Section 5:

Facilitating Positive Health Behaviors and Well-Being to Improve Health Outcomes

Building positive health behaviors and maintaining psychological well-being are foundational for achieving diabetes management goals and maximizing quality of life.

Essential tasks to help people with diabetes achieve their health goals:			
	Refer for diabetes self-management education and support (DSMES)		Counsel on and support cessation of tobacco products and vaping
	Refer for medical nutrition therapy (MNT)		Counsel on health behaviors
	Counsel on routine physical activity		Support and refer to behavior health professionals for psychosocial care

DSMES Is Critical

People Who Benefit
- All people with diabetes

Advantages
- Ensures informed decision-making
- Promotes self-care behaviors
- Facilitates problem-solving
- Improved collaboration with the health care team
- Imparts knowledge and self-care skills
- Incorporates needs, goals, and life experiences

Times to Refer
- Annually
- At diagnosis
- When not meeting treatment goals
- When complicating factors develop
- When transitions in life and care occur

Appropriate Settings
- Group or individual visits
- In-person, telehealth, or digital platforms

Essential Components
- Provide culturally appropriate content
- Be responsive to individual preferences, needs, and values
- Use positive, strength-based language that puts people first.
- Consider social determinants of health with a focus on health equity.

Proven Outcomes
- Improved diabetes knowledge, self-care, and quality of life
- Lower A1C and self-reported weight reductions
- Reduced all-cause mortality risk, acute care and hospital services utilization, and lower health care costs
- Increased use of primary care and preventive services
- Positive coping behavior

Psychosocial Care for All People With Diabetes: Considerations and Recommendations

Screening
- ✓ Clinically significant mental health diagnoses are considerably more prevalent in people with diabetes than in those without.
- ✓ Clinicians should implement psychosocial screening protocols, including for diabetes distress.
- ✓ People with diabetes, caregivers, and family members should be screened at least annually or when changes in disease, treatment, or life circumstances occur.
- ✓ Address both clinical and subclinical psychological symptoms, which can affect the ability to carry out self-management, short-term glycemic stability, as well as mortality risk.

Interventions
- ✓ Interventions should be collaborative, person-centered, and culturally informed.
- ✓ Refer to behavioral health professionals or other trained health care professionals, ideally with experience in diabetes.
- ✓ Consider individuals' treatment burden, confidence and self-efficacy in management, and social and family support.

Resources are available to help health care professionals support behavioral and mental health in people with diabetes. Find them at https://professional.diabetes.org/meetings/behavioral-health-toolkit.

Suggested citation: American Diabetes Association Primary Care Advisory Group. 5. Facilitating positive health behaviors and well-being to improve health outcomes: *Standards of Care in Diabetes—2024* abridged for primary care professionals. Clin Diabetes 2024;42:193–195 (doi: 10.2337/cd24-a005).

Diabetes Distress

The ongoing demands of diabetes self-care and the possibility or reality of disease progression are directly linked to reported diabetes distress.

High levels of distress:

- Significantly affect medication-taking behavior
- Are linked to higher A1C, lower self-efficacy, and less-optimal eating and exercise behavior

MNT

There is a no one-size-fits-all eating pattern. Successful MNT programs are:

- Flexible, realistic, and sustainable
- Provided by a registered dietitian nutritionist
- Offered to all people with type 1 or type 2 diabetes, prediabetes, and gestational diabetes mellitus

Screen for:

- Disordered eating
- Food insecurity
- History of dieting

Key Nutrition Principles:

Include

- Nonstarchy vegetables
- Whole grains
- Nuts/seeds
- Low-fat dairy products
- Whole fruits
- Legumes

Minimize

- Meat
- Sugar-sweetened beverages
- Sweets
- Refined grains
- Ultra-processed foods

Data do not support a specific distribution of macronutrients. People with diabetes may choose from a variety of healthy eating patterns to fit their needs and preferences.

Support positive health behavior through:			
	Motivational interviewing		Problem-solving
	Patient activation		Encouragement of health behavior self-monitoring, with or without clinician feedback
	Goal-setting and action-planning		Identification of social support resources

