

Maximizing Self-Care of Diabetes in Long-Term Care

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Disclosure

- Deborah Greenwood has no relevant financial relationships to disclose

Objectives

- Explore patient education tools and processes that improve safe glycemic management
- Discuss optimal diet and lifestyle modifications with approaches to overcome change inertia
- Identify tools that help patients know when and how to seek help for emerging diabetic complications
- Review metrics that document the value of this process to individual patients

The Problem

- Severe lack of research linking management practices to outcomes
 - health and quality of life
- Guidelines not followed
- Lack of resources
- Lack of the voice of the resident

An Opportunity

- Engage patients in self-management
- Improve diabetes management and self-care skills
- Patient and family centered care
- Reduce re-admissions for diabetes related complications
- Goal to maintain independence

What is Diabetes Self-Management Education/Training (DSME/T)?

- Collaborative process
- Knowledge and skills needed to modify behavior and self-manage disease
- Behavior change a unique outcome
- Goals:
 - Optimal health status
 - Quality of life
 - Prevent complications

Initial Comprehensive Assessment

- Identify educational and skills deficit
- Ability to self-manage
- Family support and engagement
- Critical areas:
 - Diabetes disease process
 - Treatment goals
 - Management skills
 - Cultural influences
 - Health beliefs/behavior
 - Attitudes
 - Socioeconomic factors
 - Barriers to learning

Barriers

- Physical limitations
- Cognitive impairment
- Language
- Emotional barriers-grief, fear, stress, social isolation
- Health literacy and numeracy
- Desire/motivation-inability to adapt to change
- Financial

Modified Assessment

1. Understanding of diabetes
2. Healthy Eating
3. Blood glucose monitoring and goals
4. Knowledge of diabetes medications
5. Signs, symptoms and treatment of hypoglycemia and hyperglycemia
6. How to prevent problems and complications
7. When to call for help

AADE7™ Self-Care Behaviors

- Healthy Eating
- Being Active
- Monitoring
- Taking Medication
- Problem Solving
- Healthy Coping
- Reducing Risks



AADE7™ Defined

- Healthy eating
 - Understanding food and blood glucose
 - How to plan meals and choose good foods
- Being active
 - Importance of activity
- Monitoring
 - Understanding blood glucose
 - How to monitor glycemic levels
- Taking medication
 - How and when to take medications; how they work
- Problem solving
 - Making decisions about food, activity and medications
- Reducing risks
 - How to reduce complications and improve QOL
- Healthy coping
 - Identifying and overcoming psychological and social factors

Getting Started with the AADE7™

- Review behaviors
- Each resident's needs will differ
 - Healthy eating, being active and monitoring tend to be primary focus
 - Problem solving and healthy coping need more attention
 - Building blocks for positive outcomes
- Determine which behaviors are relevant
 - Based on patient choice, readiness, disease, resources and barriers

Setting Goals

- Collaborate to set effective goals
- Identify one or two self-care behaviors
- Create an educational plan
- Provide patient with written resources
- Reinforcement by all staff

Using AADE7™ in Your Practice



Diabetes Educator Name and Initial Index
 Mary Jones
 Patient Name

Name: Jane Smith Initial: _____ Name: _____ Initial: _____
 Name: _____ Initial: _____ Name: _____ Initial: _____

