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Experts in Diabetes Care and Education

newsFLASH

Diabetes Dietetic Practice Group

Lorena Drago

FEATURED STORIES

MESSAGE FROM THE CHAIR EMPOWERING PROGRESS TOGETHER

Lorena Drago, MS, CDN, RDN, CDCES
Diabetes Dietetic Practice Group Chair
Greenwood Lake, NY

Upon returning from Nashville and this year's Food & Nutrition Conference & Expo® (FNCE®), I reflected on what made this experience so unique. It was my privilege to attend as Chair of our outstanding dietetic practice group (DPG), which meant my schedule was filled with meetings. Yet what truly stood out was the energy, collaboration, and dedication of a selfless group of professionals who continue to give their very best to our members and the field of diabetes care. I want to give our members a behind-the-scenes tour of the heart of the DDPG.

Our first meeting—the budget session—set the tone. Planning for the fiscal year 2026–2027 begins each October, when members of the Executive Committee come together to chart the course for the year ahead. Every decision is made with one focus in mind: *our members*. Webinars, symposiums, and publications are all designed to ensure that your membership provides value, professional growth, and support.

During FNCE®, we met with the Academy's executive leadership for updates on the annual plan and to review our budget to ensure fiduciary responsibility and a zero-balance budget. The Professional Development Chair oversees three vital committees—Webinar, Research, and Diabetes Technology. Together, these groups curate educational opportunities that transform and elevate your practice. The Research Committee continues to deliver up-to-date information briefs and is currently conducting a needs assessment to guide future educational priorities and inspire RDNs to engage in diabetes-related research.

Technology remains at the forefront of diabetes care, and our Technology Chair is working to leverage these advances into meaningful learning experiences for our members. The Publications Committee shared an exciting list of upcoming handouts and articles scheduled for 2026—each carefully chosen, researched, and written by experts to enhance your professional toolkit.

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Diabetes Care and Education

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DDPG MISSION

Optimizing the prevention and management of diabetes through person-centered care, including nutrition and collaborative partnerships.

DDPG VISION

A world where all people affected by diabetes thrive.

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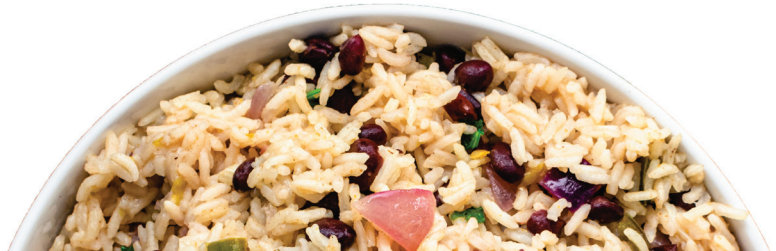

Our Policy and Advocacy Chair has been equally active—engaging in action alerts, advocacy alliance meetings, and policy town halls. The DDPG also supports reimbursement-focused "webbie chats" to ensure that no reimbursement opportunities go untapped. Meanwhile, our Corporate Relations Manager continues to foster partnerships with our sponsors and collaborators, who make so many of our programs possible—from print publications and continuing education to awards and networking events. We are deeply grateful for their ongoing commitment and long-standing partnerships.

Our profession is dynamic and ever-evolving—rooted in compassion, evidence-based practice, and a shared pursuit of lifelong learning. Whether you work in clinical care, education, research, or the community, your expertise is vital to shaping the future of diabetes nutrition and care.

This issue explores the timely and complex topic of **fueling recommendations for exercise in type 1 diabetes**. Physical activity is fundamental to health, yet for those with type 1 diabetes, it requires thoughtful, individualized strategies to balance glycemia, nutrition, and safety. Our feature article summarizes current evidence and offers practical tools to help you empower your clients to move with confidence. In our **technology feature**, we address the barriers many clients face when using continuous glucose monitors (CGMs) and provide actionable strategies for RDNs to enhance access, education, and adherence—ensuring technology serves as a bridge, not a barrier, to care.

We are also proud to spotlight one of our outstanding members, **Toby Smithson, MS, RDN, CDCES, FAND**, whose innovation and dedication continue to inspire our professional community. The Member Spotlight reminds us that our collective strength grows when we share ideas, stories, and encouragement. This issue also celebrates our **Education and Speaker Stipend Award recipients**, whose contributions through educational sessions, workshops, and publications enrich our DPG and strengthen the broader practice of diabetes care.

Our "**Have You Read?**" section delivers concise summaries of recent research to help you stay informed about emerging evidence. This year's FNCE® highlighted groundbreaking studies in diabetes treatment and the evolving landscape of anti-obesity medications—reminding us how essential it is for RDNs to stay informed, critically appraise new evidence, and translate science into actionable nutrition guidance.

For dietitians and diabetes care and education specialists, staying current isn't just an advantage—it's a professional responsibility. As therapies and technologies evolve, so must our practice. Through continued education, conferences, and research engagement, we ensure that our clients receive the highest quality evidence-based care.

As you read this issue, I hope you find practical insights, inspiration, and renewed appreciation for the powerful role research and collaboration play in our work. Our community thrives because of your commitment, curiosity, and compassion.

Thank you for all that you do to advance our field and to support those living with diabetes. Together, we continue to move the profession forward and empower our clients to live healthier, more vibrant lives.

Warm regards,
Lorena Drago

Prajakta Khare-Ranade
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Marcia Carlson
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MESSAGE FROM THE *news*FLASH EDITOR

Prajakta Khare-Ranade, EdD, MSc, RDN, LD, CDCES, FAND

Happy New Year! We're kicking off the year with a brand-new edition of *news***FLASH**—and we're thrilled to share it with you! As we launch into a fresh season of learning, collaboration, and innovation, we hope this issue energizes your work in diabetes care and keeps you inspired throughout the year.

This edition is packed with timely high-impact content, including fueling considerations for exercising with type 1 diabetes, a deep dive into barriers to continuous glucose monitor use, insights on the link between type 2 diabetes and sarcopenia, our Diabetes DPG (dietetic practice group) Member Spotlight, and much more to spark your curiosity.

We also want to hear from YOU! If there's a topic you'd love to see in a future issue—or if you're ready to contribute your own article—reach out anytime at *dcenewsflash@gmail.com*.

Thank you for being part of our community.

Here's to a year filled with growth, new ideas, and meaningful impact!

