



Precision Nutrition, Diabetes & Social Isolation

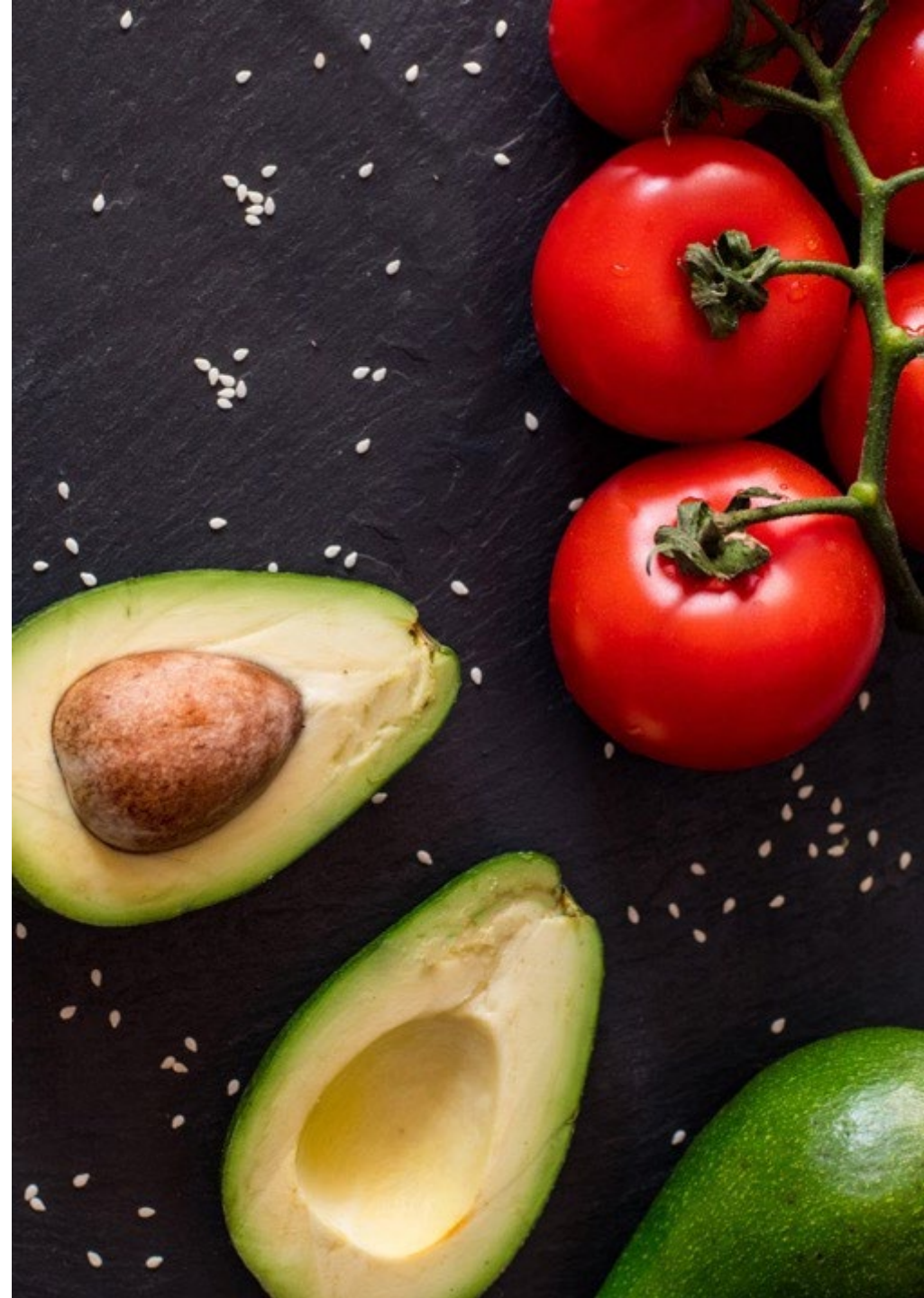
The 5 Key Takeaways for Health Benefits Executives

