Kuester, MS, MPP, RDN

Editor’s note: As of July 17, 2020, this article has been revised and expanded to include the CDC’s folic acid guidelines for NTD prevention and additional information and references.

Methylenetetrahydrofolate reductase (MTHFR) is an enzyme critical to conversion of folate into its active form. Variants in the MTHFR gene decrease women’s ability to metabolize folate or folic acid (FA). Diminished folate status has been tied to a wide range of health concerns including neural tube defects (NTDs), breast cancer, and mood disorders. With some genetic testing services, like 23andMe®, providing information on MTHFR variants, more patients may seek recommendations from RDNs for how to eat for their genetic profile. This article aims to help dietitians understand the implications of the MTHFR gene and recommendations they can give to improve folate status.

Folate: Forms and Functions
Folate is a general term for the various forms of vitamin B9. Naturally occurring folate is found in foods such as green leafy vegetables, legumes, and liver. It is often referred to interchangeably with FA; however, the two are not the same. FA is a synthetic, heat-stable, more bioavailable form of folate used in processed foods, vitamins, and supplements. Folate acts as a coenzyme for many processes, including DNA synthesis and repair, cell division, hormone production, and the formation of neurotransmitters. It also reduces homocysteine levels. Folate deficiency is therefore, perhaps unsurprisingly, associated with poor health outcomes including birth defects, cancer, cognitive disorders, and cardiovascular disease.

When it was discovered that adequate folate status in pregnant women could reduce the incidence of NTDs, the United States took action. In 1998, the government mandated food fortification with FA, resulting in a 26% reduction in NTDs, a highly effective public health intervention. Concerns have been raised that population-wide folic acid exposure could increase the risk of certain cancers or mask anemia caused by vitamin B12 deficiency; however, subsequent research has alleviated many of these concerns. Given that some potential for unintended consequences remains, though, Europe has thus far abstained from mandatory FA food fortification. Most European countries do have policies encouraging periconceptual supplementation with folic acid.

MTHFR Variants and Implications for Health
Once absorbed, FA and some food folates require enzymatic conversion to L-5-methyltetrahydrofolate (L-MTHF), an active form of folate used by the body and the main form found in the blood. However, up to 60% of people have a specific variant (C677T) in at least one copy of the MTHFR gene, and as many as 25% of some populations have two variant copies. (Note that another variant, A1298C, can also affect the activity of MTHFR, but has less of an impact on its function and will not be addressed in this article.)

[Continued on page 4]
Dear WH Member,

It has been a pleasure to serve as your Women’s Health DPG Chair over the last year. Our membership community and executive committee have helped increase membership to 942 members (up 15% this year) of whom 23% are students!

This year we found that you, our membership, aligned with the performance indicators (PI) of the Academy of Nutrition and Dietetics in areas of nutrition knowledge and trends, skills to manage a variety of disease states, MNT, prevention and management and knowledge of nutrition through the lifespan. Our most recent expert survey in February revealed that members of our DPG are working in a variety of women’s health areas, including clinical practice, sports nutrition, public health, academics and entrepreneurial endeavors. In addition to our dedicated membership base, our success would not be achieved without the assistance of our executive committee.

I would like to thank our executive committee, Susan DuPraw (Academy DPG manager), Dawn Ballosingh (past-chair), Christine Quinn (treasurer), Catherine Sullivan (nominating committee chair), and Kathleen Pellechia (Academy House of Delegates representative) for their excellent support over the last year. I know Carol Plotkin (chair-elect) will incorporate her leadership skills in guiding the WH DPG to the next level. Congratulations Carol!

Our 2019-2020 committee also included innovative Women’s Health Report newsletter editor Lee Crosby (publications editor) and Jordan Stachel (assistant publications editor). Cutting-edge webinars were organized by Maya Feller (webinar coordinator). Social media was curated by Miri Rotkovitz (social media coordinator) and eBlasts and surveys created by Val Schonberg (membership chair) and Jen Scheinman (retention coordinator). Legislation and policy initiatives were spearheaded by Jenny Lengyl (policy & advocacy leader), Kathleen Pellechia (Academy House of Delegates representative) and Rita Kashi Batheja (reimbursement representative). Catherine Sullivan (nominating committee chair) and Lauren Manaker (nominating committee chair-elect) made sure our membership was well represented. Students Manisha Kisor Pise (student liaison), Lizenia Pazmin and Diane Tan drafted a social media questionnaire to be utilized soon. Kanisha Neal started recently as our diversity liaison.

In addition, I would like to acknowledge Leila Shinn (website coordinator) for her dedicated work these last 5 years and welcome Melissa Nelson (incoming website coordinator) as we launch a new website in the upcoming months.

Finally, what would we have done without Ginger Carney (awards coordinator) and her dedication to Women’s Health DPG over many years? We will miss you Ginger and Leila!

Our membership is made up of so many visionary leaders, so we encourage you to share your good news with us on our social media platforms! May we be able to support our mission of reaching nutrition experts and leaders in the dietetic profession of women’s health.

Our thoughts go out to all during this trying time of COVID-19.

Best wishes, Emma J. Fogt, MBA, MS, RDN, LDN, FAND

FROM THE CHAIR  Emma J. Fogt, MBA, MS, RDN, LDN, FAND
FROM THE EDITOR  Lee Crosby, RD, LD

We hope this spring finds you well as we all navigate the uncharted waters of COVID-19. Since the nutrition needs facing women who are pregnant, breastfeeding, or coping with chronic disease don’t take a break, even during a pandemic, at the bottom of this page, you’ll find links to the Academy’s telehealth resources and information on tools for providing nutrition care and education virtually.

In this issue, we’re also sharing the results of our member survey, with the practice areas and expertise of our diverse members. We’re also trying to better meet your needs by providing need-to-know information at a glance. So, instead of a single long feature article, you’ll find two faster reads: one article on folate, the MTHFR gene and women’s health, and another on possible links between vitamin D and postpartum depression. And because we could all use a pick-me-up, you’ll find a piece on the health benefits of chocolate, too!

We’re also changing up our reporting on the latest in women’s health research. Instead of zooming in on a single paper, on page 10 you’ll find a research roundup covering a variety of peer-reviewed articles on topics critical to women’s wellbeing: fertility and reproductive health, pregnancy, lactation and breastfeeding, women’s wellness nutrition, chronic disease and metabolic health, and aging and menopause.

Finally, another big change is coming to the newsletter starting with the fall 2020 issue: A new editor! In the new membership year, I’ll be stepping into the role of chair-elect for the DPG and handing the editorial reins to Jeani Hunt-Gibbon, MS, RD. A dietitian with a passion for women’s health and a background in writing and marketing, Jeani is going to take the newsletter to new heights. I’d also like to thank our current chair Emma Fogt, past chair Dawn Ballossingh, former editor Kathleen Pellechia, assistant editor Jordan Stachel, and our editorial and review team for their guidance and support over the past two years.

Of course, the most important person on the newsletter team is YOU! We invite you to get involved in one of the following ways:

- **Write an article:** We welcome article ideas on all topics relevant to women’s health.
- **Share an accomplishment:** Have you recently published a book or research paper, entered into leadership in your practice area, or received an honor or award? Let Women’s Health Report readers know via our Trendsetter and Trailblazers newsletter feature! Just send a 100-word summary of your accomplishment and a headshot.
- **Send a citation to a research paper** you’d like to see included in the Research Roundup.

Please send article ideas and submissions to publications@womenshealthdpg.org. We look forward to hearing from you!

