



# Older Adults and Diabetes

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# Coach Bev has no conflict of interest

- ▶ Not on any speaker's bureau
- ▶ Does not invest in pharmaceutical or device companies
- ▶ Gathers information from reading package inserts, research and standards
- ▶ She does engage in “pill-ow” talk with her husband (who is a PharmD)



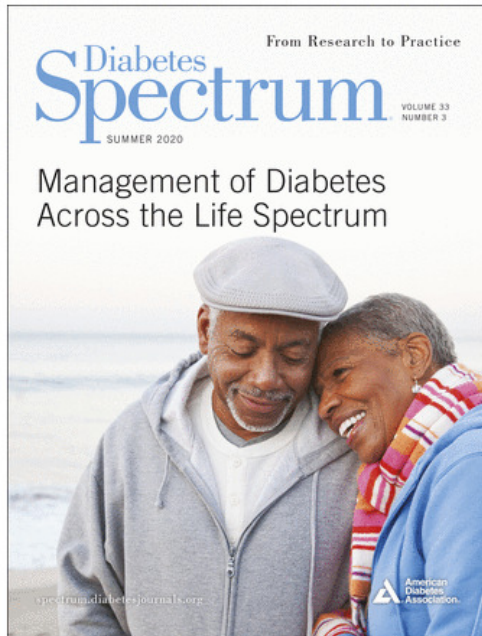
# Diabetes and Elderly Objectives



- ▶ Overview
- ▶ Individualizing goals
- ▶ Strategies to maximize quality of life
- ▶ Self-management considerations
- ▶ Diabetes Specialist as advocate



# References



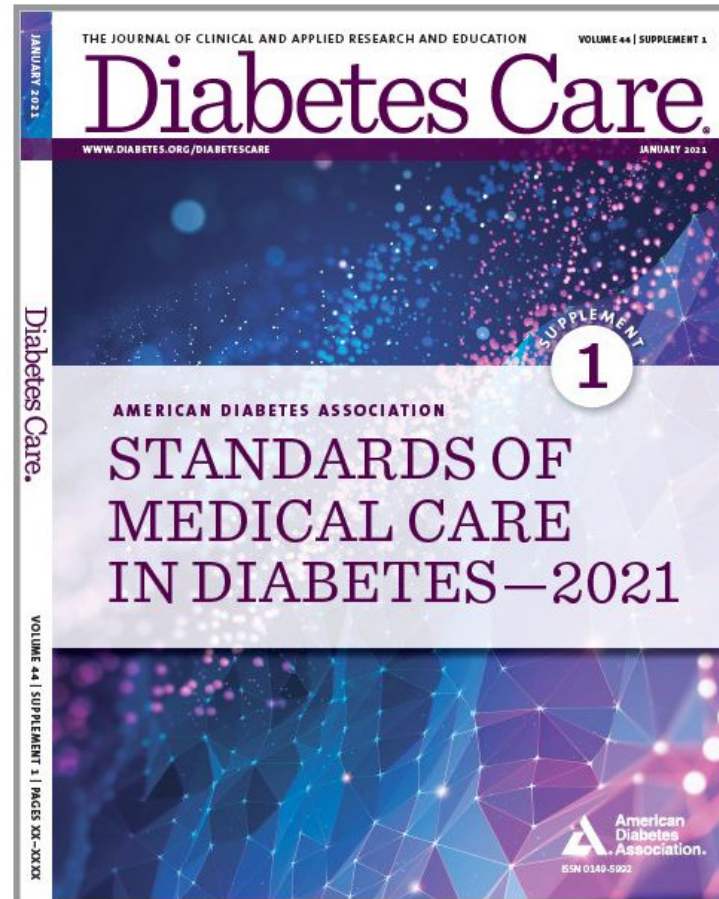
## Challenges and Strategies for Diabetes Management in Community-Living Older Adults

1. Alan J. Sinclair<sup>1,2</sup> and
2. Ahmed H. Abdelhafiz<sup>3</sup>

+ Author Affiliations

Diabetes Spectrum 2020 Aug; 33(3): 217-227.

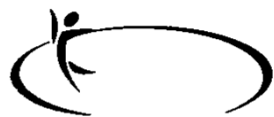
<https://doi.org/10.2337/ds20-0013>



## 12. Older Adults: *Standards of Medical Care in Diabetes—2021*

American Diabetes Association

Diabetes Care 2021 Jan; 44 (Supplement 1): S168-S179. <https://doi.org/10.2337/dc21-S012>



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# Older Adults

- ▶ Asses the medical, functional mental and social geriatric domains for diabetes.
- ▶ Provide individualized care
- ▶ Determine targets and therapeutic approaches
- ▶ Over age 65, high risk for depression
- ▶ Provide nursing home staff with education

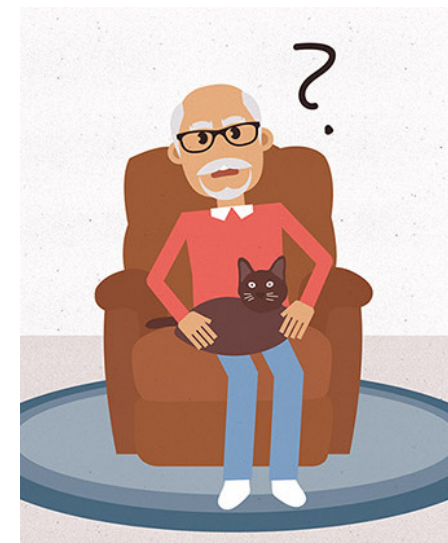


# When does old age start?



# When Does Old Age Start?

- ▶ "The aging process is a biological reality which has its own dynamic, largely beyond human control.
- ▶ Age is also subject to the constructs of each society. (WHO)
- ▶ In the developed world, 60 or 65, is said to be the beginning of old age (retirement)
- ▶ In developing world, old age is seen to begin at the point when active contribution is no longer possible." (Gorman, 2000).



# What is the best term for 65+?

Old

Older

Elderly

Aged

Senior

Seasoned  
Citizen

Elder

Retiree

Geriatric





# Aging: 3 Aspects

- ▶ Biological age
  - ▶ “present position of the individual relative to their life span” (ie telomeres)
  - ▶ Biological age closely related to chronological age, but the two are not identical
- ▶ Psychological age
  - ▶ Adaptive capacities and subjective reactions relative to their group in society



Ruth Bader Ginsburg

<https://www.encyclopedia.com/medicine/anatomy-and-physiology/anatomy-and-physiology/aging>

# Aging: 3 Aspects

- ▶ Social Age
  - ▶ Social habits and roles of the individual
  - ▶ Societies hold age-status systems that lead to expectations of how an individual should behave in relation to others



Millie Bailey skydiving at 102 years old

## Grandma



# Taiwanese grandparents become Instagram sensations modelling abandoned clothes

The couple from the Houli district of Taiwan began modelling clothes left behind in their laundrette.



Hsu Sho-er, 84, and her husband Chang Wan-ji, 83, have been operating a laundry in the Houli district of Taiwan for the past 70 years.

