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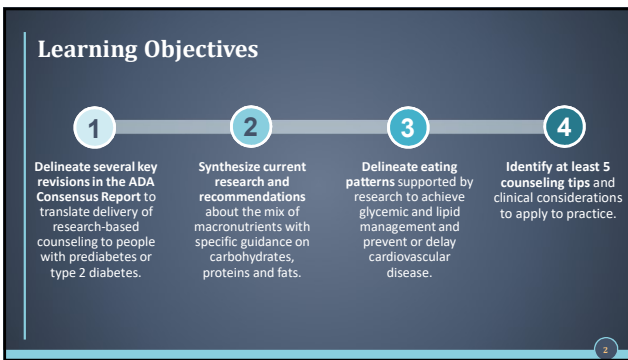
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### U.S. Prediabetes and Type 2 Diabetes Numbers<sup>1</sup>

- Diabetes (U.S. 2018)
  - 13% of U.S. adults (> in AA, HA, Asian [at lower BMI])
  - > 34.2 mil (10.5%), > 7 mil (2.84% all US adults not yet diagnosed)
    - ~95% T2D, ~85% T2D overweight or obese
    - ~27% 65 years and older
  - Highest prevalence geographically in U.S. Southeast, tracks overweight/obesity
- Prediabetes (U.S. 2018)
  - 35% of adults (~88 million)
    - >45% over 65 yo (Medicare)
    - Only 15% are aware (told by HCP)
- Progression from Prediabetes → Type 2 Diabetes?
  - Estimates range, depend on many factors



1. CDC, National Diabetes Statistics Report, 2020. Centers for Disease Control and Prevention, US Department of Health and Human Services.

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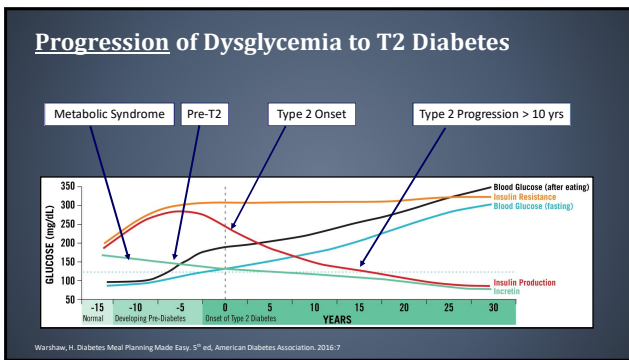
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### Prediabetes → Type 2 Diabetes

- It's progressive, a **continuum**
- Pathophysiology of type 2 diabetes includes:
  - Pancreatic **beta cell decline** (cell mass and/or function?)
  - Relative **insulin deficiency** (vs. absolute in type 1 diabetes)
  - Initial and continuous **insulin resistance**
- "Diet and exercise" – i.e. healthy eating and physical activity – don't fail... **beta cells DO**
  - Pancreatic failure, **not** a personal failure
- Reversal? Remission? Cure?**



1. American Diabetes Association. 2. Classification and diagnosis of diabetes: Standards of Medical Care in Diabetes - 2020. Diabetes Care. 43(Suppl 1):S14-S31. <https://doi.org/10.2337/62-00-0002>

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### Background: ADA's Nutrition Therapy for Adults with Diabetes or Prediabetes: A Consensus Report<sup>1</sup>

- Updated approximately every 5 years over a few decades by expert writing group
  - 2019, 14 co-authors, several RD, CDEs, with researchers, PCP, person with diabetes
  - Published Diabetes Care, May 2019, 15 pages, 350 references
- Prior update in 2014, first time lead co-authors were RDs, with other experts<sup>2</sup>
- Now a Consensus Report, not a position statement (ADA no longer publishing position statements)
  - Definition: "Comprehensive examination by an expert panel of a scientific or medical issue related to diabetes"
- Guidance for non-hospitalized adults with type 1, 2 diabetes
- Now includes prediabetes
- Relevant updates integrated immediately into ADA's "Living Standards of Care" then integrated into next year's Standards of Medical Care for Diabetes - 2020<sup>3,4</sup>

1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754. 2. Evert AB, Boucher J, Cypress M, et al. Nutrition therapy recommendations for the management of adults with diabetes. Diabetes Care. 2014;37(Suppl. 1):S120-S143. 3. ADA. Living standards of medical care in diabetes. <http://care.diabetesjournals.org/living-standards>. 4. ADA. Standards of Medical Care in Diabetes - 2020 <https://professional.diabetes.org/content/page/practice-guidelines/resources>.