Wishing you health,
Lee Crosby, RD, LD

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**TELEHEALTH RESOURCES FOR COVID-19 AND BEYOND**

By Jeani Hunt-Gibbon, MS, RD, CD

Even without the COVID-19 outbreak, many dietitians are choosing to use telehealth platforms to communicate with clients through video conferencing. In fact, the Academy of Nutrition and Dietetics endorses telehealth for MNT, and the Centers for Medicare and Medicaid have added MNT to their list of services that can be provided and billed through telehealth. While it can be difficult to get the same personal touch as you enjoy in person, video visits allow both dietitian and client to meet comfortably from home on a schedule convenient to both. Offering online visits can decrease overhead costs, too. However, note that you will likely need to be licensed both in the state in which you are physically practicing and the state in which the client resides. You must also make sure your liability insurance covers telehealth. In addition, reimbursement can be affected by which states you are practicing in, so be sure to do your homework before getting started and practicing across state lines.

Due to the communicability of COVID-19, telehealth has become not only convenient but essential for many nutrition practices. Yet, many are not set up with HIPAA-compliant telehealth platforms. The Academy provides information here, and we have put together a short list of HIPAA-compliant options below to help you choose the right one for your business:

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<thead>
<tr>
<th>Platform</th>
<th>Cost</th>
<th>Highlights</th>
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<tbody>
<tr>
<td>Doxy.me</td>
<td>$0 - $50/month</td>
<td>Free, unlimited video chat. Upgrade for HD video, text/email notifications, teleconsent</td>
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<tr>
<td>Practice Better</td>
<td>$0 - $79/month</td>
<td>Scheduling, video chat, billing, charting, client messaging, client ed</td>
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<tr>
<td>Simple Practice</td>
<td>$39 - $59/month</td>
<td>Video chat, scheduling, messaging, billing</td>
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<tr>
<td>Healthis</td>
<td>$29 - $149+/month</td>
<td>Scheduling, video chat, billing, charting, client messaging, client logging, client ed</td>
</tr>
<tr>
<td>Zoom for Healthcare</td>
<td>$200+/month</td>
<td>HD video &amp; audio, integration with Epic, medical device integration, collaboration tools, recorded session review</td>
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Have a favorite telehealth platform? Share it with us on social media!

Facebook: @WHDPG
Twitter: @WomensHealthDPG
Instagram: @WomensHealthDPG
L-MTHF AND FOLIC ACID  Continued from page 1

The C677T variant results in less efficient conversion of folate or FA to L-MTHF. The CT (heterozygous variant) genotype of MTHFR results in approximately 60% of the enzyme activity of the wild-type CC genotype. The TT (homozygous variant) genotype results in only about 30% of the enzyme activity of the wild-type and their lower enzyme activity can make it more difficult for them to improve their folate status, although supplementing with FA effectively raises folate levels across MTHFR genotypes.

Individuals with C677T MTHFR variants have in some studies been found to have a higher risk of some illnesses that can be related to folate status, including hypertensive, neurological disorders, some cancers, birth defects, and mood disorders. Breast cancer is a commonly studied disease state with respect to MTHFR genotype. A meta-analysis of 75 studies found that women with MTHFR variants develop breast cancer at a higher rate than women with the wild-type gene. Women with the TT genotype experience a 17% greater incidence of breast cancer (p = .001) while women with the CT genotype experience a 5% increased incidence (p = .005).

FA and L-MTHF

FA is the only form of folate tested for the prevention of NTDs in randomized controlled trials and is highly effective for this purpose. The body converts most FA into L-MTHF, the main circulating form of folate; however, a small amount of unmetabolized FA remains in circulation even in a fasted state in most Americans. Unmetabolized FA appears generally safe, and as noted in a review by Selhub et al., its physiological significance, if any, remains unknown.

Questions have also been raised about high levels of FA intake and cancer risk. The majority of meta-analyses examined in a 2015 National Toxicology Program Monograph showed no significant effect of FA supplementation on cancer risk, and a 2013 meta-analysis published in The Lancet found no increased risk from FA supplementation over a mean follow-up of 5.5 years. However, relatively few long-term studies (>10 years of follow-up) have been conducted, and given the time horizon over which cancer often develops, further research is warranted. Avoiding supplementation above the tolerable upper limit of 1000 mcg of FA per day appears prudent, unless higher doses are prescribed by a physician.

FA is effective at improving women’s folate markers across MTHFR genotypes. Recent human studies have attempted to determine whether supplementing directly with synthetic L-MTHF could also effectively raise women’s folate markers. In theory, L-MTHF would provide the body directly with the form of folate that bypasses the need for enzymatic conversion via MTHFR and prevent the introduction of unmetabolized FA. While these L-MTHF clinical studies are small and have not been conducted among pregnant women, they have shown that L-MTHF significantly improves folate markers in women of childbearing age. When provided in an equimolar dose to FA, L-MTHF improves both short-term (plasma folate) and longer-term (red blood cell folate and/or homocysteine) markers of women’s folate status at least as well as FA. Moreover, a single-dose study found that L-MTHF raised plasma folate levels more rapidly than FA in both CC and TT C677T genotypes, and that the time to reach maximum was significantly slower for the TT genotype relative to the CC genotype when FA was administered, but not L-MTHF. A second study found that serum folate rose significantly faster over the first four days in folate-insufficient women given high doses of L-MTHF when compared with an equivalent regimen of FA. Longer-term, larger-scale research is needed to determine if L-MTHF is effective for reducing NTD risk and if it could offer additional benefit to those with MTHFR variants, as well as to assess any potential for harm.

Recommendations for RDNs

All women, but particularly those with MTHFR variants, can benefit from an RDN’s guidance to improve their folate status. General recommendations for improving folate status align nicely with MyPlate guidelines:

- Consume leafy greens and asparagus, as they are especially rich in dietary folate. In fact, the word folate is derived from the same Latin root - foli - as “foliage.”
- Include legumes. Lentils and edamame are both particularly high in folate, but other beans are good sources as well.
- Consider your grains. Refined grains are enriched with FA, but they tend to be overconsumed in the U.S. and their overconsumption is linked to detrimental health effects. However, in women of reproductive age, the FA added to refined grains has been clearly shown to decrease NTD incidence, so patients’ age and reproductive status should be considered.
- Dietary folate likely cannot meet women’s elevated folate needs during pregnancy. Current CDC guidelines specify that all women of reproductive age should supplement with 400 mcg of FA per day, not other forms of folate, regardless of MTHFR status.
- In all women, vitamin B12 status should also be optimized, since it plays a role in the folate cycle and is key to basic cellular function.

Improving women’s folate status can have meaningful and wide-reaching implications for their health. While neither the American Academy of Family Physicians nor the American College of Obstetrics and Gynecology recommend testing for MTHFR variants, with direct-to-consumer genetic tests making information such as MTHFR status more readily available to the public, RDNs can expect to encounter patients asking how
their diet interacts with their personal genetic profile. Currently, there are no differential recommendations for women with MTHFR variants. RDNs should monitor the ever-growing body of research on this topic.

References


Dawn Ballossingh, MPA, RDN, LMNT, was selected as one of the top 10 dietitians in the nation for 2020 by Today’s Dietitian magazine. Ballossingh was chosen from hundreds of nominees for her tireless work in women’s and children’s nutrition and her visionary leadership.

Ginger Carney, MPH, RDN, LDN, IBCLC, RLC, FILCA, FAND, was selected to join the task force for the 3 Year Nutrition & Breastfeeding Registry Project. The task force is made up of Academy members who have experience and a strong interest in the support of breastfeeding and lactation, including representatives from the Pediatric Nutrition Practice Group as well as the Women’s Health DPG. The task force was formulated to offer expertise from members of the Academy on breastfeeding issues facing the country and provide input on any legislation that may affect breastfeeding mothers and babies.