v4.1

Date	Goal Setting	Confidence	Follow Up	Goal Review	Intervention
Date	Goal		Date Achievement	Documentation	Behavioral Strategies
	<input checked="" type="checkbox"/> Healthy eating				
	<input checked="" type="checkbox"/> Follow my eating schedule better	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Eat better food	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	<input type="checkbox"/> Overeat less often	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
	Add'l goal Change...	4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Being active				
	<input type="checkbox"/> Exercise more often	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Exercise longer	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	Add'l goal	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
		4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Monitoring				
	<input type="checkbox"/> Check my blood sugar more often	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Miss fewer blood sugar checks	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	<input type="checkbox"/> Do my blood sugar checks on time more often	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
	Add'l goal	4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Taking medication				
	<input type="checkbox"/> Miss fewer medications	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Take medications on time more often	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	Add'l goal	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
		4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Problem Solving				
	<input type="checkbox"/> Prevent high blood sugars	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Treat high blood sugars	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	<input type="checkbox"/> Prevent low blood sugars	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
	<input type="checkbox"/> Prevent low blood sugars	4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Manage diabetes when sick	4 3 2 1		A C M	
	Add'l goal	4 3 2 1		A C M	
	<input type="checkbox"/> Healthy coping				
	<input type="checkbox"/> Cope with diabetes	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Get support from my medical team	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	<input type="checkbox"/> Get support from family/friends	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
	Add'l goal	4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Reducing risks				
	<input type="checkbox"/> Get preventative help	4 3 2 1	<input type="checkbox"/> 1 mo	A C M	Kno Ski Goa Beh Con Bar Sit Oth
	<input type="checkbox"/> Stop smoking	4 3 2 1	<input type="checkbox"/> 3 mo	A C M	
	<input type="checkbox"/> Check my feet	4 3 2 1	<input type="checkbox"/> 6 mo	A C M	
	<input type="checkbox"/> Lose weight	4 3 2 1	<input type="checkbox"/> 12 mo	A C M	
	<input type="checkbox"/> Get blood pressure under control	4 3 2 1		A C M	
	<input type="checkbox"/> Learn to have a safe pregnancy	4 3 2 1		A C M	
	Add'l goal	4 3 2 1		A C M	

Key

Confidence
 4 - Sure I can
 3 - Think I can
 2 - Not sure I can
 1 - Don't think I can

A - Achieved
 C - Continued
 M - Modified

Knowledge education
 Behavioral contracting
 Situational problem solving

Skill training
 Confidence building
 Other

Goal setting
 Barrier resolution

- AADE7™ : Goal Sheets
- Documentation
- Care plan
- Flow sheets
- Communication

Evaluating Goals

- Evaluate goals at baseline
- Continue at regular intervals
 - Customize goal measurement to the individual
 - Behavior change needs to be practiced two weeks before reevaluation
 - Different from acquiring skills

True or False

➤ People with diabetes can't have sugar

➤ False

- Sugar is just another carbohydrate
- Limit to small portions
- Count carbohydrates toward total in meal plan

Healthy Eating



➤ ADA guidelines:

- Residents with diabetes should be served a regular menu with consistency in the amount and timing of carbohydrate
- There is no evidence to support prescribing “no concentrated sweets” or “no sugar added”
- Under-nutrition may be more of a problem

Key messages

- Eat breakfast every day
- Eat every 4-5 hours
- Consistent carbohydrate meals
- Plate method
 - ½ non-starchy vegetables
 - ¼ meat or other protein
 - ¼ starch