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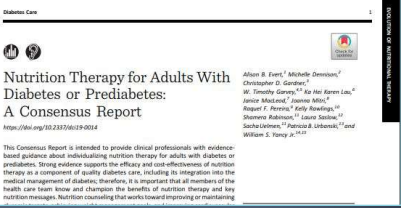
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### Consensus Report Writing Group

- Alison B. Evert, co-chair
- Michelle Dennison
- Christopher D. Gardner
- W. Timothy Garvey
- Ka Hei Karen Lau
- Janice MacLeod
- Joanna Mitri
- Raquel F. Pereira
- Kelly Rawlings
- Shamera Robinson
- Laura Saslow
- Sacha Uelman
- Patricia B. Urbanski
- William S. Yancy Jr., co-chair



Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Diabetes Care: Must-Have Bookmarks!



1. ADA. Standards of Medical Care in Diabetes - 2020 <https://professional.diabetes.org/content/page/practice-guidelines/resources>. 2. ADA. Living standards of medical care in diabetes. <http://care.diabetesjournals.org/living-standards>. 3. ADA. Standards of Medical Care - 2020, Section 5. Diabetes Care. 2020;43(Suppl 1):548-565.

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### ADA Consensus Report: Research Evidence Base

- Literature review started with 2014 position statement<sup>1</sup>
- Reviewed > 600 publications, 2014-early 2018
- Research inclusion criteria:
  - Subjects ≥ 18 yo
  - Outpatient/ambulatory care, community, metabolic/clinical research settings
  - Non-hospitalized, no acute illness
  - Diagnosed with diabetes (1 or 2), prediabetes<sup>1</sup>
  - Sample size: > subjects per group
  - 50% or > retention rate
  - English language
- Study design preferences: RCT, clinical controlled, single arm clinical, prospective observational, cross-sectional observational, case controlled studies



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Nutrition Research = Challenging!<sup>1</sup>

- Small sample sizes
- Dearth funding
- Study length short term
- Adherence to intervention difficult, costly
- Retention difficult
- Can eating pattern, “diet” be implemented long term?

*“Though this literature review was extensive, it’s disappointing to observe that nutrition research continues to lag behind other areas of diabetes research, such as pharmaceutical trials that can include several thousand participants in years-long studies at multiple sites around the world...It’s not uncommon for nutrition intervention trials investigating different eating patterns to include only 100 participants and be of short durations (12-24 weeks).”*

- Alison Evert, MS, RD, CDE



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Four Key Goals of Diabetes Nutrition Therapy<sup>1</sup>

- Promote and support **healthful eating patterns**, emphasizing a **variety of nutrient-dense foods** in appropriate **portion sizes** to improve overall health.
  - Improve [achieve target] A1C, BP and lipids<sup>2</sup>
  - Achieve/maintain body wt goal
  - Delay/prevent diabetes complications (acute, chronic)
- Address **individual** nutrition needs based on personal, cultural, literacy, numeracy, access to healthy foods, **willingness and ability to make behavior changes** [understanding] barriers.



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Four Key Goals of Diabetes Nutrition Therapy<sup>1</sup>

3. Maintain pleasure of eating by providing positive messages about food choices while limiting food choices only when indicated by scientific evidence.

4. Provide individual with diabetes with **practical tools** for day-to-day meal planning.



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Topics We'll Cover Today

- Background: ADA's *Nutrition Therapy for Adults with Diabetes or Prediabetes: A Consensus Report*
- Research and Recommendations on Macronutrients
- Research-based Guidance on Optimal Eating Patterns
- Common Denominators and Key Messages
- Case Studies:
  - Prediabetes
  - Type 2 New Diagnosis
  - Type 2 Long Duration

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### From Macronutrients → Foods: Key Teaching Hurdles



The word cloud on the left includes terms like carbohydrate, monosaccharides, disaccharides, starch, sugar, and component. The food collage on the right shows various fruits, vegetables, and proteins.