Miriam Erick, MS, RDN, CDE, LDN, recently attended a two-day conference of the 3rd International Colloquium on Hyperemesis Gravidarum (ICHG 2019) in Amsterdam. Erick was among 125 attendees who included former patients, patient-presenters and researchers from around the globe. Her two posters included her recent letter to the editor in the journal Clinical Nutrition, entitled “Charlotte Bronte, refeeding syndrome and a case for checking a life or death electrolyte,” and “Possible severe maternal nutrient deficiencies involved with fetal compromise including increased risk of intrauterine fetal demise (IUFD).” The ICHG group is now in formation to become a formal professional society.

Miriam also recently published an updated edition of Take Two Crackers and Call Me in the Morning! A Real-life Guide for Surviving Morning Sickness.

Angela Grassi, MS, RDN, LDN, recently published the 2nd edition of The PCOS Workbook: Your Guide to Complete Physical and Emotional Health, a practical and comprehensive guide that helps patients understand not just the physiology of PCOS but also what can be done about it. Proven to reduce anxiety, depression, and problematic eating, The PCOS Workbook provides a non-diet approach to managing PCOS and creating sustainable lifestyle changes. Step-by-step guidelines, questionnaires, and exercises will help your patients learn skills and empower them to make positive changes in their life that might not get rid of PCOS, but will help them live with it harmoniously.

The PCOS Workbook is available at www.PCOSnutrition.com.

Jacqueline B. Marcus, MS, RDN, LDN, CNS, FADA, FAND. Protein is a new, consumer-focused book by award-winning author Jacqueline Marcus that provides a rational balance between science and practice about the use and misuse of this very popular nutrient. Chapters include Protein Basics, Amino Acids and BCAAs, Protein Powders, Collagen Close-Up, Keratin Know-How, High-Protein Diets and Protein and Aging. Color photographs and tasteful recipes create a very engaging addition to professional or personal libraries.

Protein is available at Amazon.com.

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Leila Shinn, MS, RDN, was elected chair-elect of her current graduate program’s Nutritional Sciences Graduate Student Association in September 2019. She also began as a student member of the American Society for Nutrition’s Nutrition Translation Advisory Board in October 2019. Additionally, she has served as the Women’s Health DPG website coordinator since June 2015. While obtaining her master of science in clinical nutrition at Rush University Medical Center in Chicago, Shinn became involved with the Chicago Academy of Nutrition and Dietetics where she served as web co-chair for 1 year and stayed actively involved in the Community Outreach Committee. In June 2019, she became the Illinois Academy of Nutrition and Dietetics’ treasurer, and the membership liaison for the Research DPG.

Val Schonberg, MS, RDN, CSSD, LDN, N AMP, spoke at the 30th Annual North American Menopause Society Meeting in Chicago at the Breakfast Roundtable on Nutrition for Midlife and Beyond. The purpose of the roundtable was to review and discuss research from the fields of nutrition, eating disorders and weight management so that health providers working with midlife women are able to differentiate between what is “pathological” and what is “normal,” and understand what therapies or strategies are recommended for managing body dissatisfaction while promoting positive health outcomes.

Leila Shinn

Val Schonberg

CHOCOLATE: DESSERT WITH BENEFITS By Diane Vizthum, MS, RD, CSSD, LDN

Chocolate is typically thought of as decidedly indulgent, but it can also benefit women’s health. Chocolate starts as a seed of the Theobroma cacao tree and contains many of the protective nutrients found in plant-based foods. Theobroma cacao means “food of the gods,” and beverages made from cacao beans were used for medicinal and ceremonial purposes thousands of years ago in Central and South America.1

One ounce of 70-85% dark chocolate (about one-quarter of a typical 100-gram bar) contains significant amounts of the dietary reference intakes (DRIs) of many key nutrients for women: 56% of the DRI for copper, 20% of magnesium, 12% of phosphorus, 12% of zinc, 19% of iron for women aged 31-50 and 42% of iron for women aged 51-70. Chocolate is also a significant source of flavanol polyphenols, and, by weight, it contains significantly more polyphenols than broccoli, raspberries, strawberries, blueberries, cranberries, grapes, and onions.2 On a per-calorie basis, cocoa powder is an even richer source of these nutrients, as even dark chocolate is high in saturated fat and can include added sugars.

The primary flavanol in chocolate, epicatechin, is believed to increase nitric oxide (a vasodilator), increase antioxidant and anti-inflammatory activity and increase mitochondrial proliferation.3 Multiple studies show improved flow-mediated dilation (dilation of a blood vessel with increased blood flow), decreased platelet adhesion and decreased pro-inflammatory cytokines after consumption of dark chocolate or a drink with cocoa flavanols.4-10 Epidemiological studies show consumption of chocolate is associated with decreased risk of coronary heart disease,11-13 stroke,13 and death from cardiovascular disease,13-15 plus improved scores on cognitive and memory tests.16,17 So, the next time you indulge in a little dark chocolate, you’ll know you’re also reaping the benefits of this tasty seed.

References

Diane Vizthum is a research dietitian at the Johns Hopkins School of Medicine Institute for Clinical and Translational Research.
**SERUM VITAMIN D AND POSTPARTUM DEPRESSION—IS THERE A CONNECTION? A Brief Review**

By Annalise Rosik

Introduction. The postpartum period brings a host of emotional, hormonal, and psychological changes that may be influenced by nutritional status. Low vitamin D is one of the most common deficiencies worldwide, with pregnant women even more likely to be deficient than the general population due to dramatic increases in active hormone 1,25(OH)₂D.⁴⁻⁶ The prevalence of postpartum depression (PPD) is conservatively estimated to occur after 10-40% of births with a host of etiologies contributing to this condition.⁴ In addition to its involvement in calcium homeostasis, vitamin D has a wide array of roles in the body as a hormone, transcription factor, and neurosteroid.⁵,⁶ As a neurosteroid, it contributes to dopamine synthesis and transport and may also influence gamma aminobutyric acid (GABA) and glutamate concentrations in neurosynaptic regions. Ongoing research has connected vitamin D deficiency with adverse effects in neurological functioning including proinflammatory shifts, reduced neurotransmitter signaling, and disrupted brain development.⁷⁻⁹ It remains unclear how vitamin D deficiency might translate to the postpartum period and what effect, if any, it might have on depression.¹⁰,¹¹ Therefore, this review aims to answer the question: Is serum vitamin D related to incidence of postpartum depression?

Methods. A scoping review of the literature in PubMed and University of Southern California Library databases was conducted. Studies from 2010-2019 were included; most were of cohort design. Studies conducted in China, Taiwan, Netherlands, Denmark, Australia, Turkey, and the United States were included to account for potential hemi-continental differences. A total of ten articles was chosen: seven cohort, one case-control, and two cross-sectional studies.