# What does the future hold?

Each person undertakes their own unique path



# Poll Question 1

▶ What percent of the population over the age of 65 has type 2 diabetes?

A. 9.3%

B. 18%

C. 26%

D. 34%



# Older People and Diabetes Stats

- ▶ 26% of Americans age 65 or older have diabetes (11.8 million seniors)
- ▶ 50% of people with diabetes, 65 yrs plus
- ▶ 50% of older adults have prediabetes
- ▶ Rate of older population with diabetes growing rapidly due to increasing life expectancy.
- ▶ Diabetes prevalence to double in next 20 years, in part due to the aging population



# Fried Frailty Index – “Compromised energetics”

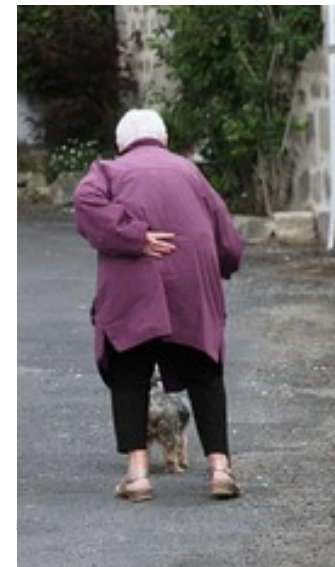
## Frailty

Meeting 3 out of 5 phenotypic criteria

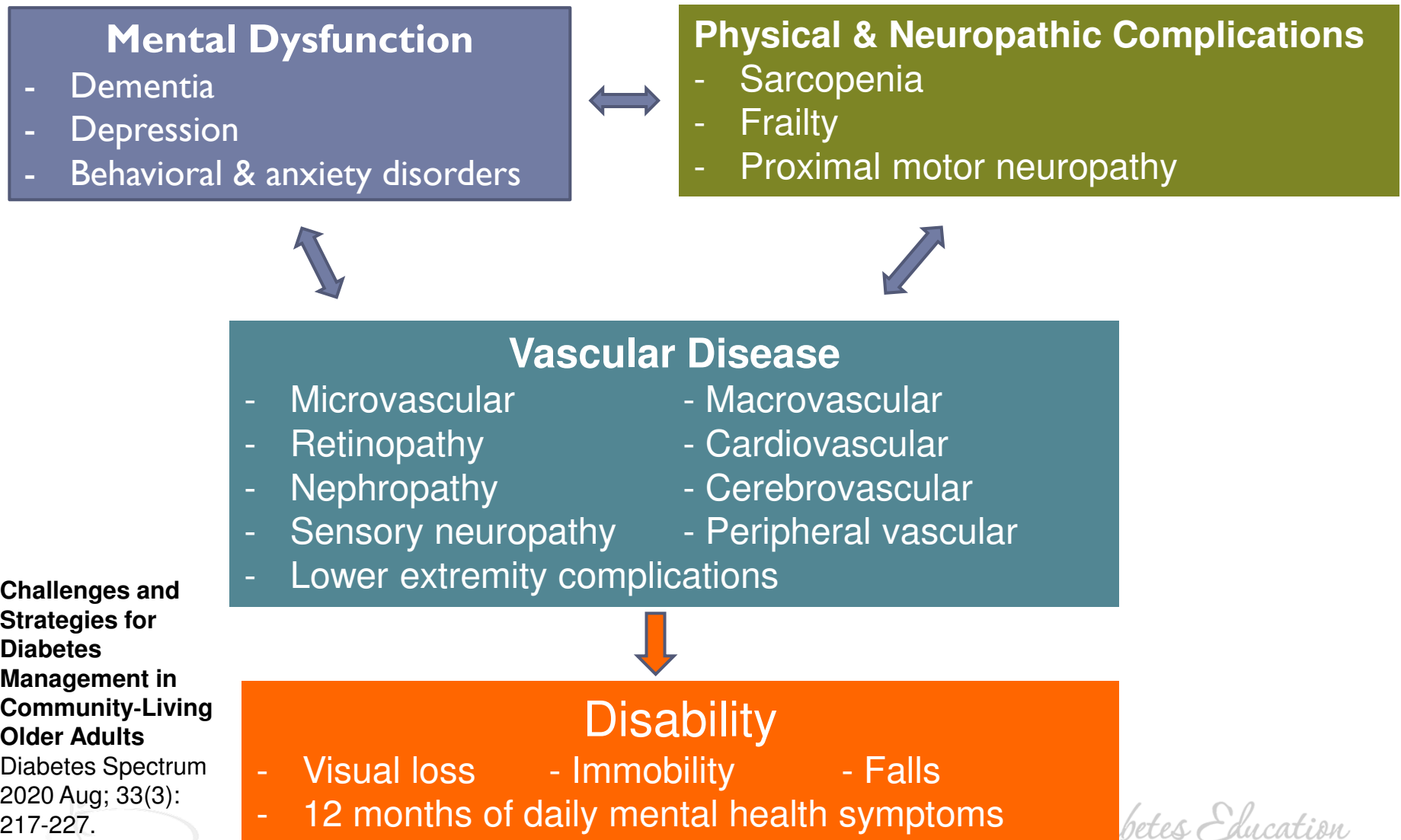
- ▶ low grip strength,
- ▶ low energy,
- ▶ slowed walking speed,
- ▶ low physical activity, and/or
- ▶ unintentional weight loss

## Pre-Frail Stage

- ▶ 1 or 2 criteria are present
- ▶ Identifies a subset at high risk of progressing to frailty



# 3 Categories of Diabetes Complications in Older Adults – Reciprocal & Synergistic Relationships



**Challenges and Strategies for Diabetes Management in Community-Living Older Adults**  
Diabetes Spectrum  
2020 Aug; 33(3):  
217-227.



# What can we do?



Early assessment plus



Timely intervention



May delay adverse outcomes.



# RT, 72 & living with Type 2

- ▶ Lives by self
- ▶ Recently lost his twin brother
- ▶ Had his phone turned off because forgot to pay bill
- ▶ Kids want to him to move to “old folks' home”



Diabetes Management includes:

- Metformin 1000 mg BID
- 70/30 insulin 30 units BID



# Individualize Goals of Care



Preserve autonomy



Preserve independence



Preserve quality of life at the heart of care plans

## ▶ **A1c individualized**

- 6.5 - 8%

## ▶ **Glucose goals**

- Before meals 100-130
- After meals < 180



# Older Adults – Psychological Assessment

- ▶ Social support
  - ▶ Who do they live with?
  - ▶ Anyone helping with self-care?
- ▶ Feelings
- ▶ Finances
  - ▶ Housing, food, transportation
- ▶ Activity, Nutrition



# RT, 72 & living with Type 2

- ▶ Lives by self
- ▶ No one outside of diabetes team helps with diabetes care
- ▶ Attends support group
- ▶ Admits to feeling depressed and angry
- ▶ House paid off but has limited income for food and medicine
- ▶ Can still drive and shop, but often forgets appointments
- ▶ Doesn't drink alcohol or use other substances



