

# DIABETES AND COGNITIVE IMPAIRMENT: UNDERSTANDING THE CONNECTION AND ADAPTING CARE PRACTICES

Training for care assistants, life assistants, nurses, activity leaders, and companions in senior residences or home care services

Master the dual interaction between diabetes and cognitive disorders to provide safe and adapted care

<b>Duration :</b> 4 hours	<b>Modules :</b> 8 modules
<b>Lessons :</b> 32 lessons	<b>Audience :</b> Healthcare professionals working with elderly diabetic individuals
<b>Format :</b> 100% online, asynchronous	<b>Provider :</b> N° 11757351875
<b>Certification :</b> Qualiopi	<b>Price :</b> On request

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## Course description

This comprehensive training addresses the critical link between diabetes and cognitive impairment in elderly populations. Type 2 diabetes doubles the risk of dementia and accelerates cognitive decline, while cognitive disorders significantly complicate diabetes management. Participants will gain a deep understanding of this bidirectional relationship and acquire concrete strategies to safely support diabetic individuals with cognitive disorders. The training covers blood glucose monitoring, nutrition, prevention of complications, family support, and emergency protocols. By the end, each professional will be equipped to adapt care practices, prevent life-threatening complications, and coordinate effectively with multidisciplinary healthcare teams.

## Module summary

<b>MODULE 1</b>	Understanding diabetes and its effects on the brain	4 lessons
<b>MODULE 2</b>	Blood glucose monitoring and tailored care	4 lessons
<b>MODULE 3</b>	Nutrition, hydration, and diabetes in facilities	4 lessons
<b>MODULE 4</b>	Adapting support for cognitive disorders	4 lessons
<b>MODULE 5</b>	Prevention of complications and coordination	4 lessons
<b>MODULE 6</b>	Complex situations and specific cases	4 lessons
<b>MODULE 7</b>	Supporting Families	4 lessons
<b>MODULE 8</b>	Practical cases and consolidation	4 lessons

## Learning objectives

### Learning objectives

- Understand the mechanisms linking type 2 diabetes to cognitive decline and dementia
- Recognize and manage hypoglycemia and hyperglycemia in elderly individuals with cognitive disorders
- Adapt nutritional support and hydration strategies for diabetic residents with cognitive impairment
- Implement cognitive stimulation and behavioral management techniques tailored to diabetic individuals
- Prevent cardiovascular, neuropathic, and infectious complications through vigilant monitoring
- Coordinate effectively with multidisciplinary teams and communicate priority information
- Support families in understanding and managing the dual challenges of diabetes and cognitive disorders
- Apply emergency glycemic protocols and develop individualized care plans

## General information

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<b>Duration</b>	4 hours
<b>Target audience</b>	Care assistants, life assistants, nurses, activity leaders, companions in senior residences or home care services
<b>Prerequisites</b>	None
<b>Price</b>	On quote - VAT not applicable (article 261-4-4° of the French General Tax Code)
<b>Certification</b>	Qualiopi - Certificate of completion
<b>Training organization</b>	DYNSEO - Activity registration number: 11757351875

**Lesson 1 - Type 2 diabetes — mechanisms and epidemiology**

- Definition of type 2 diabetes: insulin resistance and chronic hyperglycemia
- Epidemiology: 4 million diabetics in France with high prevalence among seniors
- Classic complications: cardiovascular, renal, ophthalmological, neuropathic
- Daily management involving all caregivers in the support network

**Lesson 2 - The diabetes-brain link — scientific mechanisms**

- Neurotoxic effects of chronic hyperglycemia: inflammation and oxidative stress
- Cerebral microangiopathies: silent vascular lesions accumulating over time
- Link with Alzheimer's disease: brain insulin resistance and amyloid deposits
- Link with vascular dementia: silent strokes and leukoaraiosis

**Lesson 3 - Specific cognitive disorders related to diabetes**

- Cognitive profile: impaired processing speed, working memory, and executive functions
- Diabetes as an accelerator of age-related cognitive decline
- Cumulative effects of repeated hypoglycemia on brain function
- Differentiating diabetes-related cognitive disorders from established dementia

**Lesson 4 - The vicious circle of diabetes-cognition**

- How cognitive disorders complicate diabetes management: forgetfulness, diet, adherence
- How poor glycemic control worsens cognitive impairment
- Frequent hypoglycemia in elderly individuals with cognitive disorders as a major danger
- The support professional as a key player in breaking this vicious circle

**Lesson 1 - Understanding Glycemic Monitoring in Institutions**

- Glycemic targets for elderly individuals with cognitive impairments differ from young adults
- Capillary blood glucose: technique, frequency, and interpretation for professionals
- HbA1c targets in frail elderly subjects are less strict for valid reasons
- Role of non-healthcare professionals: observe and report without interpreting