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>STUDY DESIGN</th>
<th>SAMPLE</th>
<th>KEY RESULTS</th>
<th>LIMITATIONS</th>
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<tbody>
<tr>
<td>Accott et al, 2016</td>
<td>Cohort</td>
<td>African American women ages 18-44 (n=91)</td>
<td>After adjusting for confounders: slight relationship b/w high vit D and lower EPDS score (p=0.050)</td>
<td>Serum was assessed 9-15 years after collection. Vitamin D was assessed only during pregnancy. No consideration for season of birth.</td>
</tr>
<tr>
<td>Brandenburg et al, 2012</td>
<td>Cohort, cross-sectional</td>
<td>Dutch women (n=4389)</td>
<td>28% of women had depressive symptoms on CES-D test (≥16). Women were generally younger, had a higher BMI, lower education level, and were often ethnic minorities (p&lt;0.001). Women with low vitamin D had high levels of depressive symptoms (p&lt;0.001).</td>
<td>Self-reported depression survey. No data on fortified foods or outdoor/physical activity.</td>
</tr>
<tr>
<td>Fu et al, 2014</td>
<td>Cohort</td>
<td>Chinese women (n=213)</td>
<td>Correlation found before and after adjustment between low vit D and high EPDS score (P&lt;0.0001)</td>
<td>Vit D collected at only one-time point. No data on vit D during pregnancy.</td>
</tr>
<tr>
<td>Gould et al, 2015</td>
<td>Cohort</td>
<td>Australian women (n=1040) from the Optimize Maternal Infant Outcome cohort</td>
<td>Only the DHA control group had fewer PPD symptoms 6 weeks after birth if their cord blood 25(OH)D was &gt;50 nmol/L (P&lt;0.001).</td>
<td>DNA supplemented in treatment group may have acted as a protective factor against PPD even in women with low vit D. No established criteria for categorizing vit D status by cord blood.</td>
</tr>
<tr>
<td>Gur et al, 2014</td>
<td>Cohort</td>
<td>Turkish women (n=179)</td>
<td>Both high (&gt;31 ng/mL) and very low (&lt;10 ng/mL) levels of vit D associated with risk of PPD.</td>
<td>Failed to take vit D levels again at each follow-up EPDS administration. Sample size was small.</td>
</tr>
<tr>
<td>Lamb et al, 2018</td>
<td>Cohort</td>
<td>125 mixed group (mostly white, some Asian and black women), 88 at third time point follow up.</td>
<td>Serum 25(OH)D levels and postpartum symptoms were significantly different between time of birth and early pregnancy (P&lt;0.001). Women with EPDS scores of ≥10 were more likely to have low serum vit D (P=0.039).</td>
<td>Small sample size. High attrition. Time gap between vit D sample and EPDS administration.</td>
</tr>
<tr>
<td>Lin et al, 2019</td>
<td>Cross-sectional</td>
<td>Taiwanese women (n=120)</td>
<td>23 women had PPD diagnosed by EPDS. No association was seen between vit D and PPD incidence. Low vit D was seen in both groups. Prevalence of deficiency highest in ages 30 to 39 (36.4%).</td>
<td>Vit D was not sampled during perinatal period.</td>
</tr>
<tr>
<td>Murphey et al, 2010</td>
<td>Cohort</td>
<td>Convenience sample (n=97)</td>
<td>Adjusted analysis showed that the sum of EPDS scores over time was lower in group with vit D levels above 32 ng/mL (p=0.02).</td>
<td>Did not adjust for stressful life events or support systems. No follow-up EPDS was administered. Results not statistically significant. Convenience sampling.</td>
</tr>
<tr>
<td>Nielsen et al, 2013</td>
<td>Case-control</td>
<td>Danish women from National Birth Cohort (n=91000)</td>
<td>There was no association between serum 25(OH)D3 and prevalence of PPD (p=0.08). Both high (≥80 nmol/L) and low (&lt;15 nmol/L) vit D levels were found to be risk factors for PPD.</td>
<td>Serum was assessed 9-15 years after collection. Vitamin D was assessed only during pregnancy. No consideration for season of birth.</td>
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SERUM VITAMIN D AND POSTPARTUM DEPRESSION—IS THERE A CONNECTION? Continued from page 7

Results. Seven studies supported an association between low and very low vitamin D levels and postpartum depression incidence.13-19 One study showed no association and two showed a mixed result where PPD occurred more often in women with either very low vitamin D (<10-15 ng/mL) and high vitamin D (>31 ng/mL).20,21,22 Summation of current evidence suggests that a sufficient (but not high) vitamin D serum level is linked with either lower or neutral risk for PPD.

Discussion: Seven of the ten studies evaluated did indeed find a link between low vitamin D and PPD. Authors of these articles attributed the connection to brain immunoregulatory effects of vitamin D, increased inflammation, lack of free vitamin D, altered hormonal processes in the presence of deficiency, and changes in neurotransmission.13,15,17,19,22 It should be noted that inconsistency on a few major points exists throughout this body of literature. Although serum 25(OH)D was collected in many of the studies, the time points for collection and cut-off categorizations for vitamin D status vary. This may be due to a lack of data informing the appropriate levels of vitamin D during each trimester of pregnancy. Additionally, serum 25(OH)D was not always drawn during pregnancy and after birth. Vitamin D levels during pregnancy cannot be assumed to reflect vitamin D in the postpartum period. In many of the studies, PPD symptoms were evaluated shortly after birth, even though it is preferable to gather this data two weeks after birth when the majority of PPD cases present.23 Data on birth month, vitamin supplementation, family support, prenatal and perinatal vitamin D status, and season of blood collection were often missing.24 Studies should gather data on diet as well as estimated daily sun exposure pre/post pregnancy to create a more complete picture of PPD risk factors related to vitamin D.

With the evidence available at this time, effects of vitamin D on postpartum depressive symptoms cannot be determined fully. Although most of the data supports an association between very low vitamin D (<10 ng/mL) and PPD, there is a need for more consistent data collection. Other papers support the relationship between low serum vitamin D and risk for PPD, but were not included due to study attrition, sampling methods, and possible issues with statistical analysis methods. Future research including more longitudinal data with additional collection points of serum vitamin D and EPDS is needed. It would also be beneficial to consider vitamin D binding protein, which increases during pregnancy and may impact serum 25(OH)D.25 Additionally, only a small body of research exists to determine appropriate vitamin D status during each stage of pregnancy, making it difficult to know the most optimal period for nutrition intervention.

CONCLUSIONS AND PRACTICE IMPLICATIONS:

While the connection between vitamin D status and PPD warrants further research, given a potential connection between vitamin D deficiency (and possibly excess vitamin D) with PPD, and the other important roles of vitamin D in the body, it's prudent to ensure that women are getting adequate but not excessive vitamin D during pregnancy. The recommended dietary allowance (RDA) for vitamin D during pregnancy is set at 600 IU/day.26 Women should get this amount through food, supplements, and potentially sensible sun exposure. The tolerable upper intake level (UL) for pregnant and breastfeeding women is 4000 IU/day; women should not exceed this amount unless recommended by their healthcare provider.26 Adjustments should be made for women with documented low or high serum 25(OH)D, because ensuring optimal vitamin D status in pregnant women is not only good practice, but may contribute to mental health as well.

References:

24. Annullise Rosik is a dietetic graduate student at USC obtaining a master’s degree in healthspan, nutrition, and longevity. As an AFPAA-certified personal trainer and daughter of a psycholo-gist, she is passionate about inspiring holistic lifestyle change. She hopes to work as an outpatient dietitian upon graduation in May.
QUICK-AND-EASY GUIDE TO YOUR WH DPG RESOURCES

Women’s Health DPG Website: Access webinars, past newsletter issues, the latest updates, and more. Logging in is easy: Your username is your email address and your password is your Academy Number. [http://www.womenshealthdpg.org](http://www.womenshealthdpg.org)


Webinars: Earn FREE continuing education with webinars in women’s health nutrition: Mark your calendar for these exciting upcoming webinars:

- **May 6:** [Metrics and Measuring Outcomes](#). Jule Ann Hestenberg, PhD, RD, LDN, FAND
- **June 10:** [Nutritional Interventions for Optimizing Women’s Health in Menopause and Beyond](#). Val Schonberg MS, RDN, CSSD, LDN, NCMP

Can’t make a webinar? View recordings here: [http://womenshealthdpg.org/webinars/](http://womenshealthdpg.org/webinars/)

To watch recordings of past webinars or register for an upcoming webinar, please visit [http://womenshealthdpg.org/webinars/](http://womenshealthdpg.org/webinars/).