– Prajakta

Sydney Glenn

FUELING CONSIDERATIONS FOR EXERCISING WITH TYPE 1 DIABETES

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BACKGROUND

The value of exercise is widely acknowledged as a cornerstone of overall health and well-being. While the popularity of exercise has fluctuated over time, the COVID-19 pandemic marked a pivotal shift—catalyzing a global surge in fitness awareness and participation. One study revealed that COVID-19 greatly impacted adults' intentions to exercise,[1] inspiring people to stay fit with the perception that the seriousness of the virus could be affected by one's activity level. According to the Health and Fitness Association, approximately 96 million Americans intended to prioritize health, exercise, and fitness in 2025.[2] Yet, what remains less widely understood is how individuals living with chronic conditions—such as Type 1 Diabetes (T1D)—navigate the complexities of maintaining a healthy, active lifestyle while simultaneously managing glucose levels with precision and care. According to a 2022 study by the T1D Exchange Quality Improvement Research Collaborative, only 23% of adults with T1D had a hemoglobin A1C (A1C) under the target level of 7%.[3] Physical activity is a key component for maintaining not only improved body composition, enhanced cardiovascular fitness, better endothelial function, and healthier blood lipid levels, but also leads to more controlled glucose levels and provides many physiological and psychological benefits.[6] Glucose can be tricky to control with T1D, but optimal nutrition can aid in preventing significant hyperglycemia or hypoglycemia during exercise.

HOW GLYCEMIC STATUS INFLUENCES NUTRITION AND EXERCISE OUTCOMES

Recommendations for nutrition with exercise should be tailored to the individual, taking into consideration glucose goals, specific activities and levels, and body weight goals.[4] It's important to start with the person's current glycemic management. For instance, someone with an A1C of 12% who lives a sedentary lifestyle will likely experience a greater effect on glucose after a 1-mile run than someone with an A1C of 6.7% who is also relatively sedentary. Individuals with elevated A1C levels often exhibit poor glucose regulation which is linked to substantial insulin resistance and reduced glucose clearance. Research has shown that sedentary behavior further disrupts glycemic management, contributing to marked blood glucose fluctuations after exercise.[5,6] In contrast, individuals with lower A1Cs demonstrate improved glucose regulation which assists in more effective repletion of liver glycogen.[5] In either case, the implementation of exercise will provide numerous metabolic benefits. One of the many examples of enhanced muscle glucose uptake during aerobic activity. This can lower blood glucose levels, improve insulin sensitivity and improve available energy, and more.[7]

DIFFERENTIAL EFFECTS OF AEROBIC AND RESISTANCE EXERCISE ON GLUCOSE

Beyond overall glucose management, the physiological effects of exercise vary depending on the type and intensity of activity, each exerting distinct influences on glucose. For instance, a 3-week randomized crossover trial demonstrated that aerobic exercise, such as cycling or swimming, led to a greater immediate reduction in glucose levels than resistance training like performing squats or using free weights.[8] However, 24 hours after resistance training, the time spent in the glucose target range was significantly greater than aerobic exercise, which showed no equivalent improvements in the time spent in the glucose target range. Resistance training produces less energy expenditure than aerobic training. In the randomized crossover trial, aerobic exercise burned roughly 429 calories, whereas resistance training burned about 252 calories—a difference of nearly 177 calories.[8] Individualized nutrition recommendations become essential for optimizing exercise performance and maintaining glycemic stability in T1D.

NUTRITIONAL RECOMMENDATIONS

Nutritional interventions may be required before beginning exercise and should be based on an athlete's pre-exercise glucose level.[4] Glucose monitoring is recommended pre-, during, and post-exercise. Carbohydrate intake is recommended for low glucose levels (<90 mg/dL) before beginning exercise, while high blood glucose (250-349 mg/dL) levels may require an intensity modification or indicate the presence of ketones. If blood glucose is close to an optimal level (90-149 mg/dL) before beginning exercise, carbohydrate intake may or may not be indicated based on glucose levels during the type of exercise conducted. For slightly elevated blood glucose (149-250 mg/dL), one should begin exercising and only consume carbohydrates if glucose drops below 150 mg/dL. Ketones should be checked prior to exercise if high blood glucose (250-349 mg) is present. If ketones are negative or minimal, athletes can begin light-to-moderate exercise. Postpone intense activity until blood glucose is below 250 mg/dL, since vigorous exercise may increase blood glucose. For very high blood glucose (>349 mg/dL), check for ketones and do not exercise if moderate or high ketones are detected. If ketones are low or absent, consider a small insulin correction (about 50% of usual). Limit activity to light or moderate intensity and avoid intense exercise until glucose levels fall.[9]

As for types of foods to consume based on glucose levels, easily absorbed carbohydrates should be considered.[4] For symptomatic hypoglycemia, glucose tablets, gels, or liquids are recommended. For asymptomatic hypoglycemia occurring before or during exercise, foods more easily absorbed, like orange juice or jellybeans, should be consumed. During prolonged exercise, food with a longer absorption rate may be recommended alongside a protein-containing food to prevent a rapid rise in glucose and promote glucose optimization in the goal range. If a more easily absorbed carbohydrate was needed during exercise, using foods consisting of protein and fat can prevent delayed hypoglycemia post exercise. Once again, nutritional recommendations should be individualized, considering each person's unique circumstances and the many factors involved.

Another important consideration is intake the day following exercise. A 3-week randomized crossover trial performed in 2019 compared data from individuals with T1D, including insulin pump data, sensor glucose data, and meal intake, 24 hours after each exercise session or rest period during the control week. It was

found that most adults had a significant increase in caloric intake the day after aerobic exercise compared to resistance training.[8] This distinction is important depending on the athlete's weight-related goals . Calorie intake should be considered the day after activity. An athlete with T1D should also consider the intensity of their exercise habits.

HOW DIFFERENT EXERCISE INTENSITIES AFFECT BLOOD GLUCOSE

Depending on whether someone is participating in recreational sports, like sand volleyball with friends, or trying to make a qualifying time for the Boston Marathon, the intensity of exercise plays a role on glucose trends (Table 1). Evidence published in 2020 suggests exercise intensity affects glucose pre- and post- workout.[4] Lower, or more moderate intensity, aerobic exercise, like walking, has increased risks of hypoglycemia during and after exercise. High intensity, anaerobic exercise, like sprinting, can cause slight hyperglycemia during or immediately after exercise due to the release of the stress hormones epinephrine, norepinephrine, cortisol, and glucagon. Delayed hypoglycemia can result from moderate aerobic exercise, even overnight, whereas hyperglycemia can occur immediately following anaerobic exercise, but glucose may drop as glycogen replenishment begins.[4] Aerobic exercise may require additional carbohydrates before or during exercise, or even a reduction in insulin dosage. Anaerobic exercise could require an insulin correction if hyperglycemia develops. A balance of low and high-intensity exercises combined into one workout may even help stabilize blood glucose.