## Diabetes Medications

- Metformin 1000 mg BID
- 70/30 insulin 30 units BID



# Psychosocial Issues “Integrity vs. Despair”

- ▶ 15-20% of older adults with diabetes live with depression
- ▶ Assess other factors that may impact QOL
  - ▶ lack of income
  - ▶ isolation
  - ▶ loss of partner, family, friends
  - ▶ limited mobility
  - ▶ alcohol or substance use



# Older adults Substance Use Disorder (SUD)

- ▶ 1 million adults, 65+ live with SUD
- ▶ Admission for SUD increased from 3.4% to 7.0% from 2001 to 2012
- ▶ Alcohol is most used drug for 65+
  - ▶ 65% report high risk drinking (exceeding guidelines at least weekly).
  - ▶ 10% report binge drinking (4-5 drinks at one time)



<https://www.drugabuse.gov/publications/substance-use-in-older-adults-drugfacts-2020>



# Alcohol Use Disorder Accounts for most admission to treatment centers for older adults


- ▶ One study documented a 107% increase from 2001 to 2013.
- ▶ Alcohol increases risk of:
  - ▶ pancreatitis (hyperglycemia)
  - ▶ high blood pressure, triglycerides
  - ▶ hypoglycemia, malnutrition
  - ▶ liver and bone problems
  - ▶ neuropathic pain
  - ▶ memory issues and mood disorders.





# Older Adults Substance Use Disorder (SUD)

Sort by popularity ▾



*find your inner Martha*

| Product   | Price   |
|---|---------|
| <b>HOT DEAL!</b><br>CBD EDIBLES<br>Martha Stewart CBD Gummies - Berry Medley<br>10mg 30 Count<br>\$34.99        | \$34.99 |
| <b>HOT DEAL!</b><br>CBD EDIBLES<br>Martha Stewart CBD Gummies - Citrus Medley<br>10mg 30 Count<br>\$34.99       | \$34.99 |
| <b>HOT DEAL!</b><br>CBD TINCTURE OIL<br>Martha Stewart CBD Tincture Oil - Blood Orange<br>750mg 30ml<br>\$44.99 | \$44.99 |

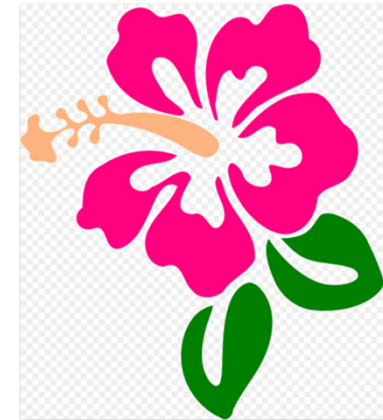
- ▶ Cannabis use is on the rise
- ▶ Opioid and heroin use on the rise
- ▶ About 8-10% of adults smoke cigarettes

<https://www.drugabuse.gov/publications/substance-use-in-older-adults-drugfacts>  
2020



## Poll question 2

- ▶ Which of the following is true about diabetes and depression in older adults?
  - ▶ A. Most older adults with diabetes are depressed.
  - ▶ B. Older adults with diabetes are at low risk for depression.
  - ▶ C. Older adults need regular evaluation for depression
  - ▶ D. Alcoholism is the most common symptom of depression in older adults



# ADA Recommendations - Depression

- ▶ Older Adults (65 years of age) with diabetes should be considered a high-priority population for depression screening and treatment.



# Poll Question 3

- ▶ Which of the following statements reflects depression?
  - A. I used to love gardening, now I don't even care.
  - B. Yes, I feel sad that I have diabetes.
  - C. Some mornings, it's just hard to check my blood sugars.
  - D. I am so tired of everyone telling me how to eat!

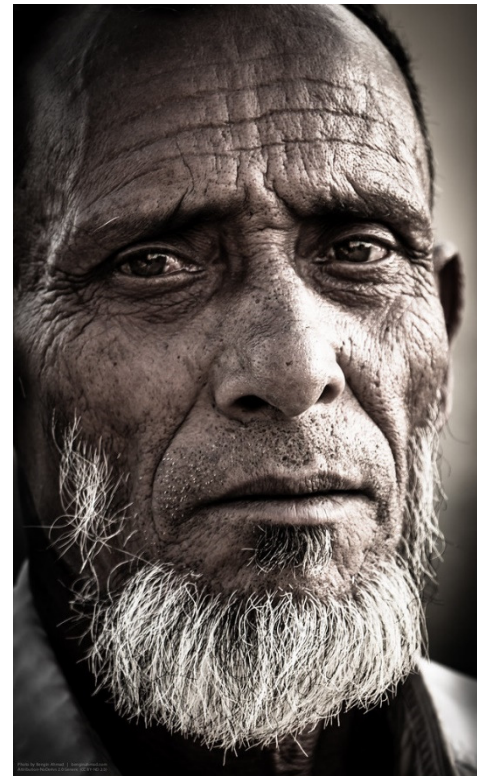


# Depression Assessment

## ▶ Depression:

- Over the last 2 weeks, have you felt down, depressed or hopeless?
- Over the last 2 weeks, have you felt little pleasure in doing things?

If they say yes to either of these, action is required.



# If say yes to screening question

## Patient Health Questionnaire – Depression Screen

### PHQ-9

Over the last 2 weeks, how often have you been bothered by any of the following problems?  
(use "✓" to indicate your answer)

|   | Not at all | Several days | More than half the days | Nearly every day |
|---|------------|--------------|-------------------------|------------------|
| 1. Little interest or pleasure in doing things  | 0          | 1            | 2                       | 3                |
| 2. Feeling down, depressed, or hopeless   | 0          | 1            | 2                       | 3                |
| 3. Trouble falling or staying asleep, or sleeping too much  | 0          | 1            | 2                       | 3                |
| 4. Feeling tired or having little energy  | 0          | 1            | 2                       | 3                |
| 5. Poor appetite or overeating  | 0          | 1            | 2                       | 3                |
| 6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down  | 0          | 1            | 2                       | 3                |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television  | 0          | 1            | 2                       | 3                |
| 8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual | 0          | 1            | 2                       | 3                |
| 9. Thoughts that you would be better off dead, or of hurting yourself   | 0          | 1            | 2                       | 3                |

add columns  +  +

## Quick Depression Assessment

- ▶ If there are at least four 3s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.
- ▶ Consider Major Depressive Disorder - if there are at least five 3s in the shaded section (one of which corresponds to Question #1 or #2)
- ▶ Consider Other Depressive Disorder - if there are two to four 3s in the shaded section (one of which corresponds to Question #1 or #2)

# RT, 76 & living with Type 2

- ▶ PHQ-9 – had 3 checks in shaded area
- ▶ Scored 2 on the Mini-Cog
- ▶ Ran out of insulin a week ago
- ▶ Forgot to check blood glucose levels
- ▶ Blood sugar “high”