June 25, 2020

● DAY
TWO

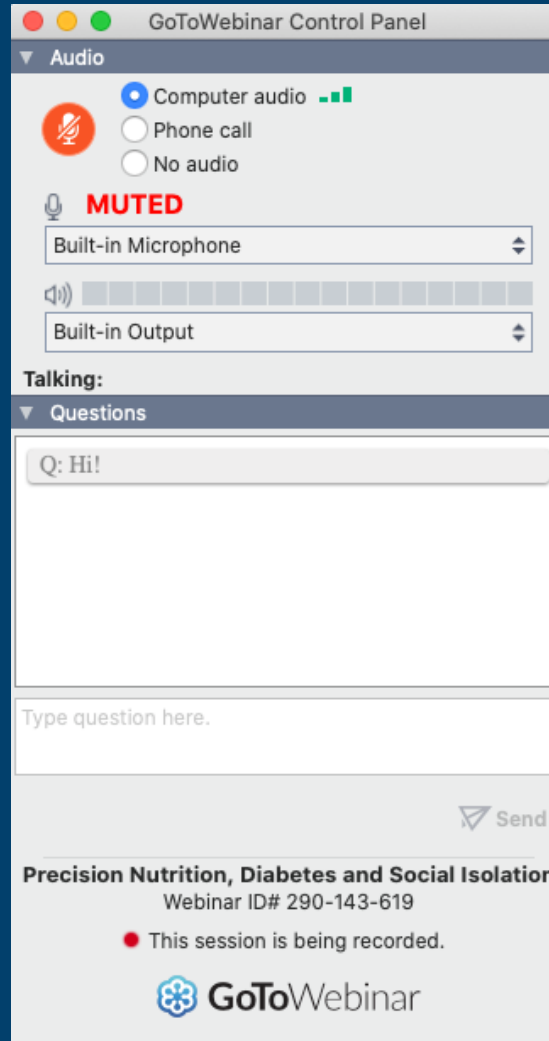
Agenda

- Introductions
- Precision Nutrition: Food As Medicine
- Diabetes & Social Isolation
- 5 Key Takeaways for
 - Employees / Dependents with Diabetes
 - Healthcare Professionals
 - HR & Benefits Executives
- BONUS: Resources for employees
- Q&A



Questions?

(Submit in the GoTo Webinar Chat)



Today's Presenters

Presenters



Alan Spiro, M.D., F.A.C.N.

is a healthcare leader with over 30 years of experience with Blue Cross Blue Shield, Accolade, Anthem and Willis Towers Watson.



Melinda Maryniuk, MEd, RDN, CDCES

is an award-winning diabetes educator with over 35 years of experience at Joslin Diabetes Center.



DayTwo-the market leader in diabetes remission

DayTwo offers a clinically proven “**food as medicine**” solution that enables a path to **remission for type 2 diabetes**.

DayTwo uses **gut microbiome profiling** , **clinical support** and **telehealth** to deliver success for tens of thousands of **patient members** .

DayTwo is a fee-for-outcome provider and offers up to **100% fees at risk** to obtain blood sugar control.

DayTwo's Clinical Partners



Gerald J. and Dorothy R.
Friedman School of
Nutrition Science and Policy

Disclaimer

This webinar will provide tips and suggestions but these are not meant to be clinical or legal advice.

Please seek the advice of your own medical or legal professionals when making decisions about your company or your employees.

Precision Nutrition: Food as Medicine



Future State: Food Prescriptions

- **Specific**
 - A generic diet that is linked to general guidelines is not enough to be a prescription
- **Individualized**
 - Specific for the person who receives the prescription
- **Based on accurate proven diagnostics**
 - A prescribed diet, should be based on diagnostics just as medication is based on diagnostics, not general advice.
- **Implemented with a CDCES and/or RD**
 - The prescribed diet will require proper counseling to implement and needs the proper professional to help the person with diabetes.