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### Macronutrient Recommendations<sup>1</sup>

- All: there's **no ideal percentage** of calories from carbohydrate, protein, and fat for everyone; **individualize!**
  - Similar intake to general public: ~45% carb, ~36-40% fat, ~16-18% protein
- Carbohydrate:** Assess current intake, **provide individualized guidance** on intake to optimize food choices, guide glucose-lowering medication plan (and disease progression)
  - Quality and types:**
    - Rich:** dietary fibers, vitamins, minerals
    - Low:** added sugars, fats, sodium
- Fiber:** Consume at least 14 g/1000 cal, DGA levels (2015-2020)
  - Glycemic impact only if  $\geq 50$  g/day
  - GI/GL: **No significant impact** on A1C, mixed results on fasting glucose.
    - Utility = uncertain



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Macronutrient Recommendations<sup>1</sup>

- Protein:**
  - Limited research
  - No specific** amount recommended
- Dietary Fat:**
  - Higher fat consumption from healthier fats like nuts, avocado, oils, and less total carbohydrate (any type) may **impact CVD outcomes positively**
  - Quality and types of fats matter!**
  - Minimize **synthetic trans fats** – keep as low as possible



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Eating Patterns: General Conclusions<sup>1</sup>

- “Totality of all foods and beverages consumed”
- “There isn’t one, single recommended nutrition plan for everyone, given the broad spectrum of this population. Many food choices and eating patterns can help people achieve health goals and quality of life. **One size fits all does not fit.**”
- **Bottom line:** Best eating plan for people with diabetes, prediabetes is what they’re able to integrate and [generally] **follow over time!**
- Extensive evidence review of wide gamut of eating patterns, however, **insufficient evidence exists for particular eating pattern(s)** from studies reviewed based on criteria



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Eating Patterns: Evidence Evaluated<sup>1</sup>

- DGA
- Mediterranean-style
- Vegetarian or vegan
- Low fat
- Very low fat
- Low carbohydrate (defined: 26-45%)
- Very low carbohydrate (defined: < 26%)
- DASH
- Paleo
- Intermittent fasting

Type of eating pattern	Description	Potential benefits reported*
DGA Dietary Guidelines for Americans (DGA) (8)	Emphasizes a variety of vegetables from all of the subgroups; fruits, especially whole fruits; grains, at least half of which are whole intact grains; low-fat dairy; a variety of protein foods; and oils. This eating pattern limits saturated fat and trans fats, added sugars, and sodium.	DGA added to the table for reference; not reviewed as part of this Consensus Report
Mediterranean-style (9),76,85-91)	Emphasizes plant-based food: vegetables, beans, nuts and seeds, fruits, and whole intact grains; fish and other seafood; olive oil as the principal source of dietary fat; dairy products (mainly yogurt and cheese) in low to moderate amounts; typically fewer than 4 eggs/week; not meat or low-frequency and amounts, when in low to moderate amounts; and concentrated sugars or honey rarely.	<ul style="list-style-type: none"> <li>• Reduced risk of diabetes</li> <li>• A1C reduction</li> <li>• Lowered triglycerides</li> <li>• Reduced risk of major cardiovascular events</li> </ul>
Vegetarian or vegan (77-80,92-99)	The two most common approaches based on the literature emphasize plant-based vegetarian eating devoid of all flesh foods (not including egg [ovo] and/or dairy [lacto] products), or vegan eating devoid of all flesh foods and animal-derived products.	<ul style="list-style-type: none"> <li>• Reduced risk of diabetes</li> <li>• A1C reduction</li> <li>• Weight loss</li> <li>• Lowered LDL-C and non-HDL-C</li> </ul>
Low-fat (26,81,88,100-106)	Emphasizes vegetables, fruits, starches (e.g., breads/ crackers, pasta, whole intact grains, starchy vegetables), non-protein sources (including	<ul style="list-style-type: none"> <li>• Reduced risk of diabetes</li> <li>• Weight loss</li> </ul>

1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Eating Patterns: Low- and Very-Low Carbohydrate<sup>1</sup>

- Reducing total carbohydrate has most evidence for improving glycemia
  - Quality counts!
- Very-low carbohydrate for select people with T2D not achieving glycemic goals and/or where reducing glucose lowering meds is a priority
  - Caveats:
    1. Long-term impact on glycemia
    2. Monitor CVD risk factors and clinical events
    3. Ability to adhere long term
- **Not a ringing endorsement** as reported in the media!