**Lesson 2 - Recognizing and Managing Hypoglycemia**

- Definition: blood sugar below 0.70 g/L requiring immediate treatment
- Classic signs: tremors, sweating, pallor, tachycardia, intense hunger
- Atypical signs in elderly individuals: confusion, agitation, falls, drowsiness
- Step-by-step protocol: immediate sugar intake, monitoring, and reporting

**Lesson 3 - Recognizing and Managing Hyperglycemia**

- Signs: intense thirst, polyuria, fatigue, consciousness disturbances
- Hyperglycemic hyperosmolar syndrome as an absolute emergency in the elderly
- Triggering factors: infection, corticosteroids, dehydration, stress
- Actions: alert immediately, provide hydration, monitor while waiting for help

**Lesson 4 - Diabetes Treatments — What the Professional Needs to Know**

- Oral antidiabetics: metformin, sulfonylureas, glinides, DPP-4 inhibitors, SGLT2 inhibitors
- Insulin types, action times, and hypoglycemic risks for each type
- Injection devices: injector pens, pumps, and professional vigilance requirements
- Frequent drug interactions in elderly patients with polypharmacy

**Lesson 1 - The principles of diabetic nutrition in the elderly**

- Balancing glycemic control with food enjoyment in elderly diabetics
- High glycemic index foods to limit: quick sugars, white bread, potatoes
- Importance of fiber, protein, and healthy fats in the diet

- Adapting without eliminating to preserve food pleasure despite constraints

## Lesson 2 - Cognitive Disorders and Nutrition — Practical Challenges

- Managing the person who forgets having eaten and asks to eat again
- Handling refusal to eat or snacking outside of scheduled meals
- Food disinhibition in dementias associated with diabetes
- Practical solutions: meal organization, monitoring, acceptable substitutes

## Lesson 3 - Hydration — a major issue often overlooked

- Dehydration risk in elderly diabetics leading to hyperglycemic syndromes
- Decreased thirst sensation requiring proactive monitoring without waiting for requests
- Strategies to promote hydration: flavored water, soups, ice creams, service protocols
- Tracking fluid intake as a simple and effective tool in facilities

## Lesson 4 - Foot care and prevention of complications

- Diabetic foot: neuropathy, arteritis, risk of ulcer and gangrene
- Daily foot inspection: what professionals should observe and report
- Appropriate foot care: hydration, nails, shoes, socks
- Warning signs to report immediately: wound, redness, heat, edema

### MODULE 4

## Adapting support for cognitive disorders

4 lessons

### Lesson 1 - Adapting diabetes management to cognitive disorders

- Simplify medication regimen: weekly pill organizer, alarms, nurse preparation
- Adapt dietary instructions: simple, visual rules repeated with kindness
- Blood glucose monitoring techniques for agitated or uncooperative persons
- Managing refusal of diabetes care related to cognitive disorders

### Lesson 2 - Cognitive stimulation and diabetes

- Bidirectional impact of good glycemic control on cognitive functions
- Cognitive stimulation activities tailored to elderly diabetics (JOE, EDITH)
- Adapted physical activity: benefits for both glycemia and cognition
- Integrating stimulation into regular care without creating additional burden

### Lesson 3 - Managing behaviors related to glycemic variations

- Recognizing agitation and confusion as possible signs of hypoglycemia
- Irritability and behavioral disturbances related to hyperglycemia
- Avoiding automatic attribution of behavior changes to dementia alone
- Professional reflex: any unusual behavior change requires blood sugar check

### Lesson 4 - Nocturnal hypoglycemia — specific vigilance

- Frequency of nocturnal hypoglycemia in elderly individuals on insulin or sulfonylureas
- Nocturnal warning signs: agitation, sweating, shouting, confused awakening
- Nocturnal monitoring and re-sugaring protocol in facilities
- Adjusting injection and feeding schedules to reduce nocturnal risk

### MODULE 5

## Prevention of complications and coordination

4 lessons

### Lesson 1 - Preventing cardiovascular complications

- Increased cardiovascular risk in elderly diabetics with cognitive disorders
- Cardiovascular warning signs: chest pain, shortness of breath, edema
- Regular blood pressure and pulse monitoring with reporting of abnormal values
- Secondary prevention: medication adherence, lifestyle hygiene, anomaly reporting

### Lesson 2 - Preventing and Monitoring Diabetic Neuropathy

- Peripheral neuropathy: pain, paresthesia, loss of sensitivity in lower limbs
- Vegetative neuropathy: orthostatic hypotension, digestive and bladder disorders
- Adapted care: fall prevention related to hypotension, monitoring insensitive wounds
- Reporting new or aggravated neuropathic signs to the healthcare team

