NUTRITION TIPS FOR PEDIATRICS, GESTATIONAL DIABETES & ADULT POPULATIONS

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PRESENTER DISCLOSURE INFORMATION

In compliance with the accrediting board policies, the American Diabetes Association requires the following disclosure to the participants:

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Disclosed no conflict of interest

OBJECTIVES:

- 2015 Guidelines
- 2016 ADA MNT changes
- MNT
- Nutrition Tips
  - Pediatrics
  - Gestational Diabetes
  - Adult populations
- Supplements
- Metformin and B12 Deficiency
Focus on a health-promoting eating pattern “across the life span”

- Vegetables
- Fruits
- Grains

Fat Free and Low Fat Dairy
- No limit on “total fat”
- Saturated Fat: 10% of total daily calories
- Trans Fats
- Oils

“Moderate coffee consumption”
- 400 mg/day of caffeine
- Energy Drinks with Caffeine
- Alcohol
- Sugars: 10% of Total Daily Calories
2015 DIETARY GUIDELINES FOR AMERICANS

- Lean protein sources:
- Limit sodium:
  - 2,300 mg/day,
  - 1,500 mg with hypertension
- Physical activity:
- Moderate:
  - 150 minutes weekly
- Muscle strengthening:
  - 2 times week


2016 STANDARDS OF MEDICAL CARE UPDATE FOR MNT

- MNT guidelines same as 2015
- The 2015 Dietary Guidelines for Americans came out after the 2016 standards of Medical care
- For weight loss is recommended that 500-750 kcal/day deficit or provide
- 1,200-1,500 kcal/day for Women and
- 1,500-1,800 kcal/day for Men
- Goal of 5-7% sustained weight loss

ADA Standards of Medical Care in Diabetes-2016 care.diabetesjournals.org

2016 STANDARDS OF MEDICAL CARE UPDATE FOR MNT

- New Section:
  - Obesity Management for the Treatment of Type 2 Diabetes
  - recommendations related to Bariatric surgery
  - A table of currently approved medications for the long-term treatment of obesity

ADA Standards of Medical Care in Diabetes-2016 care.diabetesjournals.org
MEDICAL NUTRITION THERAPY

○ MNT: What is it?
  • Individualized nutrition assessment
  • Nutrition diagnosis
  • Intervention and monitoring, evaluation
  • This is the legal definition of nutrition counseling by a registered dietitian nutritionist

MNT

○ Benefits of MNT:
  ○ Reducing A1C by 0.5% to 2% for type 2 diabetes:
    • Recommended: A series of 3 to 4 encounters completed within 3-6 mos
    • Determine if additional encounters are needed
    • Begins at diagnosis of diabetes/referral to a registered dietitian nutritionist for MNT for diabetes
    • Follow-up encounter annually to reinforce lifestyle changes and to evaluate and monitor outcomes that indicate the need for changes in MNT or medication(s)

○ CMS reimburses for diabetes MNT when provided by a registered dietitian nutritionist
○ Many other payers also provide reimbursement.
○ MNT services are included on the ADA and AADE DSME/S referral forms.
○ A separate MNT referral form is available from the Academy of Nutrition and Dietetics
THE 2 MAJOR GOALS FOR MNT

Prevent complications by Lowering the risk and development of:
1. Heart attack
2. Stroke
3. Diabetic retinopathy
4. Nephropathy
5. Neuropathy

Avoid or alleviate symptoms by management of Glucose and:
- Blood pressure
- Lipids/cholesterol
- Smoking cessation
- Anti-platelet therapy

PEDIATRICS

- Children 5-18 years of age.
- Children with type 1 and type 2
2001-2009
- Type 1 Diabetes: 21% increase
- Type 2 Diabetes: 31% increase

SUPPORT PEOPLE
- Family parents/guardians
- School teacher, bus-driver, school nurse
- Diabetes health care provider-pediatrician, endocrinologist, nurse and dietitian

CHOOSING WHAT TO EAT.
- Food choices aren't made by just the child with diabetes
- A balanced diet is important for health
- What about the picky eater?
CHOOSING WHAT TO DRINK...
- Watch out for liquid calories
- Water is best
- Artificially sweetened beverages in moderation

ALSO IMPORTANT TO GET
- Permission for the student to eat a snack
  - The classroom or
  - The school bus,
  - Prevent or treat hypoglycemia.
- Get information of foods served in the school

Pre-teen and Teenage
- Hormones!
- Peers
- Sleep issues
- Eating Disorders
- Recognize that premature transfer of care to the child can result in non-adherence and deterioration in glycemic control.
- A1C goal is <7.5%
GESTATIONAL DIABETES AND PREGNANCY WITH DIABETES

- Over 9% of all pregnancies
- Moms are older
- Moms weigh more
- Demographic of country is changing