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Common Denominators: *Healthful Eating Patterns*<sup>1</sup>

- Emphasize consumption of **nonstarchy vegetables**
- **Minimize consumption** of added sugars and refined grains
- Choose **whole foods** over highly processed foods
- Replace sugar-sweetened beverages with **water** as often as possible



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Consensus Report: *Key Messages*

- For optimal, long term implementation and adherence to a healthful eating pattern to achieve optimal outcomes, **individualization** must be a cornerstone of therapy
- There's **no ideal percentage of calories** from carbohydrate, protein, and fat for everyone. A variety of eating patterns is acceptable
- There **isn't one, single recommended nutrition plan for everyone**, given the broad spectrum of this population. Many food choices and eating patterns can help people achieve health goals and quality of life
- One size fits all does not fit all; **individuals must be able to follow long term**



Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Topics We'll Cover Today

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- Common Denominators and Key Messages
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  - Type 2 New Diagnosis
  - Type 2 Long Duration

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### Nutrition Therapy and Counseling: *The Sweet Spot*

**SHARED DECISION-MAKING**

- | Evidence-based Practice
- | Research-enhanced Health Care
- | Person-centered Care

Adapted from Haynes RB. Physicians' and patients' choices in evidence based practice. BMJ. 2002;324:1330.

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### Meet ML

**Background:** Told about prediabetes at worksite screening (from POC A1C). Confirmed by PCP with FPG.

**Personal/Life Situation:** Asian female in marketing for high tech company. Married with one HS-aged child still at home. Mother with early dementia lives with family. Minimal physical activity due to limited time although has gym at worksite.

**Current Food/Eating Habits:** Often skips breakfast (grabs a bar). Lunch work cafeteria or skips. Trips to vending machine. Dinner at home, often late. ML does most shopping, cooking. Others assist if asked. Since diagnosis, cutting down "carbs" - bread, rice, noodles.

**Data:** Age - 49; ht: 5'2", wt: 138 lbs/BMI 25.1 (DBW: ~120), A1C: 6.1% (5.7 – 6.4%), BP: ~155/95, lipids: abnormal: TG, LDL; GL medications: none.

**Questions:**

- What brought you here today? *Diagnosed with prediabetes, must lose weight to improve health.*
- What questions do you want answered today? *What and how to eat to prevent T2D.*

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### Prediabetes: Consensus Report<sup>1</sup>

- Weight loss with **sustained maintenance** = best indicator of preventing, slowing progression to type 2 diabetes. Ideally  $\geq 7-10\%$  BW
- $>$  weight loss =  $>$  clinical benefits; 5-7% = good,  $\geq 15\%$  = even better<sup>2,3</sup>
- Weight loss = **dominant predictor** of reduced T2D incidence, return to normoglycemia<sup>4</sup>
- Refer to an intensive **behavioral lifestyle intervention program** such as year-long National Diabetes Prevention Program (NDPP)<sup>5</sup> or similar, or individualized MNT<sup>1</sup>
  - Include **improving eating habits**, moderate-intensity **physical activity** to at least 150 minutes/week to achieve weight loss/maintenance goal<sup>1</sup>

1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.  
 2. Leem MS, Leslie WS, Barreira AC, et al. Primary care-led weight management for remission of type 2 diabetes (DIRECT): an open-label, cluster randomised trial. Lancet. 2018;391:541-551.pmid:29221646.  
 3. Wang W, Lang W, Wadden TA, et al. Look AHEAD Research Group. Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. Diabetes Care. 2011;34:1481-1486.pmid:2199294  
 4. Perreault et al. Regression from pre-diabetes to normal glucose regulation in the DPP. Diabetes Care. 2009;32(9):1583-1588.  
 5. CMS. Medicare Diabetes Prevention Program (NDPP) Expanded Model. <https://innovation.cms.gov/initiatives/medicare-diabetes-prevention-program/>.  
 6. Warshaw H. Guest Commentary: Type 2 Diabetes Prevention. Today's Dietitian. 2018;20(8):11. Link: <https://www.todaydietitian.com/newsarchive/0818p11.shtml>