### Lesson 3 - Infection Prevention in Healthcare Facilities

- Relative immunodepression in diabetics increasing infection risk
- Most common infections: urinary, skin, respiratory, oral-dental
- Enhanced hygiene measures: hand washing, oral care, skin care
- Infection warning signals requiring close monitoring in diabetic individuals

### Lesson 4 - Transmit and coordinate effectively

- Priority information to convey: blood glucose levels, diet, behavior, warning signs
- Writing shareable reports about diabetic persons with cognitive disorders
- Coordinating with nurses, doctors, dietitians, and neuropsychologists
- Synthesis meetings: valuable contributions from field professionals

## MODULE 6

### Complex situations and specific cases

4 lessons

### Lesson 1 - Diabetes and End of Life — Adapting Palliative Care

- Glycemic goals in palliative care prioritize comfort over strict control
- Simplification of treatments: stopping non-essential antidiabetics in palliative phase
- Nutrition at end of life: avoiding unnecessary constraints in final weeks
- Supporting families who question why dietary rules are being relaxed

### Lesson 2 - Diabetes, fasting, and special situations

- Ramadan for diabetic residents: adapting treatments and monitoring protocols
- Hospitalizations and surgical interventions: perioperative protocols
- Intercurrent pathologies and their impact on blood sugar levels
- Guidelines for skipped or refused meals based on ongoing treatment

### Lesson 3 - Diabetes and depression in institutions

- Bidirectional link: diabetes and depression each exacerbate the other
- Recognizing depression in elderly diabetic persons with cognitive disorders
- Impact of depression on diabetes adherence and management
- Professional role: observe, report, support without diagnosing

### Lesson 4 - Complex clinical cases — analysis and decision

- Case 1: diabetic resident on insulin with advanced dementia refusing injections
- Case 2: resident with repeated nocturnal hypoglycemia despite adaptations
- Case 3: diabetic person with cognitive disorders secretly eating at night
- Collective analysis: identify problems, propose solutions, coordinate care

## MODULE 7

### Supporting Families

4 lessons

### Lesson 1 - What families experience in the face of diabetes AND cognitive disorders

- Double anxiety: managing chronic illness and simultaneous cognitive decline
- Families who over-control diet and its impact on resident dignity
- Families who bring inappropriate foods: addressing without conflict
- Building a family-team alliance around diabetes management

### Lesson 2 - Training and informing families

- Explaining the diabetes-cognition link simply to families
- Clarifying why glycemic targets are less strict for elderly relatives
- Teaching hypoglycemia signs families should recognize during visits
- What families can do to support diabetes management without causing harm

### Lesson 3 - Managing conflicts around food

- Addressing families who bring cakes and chocolates during visits
- Handling residents who ask for sweets when family gives in
- Setting clear rules without infantilizing or creating conflict
- Finding acceptable compromises between food pleasure and glycemic safety

### Lesson 4 - Supporting family caregivers at home

- Challenges of families managing diabetes of loved ones with cognitive disorders at home
- Available resources: private nurses, HAD, SSIAD, dietitians
- Diabetes associations and their resources for caregivers
- When to refer to a facility: glycemic safety criteria

## MODULE 8

## Practical cases and consolidation

4 lessons

### Lesson 1 - Emergency Glycemic Protocols

- Light to moderate hypoglycemia: oral resuscitation, monitoring, reporting
- Severe hypoglycemia with altered consciousness: glucagon, call emergency, lateral position
- Hyperglycemic hyperosmolar syndrome: absolute emergency signs and actions
- Diabetic ketoacidosis in elderly type 2: recognition and reporting

### Lesson 2 - Situational exercises and role-playing

- Simulation: managing hypoglycemia in person with dementia refusing sugar intake
- Simulation: explaining to family why occasional dessert is acceptable
- Simulation: writing complete and useful glycemic report for nurse
- Group debriefing: analyzing what worked and what could be improved

### Lesson 3 - Building an individualized care plan for diabetes-cognition

- Assessing diabetes and cognitive profile: essential information to gather
- Identifying priority risks: hypoglycemia, malnutrition, falls, infections
- Proposing concrete adaptations integrated into the care plan
- Presenting the plan to the multidisciplinary team effectively

### Lesson 4 - Final evaluation and resources

- Quiz to consolidate key learning from the training
- Identifying most challenging diabetes-cognition situations in personal practice
- Developing a personal action plan for the next 30 days
- Additional resources: French Diabetes Federation, HAS, digital tools

## Teaching methods

- E-learning format accessible 24/7 for flexible learning
- Interactive modules with videos, infographics, and practical case studies
- Quizzes and situational exercises to validate knowledge acquisition
- Downloadable resources: protocols, monitoring sheets, practical guides
- Certificate of completion issued upon successful final evaluation
- Professional support available for questions throughout the training