BALANCING WEIGHT LOSS AND GLYCEMIC STABILITY IN T1D

A person with T1D looking to introduce physical activity to aid in weight loss should consider both nutritional and medication interventions. Weight loss can become hazardous for an adult with T1D if strategies to lose weight include excessive energy restriction. Unhealthy practices can cause severe dehydration and loss of glycemic balance. Athletes with T1D can manage weight loss safely by gradually reducing calorie intake along with lowering daily insulin doses, which helps decrease fat mass while preserving muscle mass.[4] Avoiding frequent hypoglycemia is important, since treating it can cause weight gain, even in active individuals. Training with lower insulin levels—achieved through exercise

TABLE 1. Examples of Activity and Potential Glucose Impacts[4]

TYPE/INTENSITY OF ACTIVITY	EXAMPLES OF ACTIVITY	EFFECT ON GLUCOSE
High Intensity Aerobic Exercise	Sprinting Kickboxing Hill climb on bike	Risk of hyperglycemia during or immediately after exercise
Low Intensity Aerobic Exercise	Walking Jump rope Hiking Dancing	Risk of hypoglycemia during and after exercise (delayed hypoglycemia)
High Intensity Resistance Exercise	Weighted pull-ups Kettlebell swings Jump squats	Risk of hyperglycemia during or immediately following exercise
Low Intensity Resistance Exercise	Bodyweight squats Lunges Resistance bands	Risk of hypoglycemia during and after exercise (delayed hypoglycemia)

timing or modest carbohydrate restriction—can support energy use and training adaptations without the need for excessive snacking when weight loss is the goal.[4] For adults with T1D, staying physically active during weight loss helps preserve muscle mass, promotes greater fat loss, and supports healthier body composition overall.

ATHLETE NARRATIVES AND REAL-WORLD NUTRITION STRATEGIES IN T1D

Current research emphasizes physiological outcomes of exercise in T1D but offers limited insight into athletes' real-world decision-making around nutrition. To bridge this gap, interviews were carried out to explore these experiential dimensions. Two adult ultra-endurance athletes (Athlete Y (Female) & X (Male)) who had been living with T1D for 11 and 7 years, respectively, participated. Athlete Y's athletic journey began as child and progressed into high school as a varsity soccer player. Athlete Y ended up quitting the team as the coach did not understand the difference between Type 1 and Type 2 Diabetes. Ultimately, she fell in love with running and now participates in multiple races a year and has even completed a 100-mile race. Athlete X's athletic journey began quite young as well, diving into any sport but focusing on cross-country running, Nordic skiing, and bike touring. He has previously exercised competitively but now exercises for the love of it (and to show off to his STRAVA™ community), completing bike tours as far as California to Alaska.

As far as nutritional intake is concerned, both athletes interviewed mentioned that intake can oftentimes be inconsistent. Athlete X tends to listen to his body and eat what he craves, not designating specific foods to specific events. However, during his bike tours, food may be less available compared to a typical bike ride. He relied on whatever was available at rural gas stations and adjusted insulin dosages accordingly. Prior to any exercise, Athlete X usually consumes juice or cookies before beginning. Athlete Y's intake is more specific on race days, including the timing of the meal. She will typically consume some variation of a starch (waffle), protein (eggs, sausage), and fat (cheese) 3 hours before a race and then base pre-race snacks (banana, beef jerky) off her blood glucose. To treat hypoglycemia during ultra-endurance events, the athletes will use a variety of foods and products, including gummy bears, pure maple syrup/honey, orange slices, and hypoglycemia-specific products like liquid gels or gummies. Following exercise, both athletes described "indulging" in carbohydrate-containing foods whether it be fried rice or cinnamon rolls. Pre-, during, and post-exercise, both athletes made it known that not every event or workout is linear regarding intake, furthermore, highlighting the realistic challenges of maintaining structured nutrition routines.

When asked to advise anyone with T1D who is considering starting exercise or enhancing their athletic activity, responses varied. They included finding companions with T1D in the wellness space to bounce ideas off, not becoming discouraged by trial and error, and utilizing diabetes technology to aid in the fear of hypoglycemia events. When asked how to stay motivated with T1D, athlete Y mentioned "no one out there also has to be their own pancreas today, they just have to keep themselves alive", highlighting the courage, sacrifice, and fulfillment that comes with completing an activity. Athlete X has more of a

"built-in" motivation to get outdoors and explore, using the benefits of exercise to positively influence his mindset. Both mentioned that competitiveness always prevails as well. These athletes offer realistic perspectives of the endless possibilities of success with diabetes.

CONCLUSION

To help more adults with T1D achieve their target A1C, feel more comfortable exercising, and reach their health and lifestyle goals, tailored strategies, unique to the individual, are needed. Exercise type and intensity significantly influence glycemic outcomes—while aerobic activity lowers blood glucose immediately, resistance training enhances stability over the following 24 hours. Nutrition plays an equally critical role, with carbohydrate intake and glycemic index considerations essential before, during, and after exercise to prevent hypoglycemia or hyperglycemia. Effective weight management and performance optimization for those with T1D require personalized plans that integrate nutrition, insulin adjustments, and activity intensity to support safe and sustainable health outcomes. With the considerations mentioned and help from a physician, RDN, CDCES, or certified exercise specialist (ACSM), exercising with T1D can become more enjoyable, sustainable, and performance-enhancing.

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Marni Shoemaker

HAVE YOU READ?
THE LINK BETWEEN TYPE 2 DIABETES AND SARCOPENIA

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INTRODUCTION

With the increase in type 2 diabetes (T2D) globally, particularly in aging populations,[1] there is also an increased concern for a decrease in skeletal muscle, which has metabolic ramifications independently and concomitantly with T2D.[2] Sarcopenia, the age-related progressive loss of skeletal muscle mass and strength,[3] is highly prevalent in those with T2D, likely contributing to the metabolic impairment observed.[4,5] With this overlap, there are many severe health-related consequences, including a higher risk for mortality[6] and malnutrition.[7–9] Based on these findings, examining the prevalence of sarcopenia among individuals with T2D is imperative to support a more comprehensive approach to improving metabolic function and overall health.

YAMAMOTO S, HASHIMOTO Y, TAKAHASHI F, ET AL. MORTALITY RISK OF SARCOPENIA AND MALNUTRITION IN OLDER PATIENTS WITH TYPE 2 DIABETES MELLITUS.

Nutrients. 2025;17(16):2622. doi:10.3390/nu17162622

This study, conducted in Japan,[10] examined how sarcopenia and nutritional risk via the Geriatric Nutritional Risk Index (GNRI) contribute to all-cause mortality in older adults with T2D within the KAMOGAWA-DM cohort study. A total of 396 individuals (mean age 71.3 years) were analyzed. Body mass index (BMI) and skeletal muscle mass index (SMI) was assessed and calculated. Sarcopenia was defined using cutoff values for low handgrip strength of <28 kg for males and <18 kg for females, and cutoff values for SMI as <7.0 kg/m^2 for males and <5.7 kg/m^2 for females, in which those with low values were considered to have sarcopenia. GNRI, derived from serum albumin, body weight, and ideal body weight, was calculated, and participants were classified into two groups: nutritional risk (GNRI ≤ 98) and no nutritional risk (GNRI > 98). All-cause mortality was determined via electronic medical records. Participants were classified into four groups: Group 1 (no nutritional risk, no sarcopenia [n=306]), Group 2 (nutritional risk, no sarcopenia [n=32]), Group 3 (no nutritional risk, sarcopenia [n=36]), Group 4 (both nutritional risk and sarcopenia [n=22]). Both nutritional risk and having sarcopenia were associated with a higher risk of

mortality in older adults with T2D. Both nutritional risk and sarcopenia were also independently associated with an increased risk of mortality, even after controlling for covariates. Additionally, mortality risk was higher in those with nutritional risk, regardless of having sarcopenia or not, indicating medical nutrition therapy should be prioritized in patient-centered care.