**For Lunch And Dinner You Should
Divide Your Plate Into 3 Parts**

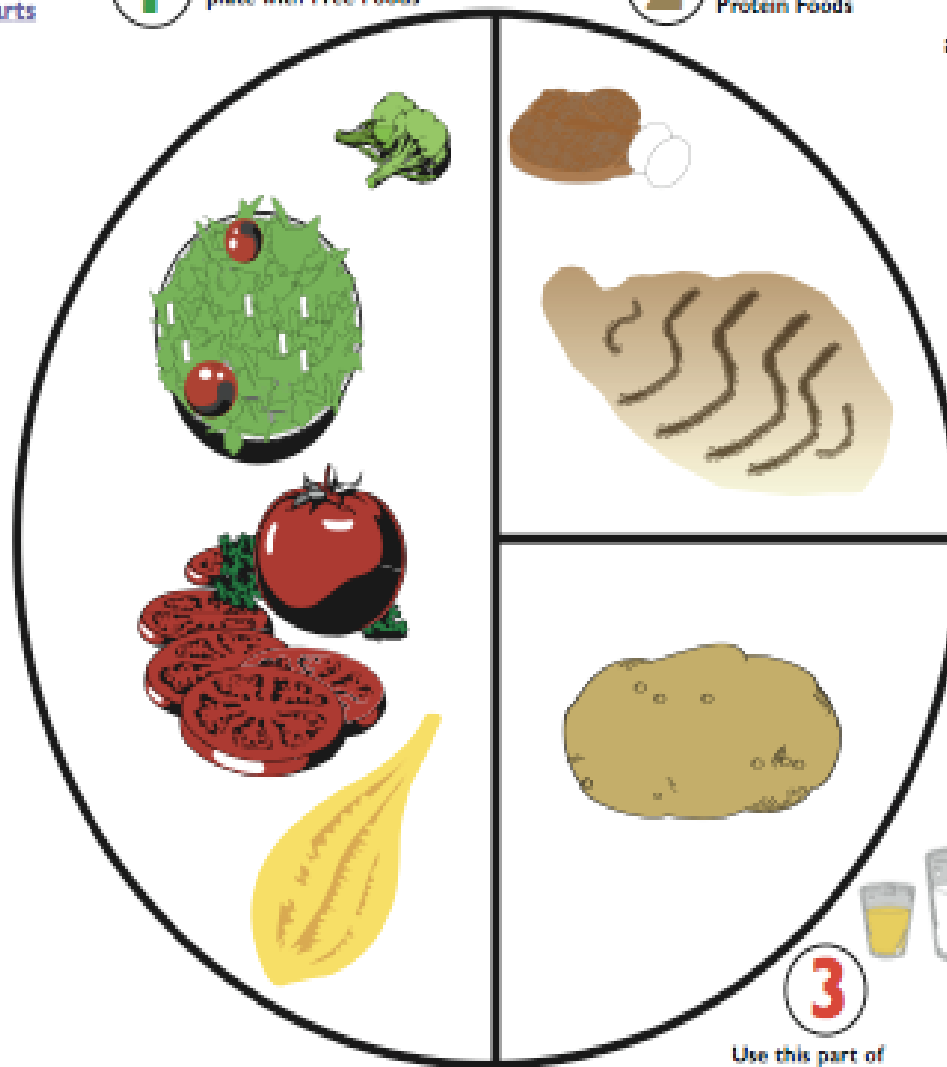
1 Fill up this part of your plate with Free Foods

2 Use this part of your plate for Protein Foods

2 Protein should be about the size of your palm

1 Free Foods

Asparagus
Artichoke, Artichoke hearts
Asparagus
Beans, green or yellow
Bean sprouts
Beets, boiled
Broccoli
Brussel sprouts
Cabbage, any kind
Cauliflower
Celery
Cucumber
Eggplant
Green beans
Greens, any kind, salad greens
Lettuce, any kind
Leeks
Mushrooms, button, raw or cooked
Okra, boiled
Onion
Pepper, any kind
Radish
Rhubarb
Savoykale
Snowpeas
Spinach, raw
Spinach
Sprouts, any kind
Squash, yellow or spaghetti
Tomato
Sugar snap peas
Turnip
Water chestnuts
Zucchini



Meat
Chicken
Fish
Low-fat Cheese
Egg
Turkey
Cottage cheese
Shellfish

3 For Carbs you can have any _____ from this list

1 small bowl Potatoes
1 small bowl Rice
1 small bowl Beans, like pinto or white
1 small bowl Corn
1 small bowl Peas
1 small bowl Noodles or macaroni
5 crackers
1 piece of bread or roll
1 cup of Milk
1 small bowl of Fruit
1 small glass of Juice
1 small bowl of low-fat, sugar-free Ice Cream
1 small bowl of sugar-free Pudding

3

Use this part of your plate for Carb Foods

Example:

- Learning objective:
 - Describe plate method correctly
 - Identify snack foods low in carbohydrate
- Behavioral goal:
 - I will eat crackers and peanut butter for my bedtime snack 5 nights a week.

