

1



2



3



4

Disclosure to Participants

- Notice of Requirements For Successful Completion
 - Please refer to learning goals and objectives
 - Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours
- Conflict of Interest (COI) and Financial Relationship Disclosures:
 - Barbara Eichorst, MS, RD, CDE – No COI/Financial Relationship to disclose
- Non-Endorsement of Products:
 - Accredited status does not imply endorsement by AADE, ANCC, ACPE or CDR of any commercial products displayed in conjunction with this educational activity
- Off-Label Use:
 - Participants will be notified by speakers to any product used for a purpose other than for which it was approved by the Food and Drug Administration.

#AADE19

5

Learning objectives

- ✓ Review fasting practices among PWD
- 👨‍⚕️ Explore the religious, cultural and health related fasting strategies and how they impact diabetes outcomes and care
- 👤 Review the results of a national survey from PWD relating to why they fast and what are their expectations from healthcare providers to support their needs
- 📊 Strategize effective DSMES interventions for fasting among PWD

#AADE19

6

Review fasting practices among PWD

- Does one have to fast?
- Clinical indications for fasting in diabetes
- Evidence based approaches for fasting in diabetes

#AADE19

7

Benefits of fasting

- Improves glucose management by reducing insulin resistance (1-3)
- Reduces inflammation (4-7)
- Improves blood pressure, triglycerides and cholesterol levels (8-11)
- May boost brain function and prevent neurodegenerative disorders (12-16)
- Aids in weight loss (17-19)
- Increases growth hormone secretion (20-26)
- Could delay aging and extend longevity (27-30)
- May aid in cancer prevention and increase the effectiveness of chemotherapy (31-32)

8

Clinical indications for fasting in diabetes

- Metabolic control
- Weight management
- Symptom management
- Psycho/social

#AADE19

9

Evidence based approaches for fasting in diabetes

Safety first: comprehensive medical and behavioral assessment. Set up strategy related to medications, nutrition, hydration, SMBG, and minimizing health emergencies.

Assessment and management of health risks: hypo/hyperglycemia. Dehydration can raise the risk of serious complications especially among those with kidney and heart disease.

Effective strategy for breaking the fast and knowing when to quit: ending the fast when hypo/hyperglycemia occurs as well as treating it.

#AADE19

10



Anna Norton
MS, Non-Profit Community Leader

CEO
DiabetesSisters
Raleigh, NC

#AADE19

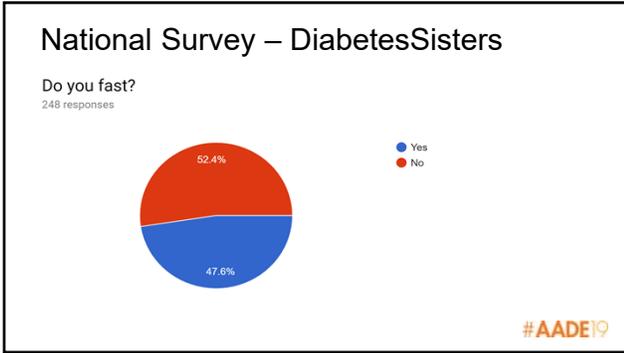
11



Anna Norton, MS
Non-Profit Community Leader

CEO
DiabetesSisters
Raleigh, NC

12



13

Review the results of a national survey from PWD relating to why they fast and what are their expectations from healthcare providers to support their needs

- demographics including fasters v non-fasters, diabetes type, age distribution, length of time with diabetes
- reasons for fasting
- challenges experienced while fasting with diabetes, including medication adherence
- analysis of PWD conversations with HCP, spiritual leaders and peers in fasting options, tools and tricks
- lessons learned regarding fasting with diabetes
- advice to share with others considering fasting