Importance of 24-Hour Physical Behaviors for Type 2 Diabetes

SITTING/BREAKING UP PROLONGED SITTING

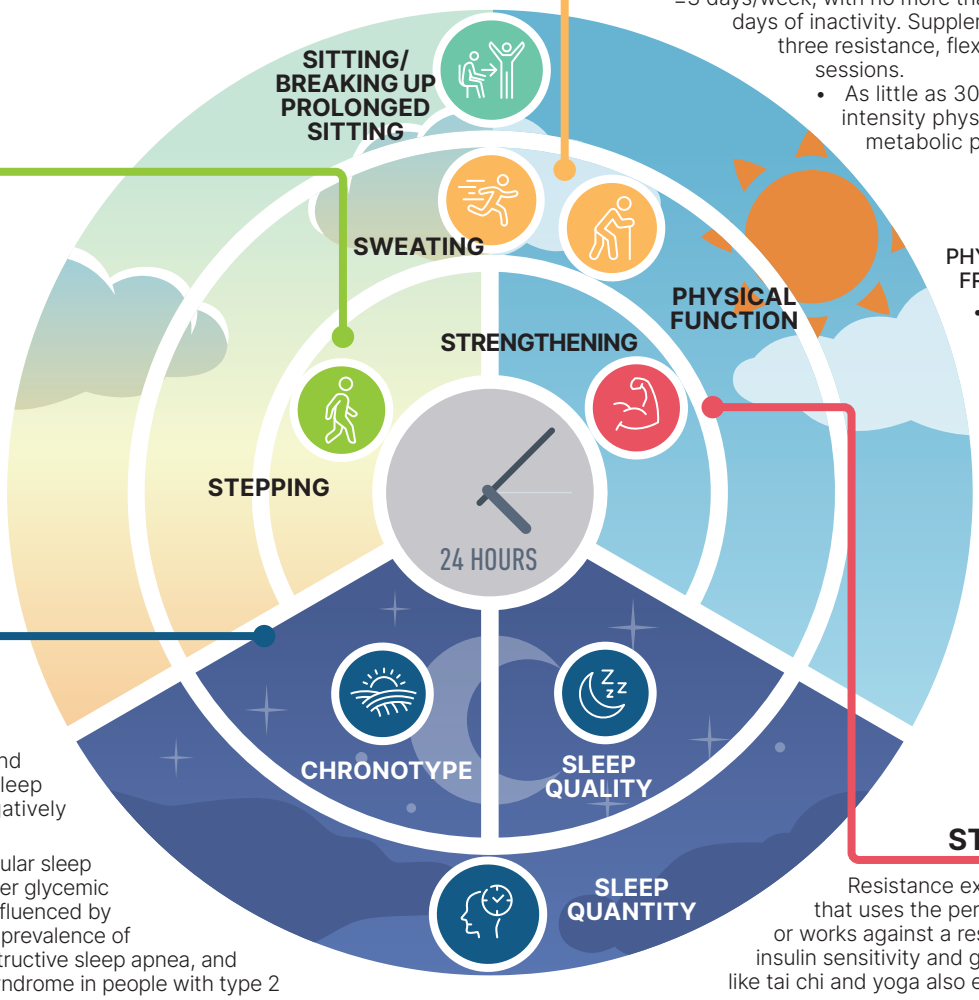
Limit sitting. Breaking up prolonged sitting (every 30 min) with short regular bouts of slow walking/simple resistance exercises can improve glucose metabolism.

SWEATING (MODERATE-TO-VIGOROUS ACTIVITY)

- Encourage ≥150 min/week of moderate-intensity physical activity (i.e., uses large muscle groups, rhythmic in nature) OR ≥75 min/week vigorous-intensity activity spread over ≥3 days/week, with no more than 2 consecutive days of inactivity. Supplement with two to three resistance, flexibility, and/or balance sessions.
- As little as 30 min/week of moderate-intensity physical activity improves metabolic profiles.

STEPPING

- An increase of only 500 steps/day is associated with 2-9% decreased risk of cardiovascular morbidity and all-cause mortality.
- A 5-to 6-min brisk-intensity walk per day equates to ~4 years' greater life expectancy.



PHYSICAL FUNCTION/ FRAILTY/SARCOPENIA

- The frailty phenotype in type 2 diabetes is unique, often encompassing obesity alongside physical frailty, at an earlier age. The ability of people with type 2 diabetes to undertake simple functional exercises in middle age is similar to that in those over a decade older.

SLEEP

Aim for consistent, uninterrupted sleep, even on weekends.

Quantity - Long (>8 h) and short (<6 h) sleep durations negatively impact A1C.

Quality - Irregular sleep results in poorer glycemic levels, likely influenced by the increased prevalence of insomnia, obstructive sleep apnea, and restless leg syndrome in people with type 2 diabetes.

Chronotype - Evening chronotypes (i.e., night owl: go to bed late and get up late) may be more susceptible to inactivity and poorer glycemic levels vs, morning chronotypes (i.e., early bird: go to bed early and get up early).

STRENGTHENING

Resistance exercise (i.e., any activity that uses the person's own body weight or works against a resistance) also improves insulin sensitivity and glucose levels; activities like tai chi and yoga also encompass elements of flexibility and balance.

	Glucose/ Insulin	Blood pressure	A1C	Lipids	Physical function	Depression	Quality of life
SITTING/BREAKING UP PROLONGED SITTING	↓	↓	↓	↓	↑	↓	↑
STEPPING	↓	↓	↓	↓	↑	↓	↑
SWEATING (MODERATE-TO-VIGOROUS ACTIVITY)	↓	↓	↓	↓	↑	↓	↑
STRENGTHENING	↓	↓	↓	↓	↑	↓	↑
ADEQUATE SLEEP DURATION	↓	↓	↓	↓	?	↓	↑
GOOD SLEEP QUALITY	↓	↓	↓	↓	?	↓	↑
CHRONOTYPE/CONSISTENT TIMING	↓	?	↓	?	?	↓	?

Impact of physical behaviors on cardiometabolic health in people with type 2 diabetes

↑ Higher levels/improvement (physical function, quality of life); ↓ Lower levels/improvement (glucose/insulin, blood pressure, A1C, lipids, depression); ? no data available; ↑ Green arrows = strong evidence; ↑ Yellow arrows = medium strength evidence; ↑ Red arrows = limited evidence.

Davies MJ, Aroda VR, Collins BS, et al. Management of hyperglycemia in type 2 diabetes, 2022. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care 2022;45:2753–2786.