The Art & Science of Diabetes Meal Planning
Kim Fox, RDN, LD, CDE  11-2017

There is no "one-size-fits-all" eating pattern

Goals of MNT:
- Promote healthful eating patterns
- Address individual nutrition needs
- Maintain eating pleasure
- Provide healthful eating tools

Weight Management:
- 5-10% weight loss
- Can delay disease progression
- Improve BG
- Reduce need for meds

What to Eat:
- Carbs:
  - 50-60%
  - ~30-75 gm/meal
  - 15-30 gm for snacks
  - Consistency is key
  - Grains, bread, cereal, milk, pudding, yogurt, ice cream, fruit, sweets, starchy veg
    - 1 carb = 15 gm carbohydrate
- Moderate protein
- Healthy fats
- Non-starchy veg
- Variety

Benefits of Carb Counting:
- Flexibility
- See effects of food on BG
- OK for treats
- Improved BG control
- Better insulin dosing

Reading Food Labels:
- Check serving size
- Check total gm carb/serving
- Divide gm carb by 15 for carb "choices"

<table>
<thead>
<tr>
<th>Total Carb (g)</th>
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<tbody>
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<td>65-69</td>
<td>4 ½</td>
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<td>70-80</td>
<td>5</td>
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Fiber:
- Half of all grains should be "whole grain" sources
  - Women: 25 g/day
  - Men: 38 g/day

Protein:
- No kidney disease = Individualize
- Macro/microalbuminuria = .8 gm/kg
- Don't use to treat hypoglycemia

Fat:
- Individualize
- Quality > quantity
- MUFA: alternate to ↓ fat, ↑ carb
  - May improve BG, CVD
- PUFA: Limited evidence
- SFA: < 10% of total Kcal
- Chol: < 300 mg
- Trans fat: 0 advised

O3’s:
- Supplements not recommended--food 1st
  - Fatty fish > 2x/week (up to 9 oz/week)
- Improves blood fats, CVD, overall health

Micronutrients:
Insufficient evidence to recommend routine use
Meal Planning:

Nutrition & Insulin Use:
- T2: Portion control
- Fixed insulin + carb counting
- Flexible insulin + carb counting
- Premixed insulin: Take insulin at same time
- Risk of hypoglycemia with meal skipping
- Fixed insulin: eat small amounts of carb to match insulin dose

Special Considerations:
- Small, frequent meals
- Nutrient-dense
- Change food texture
- Nutrition supplements

Thickeners:
- 8 oz nectar-thick like H2O = 8 gm carb
- 8 oz honey-thick like H2O = 12 gm carb
- 8 oz pudding-thick like H2O = 16 gm carb
- Pre-thickened liquids may also have carb

Special Considerations:
- T1: Flexible insulin + carb counting
- Fixed-dose insulin: Consistent carb
- T2: Portion control

Menu Development:
- Client preferences & feedback
- Variety of colors, flavors, textures
- Eye appeal

Resources & References:
- American Diabetes Association:
  - www.diabetes.org
- National Institute of Diabetes & Kidney Disease:
  - www.niddk.nih.gov
- Joslin Diabetes Center:
  - www.joslin.org
- National Diabetes Information Clearinghouse:
  - www.diabetes.niddk.nih.gov
- American Association of Diabetes Educators:
  - www.diabeteseducator.org
- Diabetes Self Management:
  - www.DiabetesSelfManagement.com
- AACE, ACE Nutrition Guidelines 2015
- http://www.diabetes.org/food-and-
  - fitness/food/what-can-i-eat/understanding-carbohydrates/glycemic-index-and-diabetes.html
- Diabetes in Older Adults: A Consensus Report 2012 by the American Diabetes Association and the American Geriatrics Society
- Geil, PB. Sugars & Starches & Fibers, Oh My! Basic Carbohydrate Counting. 2005

Alcohol:
- Women: <1 drink/day
- Men: <2 drinks/day
- Serving: 12 oz beer, 5 oz wine, 1.5 oz distilled spirit
- May ↑ risk of delayed hypoglycemia, more so with insulin, secretagogues

Sodium:
- <2300 mg
- <1500 mg: DM, African, HTN, CKD, ≥ 52 yo

High GI = > 70:
- White bread or bagel, corn flakes, puffed rice, bran flakes, instant oatmeal, short grain white rice, rice pasta, boxed macaroni and cheese, Russet potato, pumpkin, pretzels, rice cakes, popcorn, saltine crackers, melons, pineapple

Medium GI = 56-69:
- Whole wheat, rye and pita bread, quick oats, brown, wild or basmati rice, couscous

Low GI = < 55:
- multigrain bread, pumpernickel bread, whole oats, legumes, apple, lentils, chickpeas, mango, yams, brown rice
- Insufficient evidence to support education
- May be useful for “fine-tuning”

Incorporating

Nutrisystem

Use Calorie

Rectangle

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Nutrisystem

Use Calorie

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Nutrisystem

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