#AADE19

14

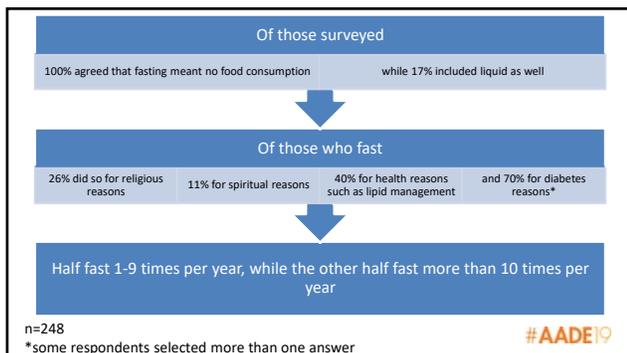
National Survey – DiabetesSisters

n=248
*some respondents selected more than one answer

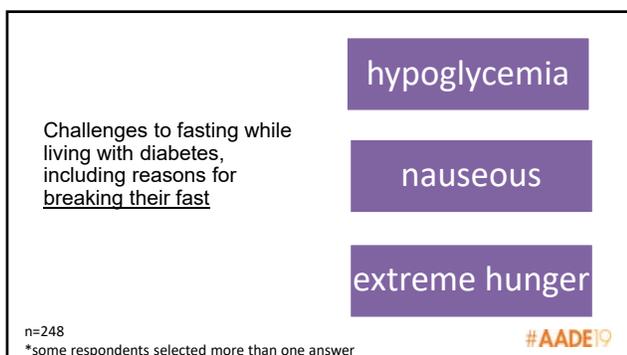
- Respondent distribution:**
 - Female (80%), Male (20%)
- Type of diabetes:**
 - Prediabetes (4%), Type 1 diabetes (40%), Type 2 diabetes (52%), Other, such as MODY, LADA (4%)
- Length of time with diabetes:**
 - 0-9 years (35%), 10-19 years (26%), 20-29 years (18%), More than 30 years (21%)
- Treatment method(s)*:**
 - Diet (79%), Exercise (67%), Oral Medication(s) (38%), Insulin (70%), Other injectable, not insulin (11%)

#AADE19

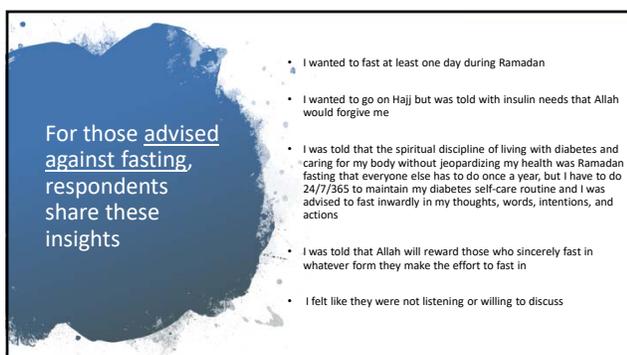
15



16



17



18

For those advised against fasting, respondents share these insights

- Frustrated, due to the lack of healthcare providers open mind
- It's weird to eat when everyone else is fasting, but it's okay when you keep it all in perspective: rabbi said I shouldn't, this is how I stay healthy, health, religious custom
- Cautious as I moved through the fasting, paid more attention to my body
- Upset and sad that I can not obey my call from Allah
- I felt the dietician was uninformed about intermittent fasting and was not interested in new ideas
- Feel sad, annoyed, frustrated

19

What respondents wish they had known when they began fasting

- Benefits of basal insulin testing
- Hydration is key
- Reaction(s) of medication(s)
- Finding a good blood sugar range so I don't experience hypoglycemia
- What foods should be eaten to sustain energy longer and keep blood sugars up as well
- Since my goals overlap spiritual and medical reasons, I wish I had had a more open mind about fasting and knew about the various supplements that prevent fasting from being a significant medical concern
- Adjusting medications
- I wish I had known how effective, safe, and historically prevalent it was. Fasting for me is like hitting a glucose control reset. Every blood sugar measure improves for me. It's a metabolic response that permits me to recharge my metabolic and emotional reserves.