Food As Medicine Studies

10 years of science

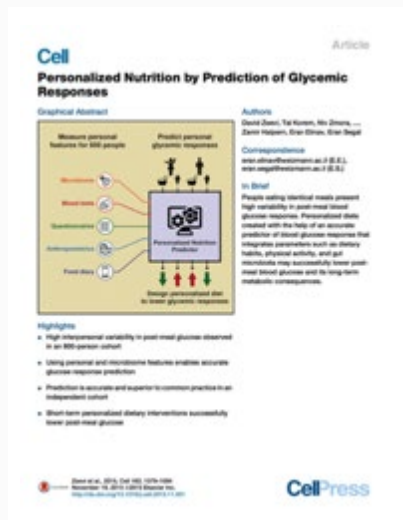
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Cell
Metabolism

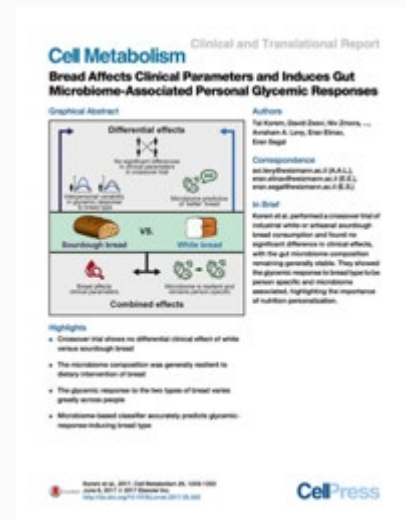
nature

JAMA

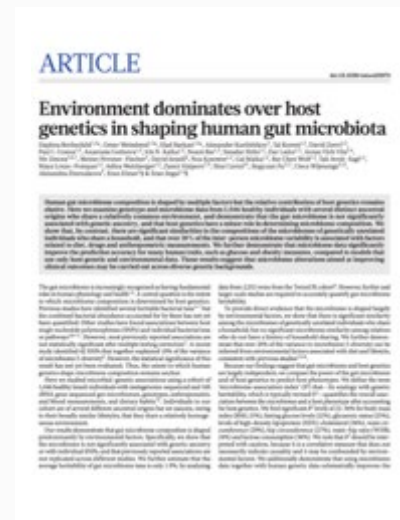
The American Journal of
CLINICAL NUTRITION



Precision Nutrition by
Prediction of Glycemic
Responses



Bread Affects Clinical
Parameters and Induces Gut
Microbiome-Associated
Personal Glycemic Responses