REN Q, ZHI L, LIU H. SEMAGLUTIDE THERAPY AND ACCELERATED SARCOPENIA IN OLDER ADULTS WITH TYPE 2 DIABETES: A 24-MONTH RETROSPECTIVE COHORT STUDY.

Drug Des Devel Ther. 2025;19:5645-5652. doi:10.2147/DDDT.S531778

While there have been concerns about the potential impact on GLP-1 receptor agonists on muscle health, little is known about long-term effects. In this study conducted in China,[11] changes in skeletal muscle mass and strength were evaluated in older adults with T2D who were treated with the GLP-1 receptor agonist, Semaglutide. This retrospective study reviewed patients ≥65 years with T2D who were prescribed Semaglutide compared to those who did not (control). All participants were monitored for 24 months. Data was collected at baseline and at 6, 12, 18, and 24 months. Skeletal muscle was estimated using bioelectrical impedance analysis to determine appendicular skeletal muscle mass index (ASMI). Handgrip strength and 4-meter gait speed test were also assessed. Sarcopenia was defined as having low muscle mass (ASMI <7.0 kg/m^2 for males and <5.7 kg/m^2 for females) and low handgrip strength (<28 kg for males and <18 kg for females). Semaglutide use reduced body weight in older adults with T2D; however, it also accelerated skeletal muscle loss, with a dose-response effect and greater losses in those with pre-existing low muscle mass and strength. Therefore, assessing benefits and risks of utilizing GLP-1 receptor agonists in this population should be performed for each individual to help make a patient-centered decision with appropriate monitoring.

GAGLIO A, GRANCINI V, GIACCHETTI F, MIRANI M, ORSI E, RESI V. ROLE OF MEDICAL NUTRITION THERAPY AS TREATMENT OF SARCOPENIA IN OLDER PEOPLE WITH TYPE 2 DIABETES.

Nutrients. 2025;17(1):172. doi.org/10.3390/nu1701017

Nutrition therapy is essential for the management of type 2 diabetes (T2D) and sarcopenia; however, there are currently no established nutritional guidelines for patients experiencing these conditions simultaneously. A prospective single-center pilot study[12] evaluated the efficacy of a muscle-targeted nutritional intervention in older people with sarcopenia and T2D based on the Italian nutrition guidelines. The primary outcome of the study was a change in muscle strength in older people with or without sarcopenia and T2D over 6 months. A total of 211 people diagnosed with T2D, age ≥65 years, A1C >6.5% and BMI ≥ 20 kg/m were screened for sarcopenia using the European Working Group on

Sarcopenia in Older People 2 (EWGSOP2) guidelines and enrolled to receive a daily energy intake of 25-30 kcal/kg body weight and daily protein intake of 1–1.2 g/kg body weight. Results indicated that 34 (24 male and 10 female) participants were diagnosed with sarcopenia, with a prevalence of 16%, which was higher in men. After 6 months of treatment the following changes were observed: handgrip strength increased by 0.83 kg (19.57 ± 5.70 kg vs. 20.40 ± 6.10 kg, $p = 0.649$), protein intake increased (0.91 ± 0.28 g/kg bodyweight vs. 1.03 ± 0.40 g/kg bodyweight, $p = 0.115$), and A1C decreased (7.39 ± 0.49% to 6.82 ± 0.98%, $p = 0.010$). The authors concluded that lifestyle modification is important in the prevention or treatment of sarcopenia or reverse of the development of the disease. Nutrition therapy in this patient population can promote glycemic management to reduce the development of sarcopenia. Larger studies with control groups are warranted to validate this type of intervention.

BARTA SB, BOZKUS R, SIMSEK H, KOSAL B, UCAR A. DIETARY INFLAMMATORY INDEX AS A MODIFIABLE RISK FACTOR FOR SARCOPENIA IN ADULTS WITH TYPE 2 DIABETES: A CROSS-SECTIONAL STUDY.
Nutr Res. 2025;140:24-33. doi.org/10.1016/j.nutres.2025.05.007

An increasing body of evidence suggests that a proinflammatory diet is associated with lower muscle strength and risk of sarcopenia. This cross-sectional study conducted in Turkey[13] assessed 249 adults aged 50 years and older with type 2 diabetes (T2D). Dietary inflammatory index (DII), a score calculated using 45 food parameters consisting of 36 macro and micronutrients and 8 whole foods, was collected to determine diet quality. Physical activity was evaluated/assessed via the International Physical Activity Questionnaire-Short form (IPAQ-S). Handgrip strength and body composition were measured by bioelectrical impedance analysis; and sarcopenia was defined as handgrip strength <27 kg for males and <16 kg for females and appendicular skeletal muscle mass (ASM) <20kg for males and <15 kg for females. This study demonstrates that a proinflammatory diet (considered to include processed meats, refined grains, and higher sugar foods and lower intake of fruits, vegetables, and whole grains) determined by a higher DII score was associated with an increased risk of sarcopenia in those with T2D, suggesting that diet quality is an essential component in the prevention and monitoring of skeletal muscle health related to sarcopenia risk in those with T2D. In addition to a higher DII score, a protein intake of less than 1 g/kg/day was associated with an increased risk of sarcopenia. Appropriate nutrition therapy including anti-inflammatory foods such as fish, seafood, and nuts, as well as adequate protein intake, may be impactful for promoting metabolic and skeletal muscle health.

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Gayle Jennings

A CLOSE LOOK AT BARRIERS WITH CONTINUOUS GLUCOSE MONITORS: HOW REGISTERED DIETITIAN NUTRITIONISTS CAN HELP

Gayle Jennings, RDN, BC-ADM, CDCES, LDN
Springfield, IL

Most registered dietitian nutritionists (RDNs) who work in diabetes care are aware of the many benefits of continuous glucose monitoring (CGM) and how beneficial CGMs are to persons with diabetes. Patients who use these devices express increased satisfaction due to fewer finger sticks, the convenience of being able to see glucose numbers in real time, and the ease of sharing data with health care providers. Many patients with diabetes call their CGMs "life-changing" and "highly recommended." But there are also some potential concerns to those who use CGMs that do not get as much attention. This article intends to highlight these concerns to help RDNs identify who may be and may not be suitable for this technology, as well as provide insights to help those individuals overcome these barriers.