20

What respondents wish to share with other PWD who are considering fasting

- Research
- Adjust medication(s)
- Seek information from more than one source
- There are many different types of fasting that can fit into your lifestyle. Try it out and see if you like it
- Read and learn on your own and from your own experiences. Its all about trial and error and how your body responds to the food you eat and the length of time your fasting. Some days you will be able to fast through the day or until the time you're hoping and other days you won't be able to. And that's okay. Try to understand what your body is telling you and consult your healthcare team
- Do not worry about keeping a "perfect" fast. Plan it as best you can, but do not sweat making changes or breaking it. You achieve your goal by planning, even if you cannot fulfill it due to forces outside your control. Learn and move on!
- Choose what works for you and your lifestyle. Prepare ahead of time. Plan your daily activities wisely. Adjust medication accordingly.
- Many recommended books and other resources
- Get advice from endo, educator, nurse, physician, etc

21



Lorena Drago MS, RDN, CDN, CDE
Senior Associate Director
Bellevue Hospital
City, ST

22

Disclosure to Participants

- Notice of Requirements For Successful Completion
 - Please refer to learning goals and objectives
 - Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours
- Conflict of Interest (COI) and Financial Relationship Disclosures:
 - Presenter: Lorena Drago, MS, RDN, CDN, CDE – No COI/Financial Relationship to disclose
- Non-Endorsement of Products:
 - Accredited status does not imply endorsement by AADE, ANCC, ACPE or CDR of any commercial products displayed in conjunction with this educational activity
- Off-Label Use:
 - Participants will be notified by speakers to any product used for a purpose other than for which it was approved by the Food and Drug Administration.

#AADE19

23

Explore the religious, cultural and health related fasting strategies and how they impact diabetes outcomes and care

Fasting guidelines and information

- Religious fasting: Ramadan, Lent, Yom Kippur
- Intermittent Fasting: 16:8 method, Eat-stop-eat, 5:2

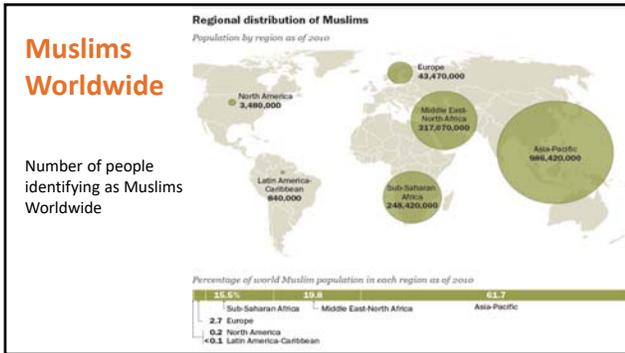
Health Effects of Fasting

- Body weight
- Diabetes management: glucose, A1C, insulin sensitivity

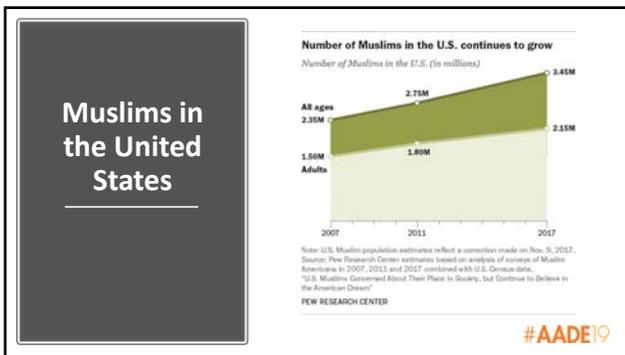
Medical Nutrition Therapy during fasting

