



Beating the Barriers to Optimal Diabetes Care



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DISCLOSURES

Disclosure Statement

Today's faculty: Timothy Hsieh, MD; Sophie Ball, Elieta Cho; Yadira Benjelloun; Ruth Pereira and Amy Wong and the planners for this activity, as well as the CME staff, do not have any relevant financial relationships with commercial interests or affiliations to disclose.



Barrier #1



Non-Conventional Schedules and Diabetes Medications: What Have You Heard?



- A. Patients unsure when to take medication
- B. Patients unsure when to eat with medication
- C. Patients unsure how to remember to take diabetes medication
- D. Patients unaware of sleep affecting blood sugar



A. 0% B. 0% C. 0% D. 0%

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Non-Conventional Schedules and Diabetes Medications

- ▶ **Work schedules** and other factors may lead to meal and sleep patterns that differ from the usual morning, mid-day, and evening meals with overnight sleep
- ▶ **Tailoring meds** to work at proper times to meet basal and prandial (meal) needs is important

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Find Out When the Patient Eats, Works, and Sleeps

- ▶ Have the patient review their daily schedule of food intake, work, and rest
- ▶ Are medications covering mealtime needs?
 - Short-acting insulin pre-meal (single-dose syringe can be pre-filled; OK at room temperature)
 - NPH covering a meal approximately 6 hours later
 - Sulfonylurea or acarbose pre-meal
- ▶ Additional BG testing may be necessary

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Are Sleep-Time Needs Being Met?

- ▶ Long-acting insulin at "bedtime"
- ▶ Action of metformin on hepatic glucose output

- ▶ Are extended-release (once daily) meds more suitable?
- ▶ Make prescription instructions explicit to avoid confusion.

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Barrier #2



Nutrition and Diabetes: What Have You Heard?

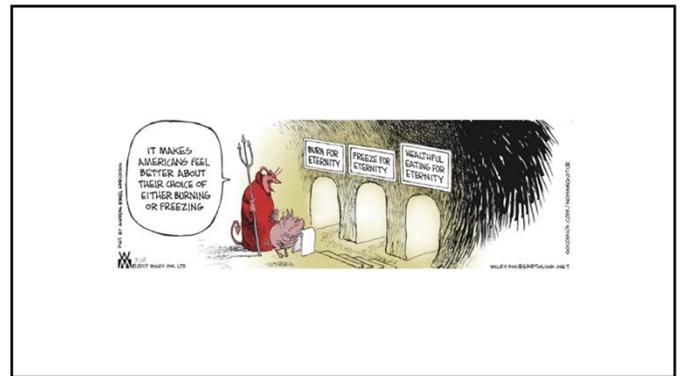
A. Patients being told they can't eat any carbs
 B. Patients unsure about eating sugar substitutes
 C. Patients wanting to try "fad" diets (e.g., ketogenic)
 D. Patients unsure about how much to eat

0% 0% 0% 0%

A. B. C. D.

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Who is "the bad guy": the carb or the meat?

The Cotton Candy Hot Dog Will Kill Us All

Shawn Cooke
 8/26/18 12:42pm • Filed to: COTTON CANDY HOT DOG • 26.3K 63 7

Eating for the Best Diabetes Control

- ▶ No "one-size-fits-all" eating pattern
- ▶ Address individual nutrition needs based on:
 - Personal and cultural preferences
 - Health literacy and numeracy
 - Access to healthful food choices
 - Willingness and ability to make behavioral changes
- ▶ Barriers to change

ADA Position Statement on Nutrition Therapy for Adults with Diabetes, 2013

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Nutrition Messaging

- ▶ Emphasis on healthful eating patterns containing nutrient-dense, high-quality foods, with less focus on specific nutrients. ADA 2017
- ▶ Evidence suggests there are a range of beneficial dietary options. The Mediterranean, DASH, and plant-based are all examples of healthful eating patterns. ADA 2017

Themes consistently align to our general bottom line:

- ▶ **MORE** Whole grains, fruits & vegetables, seafood, legumes, nuts
- ▶ **LESS** salt, refined grains, red and processed meats, sugar-sweetened foods and beverages

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Easy to Understand Nutrition Messaging