NOTABLE CONCERNS WITH CGM USE

***Cost*:** Some insurance providers require a co-pay for the sensors and receiver/reader, and the cost can be extremely high. Medicare covers 80% of costs, which leaves 20% for the patient to pay, if he/she does not have a secondary insurance to cover the rest of the payment. The cost can also vary depending on the commercial insurance plan. Diabetes costs add up quickly when considering medications, technology, and more frequent appointments. One more expense can be detrimental for some. Make sure your patients know that there may be a cost involved for CGMs and be thoughtful and considerate when discussing these concerns. While there are a few manufacturer programs available, including Freestyle Libre Copay Assistance Program, Dexcom G6 and G7 Pharmacy Savings Coupons, Dexcom Patient Assistant Program, Eversense PASS Payment Assistance Program, and Medtronic CGM Assess Discount Program, CGMs may still be unaffordable for some, while others may not qualify for the various programs. More information can be found on the manufacturer's websites or at the Association for Diabetes Care and Education Specialists (ADCES®) Danatech website at https://www.adces.org/education/danatech/home.[1]

Level of difficulty with initial set-up: Comfort levels may vary when using these devices, and there is a learning curve. For some individuals, the thought of placing a sensor on their body and being able to see their glucose all the time can be overwhelming and can lead to increased stress and anxiety. As professionals in diabetes care, we work with individuals to ease these fears, provide reassurance and understanding of placement, set-up, use, and removal, and help to bridge the fear of the unknown to everyday use and understanding.

***Information overload*:** The power to see glucose in real time at any time of the day or night, no matter what, can be exhausting. While knowledge is power, this can also be frustrating, confusing, and lead to erratic behaviors that are not helpful in the day-to-day management of diabetes. Some patients with diabetes find the extra numbers and data overwhelming, and that can lead to diabetes distress, burnout, and even trigger disordered eating behaviors or patterns. As RDNs in diabetes care, it is important to recognize problematic behaviors and know how to effectively intervene. There are screening tools available for diabetes distress at Diabetes Distress Screening Scale; and eating disorders at the Eating Disorder Screening Tool. Some guidance when a person is trained on a CGM can help, including explaining that glucose does rise after eating and drinking foods with carbohydrates, and that is normal. Be sure to explain the time in range guidelines so patients understand that glucose does fluctuate and there is an allowance for glucose to be above 180 mg/dL—the recommendation is no more than 25% of the time.

***Alarm fatigue*:** This occurs when the sensor detects hypoglycemia, typically less than 70 mg/dL, hyperglycemia, the presets are >250 mg/dL but can be individualized, or there is a signal loss or gap in the connection between the sensor and reader/receiver/smartphone for whatever reason. While alarms for hypoglycemia are essential, repeated alarms during an active episode can increase anxiety for the individual managing it. There are also alarms connected with "technical issues" that can include compression lows, inaccurate readings immediately following a sensor change, and faulty sensors. Discussing the pre-set alarms with patients, as well as how to change the settings, if needed, is key to decreasing this anxiety.

***Glucose not in the desired range*:** If someone is dealing with severely elevated glucose for any reason (out of insulin, illness, etc.), it can be really overwhelming to continuously see glucose higher than desired. Some people can use this as motivation to get back on track, while others may want to remove the sensor and turn off the reader/receiver/app in order to stop the negative news. Encouraging patients to be proactive and prevent problems, as well as reach out for support should problems arise, is very necessary.

***Skin irritation and issues with adhesives*:** The adhesives in some diabetes technology devices can lead to irritation for those with sensitive skin. There is guidance and several products available to help prevent and treat skin issues, but even then, some still have issues.

General Considerations for CGM Placement[2]

1. Avoid broken skin, unhealed irritation, and close proximity to another infusion set or sensor (1-2 inches).
2. Rotate sensor application across sites, allow a minimum of a week to heal before the new tape/adhesive agents are placed over sites. Each device has been approved for specific placement by the FDA—typically the back of the arm or the abdomen for adults.
3. Some individuals may have a strong preference for discrete placement, such as not on the arm, where it can be seen. Acknowledge these concerns and offer alternatives, if possible.

General Considerations for Skin Protection and Barriers

1. Ensure the skin is cleaned with oil-free antimicrobial soap and allowed to dry thoroughly.
2. Gentle exfoliation is recommended for oily skin.
3. Trim hair with a dry razor, if needed.
4. Alcohol may or may not be used, depending on how it is tolerated. It is generally more important to use for infection prevention with infusion cannulas than with CGM sensors.
5. Do not place the sensor immediately after a shower or bath or in a steamy bathroom. The humidity can interact with the adhesive, making it less effective.
6. There are several over-the-counter products available to help with adhesive and protection. One can find resources for these on manufacturer websites.

The topic of CGMs is ever-evolving and varies with the type of product and personal preferences. This article looked at some barriers of CGMs that don't get as much attention as they should and how RDNs in diabetes care can work with their patients to decrease some barriers—and to see more success stories.

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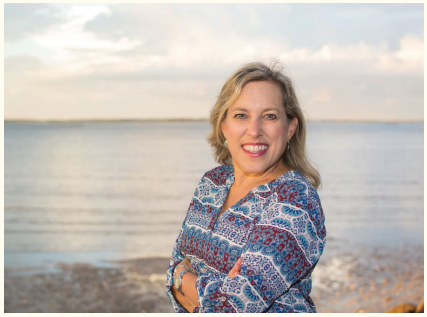


Toby Smithson

MEMBER SPOTLIGHT

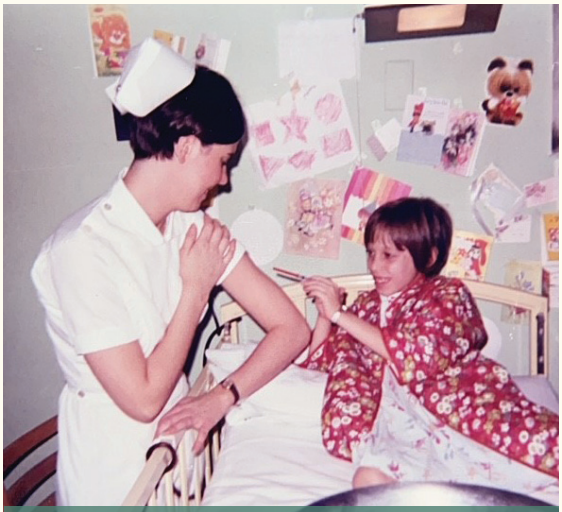
Toby Smithson, MS, RDN, CDCES, FAND
Hilton Head Island, SC

Tell us a little bit about yourself and your role with the DDPG.
I'm an award-winning certified diabetes care and education specialist and registered dietitian nutritionist who has successfully managed my own type 1 diabetes for more than five decades.