#AADE19

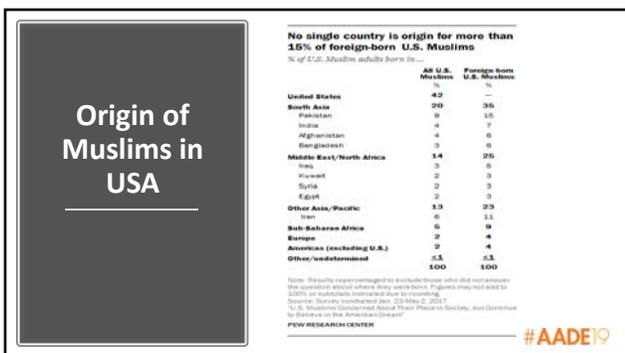
24



25



26



27

Fasting Guidelines and Information

Ramadan: Ninth month of the Muslim calendar year. Fasting is compulsory for healthy adults except for those for medical conditions



In 2020, in the USA
Ramadan begins on the evening of April 23rd and ends on the evening of May 23rd

#AADE19

28

Ramadan Explained

 Fasting occurs from dawn to sunset

 Ramadan officially begins with the sighting of the new moon and ends at the sighting of the next new moon, 29-30 days

 Who fasts? Obligatory for adult Muslims

 Exceptions Illness, traveling, elderly, pregnant, breastfeeding, diabetes, menstruation

#AADE19

29



Suhoor Foods

#AADE19

30

Iftar Foods Around the World

Koofteh from Iran

Haleem from Pakistan

Jollof Rice & Chicken from Nigeria

#AADE19

31

Lent Explained

Fasting:

- 1 meal and 2 small meals

Abstinence:

- Abstinence from meats on Fridays
- Fish is acceptable

#AADE19

32

Lent Explained

Religious observance in the Christian calendar.

- In preparation, begins on Ash Wednesday and ends six weeks after on Saturday before Easter

Who fasts?

- Adults between 18 and 69
- Exceptions: Unsound mind, sick, pregnant or nursing women, etc.

Fasting vs. Abstinence

- Fasting on Ash Wednesday and Good Friday
- Abstinence on Fridays

#AADE19

33

Jewish Fasting Holidays

- 📅 Yom Kippur – Day of Atonement
- 🕒 Tishah be-Av – Mourning destruction of the First and Second Temples
- 📅 When? 2019, October 8th after nightfall on October 9th August 10th-11th. Saddest day of Jewish Calendar
- 👤 Who Fasts? 13 and older
- ✓ Exceptions? Nursing women, pain, feel weak
- 🔒 Fast - Total abstinence from food and drink from sunset until nightfall of the following day.

#AADE19

34

Intermittent Fasting Explained

Type of Fast	Description
Complete Alternate-Day Fasting	Alternating fasting days with eating days
Modified Fasting Regimens	Consumption of 20-25% of energy needs on scheduled fasting days. 5:2 severely energy restriction for 2 days
Time-Restricted Feeding	Ad libitum energy intake within specific time frames

#AADE19

35

Effects of Alternate Day Fasting

- Sample Size
- Participant description
- Intervention duration
- Type of fasting
- Glucose regulatory markers
- Lipids

#AADE19

36

Effects of Modified Day Fasting

- Sample Size
- Participant description
- Intervention duration
- Type of fasting
- Glucoregulatory markers
- Lipids

#AADE19

37

Effects of Time Restricted Fasting

- Sample Size
- Participant description
- Intervention duration
- Type of fasting
- Glucoregulatory markers
- Lipids

#AADE19

38

The Impact of Religious Fasting on Health

#AADE19

39

Medical Nutrition Therapy

- Interview
 - What questions to ask?
- Meal planning recommendations
 - Sample Meal
 - Meal Modifications
- Resources