Being Active



- Discuss an appropriate activity plan
- What does being active mean to you?
- Barriers
 - Physical limitations
 - Environmental
 - Psychological

Monitoring



- Glycemic target ranges
- Use of monitoring device
- Indications and frequency
 - post prandial testing
- Recording and analysis of results
 - Look for patterns
 - Start with fasting blood glucose
- Actions to take

Monitoring

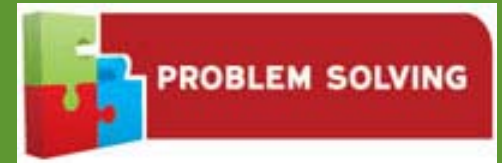
- **Blood sugar testing** is necessary:
 - To detect high or low blood sugar levels
 - To see patterns outside of the goal range
 - To evaluate the effectiveness of treatment
 - To evaluate a changing condition
 - illness, new medicines, etc.

Taking Medication



- Names of medications
- Action and duration
- Times and mode of administration
- Possible side effects
- Drug/food interaction
- If on insulin, reinforce guidelines and limit sliding scale

Problem Solving



- Importance of individual glycemic goals
- Recognize symptoms and how to treat
 - Hyperglycemia (too little concern)
 - Hypoglycemia (too much fear)
- When to seek medical treatment or advice
- Sick day management

Problem Solving Dilemma

- A person with **cognitive impairment** is less able to remember, organize their thoughts or make decisions.

Causes of Hyperglycemia

- Physical stress
 - Illness
 - Vomiting or diarrhea
 - Infection
 - Surgery
 - Fever
- Emotional stress
- Too much food or overeating
- Not enough medication
- Other medicines-steroids

Hyperglycemia Prevention

- Goals:
- ↓incontinence
- ↓dehydration
- ↓fatigue
- ↓vision loss
- ↓Foot ulcers and neuropathy
- ↓oral health problems
- ↓Skin problems (infections, wounds that don't heal)
- ↓depression
- ↑overall well-being
- ↑Physical therapy participation

Hypoglycemia

- Goal is to minimize or avoid hypoglycemia
- Treat effectively but not over-treat
- Rule of 15-follow up with snack or meal
- Look for patterns and adjust medication

Rule of 15

- Treat with 15 grams of carbohydrate
- Check blood glucose in 15 minutes
- If blood glucose is still less than 70mg, repeat
- Repeat until blood glucose is in goal range
- These items contain 15 grams of carbohydrate:
 - Glucose tablets (3 five-gram tablets or 4 gram tablets)
 - Tube of glucose gel
 - 4 ounces fruit juice
 - 4 ounces sugar sweetened soda pop
 - 5 Life Savers

Causes of Hypoglycemia

- Skipping or delaying meal, or not eating enough
- Increasing physical activity
- Drinking alcohol without eating
- Rapid acting insulin too long before a meal
- Experiencing an adverse drug interaction
- Vomiting or acute diarrhea

Important Considerations

- **Leading cause of falls and injuries in older adult with diabetes.**
- **If not promptly treated:**
 - seizures, coma, cognitive impairment, or death
- **Frequent, severe or nocturnal lows require treatment change.**
- **Hypoglycemia unawareness –unable to recognize and communicate symptoms**

Symptoms in the Frail Elderly

- Altered behavior and mental function
- Altered level of consciousness (drowsy, lethargy)
- Confusion, disorientation
- Falls
- Generalized weakness
- Hallucinations
- Hunger
- Irritability
- Pallor
- Poor concentration and coordination
- Seizures
- Sweating

How to prevent hypoglycemia

- Pattern management
- Adjust tx if two to three episodes occur in a week
- Consistent time and amount of carbohydrates
- Bedtime snack
- Sick day rules
- Educate

True or False

- When a resident is sick and not eating, their basal or long acting insulin should be held.
- False
 - Many people need extra insulin when they are sick

Sick Days

- Monitor frequently
- Continue insulin and oral medicines
- 8 oz. liquid (sodium and electrolytes) every 3 hrs.
 - calorie free liquids: water, sugar-free Koolaid, diet soda, broth or bullion
- If unable or unwilling to eat regular meals, replace with liquids that contain carbohydrate
 - Give 45-60 grams of carbohydrate every 3-4 hours (about 15 grams every hour).
 - <http://www.diabetes.org/living-with-diabetes/treatment-and-care/who-is-on-your-healthcare-team/when-youre-sick.html>