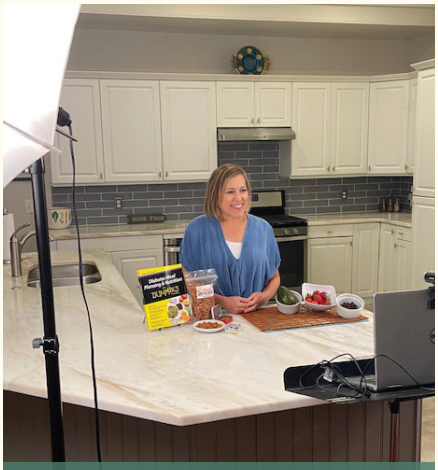
In 2020, I was honored as Diabetes Educator of the Year by the Diabetes Dietetic Practice Group (DDPG). I have been a frequent resource for nutrition writers, especially with a focus on diabetes management and am the principal author of *Diabetes Meal Planning and Nutrition for Dummies, First Edition*. Since 2010, I have combined my professional knowledge and personal life experiences managing diabetes by producing scores of accessible videos under the banner DiabetesEveryDay.

Volunteering for our profession has always been part of my career path, starting at the local/district level to state level, and then the national level. At the national level, I became an Academy of Dietetics Media Spokesperson (9 years) with specialty areas in community health and diabetes. After serving as an Academy of Nutrition and Dietetics (AND) spokesperson, I volunteered as a media spokesperson for the Association of Diabetes Care and Education Specialists. Subsequently, I began my volunteer work with the DDPG as the Social Media Chair, and then as the Chair of the Nominating Committee.

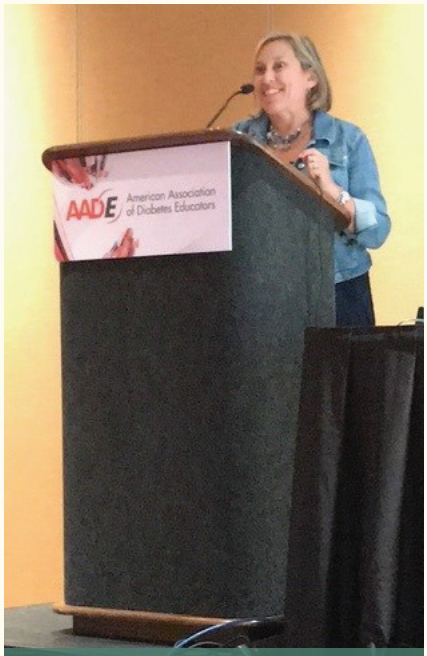
What has your professional journey in nutrition and diabetes been like?
My career began with doing clinical work, first in a private hospital and then public hospitals, such as Stroger, in Chicago. When I lived in Lexington, Kentucky, I had the privilege of being a consultant on a grant with Dr. James Anderson, investigating the benefits of soluble fiber for people with diabetes and for people with elevated cholesterol. I spent 23 years in public health as a community dietitian with the Lake County Illinois Department of Public Health and found myself really drawn to wanting to specialize in diabetes. While I was still working at the Health Department, I co-authored the book *Diabetes Meal Planning and Nutrition for Dummies* and started my website, DiabetesEveryDay, along with a YouTube channel called DiabetesEveryDay, for the purpose of getting credible information about diabetes on YouTube.



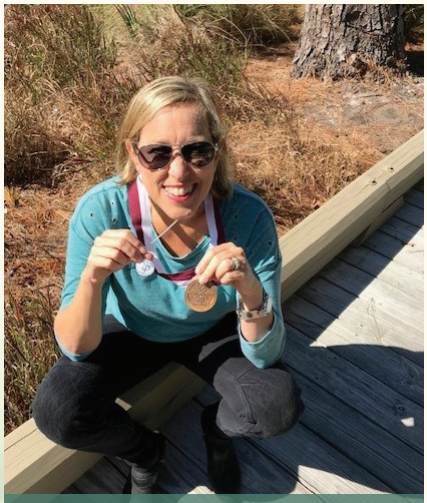
Toby giving nurse a shot.



Toby photo on TV set.



Speaking at AADE on generational approach.



Joslin medal and Lilly medal 50 years with diabetes 2018.

After leaving the health department to focus on diabetes work, I took a job as a clinician at one of the first telehealth companies focusing exclusively on diabetes. Working telehealth is how I was able to move from wintery Chicago to "nice every day" Hilton Head, South Carolina. My telehealth job was not matching my skill sets, so I left after 7 years! And then, when I wasn't looking, my dream job and dream work team happened.

Now, I'm the Senior Manager of Nutrition & Wellness at the American Diabetes Association (ADA). Working at the ADA is extra meaningful because ADA was the only diabetes-related organization in existence when I was diagnosed—they were and always have been my go-to source for diabetes … and now I lead the coordination and execution of nutrition and wellness content across all channels and for all audiences.

What do you enjoy doing outside of work?
Riding my bicycle through my neighborhood, to the marina, and to the beach are my favorite destinations. I know it may sound cliché, but I do love walking our dogs at the beach (we can walk them off leash during off season). There is a true calming Zen effect hearing the ocean.

Besides family, friends, and health, what is one thing you can't live without?
In the most real sense possible, other than family, friends, and health, the one thing I can't live without is insulin.

If you could travel anywhere, where would you go and why?
I took a trip in the fall to Japan and immersed myself into the culture. A couple months later, I went on another bucket list trip to Costa Rica. At some point, I'd love to go to Africa to do the typical safari trip but also combine it with volunteer work in diabetes clinics located in Africa.

Do you have any hidden talents?
I hadn't realized until recently that my diabetes management gave me an important skill of organization and planning. I have found that I'm the go-to person for planning any outings for the group, whether it's in groups with my family or friends. If you need a vacation planned, I seem to be able to do that with ease. Diabetes management requires thinking ahead to be ready for whatever glucose situations lie ahead, so I think that is how I perfected the skill of planning personal events.

Would you like to be featured—or nominate a DDPG colleague—for our next **Member Spotlight?** *DDPG is proud to recognize our diverse and talented membership! If you or your colleague would like to be considered for an upcoming feature, please email DCENewsflash@gmail.com. Thank you!*

Marni Shoemaker

RESEARCH SCAN

Marni Shoemaker, PhD, RD, LN, CSCS, USAW-1
Maria Duarte-Gardea, PhD, RDN, LD
Jingxuan "Jessie" Piao, MS, RDN, LDN, CDCES
Sarah Ruiz, PhD, RD, LD, CDCES, FAND

Maria Duarte-Gardea

AI-POWERED CARBOHYDRATE COUNTING FOR TYPE 1 DIABETES: ACCURACY AND REAL-WORLD PERFORMANCE

Tecce, N, Vetrani C, Pelosi AL, et al. AI-powered carbohydrate counting for type 1 diabetes: Accuracy and real-world performance. *Diabetes Care. 2025;48*(8): e97–e98. https://doi.org/10.2337/dc25-0303

A recent study compared two generative AI models, ChatGPT-4o and Gemini Advanced, to assess their accuracy in estimating carbohydrate content for people with type 1 diabetes. Fifty meals were analyzed under 3 real-world conditions: minimal data (dish name and photo), moderate data (menu description and image), and full data (complete ingredient details). Accuracy was measured using MetaDieta software. Both models improved with more information, but ChatGPT-4o performed better under moderate data conditions (MAPE 18.1% vs. 28.8%) and was more accurate for prepackaged meals. The study concludes that AI tools can improve carbohydrate counting accuracy, especially when detailed food data are provided, supporting better insulin dosing and glucose management.