## Diabetes Medications

- Metformin 1000 mg BID
- 70/30 insulin 30 units BID



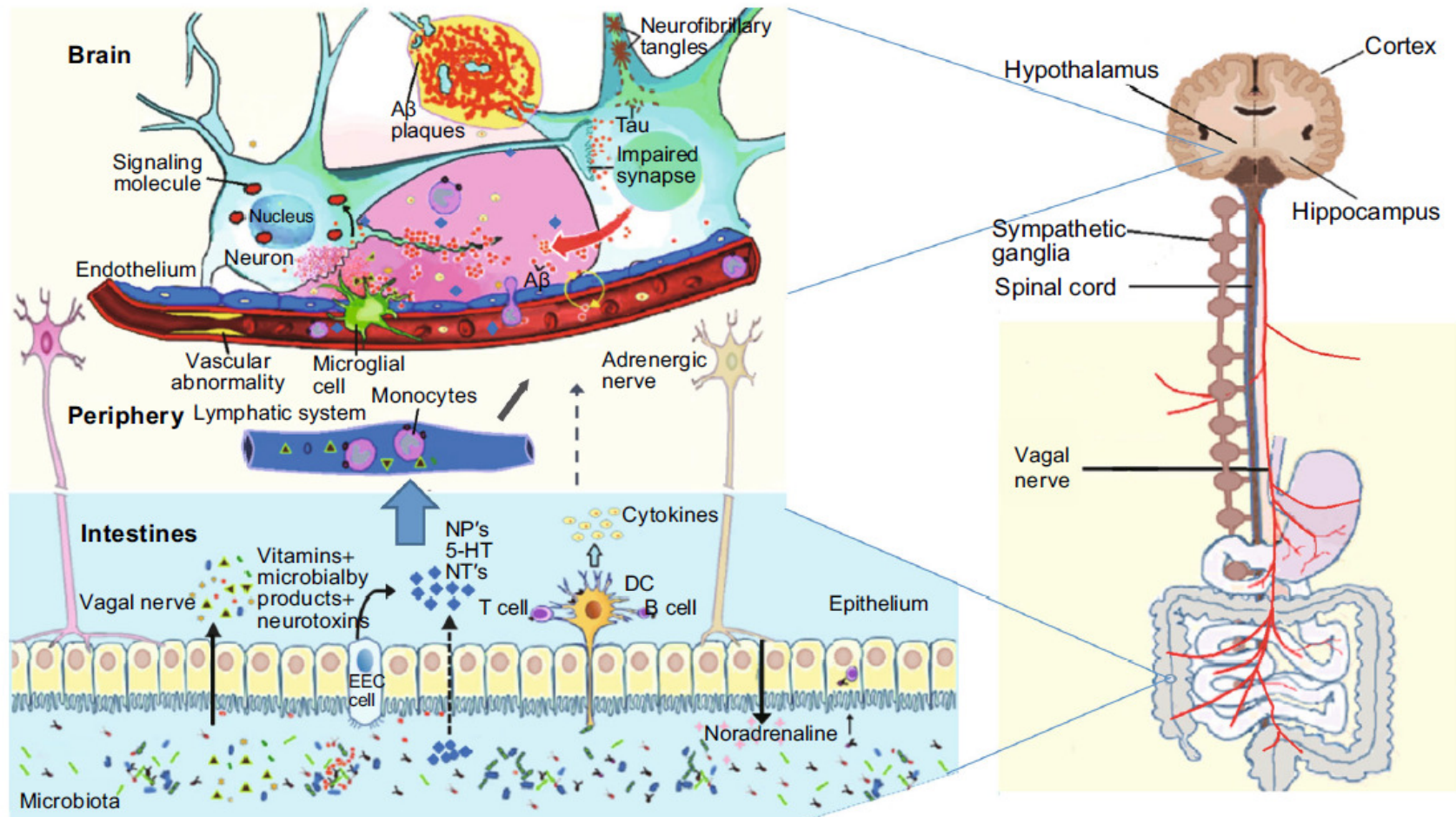
# NeuroCognitive Function

- ▶ Hyperglycemia is associated with cognitive function decline
- ▶ Longer duration of diabetes worsens cognitive function
  - ▶ Vascular Dementia
  - ▶ Alzheimer's
- ▶ Perform annual cognition screen
- ▶ Treatment:
  - ▶ Refer to specialist for assessment
  - ▶ Achieve optimal BG control
  - ▶ Pharmacist to evaluate drug safety and potential drug interactions
- ▶ Keep physically active





# Link Between Gut and Brain



Human gut microbiota: the links with dementia development. Protein & Cell  
2017 Alkasir, Li, Li, Jin, Zhu



# Cognitive Issues

Persistent hypo and hyperglycemia can double risk of cognitive dysfunction and dementia

Diabetes increases risk of incident depression by 27%

Diabetes + Dementia + Depression a pathway to mental disability

- Self care gets compromised
- Less able to detect and treat hypoglycemia
- Dementia decreases communication ability
- Safety becomes an issue



# Cognitive Screening - Mini-Cog

- ▶ “I am going to say three words that I want you to remember now and later.
- ▶ The words are banana, sunrise, chair.
- ▶ Please say them now.” Give the person three tries to repeat the words.
- ▶ You may repeat the words to them for each try.
- ▶ If they are unable to repeat the words back to you after three tries, go directly to the clock drawing.

- ▶ Next, ask them to draw a clock



<https://mini-cog.com/mini-cog-instrument/standardized-mini-cog-instrument/>



# Cognitive Screening – Mini-Cog

- ▶ Tasks - “Please draw a clock in the circle.”
- ▶ “Put all the numbers in the circle”
- ▶ “Now set the hand to show ten past eleven.”

- ▶ Recall the 3 items  
banana, sunrise, chair.

- ▶ Score 1 for each task performed and for each item
- ▶ A score less 3 of the 5 items defines cognitive impairment



Example of the same person drawing a clock over time with increasing dementia

# Action Needed for RT

- ▶ Let provider know about PHQ and Mini-Cog Test
  - ▶ Referral to Gerontologist



- ▶ Not taking insulin
  - ▶ Found free service where volunteers would call every day to remind to check glucose and take insulin
  - ▶ RT to check in with Diabetes Educator weekly
  - ▶ Bought extra 70/30 insulin from Walmart, \$25 a vial



# Older Adults ( $\geq 65$ years) with diabetes

- ▶ Annual screening for early detection of mild cognitive impairment or dementia
- ▶ High priority population for depression screening and treatment
- ▶ Avoid hypoglycemia in this high risk group
  - ▶ Prevent hypo by adjusting glycemic targets and adjusting pharmacologic interventions