#AADE19

40

Resources



www.daralliance.org

#AADE19

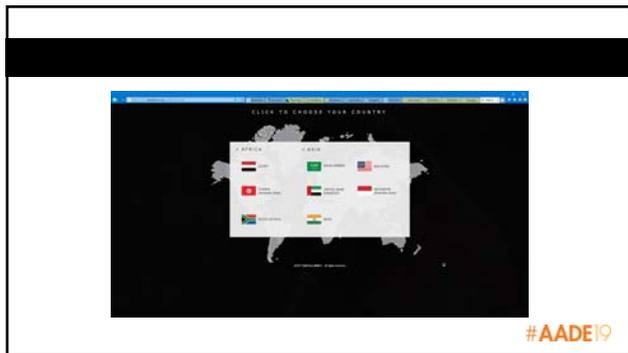
41

CLICK TO CHOOSE YOUR COUNTRY

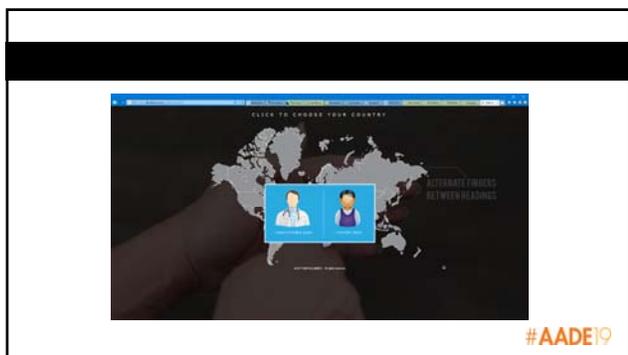


#AADE19

42



43



44



45

Suhoor

Suhoor – Predawn Meal - Egypt



Suhoor (200-300%)		
1000 kcal/day		
Food	Quantity	Calories
White cheese	2 small cubes (20 g)	140
White cheese	40g / 4 tbsp	180
Egg, Scrambled with butter/oil	2 whole eggs, 1 tsp butter/oil	240
Flour (wheat)	1 cup	150
Salad (cucumber, tomato, onion, pepper, olive oil (1/2 tsp))	1 cup	30
Total (calories)		710
Breakfast (1)		285
OGI each		3
BMF Meal Plan guide		340 / 720

#AADE19

46

Iftar

Iftar – Nightly feast to break the fast - Egypt



Iftar (200-300%)		
1000 kcal/day		
Food	Quantity	Calories
Rice	1 cup	90
Broiled chicken	1 cup with 1 tsp oil	190
Chicken (ground)	1/2 cup with 1 tsp oil	160
Salad (cucumber, tomato, onion, pepper, olive oil (1/2 tsp))	1 cup	30
Total (calories)		570
Breakfast (1)		285
OGI each		3
BMF Meal Plan guide		720 / 1000

#AADE19

www.daralliance

47

Snacks

Fruit and LF yogurt

Low-fat milk and almonds



#AADE19

48

Suhoor

Pre-Dawn Meal - India



Suhoor 30-40%		
Food	Amount	Calories
Dal/daal (split mung, urad, lentils, chickpeas)	2 cups (vegetables, oil)	470
Yogurt	1/2 cup	97
Egg, scrambled	1 whole and 1 top oil	110
Total Calories/Meal		677
Distribution (%)		38%
CHO each		5
BNP meal plan guide		540 - 720

#AADE19

49

Iftar

Nightly feast to break the feast - India

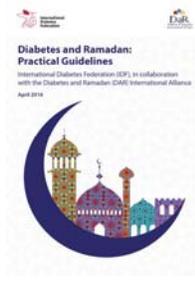


Iftar 40 - 50%		
Food	Amount	Calories
Water	1 glass	0
Dal	1 glass	20
Roti	1 serving	133
Dal/daal	1 cup	194
Beet salad	1/2 cup	97
Chicken/rooster	100 g	312
Total Calories/Meal		776
Distribution (%)		46%
CHO each		6
BNP meal plan guide		720-1020