Jingxuan "Jessie" Piao

DEVELOPMENT AND VALIDATION OF A DIABETES/NUTRITION KNOWLEDGE QUESTIONNAIRE IN TYPE 1 AND TYPE 2 DIABETES

Hofer G, Sabbatini L, Fellinghauer C, Hirschmann R, Lehmann R, Cavelti-Weder C. Development and validation of a diabetes/nutrition knowledge questionnaire in type 1 and type 2 diabetes. *Diabet Med. 2025;42*:e70018. https://doi.org/10.1111/dme.70018

The article highlights the development and validation of a diabetes and nutrition knowledge questionnaire for individuals with type 1 (T1D) and type 2 diabetes (T2D). Conducted at the University Hospital Zurich, the study included 511 participants and aimed to assess how knowledge relates to glycemic management. The questionnaire, tailored to diabetes type and treatment, showed strong reliability and validity using psychometric testing. In participants with T1D, higher nutrition knowledge scores were linked to better glycemic management, including lower A1C levels and more time spent in the target glucose range. No significant associations were found for participants with T2D after adjusting for factors such as gender, BMI, and diabetes duration. The authors concluded that improved nutrition knowledge supports better glucose outcomes in T1D and may help guide patient education programs.

Sarah Ruiz

ASSOCIATIONS BETWEEN DAILY DIETARY CARBOHYDRATE INTAKE AND TIR IN ADULTS WITH TYPE 1 DIABETES

Cai Y, Li X, Xiong X, Zhang L, He J, Su H. Associations between daily dietary carbohydrate intake and TIR in adults with type 1 diabetes. *Front. Nutr.* 2025;12:1638849. https://doi.org/10.3389/fnut.2025.1638849

This article investigated how daily carbohydrate intake affects glucose control in adults with type 1 diabetes using continuous glucose monitoring (CGM). Conducted with 36 adults at the First People's Hospital of Yunnan Province, the study categorized participants into tertiles of low (95-120g), medium (142-173g), and high carbohydrate (222-269g) intake groups. Findings showed that lower carbohydrate intake was linked to better glycemic outcomes, with the low-carbohydrate group spending 82% of the time within the target glucose range compared to 75% and 65% for the medium and high intake groups. Higher carbohydrate consumption was associated with greater glucose variability and more time above the recommended glucose range, while hypoglycemia risk remained similar across all groups. The authors concluded that maintaining carbohydrate intake between 40% and 50% of total daily calories, along with consistent intake patterns, can improve glucose control and stability without increasing hypoglycemia risk.

CAN A VEGAN DIET HELP PEOPLE WITH TYPE 1 DIABETES SAVE ON INSULIN? A SECONDARY ANALYSIS OF A 12-WEEK RANDOMIZED CLINICAL TRIAL

Kahleova H, Maracine C, Znayenko-Miller T, et al. Can a vegan diet help people with type 1 diabetes save on insulin? A secondary analysis of a 12-week randomized clinical trial. *BMC Nutr.* 2025;11(188). https://doi.org/10.1186/s40795-025-01175-2

Kahleova et al. investigated whether a low-fat vegan diet can help reduce insulin use and costs in adults with type 1 diabetes (T1D). In this 12-week randomized clinical trial, 58 participants were assigned to either a low-fat vegan diet or a portion-controlled diet. The vegan group followed a plant-based plan free of animal products, with about 10% of calories from fat, while the portion-controlled group focused on calorie reduction and consistent carbohydrate intake. Both groups met weekly with dietitians and logged their meals. Results showed that those on the vegan diet lowered their total daily insulin use by 12.1 units (a 28% decrease) and insulin costs by 27%, or about $1.08 per day, while the portion-controlled group showed no significant changes. Participants in the vegan group also lost an average of 5.2 kg without worsening blood glucose control. The study concludes that a low-fat vegan diet can improve insulin sensitivity, lower treatment costs, and promote weight loss in people with T1D, though larger and longer studies are needed to confirm these results.

A LOW-INTENSITY NUTRITION INTERVENTION TARGETING TRIGLYCERIDES IN GESTATIONAL DIABETES: A FEASIBILITY RCT

Liu K, Clarke GS, Grieger GA. A Low-Intensity Nutrition Intervention Targeting Triglycerides in Gestational Diabetes: A Feasibility RCT. *J Clin Endocrinol Metab*. 2025;dgaf291. https://doi.org/10.1210/clinem/dgaf291

A pilot study by Liu et al., based in Australia, assessed the feasibility of a low-intensity dietary intervention designed to attenuate the natural rise in triglycerides that women experience in pregnancy compared to standard gestational diabetes mellitus (GDM) management. Thirty-four women diagnosed with GDM, ages 32.2 ± 4.7 years, with a BMI of 29.6 ± 8.3 kg/m2, and

approximately 30 weeks' gestation, were randomly assigned to the standard of care group or the intervention group at a ratio of 1:1. The intervention group received standard of care in addition to individual counseling on reducing ultra processed foods, increasing fruits and vegetables, fish and nuts, and changes to healthier fats. The study outcomes included feasibility, maternal dietary intakes, plasma triglycerides and glucose levels, and birth weight. Results indicated a retention rate of 90% and participation in the trial lasted between 5 to 10 weeks.

By the end of the study, differences between the standard of care and the intervention group were significant for decreased sugar (89.9 ± 29.8 vs 64.1 ± 25.7 g) and increased linoleic acid intake (9.1 ± 4.0 vs. 13.7 ± 5.2 g). The mean birth weight was higher in the standard of care group when compared to the intervention group (mean difference [95% CI], 479,5 [110.7-848.3] g). The authors concluded that an intervention targeting triglycerides is feasible and acceptable for women diagnosed with GDM. The positive improvements in nutritional intake and desirable birth weight warrant a larger randomized controlled trial.

GLOBAL PREVALENCE OF INSULIN RESISTANCE IN THE ADULT POPULATION: A SYSTEMATIC REVIEW AND META-ANALYSIS

Ballena-Caicedo J, Zuzunaga-Montoya FE, Loayza-Castro JA, et al. Global prevalence of insulin resistance in the adult population: a systematic review and meta-analysis. *Front Endocrinol.* 2025;16:1646258. https://doi:10.3389/fendo.2025.1646258d

Insulin resistance (IR) is a condition where the body's cells stop responding properly to insulin, the hormone essential for regulating blood sugar levels. This problem is central to the development of type 2 diabetes and other metabolic diseases. A recent study published in August 2025 analyzed 87 studies, including data from over 235,000 adults worldwide, to determine how common insulin resistance is among adults. The research team used the Homeostatic Model Assessment for Insulin Resistance (HOMA-IR) index, a standard method for estimating insulin resistance. They found that about 26.5% of adults globally, or roughly 1 in 4 people, are affected by insulin resistance. This high prevalence was consistent across different countries and populations, with slight regional variations ranging from 26% to 30%. Insulin resistance can develop without notable symptoms, so many people may be unaware they have IR until specific tests such as HOMA-IR or oral glucose tolerance tests are performed. The authors emphasize the need for early detection and prevention—especially through healthy diets and regular physical activity.