Environment Dominates Over
Host Genetics in Shaping
Human Gut Microbiota



Assessment of Precision
Nutrition by Prediction of
Glycemic Responses



Model of Precision
Postprandial Glycemic
Response to Food



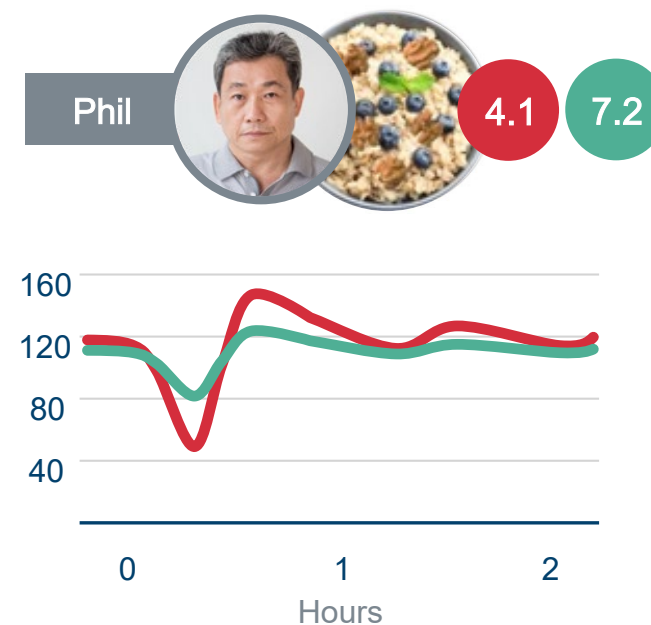
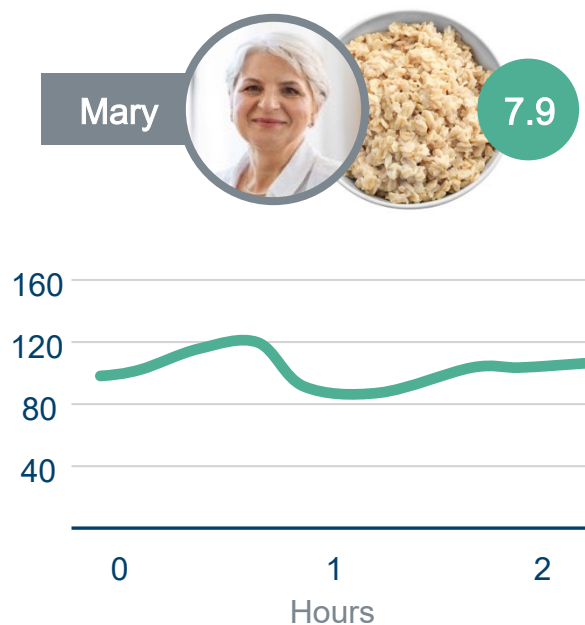
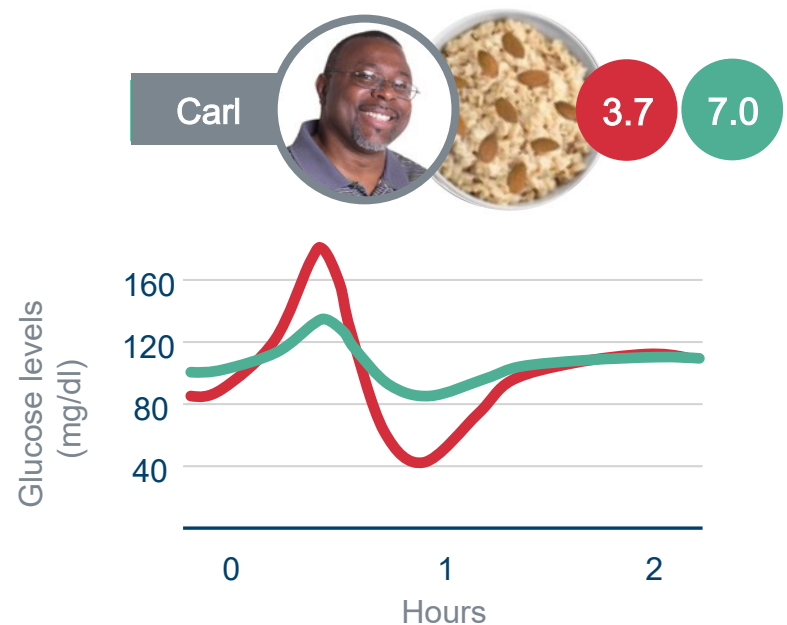
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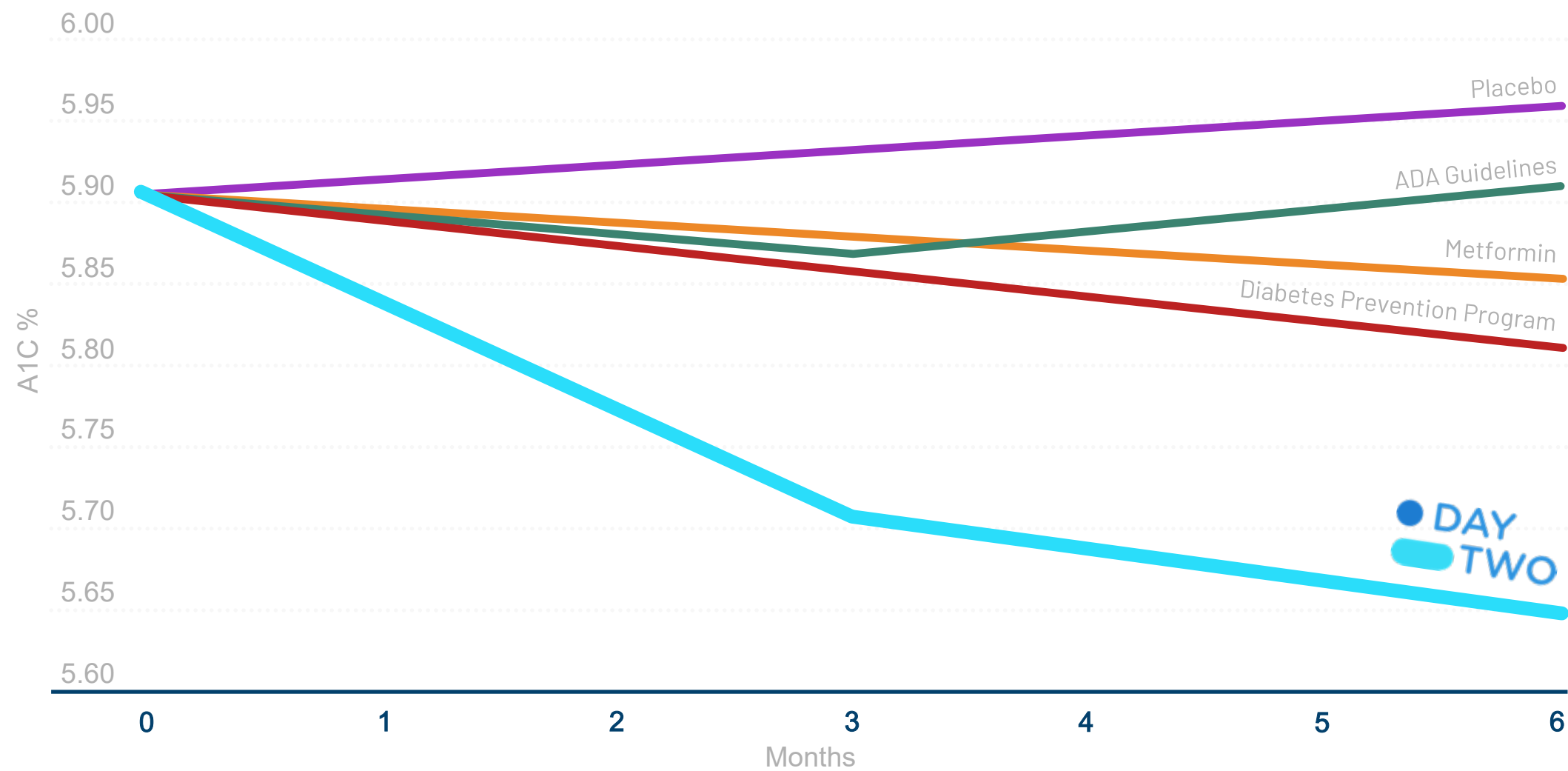
SCIENCE FOR THE BENEFIT OF HUMANITY