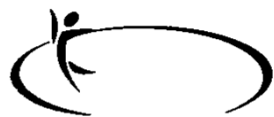
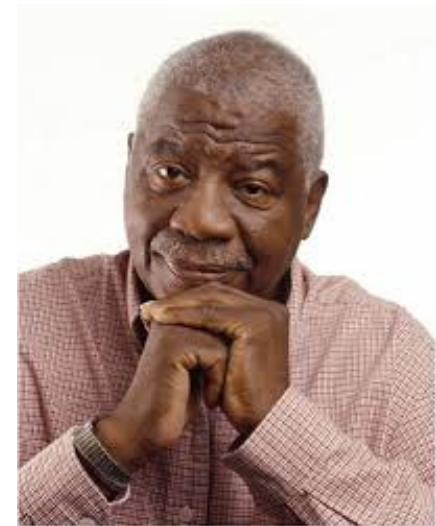
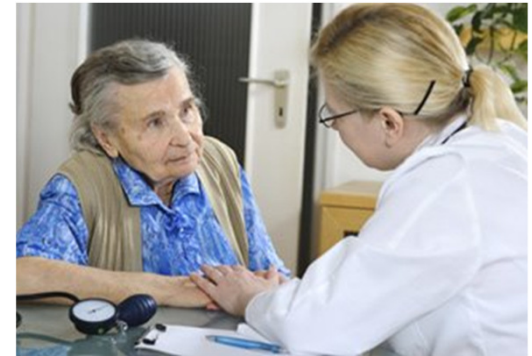


# Breath and Beauty



# Consider the Individual

- ▶ **Start with a thorough assessment**  
During the initial interview, ask questions to reveal medical, functional, mental and social domains.
- ▶ This will help to provide a framework to determine realistic targets and best treatment approaches.





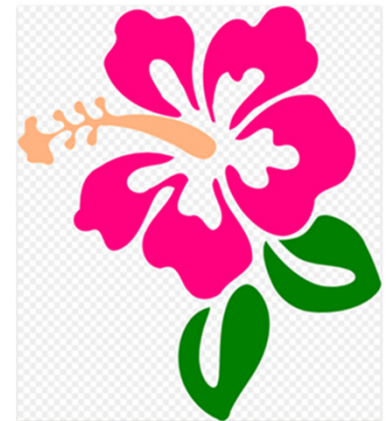
# Consider the Individual

- ▶ Eval ability to afford diabetes medication, food and shelter.
- ▶ Well phrased questions can provide opportunities for sharing and collaborative problem solving



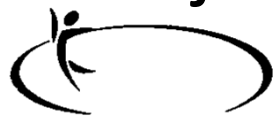
## Poll Question 4

- ▶ A daughter of an 83-year-old with diabetes asks you about what particular issues to watch for with her mother? Which of the following is most important to monitor for her older mother with diabetes?
  - ▶ A. Hypoglycemia
  - ▶ B. Ability to send an urgent text
  - ▶ C. Keeping morning BG 80-130
  - ▶ D. Making sure she has a 30gm snack at night



# Avoid Hypoglycemia in Older Adults

- ▶ Associated with
  - ▶ Cognitive decline
  - ▶ Falls
  - ▶ Arrhythmias.
- ▶ Screen for hypo on regular basis
- ▶ Prevent and determine cause
- ▶ Make needed med /food adjustment



# When to Contact Provider – Hypo/Hyper Guidelines:

- ▶ Hypoglycemia indicates TOO MUCH Diabetes Medication
- ▶ Have plan in case of low blood glucose ahead of time

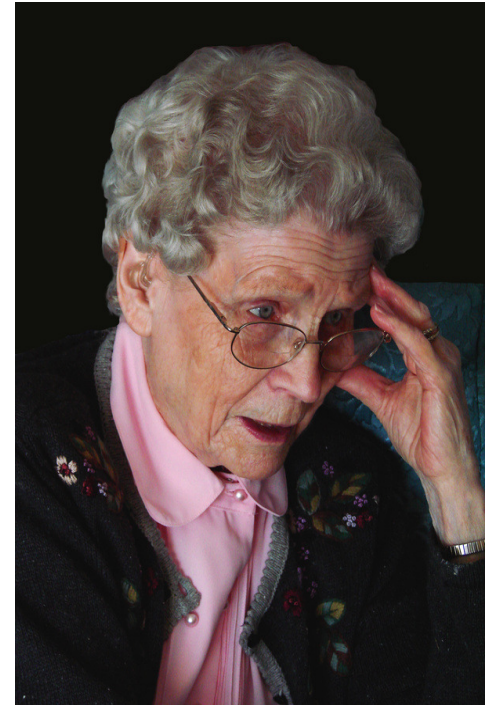
## **For People with diabetes - When to contact Health Care Team**

- ▶ BG < 70 – Eat and call provider immediately
- ▶ If BG 70 – 100 – Eat and call provider within 24 hours
- ▶ BG > 250 within 24 hr period
- ▶ BG > 300 on 2 consecutive days, unusually high BG
- ▶ If sick, risk of dehydration and/or hyperglycemic crises



# Reducing Risk of Hypo

- ▶ Evaluate Kidney function
  - ▶ If creat  $>1.4$ , GFR  $< 60$ 
    - ▶ Give long acting insulin in morning
    - ▶ Made need lower dinner bolus insulin
    - ▶ Avoid long acting sulfonylureas –
      - glipizide best choice in am
- ▶ Evaluation Hypoglycemia awareness and action
  - ▶ Assess food access and timing
  - ▶ Ongoing monitoring and problem solving



# Older People with diabetes

- ▶ Are often
  - ▶ Undertreated and
  - ▶ Overtreated



# Functional Considerations – Older Adults with Diabetes

- ▶ Peripheral Neuropathy in 50-70%
  - ▶ Postural instability which limits physical activity
- ▶ Falls and Fractures –higher risk w/ diabetes
  - ▶ Women at risk for hip and humeral fractures
  - ▶ Consider physical therapy, balance practice
- ▶ Polypharmacy – 6 or more drugs daily
  - ▶ Affordability, interactions, increased risk of falling
- ▶ Visual impairment in 20%
- ▶ Hearing impairment twice as common



# Treatment Goals based on:

- ▶ Length of time living with diabetes (new onset, undiagnosed for many years or longer history)
- ▶ Presence or absence of complications
- ▶ Comorbidities
- ▶ Degree of frailty
- ▶ Cognitive function
- ▶ Life expectancy (often longer than expected)
- ▶ Functional status





# Poll Question 5

- ▶ RT, is a healthy 74-year-old who is on metformin 1000mg BID. He has had diabetes for 11 years. His latest A1c was 7.3% What is your response?
  - ▶ A. Good job, let's get the A1c less than 7%
  - ▶ B. Have you been snacking more than usual?
  - ▶ C. What do you think about your A1c level?
  - ▶ D. Let's add on another medication to get your A1c to target.