Newsletter archive: Read about women’s health topics in the newsletter archive: [http://womenshealthdpg.org/newsletters/](http://womenshealthdpg.org/newsletters/)

Annual women’s health nutrition awards: Nominate a colleague for Excellence in Practice in Women’s Health, Emerging Professional in Women’s Health, and Outstanding Student in Women’s Health: [http://womenshealthdpg.org/members-awards/](http://womenshealthdpg.org/members-awards/)

Electronic mailing list: Join for updates and breaking news: [https://gaggle.email/join/whdpg@gaggle.email](https://gaggle.email/join/whdpg@gaggle.email)

By joining the WH DPG electronic mailing list (EML), you agree to adhere to these guidelines. Subscription and participation in the WH DPG EML is a member benefit. All EML communications should be sent to whdpg@gaggle.email. Once you receive your welcome email, you can click on “My Settings,” at the bottom of the email to update your name, email and how often you’d like to receive messages.

E-Blasts: Receive updates with the latest news and resources from the WH DPG.

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PUBLIC POLICY UPDATES  
By Jennifer Lengyel, MS, RDN, LDN and WH DPG Policy and Advocacy Leader

**New Action Center Open**

Use your voice to advocate for the future of nutrition and dietetics – visit the Academy’s [new action center](#) and urge your members of Congress to support legislation that impacts America’s health!

**Dietary Guidelines for Americans**

The Dietary Guidelines Advisory Committee draft report meeting will be held in June (date TBD). For more information, visit the DGA website here: [https://www.dietaryguidelines.gov/work-under-way/get-involved/attend-meeting-get-involved](https://www.dietaryguidelines.gov/work-under-way/get-involved/attend-meeting-get-involved)

To learn about getting CPE credit for watching the live event, visit the DGA’s CPE page: [https://www.dietaryguidelines.gov/continuing-professional-education-credits/how-obtain-cpe-credits-registered-dietitians](https://www.dietaryguidelines.gov/continuing-professional-education-credits/how-obtain-cpe-credits-registered-dietitians)

**Coronavirus Funding Bill Signed Into Law; USDA Releases Pandemic Guidance for Nutrition Programs**

A bill to provide $8.3 billion to fight the coronavirus was recently passed into law. In response to school closings due to coronavirus, the U.S. Department of Agriculture’s Food and Nutrition Services’ nutrition assistance programs, including SNAP, WIC and child nutrition programs, now have flexibilities that allow them to respond to on-the-ground realities and support response and recovery efforts. For more details, visit USDA’s [website](#).
**Fertility and Reproductive Health**

Maternal selenium, copper and zinc concentrations in early pregnancy, and the association with fertility. Women with lower plasma concentrations of selenium had a 46% higher relative risk for subfertility than women with higher levels of selenium. Women with lower zinc or lower selenium concentrations had a longer (~2 weeks) time to pregnancy. No links were seen with copper status. 


**Pregnancy**

Preconception and prenatal nutrition and neurodevelopmental disorders: a systematic review and meta-analysis. Taking a folic acid/multivitamin supplement during pregnancy was linked to a 36% lower risk of autism-spectrum disorder (ASD) in the offspring, according to a meta-analysis of 6 prospective cohort studies. Data available relating other dietary factors (e.g. coffee, seafood intake) to ASD and ADHD were inconclusive. Li M, Francis E, Hinkle SN, Aijarapu AS, Zhang. Nutrients. 2019 Jul 17;11(7). pii: E1628.

**Lactation and Breastfeeding**

Breastfeeding and childhood obesity: A 12-country study. A multinational, cross-sectional study of infant breastfeeding found that relative to exclusive formula feeding, exclusive breastfeeding of infants was linked to lower risk of obesity and high body fat later in childhood. Ma J, Qiao Y, Zhao P, et al. Matern Child Nutr. 2020 Mar 5:e12984.


Infant milk feeding and bone health in later life: findings from the Hertfordshire cohort study. Infant males, but not females, who were exclusively breastfed had higher lumbar bone mineral density later in life (mean age 64) than those who received breast milk alternatives. Carter SA, Parsons CM, Robinson SM, et al. Osteoporos Int. 2020 Apr;31(4):709-714.


Women’s Nutrition

Adherence to the World Cancer Research Fund/American Institute for Cancer Research recommendations and the risk of breast cancer. Higher adherence to eight diet and lifestyle guidelines recommend by the WCRF/AICR was linked to a 40% lower risk of breast cancer in a European case-control study. Turati F, Dalmartello M, Bravi F, et al. Nutrients. 2020 Feb 26;12(3).

Nutritional factors, physical health and immigrant status are associated with anxiety disorders among middle-aged and older adults. Female sex, low fruit and vegetable intake, and high pastry intake are among the variables linked to a higher risk of anxiety disorders in a large Canadian cohort. Davison KM, Lin SL, Tong H, Kobayashi KM, Mora-Almanza JG, Fuller-Thomson E. Int J Environ Res Public Health. 2020 Feb 26;17(5). pii: E1493.

High glycemic index and glycemic load diets as risk factors for insomnia: analyses from the Women’s Health Initiative. Women consuming diets with the highest overall dietary glycemic index (GI) had a higher risk of insomnia compared to those with the lowest dietary GI. High intakes of added sugars, starch, and non-whole/refined grains were linked with higher risk of developing insomnia, while high whole fruit and vegetable intake was linked to lower risk. Gangwisch JE, Hale L, St-Onge MP, et al. Am J Clin Nutr. 2020 Feb 1;111(2):429-439.

The risk of urinary tract infection in vegetarians and non-vegetarians: a prospective study. People consuming a vegetarian diet had a 16% lower risk of developing a urinary tract infection (UTI). This may be due to avoidance of bacterial strains found in meat and pork that can cause UTIs via the intestinal-stool-urethra route. High phytochemical content of vegetarian diets may also be protective. Chen YC, Chang CC, Chiu THT, Lin MN, Lin CL. Sci Rep. 2020 Jan 30;10(1):906.

**Chronic Disease and Metabolic Health**

Evening eating linked to poorer heart health in women. For every one percent of calories women consumed after 6pm, heart health score declined. Consuming more calories after 6pm was linked to higher blood pressure, higher BMI, and poorer long-term blood glucose control. Makarem N, Sears DD, St-Onge MP, et al. Lecture at: American Heart Association Scientific Sessions 2019; November 2019; Philadelphia, PA.

Women gain significant weight after breast cancer. An Australian survey found 63.7% of respondents reported gaining weight after a breast cancer diagnosis, with an average gain of 9.07 kg (20 lb). In 77% of respondents the gain took place within 18 months of diagnosis, providing a “window of opportunity” for diet and lifestyle interventions. Fe C, Cave AE, Naidoo D, Bilianski K, Boyages J. BMC Cancer. 2020 Feb 20;20(1):113.

Higher serum levels of vitamin D are associated with lower blood glucose levels. Higher serum levels were linked with lower blood glucose levels in a cross-sectional sample of pre- and post-menopausal women, adding to a body of evidence that vitamin D sufficiency benefits glycemic control. Valladares T, Cardoso MR, Aldrighi JM. Menopause. 2019 Jul;26(7):781-784.