Healthy Coping



- Speak Up Program™
- Diabetes: five ways to be active in your care at the hospital
 1. Find out how your diabetes will be managed
 2. Ask what will happen with your medicines
 3. Know what will happen with your diet
 4. Avoid getting an infection
 5. Find out what will happen when you go home



Reducing Risks



- Encourage a personal care record
 - Dilated eye exam
 - Foot exam with sensory testing
 - Kidney screening-microalbuminuria
 - Dental exam and cleaning
 - Depression screening
 - Polypharmacy
 - Smoking cessation

Daily Foot Checks

- Redness, calluses or bleeding under calluses
- Open areas or injuries
- Moist, peeling skin
 - check between the toes
- Dry, cracked skin

Foot Care Guidelines

- Keep feet clean and dry
- Socks clean and dry
- Wear shoes that fit well
- Keep skin soft and free of dryness or cracks
- Apply lotion, but never between toes
- Toenail trimming-a podiatrist or foot care specialist
- Gentle removal of calluses using a pumice stone

Consider a referral to specialist

- Previous foot ulcer
- Partial foot amputation due to a foot ulcer
- Calluses that are large, painful or reddened
- A foot deformity, such as hammer toes, claw toes, bunions or prominent metatarsal heads
- Neuropathy and calluses
- Poor circulation

Oral / dental disease

- Periodontal disease, cavities, gingivitis
- Symptoms:
 - Poor dental health
 - Red, swollen or bleeding gums
 - Decayed, missing, broken teeth
 - Bad breath
 - Sores in mouth
 - Mouth or tooth pain
 - White coating on tongue

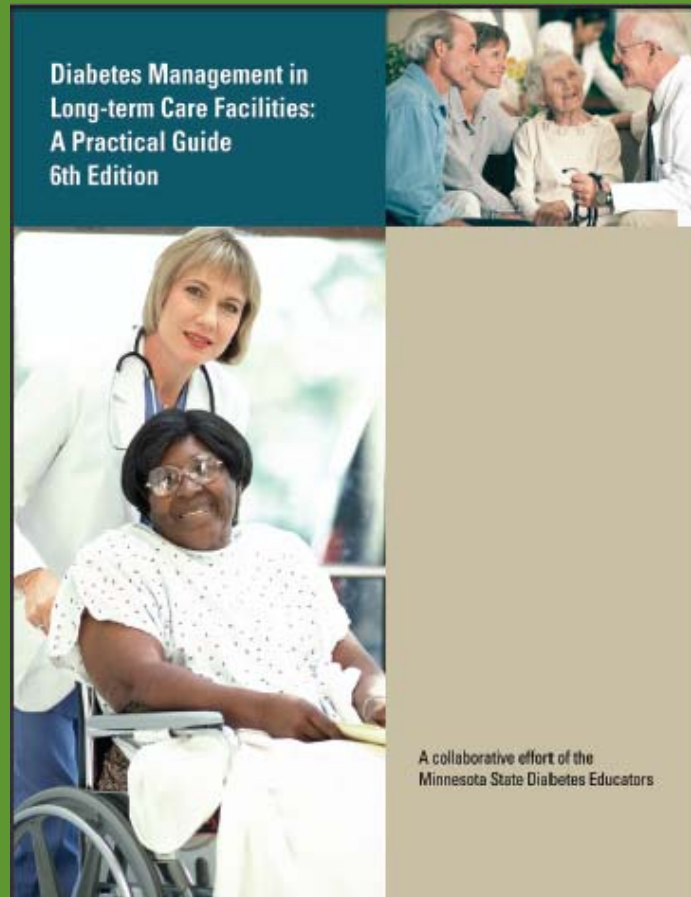
Summary

- Reinforce self-care during routine procedures
- Collaboratively set small, achievable goals
- Share goals with primary care provider
- Identify self-management support resources

Measure Outcomes

- Achievement of behavior change goals
- A1c knowledge
- Patient satisfaction survey
- Data on re-admission rate due to diabetes