# Healthy & Good Functional Status

- ▶ Set more intensive goals if:
  - ▶ Good cognitive and physical function
  - ▶ Expected to live long enough to reap benefits of intensive management,
- ▶ Ongoing follow-up to eval safety and hypoglycemia frequency
  
- ▶ **Goals:**
  - ▶ Reasonable A1c goal <7.0 - 7.5%,
  - ▶ Fasting BG 80 – 130
  - ▶ Bedtime Glucose 80-180
  - ▶ Blood Pressure < 140/90
  - ▶ Statin unless contraindicated or not tolerated



# Poll Question 6

- ▶ HR is a 78 year old with a stroke and limited cognition. She has had diabetes for 8 years and is on intensive insulin therapy: Humalog coverage at meals and Lantus at night. Her A1c is 6.2%. She has a part time care taker. What do you suggest?
- ▶ A. Evaluate food intake
- ▶ B. Discuss de-intensifying insulin regimen
- ▶ C. Move Lantus to morning
- ▶ D. Stop insulin and start on oral medications



# Patients with Complications and Reduced Functionality - Less Intense Goals

- ▶ For older adults with
  - ▶ advanced diabetes complications,
  - ▶ life-limiting illnesses
  - ▶ substantial cognitive, functional impairment.
- ▶ Less likely to benefit from reduced risk of microvascular complications
- ▶ At higher risk of hypoglycemia, hypotension and adverse effects from polypharmacy



# Older Adults with Complications and Reduced Functionality - Less Intense Goals

- ▶ Intermediate remaining life expectancy, high treatment burden, hypo and fall risk.
- ▶ Consider DE-Intensification
- ▶ Goals:
  - ▶ Reasonable A1c goal <8.0%
  - ▶ Fasting BG 90 – 150
  - ▶ Bedtime BG 100-180
  - ▶ Blood Pressure < 140/90
  - ▶ Statin unless contraindicated or not tolerated



# Very Complex Pts with Poor Health

- ▶ For people with:
  - ▶ limited life expectancy and end stage chronic illnesses, benefit uncertain
- ▶ Focus on quality of life and avoidance of hypo & hyperglycemic crisis.
- ▶ Goals:
  - ▶ A1C goal based on individual
  - ▶ Fasting BG 100 – 180
  - ▶ Bedtime BG 110-200
  - ▶ Blood Pressure < 150/90
  - ▶ Consider likely benefit of statin unless contraindicated or not tolerated



# ADA Recommendations – Long Term Care Facilities

- ▶ Patients with diabetes residing in long-term care facilities need:
  - ▶ careful assessment to establish glycemic goals
  - ▶ make appropriate choices of glucose-lowering agents based on their clinical and functional status.
  - ▶ Evaluation of frequency of BGM



# Long Term Care Consideration

- ▶ Staff training - Consider diabetes education for long-term care facilities to improve care
- ▶ Nutrition – at high risk for under-nutrition.
  - ▶ Tailor diet to culture, preferences and personal goals
- ▶ Hypoglycemia – more vulnerable to hypo
  - ▶ Due to multiple comorbidities
- ▶ Ongoing eval
  - ▶ Federal guidelines – MD must assess pt every 30 days for 1<sup>st</sup> 90 days, then once every 60 days
  - ▶ Pt may be experiencing hypo/hyper without tx change





# ADA Recommendations – Palliative Care

- ▶ In older adults with diabetes,
  - ▶ strict blood pressure control may not be necessary, and withdrawal of therapy may be appropriate.
  - ▶ Similarly, the intensity of lipid management can be relaxed, and withdrawal of lipid-lowering therapy may be appropriate.
  - ▶ Avoid glucose extremes to prevent hypoglycemia or hyperglycemic crisis.



# ADA Recommendations – End of Life

- ▶ Overall comfort, prevention of distressing symptoms, and preservation of quality of life and dignity are primary goals for diabetes management at the end of life.



# Shared Decision Making

- ▶ For all these situations, a patient-centered approach and shared decision making can help establish goals and treatment strategies that are reasonable for the patient, family and provider.



# CV Risk Reduction – Older Adults

- ▶ When treating Cardiovascular risk factors consider time frame of benefit and the individual patient.
- ▶ Hypertension treatment is indicated in virtually all older adults
- ▶ Lipid-lowering and aspirin therapy may benefit those with longer life expectancy



# Goals – Keeping it in Perspective

- ▶ Greater reductions in death and complications may result from CV risk factor reduction than tight BG control alone
- ▶ Strong evidence to treat HTN
- ▶ Less evidence for lipid lowering and aspirin therapies
- ▶ Research ongoing



# Older Adults and Medications

- ▶ In older **adults** at increased risk of hypoglycemia, meds with low risk of hypoglycemia are preferred.
- ▶ Overtreatment of diabetes is common in older adults and should be avoided.
- ▶ Deintensification (or simplification) of complex regimens is recommended to reduce the risk of hypoglycemia, if it can be achieved within the individualized A1C target.



# Medications – Biguanides

- ▶ Metformin 1<sup>st</sup> Line agent in older adults
  - ▶ Use caution in those with impaired renal or hepatic function or CHF on diuretics.
  - ▶ Temporarily hold during acute illness, procedures which may compromise renal and liver function.
  - ▶ Use long acting version to decrease N/V



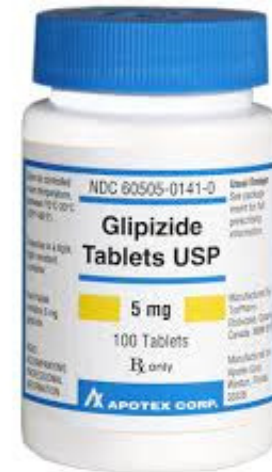
ADA Standards of Care Older Adults, 2020

[https://care.diabetesjournals.org/content/43/Supplement\\_1/S152](https://care.diabetesjournals.org/content/43/Supplement_1/S152)



# Older Adults - Secretagogues

- ▶ Sulfonylureas
  - ▶ Glipizide is preferred
  - ▶ Cause hypo, use cautiously
  - ▶ Review signs of hypo, treatment and follow-up
  - ▶ Associated with 5-7 lb wt gain
  - ▶ Glyburide contraindicated (hypo)
- ▶ BG monitoring helpful
- ▶ If experiencing hypo, contact provider to decrease dose



ADA Standards of Care Older Adults, 2020

[https://care.diabetesjournals.org/content/43/Supplement\\_1/S152](https://care.diabetesjournals.org/content/43/Supplement_1/S152)



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# Older Adults – SGLT-2 Inhibitors

- ▶ Benefits of these Glucoretics
  - ▶ Can lower weight / BP
  - ▶ Reduces risk of CVD, Heart failure and preserves long term kidney function
    - ▶ Consider empagliflozin, dapagliflozin, canagliflozin
- ▶ Considerations
  - ▶ Cost may be a barrier
  - ▶ Monitor GFR, weight loss
  - ▶ Hypotension, dehydration, electrolyte imbalances
  - ▶ Increased risk of genital infections.