Aging & Menopause

Gastric responses to acute psychological stress in climacteric women: a pilot study. Perimenopausal women had lower gastric motility in a basal state than pre- or postmenopausal women, but did not experience a decrease in gastric motility during stress tests, as other women did. Changes in sex hormones during perimenopause may contribute. Huerta-Franco MR, Vargas-Luna M, Somoza.


Long-term weight loss maintenance, sex steroid hormones, and sex hormone-binding globulin. In a RCT of overweight/obese postmenopausal women, those who lost weight in the 12-month intervention and sustained their weight loss for another 18 months had lower free estradiol and testosterone levels, and increased sex hormone-binding globulin levels. Duggan C, Tapsoba JD, Stanczyk F, Wang CY, Schubert KF, McTiernan A. Menopause. 2019 Apr;26(4):417-422.

Lipid profile differences during menopause: a review with meta-analysis. A meta-analysis of 66 studies found that triglycerides, LDL cholesterol, total cholesterol, and total cholesterol to HDL ratio were all higher in postmenopausal women than premenopausal women, which was partly attributable to age. Lipid changes after menopause put women at increased risk of heart disease and stroke, and should be addressed. Ambikairajah A, Walsh E, Cherbuin N. Menopause. 2019 Nov;26(11):1327-1333.

HOUSE OF DELEGATES “DELEGATE DISH”: Transforming the House of Delegates – One Meeting at Time

By Kathleen Pellechia, MS, RDN, WH DPG Academy House of Delegates Representative

I am now in my second year of being a delegate, and one of the things I am excited about is how the House of Delegates (HOD) is actively in the midst of transforming itself. At our fall 2018 HOD meeting at FNCE® we set forth on a journey to look at how the HOD could evolve to be more agile, responsive, and diverse. While we can’t tackle everything at once, a few things have already changed. This year, in response to delegate input, a second virtual meeting was added. There was already a spring virtual meeting, but a new one was added in the winter. On January 25th, we hunkered down at our computers for a 5.5-hour interactive online meeting where we heard from experts and then interacted with our small groups. We were seamlessly moved in and out of the large and small virtual rooms. The topic was evidence-based practice. The backgrounder and the meeting summary are available on eatrightpro. At this link you can also find materials from past HOD meetings.

Besides the addition of the winter virtual meeting, the HOD has launched new task forces this year, including one to look at how we select the mega issue and one on how we can use town halls to engage with members on important topics. I applied for and was selected to be on the task force for the town hall approach, and I look forward to representing the Women’s Health DPG. We have had one call so far and are beginning to research what makes an effective virtual town hall meeting. If you have participated in one or have ideas, please let me know.

As we move further into spring and summer, I will share updates as we prepare for FNCE® 2020 in Indianapolis. As always, I try to elevate topics related to women’s health to the HOD and try to elevate the dietetics profession overall on your behalf. But I can’t do that alone. Email me at kmpellechia@gmail.com anytime with questions or concerns. I’m also happy to set up a web conference with you so we can chat face to face, or you can engage with me on LinkedIn or Twitter. Hope to hear from you soon!
We are growing! As of March 23, 2020, the WH DPG had 942 members. This total includes 682 active, 2 associate, 11 international, 3 lifetime, 17 retired and 218 student members. Last year at this time we had 841 members, and the biggest increase is among active members!

Recognizing 50-Year Members
The Women's Health DPG is proud to recognize a special group of people who have been members of the Academy for 50 continuous years. They have been instrumental in the growth and development of the Academy through their ongoing support and contributions to the profession. Congratulations to:

- D. Barron-Debro
- Bettie Stanislao
- Marjorie Magness
- Suzanne Rymer
- Mary Oliver

Request for Women’s Health DPG Award Nominations

**Excellence in Practice Award** – this award is to recognize a DPG member who has exhibited outstanding service, dedication and/or innovation to the field of women’s health and nutrition.

**Emerging Professional Award** – this award is to recognize a member of the DPG who has exhibited interest and initiative in the area of women’s health.

**Outstanding Student Award** – this award will recognize two (2) student members of the DPG who have exhibited outstanding service, leadership and accomplishment.

Each nomination requires two (2) letters of recommendation.

Please consider nominating a qualified candidate or yourself!

**Deadline: JUNE 1, 2020**

Our members specialize in a variety of practice areas, as you can see in the above infographic illustrating the results of our member survey.
**MEMBER PROFILE: Swati Scott, RD, IBCLC**

**Swati Scott, RD, IBCLC** is a registered dietitian and lactation consultant in Canada. She has dedicated her practice to helping families access food and feel supported in their breastfeeding journeys. She truly believes families should eat together and get the support they need to breastfeed and set their infants up for long healthy lives. Here, she shares with us her journey to becoming an International Board Certified Lactation Consultant (IBCLC) and her thoughts on women's health nutrition.

**What are your areas of expertise within the field of nutrition?**

My first love has always been public health focused on maternal, infant and early childhood populations, which led me to lactation as my main area of expertise. I have also worked in mental health, senior health and primary care settings.

**How did you become interested in dietetics and women’s health?**

Over the years, I gravitated toward working with female clients. When I became pregnant for the first time, I became more interested in maternal health and infant feeding. I then realized how underrepresented this area is in the field of dietetics. Through all my years of training, I learned little about lactation. At some point in history, this specialty was transferred to the nursing profession. I decided to learn as much as I could about it.

**Please briefly describe your training, nutrition-related jobs and current role.**

I attended the University of Alberta in Edmonton and completed my dietetic internship at Regina General Hospital in Saskatchewan. I have worked in several prenatal programs. However, in Canada, we do not have a well-organized program such as WIC. Some of these programs are funded federally and some locally. The federally funded programs are part of the Canada Prenatal Nutrition Program, and they were well funded initially. However, sadly, the funding has not kept up with the economy, and there is much variation in how they are run. This means that dietitians get little or no time with clients. I have also worked for locally funded programs, which often run on a shoestring budget, so unfortunately, dietitian time with clients is limited there as well.

I obtained my IBCLC in 2012. It's an essential qualification for anyone working in pediatrics or maternal health. One area that I have combined with this work is food security. In my opinion, breastfeeding goes hand in hand with the issue of food security. Another topic I am concentrating on is infant feeding during emergency situations, which is also underrepresented in public health discussions. However, some amazing groups like the Infant and Young Children Feeding in Emergencies group at the WHO and the International Lactation Consultant Association, as well as Safely Fed Canada are beginning to address it.

**What’s your greatest professional achievement? The most rewarding part of your job?**

Getting my IBCLC. It wasn’t easy! Most recently, I have been invited to speak to health care providers on how to work with families as a dietitian and lactation consultant. I love to educate and inform families and those who support families on how to feed and nourish themselves.

**What would you most like to see change in the field of nutrition as it pertains to women’s health?**

I'd like to see more attention paid to lactation. It is a highly emotionally charged and political issue, and it's not given the importance it deserves. We need to support moms much more than we do now. We know most mothers want to breastfeed, but the lack of foundational skills and knowledge amongst healthcare professionals can make this more difficult for them. I have been fortunate enough to have amazing mentors who have helped me understand this.