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### ML - First Visit Flow

- Use **inquisitive inquiry**: establish rapport, demonstrate empathy, gather personal story, cultural factors, establish realistic goals, set tone/build relationship for follow up
- **Explain prediabetes** concisely within ML's abilities, explain optimal evidence-based actions
- **Share positivity** of ML's ability to prevent or slow T2D with sustained wt loss (~10-15 lbs), also improve HTN, lipids
- **Correct misunderstandings/misconceptions** about how she needs to eat to lose weight (carbohydrate confusion)
- **Acknowledge need for realism** based on life demands/style – ask what would be most helpful?
- Ask ML to set **2-3 realistic goals** to address eating habits, food choices for next 2 weeks\*
- Discuss importance/role of **physical activity**. Ask ML to set one **goal** for next 2 weeks\*
- Discuss follow up visits/plan – not once and done; **success occurs over time and with support**
- Consider referral to NDPP program (if available) or RD follow up as ML is willing, able



\*Provide in a format that's individualized and optimal per client

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### Meet BT

**Background:** New dx of "prediabetes" by PCP on routine visit for work physical. Not surprised. Family hx T2D.

**Personal/Life Situation:** Night security guard at office building. In school to be nurse's aide. Married. Husband works days. Two young school-aged children. Financial constraints. Low literacy and numeracy.

**Current Food/Eating Habits:** Husband does shopping. They divide cooking, but many "assembled" meals with easy-to-fix supermarket foods. Some "fast" food. Eats breakfast-like meal with kids after work. Sleeps. Takes LO to work for evening meal. Takes salty snacks and sweets, and sweetened drinks "to stay awake all night."

**Data:** Age: 47, Ht: 5'7"; Wt = 213 lbs/BMI: 35, A1C: 6.9% (>6.5%); glucose results (PCP): FPG: 134, PPG: 158; no BGM advised; GL medications: started 500 mg metformin with dinner.

**Questions:**

- What brought you here today? *Referred by PCP*
- What questions do you want answered today? *How to lose weight fast. Learn foods that contain carbs.*
- Particular eating plan you want to discuss? *Dr. said you'd put me on a "low carb diet" to "reverse my diabetes."*



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### Diabetes “Reversal,” “Remission” Defined<sup>1,2</sup>

- ≥ 5 – 10% body weight loss results in varying rates of diabetes remission b/c weight loss is **not the only variable**, beta cell reserve/insulin secretion, years of insulin resistance also matters
- Defined as glucose in **normal or prediabetes range** and using **NO glucose-lowering medications** for up to one year<sup>2,3</sup>
- **Be aware** of claims made, educate public, clients
- Achieving glycemic targets (A1C, glucose values) through good management is **NOT remission**

\*A consensus report on diabetes remission is being developed by the ADA, published in Diabetes Care, late 2020.

1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.  
2. Buse JB, Caprio S, Cefalu WT, et al. How do we define cure of diabetes. Diabetes Care. 2009;32(11):2133-2136.  
3. Diabetes UK. Diabetes remission. <https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/preventing-your-diabetes/type2-diabetes/remission>  
4. Lean MEJ, et al. Primary care-led weight management for remission of type 2 diabetes: an open-label, cluster randomized trial. Lancet. 2018;391:541-551.

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### BT - First Visit Flow

- Use **inquisitive inquiry**: establish rapport, demonstrate empathy, gather personal story, cultural factors, establish realistic goals, set tone/build relationship for follow up
- Briefly **discuss** “prediabetes” term used by PCP. Note that test results fall under T2D. (F/u PCP)
- **Explain T2D concisely** within BT’s abilities, offer evidence-based positive actions
- Discuss term “reversal” – **complete reversal unlikely**, slow T2D with small amount (~20 lbs) sustained wt loss
- **Share positivity** about BT’s ability to slow T2D, prevent complications witnessing with father, grandparents
- Discuss **reasonable weight loss goals**, importance of keeping lost weight off
- Present foods that contain carbohydrates (use **food models, pictures, do activity**), discuss eating smaller portions vs. need to cut out
- Focus only on **ADA common denominators**
- Ask what, how she can implement. **Small changes!** BT writes/states goals: 1) fill/take thermos with lemonade with LCS, 2) take vegetables or fruit as snacks, 3) measure out breakfast cereal and starch at dinner, 4) eat at least one serving fruit and two nonstarchy vegetables/day
- **Discuss benefits of being more active.** Set 1 goal: Walk at work at least 10 minutes 2x/work shift; help staying awake (consider pedometer for motivation)

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### Common Denominators of Healthful Eating Patterns

- Emphasize consumption of nonstarchy vegetables
- Minimize consumption of added sugars and refined grains
- Choose whole foods over highly processed foods
- Replace sugar-sweetened beverages with water as often as possible

\*What’s an effective strategy to achieve glycemic and weight management when counseling adults with T2D with limited literacy and/or numeracy?