ADA Standards of Care Older Adults, 2020

[https://care.diabetesjournals.org/content/43/Supplement\\_1/S152](https://care.diabetesjournals.org/content/43/Supplement_1/S152)



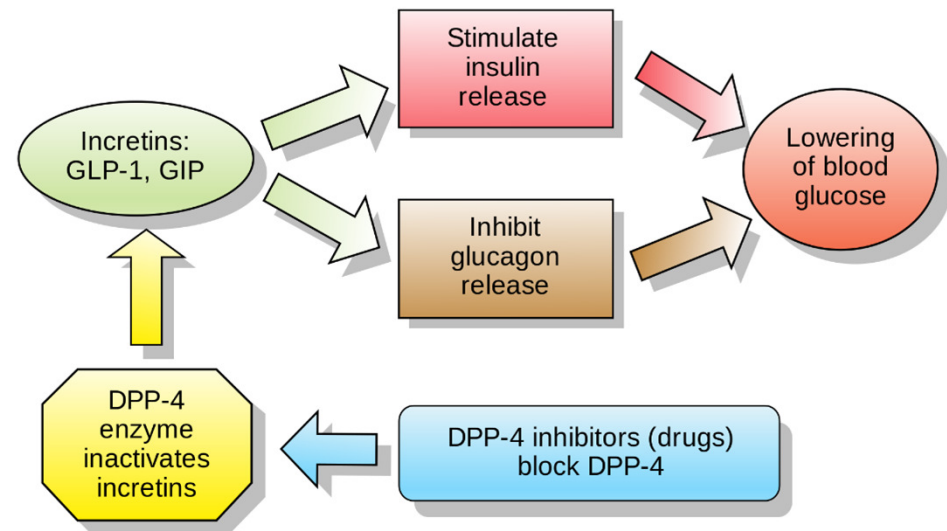
# Older Adults: DPP-IVs

- ▶ DPP-IV Inhibitors
  - ▶ Few side effects, no hypo
  - ▶ Cost may be barrier
  - ▶ A1c drop about 0.6%
  - ▶ Heart failure risk with saxagliptin?



# Older Adult Consideration: GLP-1s

- ▶ GLP-1 Receptor Agonists
  - ▶ CV benefits
  - ▶ Injections may require more visual, cognitive and motor coordination.
  - ▶ Can cause N/V and lead to weight loss
  - ▶ Can be costly
  - ▶ More research needed



# Medication Factors to Consider

- ▶ Construct a tailored care plan
- ▶ Social difficulties and living situation
- ▶ Assess affordability
- ▶ Get meds from one pharmacy
- ▶ Keep list of meds on hands



# Physical Activity Benefits for Older Adults



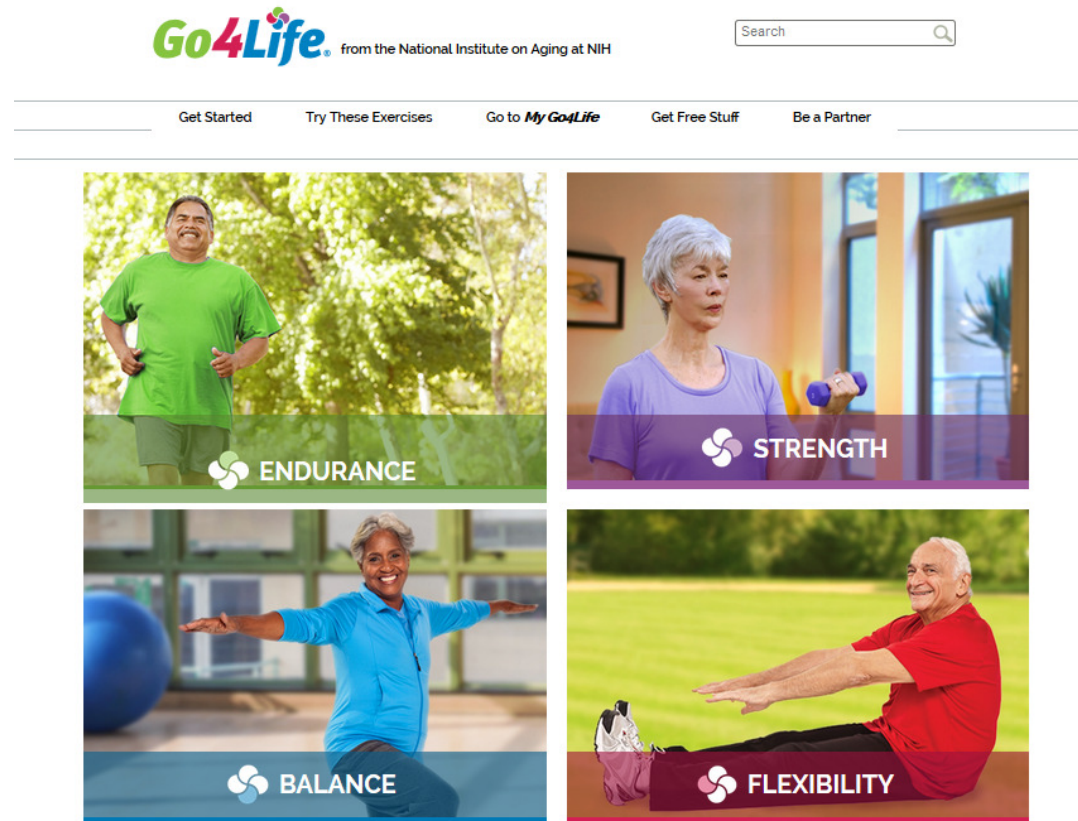
- ▶ Lower overall mortality.
- ▶ Lower risk of
  - ▶ coronary heart disease.
  - ▶ colon cancer.
  - ▶ diabetes.
  - ▶ high blood pressure
  - ▶ obesity.
  - ▶ falls and injury
  - ▶ Alzheimer's
- ▶ Improves
  - ▶ Mood, relieves depression
  - ▶ Improved QOL / function
  - ▶ Function in persons with arthritis
  - ▶ Mental clarity

National Institute on Aging



Diabetes Education  
SERVICES

- ▶ Google Go4Life
- ▶ Exercise ideas
- ▶ Videos
- ▶ Resources



# Nutrition Considerations for Older Adults

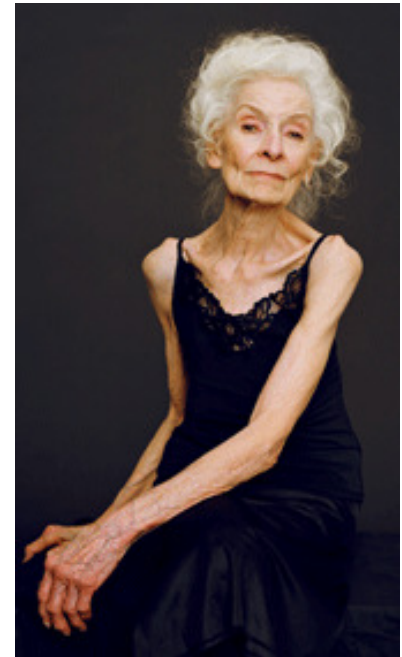


- ▶ Assess for underweight
- ▶ Smaller more frequent meals
- ▶ Fortify usual foods
- ▶ Adding liquid nutrition supplement
- ▶ Identifying community resources (meals on wheels, Senior Centers, etc.)
- ▶ Encourage fluid intake
- ▶ Snacks as needed
- ▶ Cultural preferences and palatability