For example, most if not all the documents focusing on pediatric obesity mention nothing about the impact of breastfeeding. Too often, when it comes to breastfeeding, the generally accepted belief is that it's a discussion that happens between primary care providers and mothers/mothers-to-be. Actually, it's a discussion that needs to happen well before that. We should not wait until pregnancy to have the discussion about breastfeeding. I believe breastfeeding is a societal conversation that needs to include everyone. One of my all-time favorite video clips was put out by BreastfeedLA: [https://www.youtube.com/watch?v=tBhP7qrJ5ac&t=66s](https://www.youtube.com/watch?v=tBhP7qrJ5ac&t=66s). I have used this video in all my presentations to illustrate how we can address this need.

**What do you see as the biggest challenges and opportunities for future RDNs who want to work in this field?**

Many other professions want to take over the realm of nutrition, and if RDNs aren't careful, they will be squeezed out. I see this every day locally, provincially, and nationally in Canada. We all have to support each other and connect more efficiently.

Yet there are tremendous opportunities for future RDNs. I think nutrition has never been on the agenda more than it is today. Everyone is talking about it. It truly impacts everything, and I think we need to communicate this effectively to those who hold power. I feel strongly that we need to bring back cooking together and eating together as families. We need to participate, engage and advocate collectively and be visible.

**What advice would you give incoming RDNs who are interested in pursuing a career in women's health?**

Know how nutrition impacts women's health throughout the lifecycle from preconception to aging. Specialize in a specific area rather than trying to do it all. While chronic disease management is a taking over, there are many areas that still need attention, so carve out a niche that fits your philosophy and passion.

**What is your nutrition philosophy?**

Eat whole foods, cook them together, eat together and stay away from industrial (highly processed) food most of the time!

**Any other tidbits you want to share with our community?**

Be a perpetual learner. Don't be afraid to ask for help. Share your expertise. Learn what you can to help spread the word about how breastfeeding is the physiological norm. Think about how you can help support breastfeeding, rather than why it is difficult. It is the first food that sets the stage for health and well-being throughout life.
**BOOK REVIEW:** The Blue Zones Kitchen, 100 Recipes to Live to 100

**Author:** Dan Buettner

**Price:** $11.39 Hardcover (Amazon)

A “blue zone” is an area where people tend to live exceptionally long, healthy lives. Dan Buettner, author of *The Blue Zones Kitchen*, coined the term while studying long-lived groups of people around the world. As he studied these people, he would circle the areas where they lived on a map in blue, and thus the term “blue zone” was born. *The Blue Zones Kitchen* contains plant-based recipes and honors the various cultures and people who live in these zones.

Buettner’s cookbook is divided into sections, with each containing recipes from a separate blue zone: Sardinia, Italy; Okinawa, Japan; Nicoya, Costa Rica; Ikaria, Greece and Loma Linda, California. The photos are exquisite and paint a picture of the landscape, people, and foods consumed. The message is simple: if you want to live until 100, eat and live like people who live until 100.

In addition to diet, Buettner has identified common characteristics that prove to be the recipe for longevity. These include daily movement, walking often, regular housework and tending to gardens, companionship and a sense of purpose/responsibility.

**Sardinia, Italy**

Buettner begins by honoring the Blue Zone of Sardinia, Italy. This is home to the world’s longest-living men. The Sardinian diet is rich in beans, stews, wine and cruciferous vegetables. The top longevity ingredients used in the Sardinian diet include barley, fava beans, kohlrabi, potatoes, sourdough bread, cannonau-wine, fennel, olive oil, rosemary, and tomatoes.

The recipes provided include casseroles, stews, pasta, pizza, tarts and almond cookies.

**Okinawa, Japan**

The next zone that Buettner includes is Okinawa. Okinawa is home to the world’s longest-living population. The cuisine is a blend of Chinese, Southeast Asian, and Japanese styles and is made up predominantly of vegetables, tofu and seafood. Around 60% of total calories come from the purple sweet potato known as beni imo. Their tofu is also higher in protein and phyt nutrients. Okinawans implement the importance of longevity starting at a young age, teaching their children to eat something from the land and sea daily. The Okinawan people also have a strong sense of purpose and do not “retire.” They are active into their elderly years and surrounded by a community.

More recently, however, the canned meat Spam was introduced to the Okinawans. They have since become one of the world’s largest consumers. White rice has also become a predominant staple, and the rise in obesity has been exponential. Okinawa is still considered a Blue Zone due to the efforts in places like Nagano, an area working to return to the Okinawan roots and eliminate junk food from the region.

The top longevity ingredients from the Okinawan diet include imo (purple sweet potato), green onions, dashi broth, miso, sesame oil, seaweed and kelp, tofu, bitter melon, mushrooms and turmeric.

The recipes provided include champuru (an Okinawan stir-fry type), dashi broths, soups, tofu, beans, seaweed, smoothies, sweet bread and banana ice cream.

**Nicoya, Costa Rica**

On average, the people in Nicoya live longer than anyone else in the Americas and in most of the world. The men have a threefold higher chance of reaching ninety than North Americans, and the longevity of these people is seen in their DNA. Scientists have examined the Nicoyans telomere length (a common measure of longevity) and found that they were the longest of all people in Costa Rica.

The Nicoyan diet consists of simple ingredients: beans, tortillas, chile sauce and black coffee. They make hearty soups full of local produce and live on mineral-rich soil, abundant in magnesium and calcium. The top longevity ingredients used in the Nicoyan diet include sweet peppers, black beans, ground corn, cilantro, coconut, cilantro, papaya, chile sauce, squash and yuca.

The recipes provided include yucca cakes, plantain-based dishes, soups, sauces, doughnuts, corn cakes, horchata, shakes, and custard.

**Ikaria, Greece**

The Ikarians live, on average, about eight years longer than the average American, with half the amount of heart disease and a fifth of the rate of dementia. They have a strong sense of identity and community, and women take on most of the daily work-related tasks. Most are Greek Orthodox and practice fasting religiously for more than 200 days a year.

The Ikarian diet consists mostly of vegetables, olive oil, beans, goat’s milk and small amounts of fish, with most food being harvested from local gardens. They also cook with lots of herbs and brew them into teas. These teas are used as digestive aids, stress reducers and to ease cold symptoms.

The top longevity ingredients in the Ikarian diet include beans (chickpeas and black-eyed peas), wild greens, fennel, lemons, olive oil, oregano, honey, potatoes, sage and rosemary.

The recipes provided include soups, stews, hummus, and vegetable-forward dishes laden with fresh herbs and spices.

**Loma Linda, California**

Many of the longest-living individuals in Loma Linda are Seventh-day Adventists, adopting a vegetarian or pescatarian lifestyle for religious purposes. They have a lower incidence of heart disease, diabetes and certain cancers.

The Adventists in Loma Linda prepare their foods with steaming as opposed to microwaving or other cooking options. They also have their largest meal at breakfast, a medium lunch, and the smallest meal at dinner. Sweets are minimal and typically homemade.

The top longevity ingredients used in the Adventist diet includes soy milk, Weetabix, corn flakes, brewer’s yeast, nuts, avocados, oatmeal, vegemite, beans and spinach.

The recipes provided include chia pudding, smoothies, granola, gumbo, vegetables and beans, pastas, vegetarian alternatives to burgers, chickpea “tuna” salad, and plant-based “meatballs,” as well as chocolate.

Overall, this cookbook provides a nice background on blue zones and the individuals who live there. Note that the recipes are mostly plant-based, and because of this, those who do not already follow a predominantly plant-based pattern of eating may feel they lack variety. The recipes are straightforward and could be easily followed by most individuals. This cookbook is for those who are interested in, or already follow, a plant-based style of eating and who are looking to experiment with ingredients and recipes that are centered around the goal of promoting longevity.

* Reviews should not be construed as endorsement by WH DPG.