People Respond Differently to the Same Food

Blood Glucose Levels Before and after using DayTwo's microbiome-based predictive algorithm meal recommendations



Food As Medicine is 4x More Effective in Lowering A1C for Diabetes & Prediabetes





Food, Family & Culture: Taking “No” to “Yes”

- Food is family and food is heritage
- Food security means taking cultural competence into account
- Cultural competence and understanding is critical to avoid unconscious bias
- Food Precision requires an understanding of cultural competence

Diabetes & Social Isolation



Reminders: Diabetes & COVID-19

- Transition from acute to chronic / post COVID-19 era
- Diabetes impacts people with COVID-19; 10% of people with diabetes hospitalized for COVID-19 die within 7 days
- Overall in the US, the COVID-19 infection rate is 3 times higher in predominantly black counties than in predominantly white counties, and the mortality rate is 6 times higher
- Older age, men, lower wage employees, those least able to work from home and minorities are at higher risk.
- For some, working from home will be the new norm
- The rigors of managing diabetes can be stressful and lead to symptoms of depression.
- Diabetes can cause complications and health problems that may worsen symptoms of depression

Source: ADA, CDC, NEJM, JAMA, Diabetologia



Risks: social isolation and loneliness

Isolation versus Loneliness

- Social isolation and loneliness are two different but related issues with their own risks

Risk of Stroke

- Socially isolated men have a 90% increased risk of cardiovascular death and more than double the risk of non-fatal stroke

Increase in Mortality

- Social isolation leads to a 29% increase in mortality and loneliness leads to a 26% overall increase in mortality especially in those over 60

Impact to Physical Body

- Social isolation and loneliness cause physical changes in our bodies, not only emotional ones.