#AADE19

50

Diabetes and Ramadan Practical Guidelines



Diabetes and Ramadan:
Practical Guidelines
International Diabetes Federation (IDF), in collaboration
with the Diabetes and Ramadan (DAR) International Alliance
April 2018

#AADE19

51



Joy Pape
MSN, RN, FNPC, CDE, WOCN, CFCN, FAADE, CILC
Weill Cornell Medicine
Comprehensive Weight Control Center
City, ST

#AADE19

52



Joy Pape
MSN, RN, FNPC, CDE, WOCN, CFCN, FAADE, CILC
Weill Cornell Medicine
Comprehensive Weight Control Center
City, ST

53

Disclosure to Participants

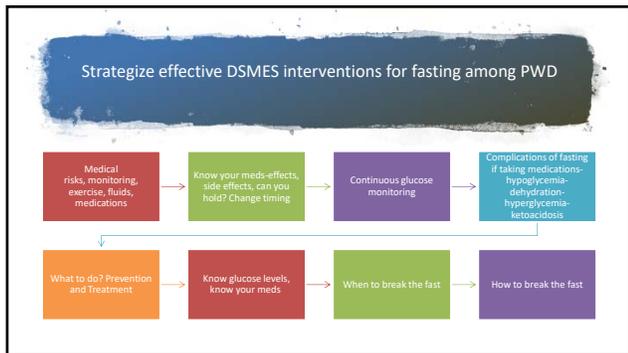
Joy Pape, FNP-C, CDE, FAADE

Conflict of Interest (COI) and Financial Relationship Disclosures:

- Intellihealth/Evolve-Consultant

#AADE19

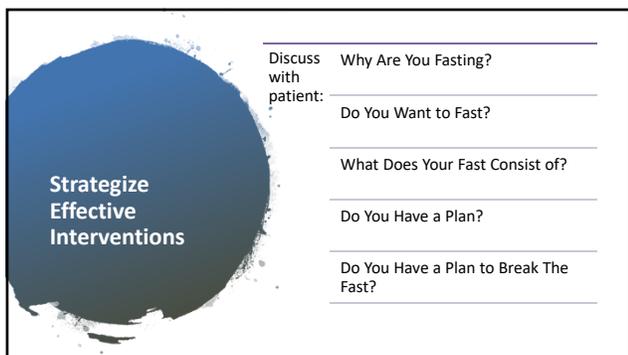
54



55



56



57

Strategize Effective Interventions

Discuss with patient:

- Do You Have to Fast?
- Glucose Levels?
- Medications?
- Present Meal Plan (including fluid intake)?
- Present Activity?
- Anything else?

58

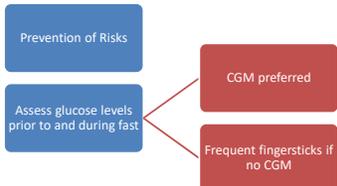
Medical Risks to Discuss and Prevent

- Hypoglycemia
- Hyperglycemia
- Dehydration

Strategize Effective Interventions

59

Strategize Effective Interventions



60

Strategize Effective Interventions

Prevention of Risks

Assess and teach re: Medications

- Insulin and sulfonylureas can cause hypoglycemia.
- Need to match medications with food intake.
- Not taking medications can cause hyperglycemia,DKA as can feasting after fast.
- Dehydration can occur due to decreased fluid intake and/or hyperglycemia.

61

Strategize Effective Interventions

Prevention of Risks

Medications

- Insulin and sulfonylureas can cause hypoglycemia
- Not taking medications can cause hyperglycemia, DKA & as can feasting after fast
- Dehydration can occur due to decreased fluid and/or hyperglycemia
- Need to match medications with food intake

62

Strategize Effective Interventions

Prevention of Risks

Medications

- What can be held?
- What can be changed?

63

Strategize Effective Interventions

What To Do?	How to start
	How to recognize, & treat hypo and hyperglycemia
	When to stop fast
	How to break fast

64

Case Study

Strategize Effective Interventions

65