**Apply the principles of healthy eating and teach appropriate portions sizes.<sup>1</sup>**



1. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: A consensus report. Diabetes Care. 2019;42(5):731-754.

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### Meet RG

**Background:** T2D 16 yrs, on increasing types and doses of GL Meds, started CGM 1 yr ago. HTN: on meds. Hx: MI, on statin.


**Personal/Life Situation:** Recently retired Latino male. Owned auto mechanic shop 40 years. Sold to son and still goes in to help. Divorced, lives on his own, has lady friend. Healthcare: Medicare, supplemental and Part D.

**Current Food/Eating Habits:** Light breakfast at home (avocado, nut butter or cheese on toast, orange, coffee). Lunch: meat sandwich, carrots or hot meal local diner; Dinner: home assembled or restaurant with lady friend; Snacks in eve: popcorn, pretzels or ice cream.

**Data:** Age: 68, Ht: 6', Wt: 218 lbs/BMI = 30, A1C = 8.4%. Glucoses results from CGM: Show PPG post dinner and late eve. GL medications: Metformin 2000 mg/day, SGLT-2 inhibitor (Invokana) 300 mg/day, and Lantus 60u at bed.

**Questions:**

- What brought you here today? *Referral by endo to RD, CDE in practice. Start on mealtime Novolog set dose (lunch and dinner).*
- What questions do you want answered today? *Help to bring high BG down without having lows.*



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### RG - Return Visit Flow

- Use **inquisitive inquiry**: reestablish rapport, demonstrate empathy, determine current situation, needs and concerns, establish realistic goals
- **Compliment** on any/all positive self-care actions!
- Determine/discuss **ability to get and afford medications**
- **Observe insulin pen injection technique** to assure accuracy, ask about site rotation
- Discuss endo's rationale for **adding mealtime insulin** based on CGM reports (review together), goal of meal time insulin, continued progression of T2D, importance of achieving glucose and A1c goals (HTN and lipids)
  - Assure RG knows his target A1C and premeal, post meal glucose values
- **Discuss timing** of rapid-acting insulin with meals (home and restaurants) (consistency important)
- **Need to/how to carry insulin pen** if out for meal (prior Lantus at night)
- Set goals for **consistent carbohydrate intake** for B/45 g, L/60g, D/60g and eve snack/30g. Discuss in context of meals RG eats. Use **food models for portions**. Encourage use of measuring cups at home (have?).
  - Design 2 experiments – be the scientist of your diabetes
- **Review hypoglycemia prep and treatment:** Ask what he carries? Others know signs, how to treat if he can't?
- **Follow up:** Fax CGM data in 2 wks, schedule phone call f/u, adjust rapid-acting insulin based on approved algorithms; call office if have several lows for insulin adjustment

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### RD's Role in Adjusting Glucose-Lowering Medications

- **Extreme challenge** exists today with "therapeutic inertia" in diabetes care<sup>1</sup>
- RDs can implement organization's approved medication adjustment protocols<sup>2</sup>
- **Insulin-dosing:**<sup>2</sup>
  - When using fixed doses, **keep carbohydrate intake day-to-day**, consistent re: time and amount taken
  - Insulin-dosing decision making should be **based on macro-nutrient intake** and the results of BGM, CGM monitoring results<sup>2,3</sup>
  - Peoples' responses to higher protein and/or fat in meals differs; **use caution when recommending to cover**, confirm with structured approach to SMBG or CGM and evaluate individual responses



1. American Diabetes Association. Overcoming Therapeutic Inertia. <https://professional.diabetes.org/meeting/other/overcoming-therapeutic-inertia>  
 2. Evert AB, Boucher JL, Cypress M, et al. Nutrition therapy recommendations for the management of adults with diabetes. Diabetes Care. 2014;37(Suppl. 1):S120-S143.  
 3. DDPG: CGM and digital health. On the Cutting Edge (newsletter). 2019;40(4).

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**Questions?**

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