Altered Immune Response

- Loneliness is correlated with increased Inflammation and altered immune response

Diabetes & Social Isolation

The 5 Key Takeaways



5 takeaways for people with diabetes

1. Maintain routines

- Daily habits: sleep, eating times, work schedule
- Diabetes care: food, exercise, medications

2. Try something new

- Flexibility: meal planning, exercise, free time
- Creative expression: boosts mental health

3. Health matters

- Realistic understanding of risks
- Pay extra attention to glucose levels; health indicators

4. Acknowledge feelings

- It's hard! Naming a feeling is a first step to managing it.
- Contact info for mental health services

5. Stay connected

- Friends, family, co-workers
- Healthcare team: telehealth visits



5 Takeaways for Healthcare Professionals for Patients

1. Patient monitoring

- Proactively check in more frequently with your atrisk patients

2. Track patient disposition

- Use an online questionnaire to monitor patient mood

3. Assess food security & medication compliance

- Also track patient adherence via a questionnaire

4. Depression screening

- Use PHQ2 or PHQ9 screening tool to assess patients

5. Engage CDCES / RDs

- Make sure patients have help with meal planning & recipes

5 Takeaways for HR & Benefits Executives

1. Prepare for a chronic & post COVID environment

- Consider support groups, employer buddy system
- Investigate training for virtual work

2. Shift resources

- Deploy team building strategies that focus on healthy lifestyle and good eating
- Consider alternative workforce management

3. Facilitate food access & support

- Investigate and provide resources such as food delivery services
- MNT, healthy eating programs (and /or discounts)

4. Promote mental health services

- Consider promotion of virtual mental health resources available

5. Enable & Empower Food As-Medicine

- Incorporate nutrition into diabetes benefits design



Food-As-Medicine -- What You Can Do Today

1. Good: Educate | Communicate Existing Nutrition Benefits

Insight. 75% of people with diabetes are not aware of the nutrition benefits they already have

2. Better: Engage | Promote Coaching & Nutrition Telehealth

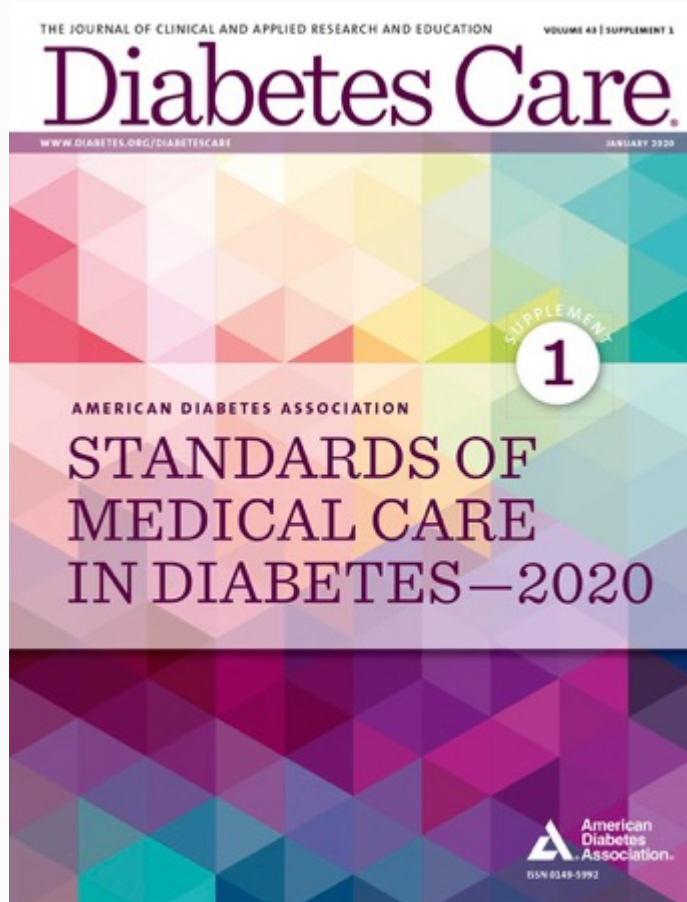
Insight. 92% of people with diabetes do not have a plan or a clinical partner to enable food-as-medicine