Diabetes Management in Long Term Care Facilities

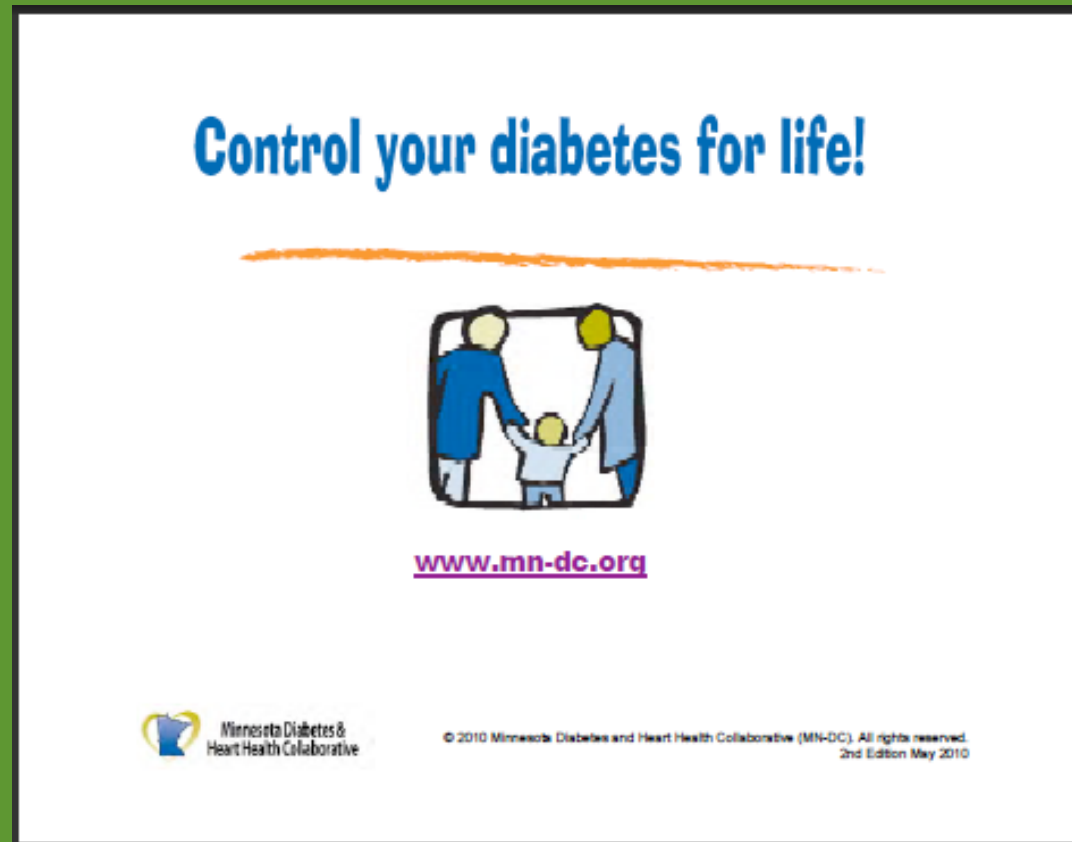


Diabetes Management in Long-term Care Facilities: A Practical Guide

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Diabetes Management in Long Term Care Facilities: Tool Kit



- <http://ltcdiabetesguide.org/downloads/LTCguide6thEdition.pdf>
- <http://ltcdiabetesguide.org/toolkit.html>

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- <http://ltdiabetesguide.org/downloads/LTCguide6thEdition.pdf>
- <http://ltdiabetesguide.org/toolkit.html>



Check your feet

What do you need to do?

Check your feet every day.

- Look for redness, sores, cuts, swelling or blisters.
- Look at the top and bottom of each foot and between your toes.
- Use a mirror or ask someone to help.

Wash your feet in warm water every day.

- Do not soak your feet.
- Dry your feet, especially between your toes.
- Use lotion on your feet but NOT between your toes.

Never go barefoot! Always wear shoes and socks.