**Reviewed by Jordan Stachel, MS, RDN**

Stachel is the WH DPG assistant publications editor and a registered dietitian working in a private practice. She is energized by the connection between optimal nutrition and quality of life and aims to help others achieve their maximum potential through improving long-term nutritional habits.
Do you know how to get reimbursed for your services during the COVID-19 Public Health Emergency? If not, please read the important message from the Academy below.

From the Academy
Providing MNT Services During the COVID-19 Public Health Emergency

The Academy supports access to medical nutrition therapy (MNT) services for all citizens during the current public health emergency. We also recognize the potential financial impact of the current situation on our members across practice settings where MNT services are provided. We’ve received many inquiries from members regarding the ability to bill public and private payers for MNT services delivered via telehealth. While many answers continue to be unknown, here is what we currently know:

Medicare
Congress passed the Coronavirus Preparedness and Response Supplemental Appropriations Act which was signed by the President and became law on March 6. The legislation allows physicians and other healthcare professionals to bill Medicare fee-for-service for patient care delivered by telehealth during the current coronavirus public health emergency. In particular, it gives the U.S. Department of Health and Human Services secretary the authority to waive or modify certain telehealth Medicare requirements, such as the originating site requirement. The legislation also allows telehealth services to be provided to Medicare beneficiaries by phone, but only if the phone allows for audio-video interaction between the Medicare provider and the beneficiary. This expansion is limited to qualified providers who have furnished Medicare services to the individual in the three years prior to the telehealth services.

We are still awaiting specific guidance from CMS on how they will be implementing these provisions. But it appears RDNs who are Medicare providers may be able to deliver MNT services to their current Medicare clients with the beneficiary located in their home. RDNs also continue to have access to the new G codes (G2061, G2062, G2063) covered by Medicare starting January 1, 2020 for online digital evaluation and assessment services, which are not restricted by originating site and other Medicare telehealth regulations. Once again, these G codes are for use with established Medicare clients. Health care providers must still comply with state telehealth laws and regulations.

Private/Commercial Payers
What is happening in the private health insurance section remains unclear and may vary from payer to payer and product. Individual health insurance companies are beginning to release guidance to their provider networks regarding updates to their telehealth policies, but once again, details of those policies and what they mean for MNT services provided by RDNs remains unclear. The private insurance market is regulated at the state level, and coverage and payment policies fall under state jurisdiction. We recognize our members are looking for specific guidance and, until payers provide such guidance, we are limited in our ability to answer questions.

Our best advice is to read all provider updates published by the specific insurance companies with whom you are currently under contract. Reach out to your provider relations representatives with your questions. Continue to verify benefits prior to rendering services. And continue to use HIPAA-compliant platforms for the delivery of services via telehealth.

Coverage, payment, and other aspects of getting paid for services during this public health emergency are continuously evolving. The Academy will keep members informed of new developments as they relate to the provision of MNT services as they become available.

Learn more about telehealth services at www.eatrightpro.org/telehealth. Learn more about the new G codes and CPT codes for online services in the November issue of the MNT Provider newsletter.

The Academy is launching a new PAYMENT MATTERS program free for all members. Sign up to receive monthly emails with information, resources and learning activities regarding reimbursement, payment for telehealth, Alternative Payment Models and more.

The basics of healthcare payment and reimbursement for the services you provide is an asset to every RDN, no matter where you work. If you understand where the money comes from, you put yourself in a better position to negotiate salaries and secure the future of the profession.

Learn more about the PAYMENT MATTERS program.

STUDENTS: THE WH DPG WANTS YOU!

Be our student liaison! In this 1-year position, you’ll develop leadership skills, enhance your resume, and network with peers and leaders in the field of women’s health nutrition. Help ensure our DPG meets the needs of students, participate in recruitment of student members, and contribute to special projects and social media.

Open to student members of the WH DPG.

For more information, please email Carol Plotkin, chair-elect:
carolplotkin@gmail.com.
WH DPG FNCE 2019 Highlights from the City of “Sisterly” Love  By Emma Fogt, MBA, MS, RDN, LDN, FAND

WH DPG celebrated together at FNCE® 2019 in the City of “Sisterly” love...Philadelphia! Our week started out with an executive committee (EC) dinner and EC meeting (the latter sponsored by POM Wonderful®) and quickly moved onto a dynamic and non-stop membership showcase. We were delighted to meet so many of you at our booth. You are experts in the areas of adolescent and maternal health, prenatal, pregnancy, breastfeeding, fertility, endocrine disorders, hormonal health, menopause, wellness, heart health and cancer (to name a few!) and practice in areas of clinical nutrition, private practice and community as well as education, research and public health.

At FNCE® 2019 we also met new and old members at the HQ hotel lobby “meet and greet” and gathered to attend the groundbreaking panel discussion organized by past chair, Dawn Ballossingh, MPA, RD, LMNT on breastfeeding across cultures. Awards were presented to the following four well-deserving recipients:

**Excellence in Practice in Women’s Health**  
Mara Vitolins, DrPH, MPH, RDN

**Emerging Professional in Women’s Health**  
Melissa Groves Azzaro, RDN, LD

**Outstanding Student in Women’s Health**  
Jeani Hunt-Gibbon, MS, RD, CDN, and Manisha Kisor Pise

Remarkably, our DPG membership has grown in the last year thanks to the hard work and dedication of our volunteer executive committee members who have produced monthly eBlasts, webinars, social media posts, newsletters and networking opportunities. Thank you for providing the expertise and enthusiasm to help optimize the future of women’s health at all ages!

**our vision**

“Optimizing the future of women’s health at all ages.”
Texas Caviar from *The Southern Comfort Food Diabetes Cookbook* by Maya Feller, MS, RD, CDN.

Though it sounds like the pricy fish egg delicacy, Texas caviar is nothing like cured fish roe, yet it’s quite delicious. Originally created in the 1940s by Helen Corbitt, it was first served in Dallas, Texas, and wryly called caviar. This wonderfully seasoned recipe plays with the buttery flavor of lima beans in contrast to the hearty taste of black beans and sweet corn. SERVES 6 (1/2 CUP EACH)

**INGREDIENTS**
- 1 cup cooked black eyed peas
- 1 cup cooked lima beans
- 1 ear fresh corn, kernels removed
- 2 celery stalks, chopped
- 1 red bell pepper, chopped
- 1/2 red onion, chopped
- 3 tablespoons apple cider vinegar
- 2 tablespoons extra virgin olive oil
- 1 teaspoon paprika

**DIRECTIONS**
1. In a large bowl, combine the black-eyed peas, lima beans, corn, celery, bell pepper, and onion.
2. In a small bowl, to make the dressing, whisk the vinegar, oil, and paprika together.
3. Pour the dressing over the bean mixture, and gently mix. Set aside for 15 to 30 minutes, allowing the flavors to come together.

**SUBSTITUTION TIP:** To cut down on prep time, use frozen lima beans and black-eyed peas.

**PREP TIME:** 10 minutes, plus 30 minutes marinating time

**PER SERVING:** Calories: 170; Total Fat: 5g; Cholesterol: 0mg; Sodium: 20mg; Total Carbohydrates: 29g; Sugar: 4g; Fiber: 10g; Protein: 10g

* Black beans stand in for black-eyed peas in the photo, as grocery options were limited due to the pandemic.

**Did you know?**

Beans may help fight heart disease, the number one killer of women, by lowering both total and LDL cholesterol. Beams are rich in soluble fiber, which can bind to bile acids in the gastrointestinal tract, preventing reuptake of the cholesterol they contain.

Reference