GESTATIONAL DIABETES AND PREGNANCY WITH DIABETES

- The patient with pre-existing diabetes
- Diet verses medications
- Meal plan may be different now
- Glucose control is tighter with pregnancy
  - 60-90 FBS and pre-meal
  - 120< 1-2 hrs after meals)

Medical Management of Pregnancy complicated by Diabetes/Donald Coustan, editor.—5th ed. 2013

GESTATIONAL DIABETES AND PREGNANCY WITH DIABETES

- Spend time getting diet recall
- Encourage fluid intake
- Minimum carbohydrates:
  - 12 choices or 230 grams of carbohydrates/day
- Focus on Balance:
  - Carbohydrates
  - Protein
  - Fat

Medical Management of Pregnancy complicated by Diabetes/Donald Coustan, editor.—5th ed. 2013
GESTATIONAL DIABETES AND PREGNANCY WITH DIABETES
- After Baby is Born:
  - Breastfeeding is encouraged
  - Hydration is very important
  - Continue to follow meal plan
  - Remember-baby still eats what you eat

BREASTFEEDING RESOURCES
- Lactation nurse at Hospital
- La leche League at http://www.lalecheleague.org/nb.html
- Local WIC extension at wicworks.fns.usda.gov/breastfeeding
- Womenshealth.gov/breastfeeding/breastfeeding-resources.html

ADULTS WITH DIABETES
- Type 1 and Type 2 diabetes
- 18 years and older
WHY DO I NEED A DIET?
- You don’t need a diet, you need a meal plan
- There is not an “ADA diet”
- customize a meal plan that fits your needs

WHAT CAN I EAT?
- “There is nothing you can’t eat as long as you are counting it.”
- When you are told you can no longer have something what happens?
- Show them how they can eat it IF they really want it

BREAKFAST REALLY IS IMPORTANT
- People who skip breakfast
  - Tend to have higher A1Cs
  - Increased postprandial hyperglycemia
  - Impaired insulin response after lunch and dinner.
  - Slower Metabolism
BREAKFAST IDEAS

- Toast and peanut butter or nut butter
- English muffin and slice of cheese
- Fruit and cottage cheese
- Eggs (hard boiled, scrambled, omelet, poached, etc) with toast or fruit
- Fruit and nonfat/low fat yogurt
- Whole grain cereal with low fat milk
- Oatmeal with nuts and fruit

PORTION CONTROL

- Use your tools!

LABELS

Apple Juice

Nutrition Facts

Serving Size 8 fl oz (220ml)
Servings Per Container

Amount Per Serving
Calories 120
Calories from Fat 0

Total Fat 0g

Saturated Fat 0g

Cholesterol 0mg

Sodium 0mg

Total Carbohydrate 30g

Diet Fiber 2g

Sugars 24g

Protein 0g

Not a significant source of saturated fat, cholesterol, fiber, vitamin A, vitamin C, calcium, and iron.

*Percent Daily Values are based on a 2,000 calorie diet.
**TRACKING TOOLS TO USE**
- Diet and Fitness online: Apps
- My Fitness Pal
- Fit Bit Tracker
- GoMeals.com
- Fit2Me.com
- Taking pictures of their meals for tracking
- A Notebook

**COMPLEMENTARY AND ALTERNATIVE MEDICINES (CAMs)**
- Gymnema
- Berberine
- Cinnamon
- Aloe
- Probiotics
- B12 and Calcium

**PROBIOTICS**
- First article on Probiotics 1995
- Microbiome and Gut Health
- Prebiotics
- Probiotics
- Mind/body connection-mental health
2/29/2016

METFORMIN AND B12 DEFICIENCY

- 10-30% of patients on metformin will develop a B12 deficiency
- A deficiency can mimic symptoms of hyper-and hypoglycemia
- Neuropathy caused by B-12 deficiency may be mistakenly attributed to chronic hyperglycemia or memory loss or confusion
- Healthy range for B-12 is 200-900 pg/ml

METFORMIN AND B12 DEFICIENCY

Symptoms include:
- Tiredness
- Weakness
- Constipation
- Loss of appetite
- Weight loss
- Anemia
- Patients may also experience nerve pain, poor memory and confusion
METFORMIN AND B12

- Consider screening patients who have taken Metformin >3 years, over age 60 and who are taking over >1500 mg/day
- B12 supplementation often starts with injectable 1000 mcg daily for 1 week followed by 1000mg weekly for 1 month then shots supplemented monthly or
- B12 sublingual under the tongue-best choice (pills don't absorb because of intrinsic factor)

MECHANISM OF METFORMIN

- Liver
- Gut?
  - Metformin IR
  - Metformin ER
  - Metformin DR...stay tuned

METFORMIN AND B-12

- Good sources of B-12
  - Fish and shellfish
  - Dairy
  - Tofu
  - Red meats
  - Eggs
“Knowledge alone does not change behavior”

CONCLUSION
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- 2016 ADA MNT changes
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