The Healthy Plate

9 inches

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Diet Comparisons: **Composition**



| Mediterranean | DASH | Plant-Based | Ketogenic |
|--|--|---|--|
| <ul style="list-style-type: none"> Plant-based: abundant in fruits and vegetables; breads and other forms of cereals; beans, nuts, and seeds Minimally processed Limited sweets: fresh fruits are daily dessert; sweets based on nuts, olive oil High-quality fats: olive oil Low to moderate dairy intake: cheese and yogurt Protein: red meats and eggs consumed in small amounts with low frequency; seafood intake varies, with moderate amounts of fish Alcohol: wine consumed in low to moderate amounts Herbs and spices: used to add flavor to foods | <ul style="list-style-type: none"> Encourages consumption of foods that are low in saturated fat, total fat, cholesterol, and sodium, and high in potassium, calcium, magnesium, fiber, and protein More whole grains, fat-free or low-fat dairy products, fruits, vegetables, poultry, fish, and nuts Limits fatty meats, full-fat dairy products, tropical oils, and sugar-sweetened foods/beverages Total fat: 27% of calories Saturated fat: 6% of calories Protein: 18% of calories Carbohydrates: 55% of calories | <p>Encourages whole, plant-based foods and discourages meat, dairy, and eggs as well as refined and processed foods</p> | <ul style="list-style-type: none"> Low-carbohydrate diet: <45% of calories from carbs (compared to 45-60% in other diets) Ketogenic diet: <50g grams carb (200 kcal) per day |

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Diet Comparisons: **Long-Term Data**



| Mediterranean | DASH | Plant-Based | Ketogenic |
|---|---|--|---|
| <p>Studies available out to 4 years</p> | <ul style="list-style-type: none"> No long-term studies for glycemic control, but long-term safety known for HTN control Women's Health Initiative shows subjects with more DASH-pattern eating habits had less incidence of DM | <p>Studies comparing vegetarian to carb-counting diet showed glycemic adherence/acceptability scores on study questionnaires for the vegetarian group were better than or equal to that of the carb-counting group</p> | <p>Meta-analysis shows 0.34% reduction in HbA1c in first 3-6 months of low-carb diets, but no difference 1 year or later</p> |

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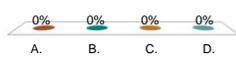
Barrier #3



Financial Barriers to Diabetes Control: **What Have You Heard?**



- Patients unable to pay copays for meds
- Patients unable to perform home BG testing due to cost
- Patients unaware of medical financial assistance
- Patients unable to pay for lab tests/medical visits



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Financial Barriers



- Affording medications
 - Generic
 - High copays (linagliptin, empagliflozin, U-500, exenatide)
 - Medical financial assistance
- Affording home BG testing
- Affording lab tests and medical visits

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Medical Financial Assistance



- Household gross income must be <350% of the federal poverty level
- Income level calculated from what was reported when the patient last applied for credit
- Medi-Cal patients ineligible

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Medical Financial Assistance

Household Size & Income Limits



| 350% of federal poverty level guidelines | | |
|--|---|-----------|
| If your household size is: | Your household income must be no more than: | |
| | Monthly | Annually |
| 1 | \$3,541 | \$42,490 |
| 2 | \$4,801 | \$57,610 |
| 3 | \$6,061 | \$72,730 |
| 4 | \$7,321 | \$87,850 |
| 5 | \$8,581 | \$102,970 |
| 6 | \$9,841 | \$118,090 |

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Medical Financial Assistance

How to Apply

- ▶ Online application in English and Spanish at kp.org/mfa/scal
- ▶ Patients can also contact a financial counselor at local medical center

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Medical Financial Assistance

Benefits

- ▶ All clinic, emergency, inpatient, and observation copays
- ▶ All prescription medication (*over-the-counter medication not covered*)
- ▶ If DME necessary, need letter from physician informing what type of equipment needed. Letter forwarded to regional office for processing.

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Financial Barriers

- ▶ Affording medications
- ▶ Affording home BG testing
 - Alternating times of day for testing (one day morning, next day pre-lunch, next day pre-dinner)
- ▶ Affording lab tests and medical visits

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Financial Barriers

- ▶ Affording medications
- ▶ Affording home BG testing
- ▶ Affording lab tests and medical visits
 - Performing all tests needed at one lab visit
 - Telephone appointments, email, Complete Care providers

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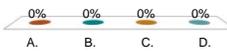


Barrier #4



Herbal/Alternative/Folk Remedies and Diabetes: What Have You Heard?

- A. Patients want to avoid side effects or long-term effects of medications
- B. Patients afraid to take insulin
- C. Patients hear about alternative remedies through family, friends, or media
- D. Patients think medications = failure



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Herbal/Alternative/Folk Remedies

- ▶ Each patient's cultural beliefs should be treated respectfully
- ▶ Anecdotal reports not sufficient substitute for scientific evidence
- ▶ Insufficient evidence to support herbal supplements
- ▶ Folk remedies may be tried at the same time as conventional therapy

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