3. Best: Empower | Profile Patients for Precision Nutrition

Insight. 95% of people with diabetes use general dietary guidelines, which offer limited clinical impact.



Citations In ADA Evidence Based Standards of Care Now Include Precision Nutrition



“...research has shown, for example, the wide interpersonal variability in blood glucose response to standardized meals that could be predicted by clinical and microbiome profiles.”

Resources

Resources

- ADA: www.diabetes.org & ADCES(Telehealth)www.diabeteseducator.org
- UnLonely Project: <https://artandhealing.org/stuckathome/>
- Peer Support:
 - www.diabeteseducator.org/peersupport
 - www.diabeteswhatoknow.com
- Cooking:
 - Cooking Through It:<https://www.epicurious.com/>
 - Milk Street Cooking Classeswww.177milkstreet.com
- Exercise: <https://www.goodhousekeeping.com/health/fitness/a31792038/coronavirus-live-stream-workout-classes/>
- Virtual Games
 - <https://www.jackboxgames.com/>
 - <https://parade.com/1012420/nicolepajer/best-online-games/>

Bonus Resources

- PDF: Tips for Meal Planning Post COVID-19
- Recording: today's webinar
- Diabetes Benefits Resource Hotline
415-962-4084
- Diabetes Benefits Resource email
Tread.Childs@DayTwo.com



Tips For Meal Planning During COVID-19

This is such an unusual time. It's hard to plan meals since when you get to the store, you may not find what you're looking for. Or if you're waiting on a delivery – you can't be sure when it will arrive or what will be in it! And the easy pantry meal options suggested in many articles (usually a mixture of rice, beans and corn) may be higher in carbs than you'd like. Here are a few tips to help you with meal planning and shopping during this time when we are working hard to stay in place and stay safe. Also included are three recipes for lower-carb entrees that you can try using commonly available ingredients.

Plan meals around what's available – Start with an inventory of what's in your pantry, fridge and freezer. Make your menus based on what you need to use up. You might want to snap a couple of photos of what you have so when you get to the store, if you find you need to alter your plans, you can be reminded of what you have. Have an alternate option for your key items, so if ground beef isn't available - check for ground turkey. If you have several stores in your area, check with friends about which ones seem to have the best selections, or if there is a better day of the week (and time) to go.

Expand your vegetarian meal options – Like most people, you may have been aiming to have at least one vegetarian meal a week before the COVID-19 pandemic began. However, with limited meat options (or not enough room in your freezer), this is a great time to try a few more meatless meal recipes. Three recipes are included below.

Blanch and freeze vegetables - While the shelves of frozen fruits and veggies are often empty when I go to the store, there is usually a good variety of fresh produce. Stock up on fresh veggies and freeze your own. One important tip...

Blanching is a must for veggies to be frozen. It only takes a few minutes and involves dropping veggies into boiling water and then into an ice bath to stop the cooking. This process slows or stops the enzyme action which can cause a loss of flavor, color and texture. Blanching time is important and varies based on the vegetable and size. Lists for blanching times are easy to find on the internet – but here are a couple of times for common veggies. Once blanched and drained, pack away in freezer bags or containers and don't forget to mark the date.

- Spinach / greens – 2 minutes
- Green beans – 3 minutes
- Broccoli and cauliflower florets – 3 minutes
- Carrots, small, whole – 5 minutes

Single layer fruit and veggie freezing – Some produce is best frozen by first laying it out on parchment paper and freezing on a tray in a single layer. This works well for small fruits like berries. It's also a

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