This summary points out that insulin resistance is not just a concern for those already diagnosed with diabetes, but for millions worldwide who might be at risk due to lifestyle, genetics, or other factors. By adopting healthier habits and improving awareness, individuals can help lower the risk of developing insulin resistance and the serious problems that often come with it. The study stresses the importance of public health strategies focused on prevention and early intervention.

Julie Brake

GOING BACK TO FNCE® AFTER NINE YEARS!

Julie Brake, MS, RDN, LD

I have only been to the Food & Nutrition Conference & Expo® (FNCE®) two times—in 2016 and in 2025. I wanted to attend because it's our conference as Registered Dietitian Nutritionists (RDNs). I am drawn to the opportunities for education and networking with dietitians from across the nation, and around the world! I also enjoyed walking around the host city—Nashville, which did not disappoint. As a solo practitioner, attending conferences can be challenging, and I am grateful to the Diabetes Dietetic Practice Group (DDPG) for the Educational Stipend that made it possible for me to attend FNCE® this year.

The conference was great. I missed the last keynote session because of travel, but the first two keynote speakers were fantastic. They spoke about how food is more than nutrition and we need to be creative as dietitians. I attended several sessions covering topics about diabetes care, masculinity, pediatrics, and more. In the DDPG Spotlight Session about diabetes care, the presenters talked about the acronym PIVOT: Person-first language; Integrate into clinical care; Validate and normalize feelings; Overcome the need to fix; and use Tools, talk, and treatment. This is something that can be applied to all nutrition counseling.

I also went to networking meetings with dietitians from my state association (Georgia) and with the Build Up Dietitians group, and I connected with people from practice groups that I had interacted with online for years. One of the key connections was with another dietitian who specializes in diabetes care, and we are planning on submitting a session proposal for FNCE® 2026.

In addition, the Expo, the Member Product Marketplace, the DPG/MIG Showcase, and the poster sessions allowed me to keep up with the latest on what is available to us as dietitians. I tried many products at the expo hall and attended some of the learning sessions there. The member marketplace showed the latest publications and resources available. At the DPG/MIG Showcase, I volunteered at the Diabetes DPG table and learned more about what other DPGs offer. I'm a member of five DPGs, and all of them provide great connections and practice resources. I also looked at all of the posters to learn about the latest research, and I even saw a study from one of my recent dietetic interns.

I believe attending FNCE® will help me to be a better clinician, and I appreciate that I was able to attend this year.

LEARNING AND GROWING AT ADCES25

Melinda Boyd, DCN, MPH, MHR, RD, FAND

Melinda Boyd

This year's theme for the annual conference of the Association of Diabetes Care and Education Specialists (ADCES®) was "Here We Thrive." What a fitting theme for a conference that was packed with sessions and vendors dedicated to advances in technology, tools to help patients with individualized care, and discussions on inclusive and accessible care for those with disabilities. I can truly say that after attending ADCES25 in Phoenix, Arizona, this past August, I am better prepared to help people do more than just live with diabetes. I am better able to help them thrive with diabetes!

My main focus for sessions this year was targeting topics that placed an emphasis on minimizing stigma to patients, honoring cultural food preferences, and providing accessible care for those with disabilities. There were so many great sessions to choose from, and I am thankful that I have On-Demand access for some of these. The two sessions that really stood out to me and offered helpful information within this space were "Optimizing Diabetes and Technology Education and Support for Individuals with Disabilities" and "Honoring Different Food Cultures: A Framework for Diabetes and Nutrition Education."

In the session about technology support for individuals with diabetes, I appreciated learning more about the accessibility of different management tools, like settings for voice-over to continuous glucose monitor (CGM) apps for those who are visually impaired. I also found the SugarPixel tool to be very cool, especially the bed shaker discs that can alert the user to a low blood glucose reading. This can be useful for anyone, but especially for someone who is hearing impaired and may not hear the alert from their CGM. After the session, I made sure to visit the SugarPixel booth to learn more about this helpful and new-to-me product. I also appreciated that the presentation addressed caring for patients with both diabetes and neurodivergence. Technology has come a long way and is so helpful for improving diabetes outcomes, but it's only as good as the ability of the user to use it. The speaker offered great tips and shared real-life experiences in troubleshooting wearable technology for those with ADHD or autism who might be sensitive to touch or sound. This is one of those great reminders about meeting the patient where they're at.

In the session about honoring different food cultures, a team from Minnesota shared their project to develop tools for their community rooted in culturally responsive care. They sought feedback through focus groups including Hmong,

Somali, and Ethiopian community members. Their questions focused on finding out "what the understanding of diabetes is within each community," "what they are looking for in diabetes education," and "how would they like to receive patient education (modalities)." I found their approach to be refreshing. As someone who works in the space of culturally responsive care and has a background in public health, where I learned about the importance of including community stakeholders in developing interventions, I was excited to see that diabetes care teams are taking this approach to best help their diverse communities, especially those who are experiencing a language barrier when it comes to receiving care. The speakers presented videos made by local Somali community members, recorded in their native language, to show us the final product of the work they did within their community. Additionally, they walked us through the development of different diet education tools specific to the traditional foodway of their Somali patients. This session reaffirmed my belief in the importance of culturally responsive care and the need to collaborate with patients to best understand how to meet their unique cultural needs.

I'd like to thank DDPG for a wonderful member reception. It was great meeting so many of you there, and it was nice to put names with faces. I loved learning more about each of the sponsors. I'm also still reeling from learning that pistachios are a complete protein. These have long been a favorite of mine, but I can't stop recommending them to everyone I know right now—diabetes or not!

Lastly, I want to share about my time spent walking the expo floor. While it's a different scene than at FNCE®, I appreciated the opportunity to learn more about wearable technology and ways to make the experience of using a CGM more individualized. Since I don't work on a daily basis with CGM users, I had no idea just how many options there are for overpatches. I smiled every time I walked by a booth offering choices for people to customize the look of their patch or some way to express their individual personality through wearable technology. No longer does someone need to feel the stigma of having diabetes. These options showed me the many ways that someone can proudly display their CGM. This is just one example of something that stood out to me on the expo floor that really said, *Here we thrive*.

It's true. In 2025, our patients with diabetes are thriving more than ever. This is due to all of the hard work by their care teams, their family members' support in daily life, the companies dedicated to reducing the burden of living with diabetes—and, most importantly, the patients themselves who have been empowered to take control of their diabetes. As a result, they can truly thrive.

I am thankful to have had the opportunity to learn so much at ADCES25. Thank you to DDPG for your support through an educational stipend.

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