# Older Adults at Risk for Malnutrition

- ▶ Due to:
  - ▶ Altered taste and smell
  - ▶ Swallowing difficulties
  - ▶ Oral/dental issues
  - ▶ Functional difficulties shopping for/preparing food
  - ▶ Anorexia
  - ▶ Overly restrictive eating patterns - carb deprivation
    - ▶ Self-imposed or provider/partner directed



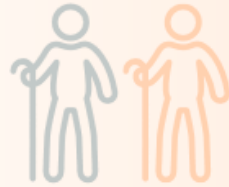


# MALNUTRITION: AN OLDER-ADULT CRISIS

Just 4 steps can help improve  
older-adult malnutrition care

## \$51.3 Billion

Estimated annual cost  
of disease-associated  
malnutrition in older  
adults in the US<sup>1</sup>



Up to 1 out of  
**2 older adults**  
are at risk for  
malnutrition<sup>2,3</sup>



## 300%

The increase in  
healthcare costs  
that can be  
attributed to poor  
nutritional status<sup>5</sup>



**20% to 50%**  
of patients are  
malnourished or at  
risk for malnutrition  
on hospital admission<sup>4</sup>



**4 to 6 days**  
How long malnutrition  
increases length  
of hospital stays<sup>3</sup>

## Chronic health conditions

lead to increased  
malnutrition risk



**Malnutrition  
leads to more**  
complications, falls,  
and readmissions<sup>6</sup>



**Screen**  
all patients



**Assess**  
nutritional status



**Diagnose**  
malnutrition



**Intervene**  
with appropriate  
nutrition

## Focusing on malnutrition in healthcare helps:

- ✓ Decrease healthcare costs<sup>7</sup>
- ✓ Improve patient outcomes<sup>7</sup>
- ✓ Reduce readmissions
- ✓ Support healthy aging
- ✓ Improve quality of healthcare

Support policies across the healthcare system that defeat older-adult malnutrition.

**Learn more at [www.DefeatMalnutrition.Today](http://www.DefeatMalnutrition.Today)**

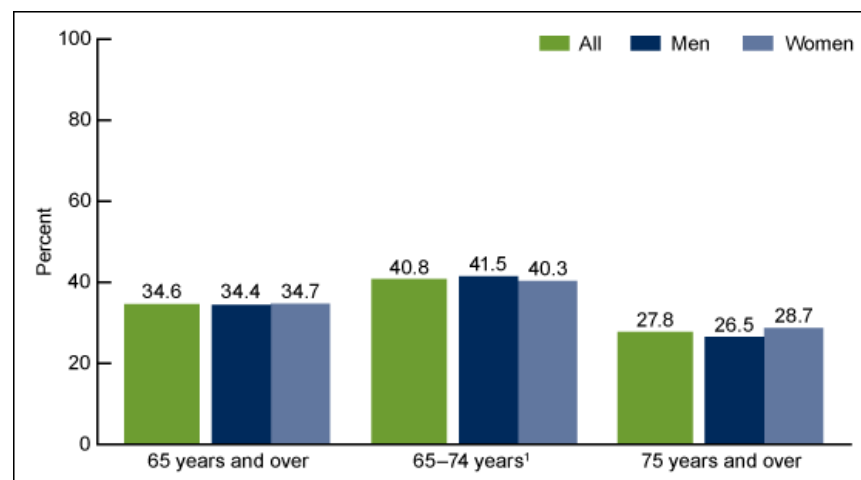
**References:** 1. Snider JT, et al. *JPEN J Parenter Enteral Nutr.* 2014;38(2 suppl):775-85S. 2. Kaiser MJ, et al. *J Am Geriatr Soc.* 2010;58(9):1734-1738. 3. Izawa S, et al. *Clin Nutr.* 2006;25(6):962-967.

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# Weight and Older Adults

- ▶ Elevated BMI prevalent
- ▶ Increases decline in physical function
- ▶ Increases frailty
- ▶ Encourage strategies that combine physical activity, nutrition therapy to promote wt loss
- ▶ Prevalence of BMI 30+ among adults aged 65 and over, by sex: U.S., 2007–2010.

CDC



# Sleep

- ▶ Poor sleep associated with higher glucose levels.
- ▶ People with dementia may sleep more or have disrupted sleeping patterns.
- ▶ How much sleep are you getting a night?
- ▶ Do you wake up well rested?
- ▶ Have you had a sleep study?



# Oral Hygiene

- ▶ Oral health affects blood glucose and vascular inflammation.
- ▶ Gums swollen?
- ▶ Brushing frequency
- ▶ Flossing frequency
- ▶ Dental visits
- ▶ Tooth abscess?
- ▶ Dentures fitting?



# Social Connectedness

- ▶ Is key to healthy aging.
- ▶ Studies have shown that older people who have close connections and relationships not only live longer, but also cope better with health conditions and experience less depression.
- ▶ Weekly groups
- ▶ Volunteering
- ▶ Social Media Connections
- ▶ Family nearby
- ▶ Places of worship
- ▶ Pets



<https://www.healthinaging.org/blog/social-connectedness-a-key-to-healthy-aging/>

# INDIVIDUALIZE – The Best Strategy for All Ages

- ▶ Consider the individual
- ▶ Identify polypharmacy/ financial problems
- ▶ Promote diabetes self-management training
- ▶ Recognize emotional distress
- ▶ Emotional support – Support Groups
- ▶ Realistic goal setting
- ▶ Follow-up and resources



# GREAT DREAM

## Ten keys to happier living

Action for Happiness has developed the 10 Keys to Happier Living based on a review of the latest scientific research relating to happiness.

Everyone's path to happiness is different, but the research suggests these ten things consistently tend to have a positive impact on people's overall happiness and well-being.

The first five relate to how we interact with the **outside** world in our daily activities. The second five come more from **inside** us and depend on our attitude to life.

- |                     |   |
|---------------------|---|
| <b>GIVING</b>       |  Do things for others              |
| <b>RELATING</b>     |  Connect with people               |
| <b>EXERCISING</b>   |  Take care of your body            |
| <b>APPRECIATING</b> |  Notice the world around           |
| <b>TRYING OUT</b>   |  Keep learning new things          |
| <b>DIRECTION</b>    |  Have goals to look forward to   |
| <b>RESILIENCE</b>   |  Find ways to bounce back        |
| <b>EMOTION</b>      |  Take a positive approach        |
| <b>ACCEPTANCE</b>   |  Be comfortable with who you are |
| <b>MEANING</b>      |  Be part of something bigger     |

**HAPPINESS**  
is not  
**something**  
ready made.  
It comes  
from your  
**own actions.**  
~Dalai Lama

“ People will forget what you said, people will forget what you did, but people will never forget how you made them feel ” ~ Maya Angelou

# Hope: Our Best Gift



**Thank  
You**



*Diabetes Education*  
SERVICES



# Thank You



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