- Wear comfortable, supportive shoes that fit well and protect your feet.
- Check the inside of your shoes and socks for things that may irritate and damage your skin.

Ask your doctor for a complete foot exam at least once a year.

- Take off your shoes and socks at every doctor visit.
- Tell your doctor if you have any foot problems.
- Are your feet numb, tingling or swollen?
- Do you have sores that do not heal?

Why is it important for you to do this?

Big problems often start as small sores on a foot.

- With diabetes, sores often heal more slowly.
- Treat foot sores early to prevent serious problems such as losing your foot or leg.

Keep your feet clean to prevent sores from happening or getting worse.

- Soaking your feet can dry them out.
- Lotion will help protect your skin and keep it from cracking. Cracked skin can be painful and can get infected.

Protect your feet with shoes and socks to avoid injuries that you may not be able to feel.

Your doctor will look for problems and treat them.

- For some problems, you may have to see a nerve or foot specialist.

AADE7™

AADE7™ SELF-CARE BEHAVIORS PROBLEM SOLVING

What do you do when you have a problem like low blood sugar (hypoglycemia)? Do you know what caused it? How can you help reduce the risk of it happening in the future?

Everyone encounters problems with their diabetes control; you can't plan for every situation you may face. However, there are some problem-solving skills that can help you prepare for the unexpected—and make a plan for dealing with similar problems in the future.

Some of the most important problem-solving skills for diabetes self-care are learning how to recognize and react to high and low blood sugar levels and learning how to manage on days when you are sick.

Your diabetes educator can help you develop the skills to identify situations that could upset your diabetes control.

DID YOU KNOW?
Skipping meals and snacks, taking too much diabetes medication, engaging in physical activity and drinking too much alcohol can all cause you to experience low blood sugar problems.

TRUE OR FALSE?
Nobody has perfect diabetes management.
TRUE. You are not perfect—no one is. There **WILL** be problems and challenges. The important thing is to learn from each situation—what caused your blood sugar to go above or below target, and what you can do to improve your diabetes self-care.

QUICK TIPS
Do not go more than 5 hours without eating during your waking hours.
Limit your alcohol consumption. Learn how it interacts with your medications and how it affects your blood sugar. When you do drink alcoholic beverages, don't drink on an empty stomach.
If you do have a problem with your diabetes control, don't beat yourself up over it—solve it and learn from it! Talk to your healthcare provider—they can help you come up with solutions.


Word Wall
HYPOGLYCEMIA:
Low blood sugar
HYPERGLYCEMIA:
High blood sugar
GOAL SETTING:
Choosing a specific task or activity that you want to achieve and making a plan to get there.

*Exercise morning
Go to Farmer's Market
Pick up prescriptions*



Supported by an educational grant from Eli Lilly and Company.

ACTIVITIES



WHAT WOULD YOU DO?
Think about how the following situations may affect you—and about what steps you could take to maintain proper control of your diabetes in similar situations.

You get the flu and notice that your blood sugar levels are higher than normal. What do you do?

While on vacation, you don't have easy access to a gym or time for exercise. How will you handle this?

You have a hard time finding healthy food choices within your family's cultural or taste preferences. What steps can you take?

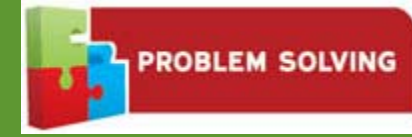
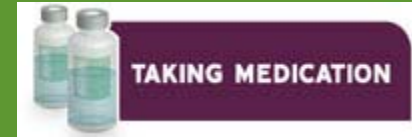
Is there something you've been struggling with in your diabetes care? What is it?

Why do you think this is a problem? When does it occur?

Name two things you can do to fix it.

What can you do to prevent it from happening in the future?

AADE American Association of Diabetes Educators



Resources

- National Diabetes Education Initiative
 - <http://www.ndei.org/v2/website/content/TreatmentGuidelines.cfm>
 - Sanofi-Aventis-health care professionals
 - <https://www.quickcasesindiabetes.com/quickcases.aspx>
- American Diabetes Association
 - <http://www.diabetes.org/>

Thank You!
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