

# Subjective Cognitive Decline & Impairment

SCD & SCI:

The Earliest Signs  
of Alzheimer's Disease



NCCDP In-service Toolkit

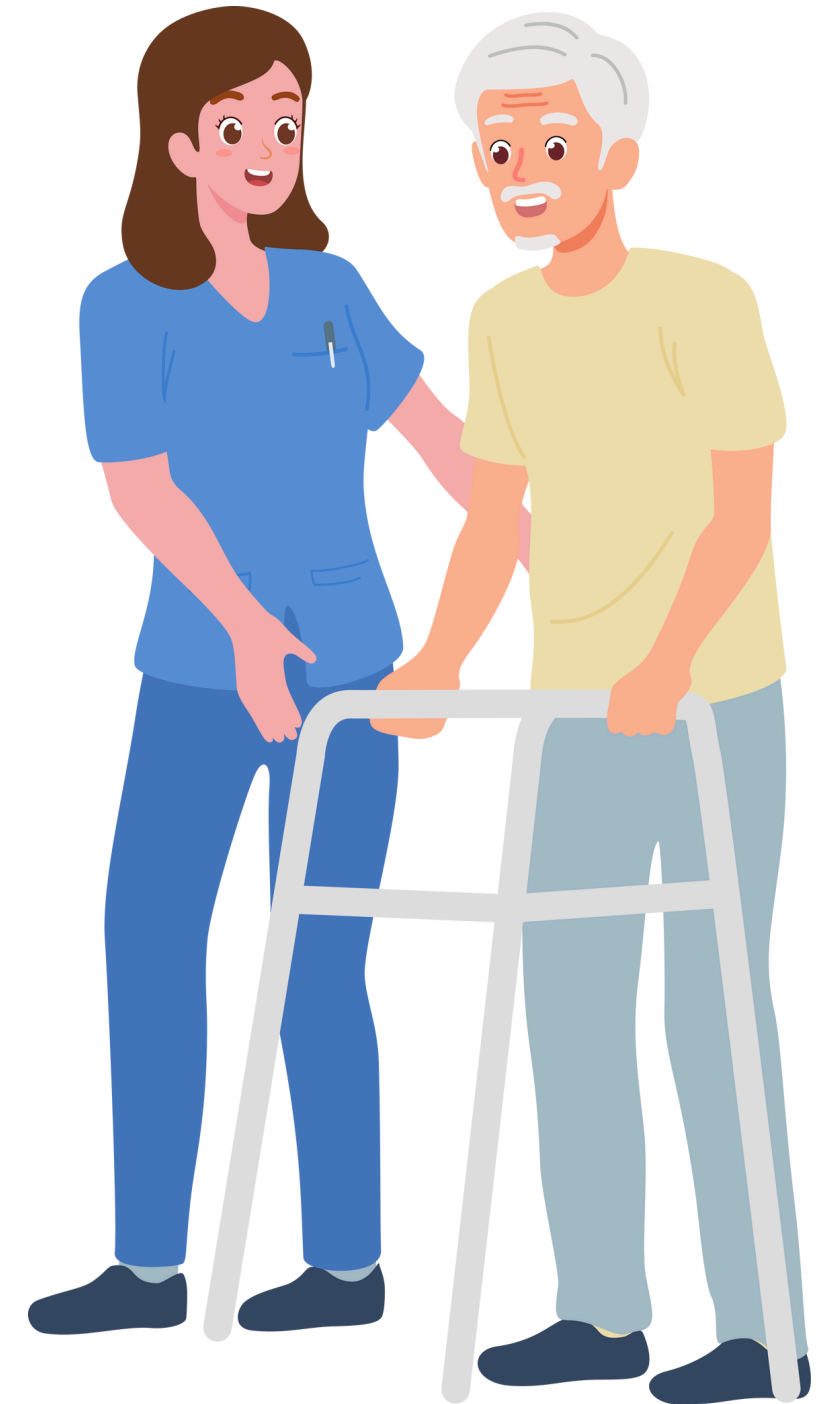


National Council of Certified Dementia Practitioners

# Handouts

## Subjective Cognitive Decline

- <https://www.cdc.gov/healthy-aging-data/infographics/>



# Objectives

- Students will be able to identify risk factors for SCD and SCI.
- Students will recognize the importance of patients seeing a physician for a diagnosis.
- Students will name the three cognition tools.



# Definition



Perceived decline in cognition in the absence of what is commonly termed 'objective evidence' is frequently referred to as subjective cognitive decline (SCD).

While etiologically heterogeneous and therefore potentially responsive to intervention in some cases, SCD remains primarily associated with an increased risk of developing dementia.

**Source:**

Subjective Cognitive Decline - PubMed Central (PMC)  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923739/>

# The Earliest Signs of Alzheimer's Disease

## Source: Neurology Reviews

- Subjective Cognitive Decline is a precursor to MCI and the earliest clinical signs of Alzheimer's.
- Not everyone with these characteristics will progress to Alzheimer's disease.



# Facts & Stats



Source: Alzheimer's Association and CDC, U.S. Department of Health and Human Services  
[www.cdc.gov/aging](http://www.cdc.gov/aging)

- SCD is self-reported by the individual with memory problems that have been getting worse over the past year.
- Ages 45 and older are experiencing SCD.
- 40% of people with SCD had to give up day-to-day activities.
- 81% of people with SCD have at least one chronic condition, which may make the condition more difficult to manage.
- 41% need help with household tasks.
- Less than half of people with SCD discussed symptoms with a healthcare provider.

**“It is becoming clear, however, that, irrespective of cause, SCD can have a detrimental effect upon quality of life.”**

# Many with SCD also have other Chronic Conditions



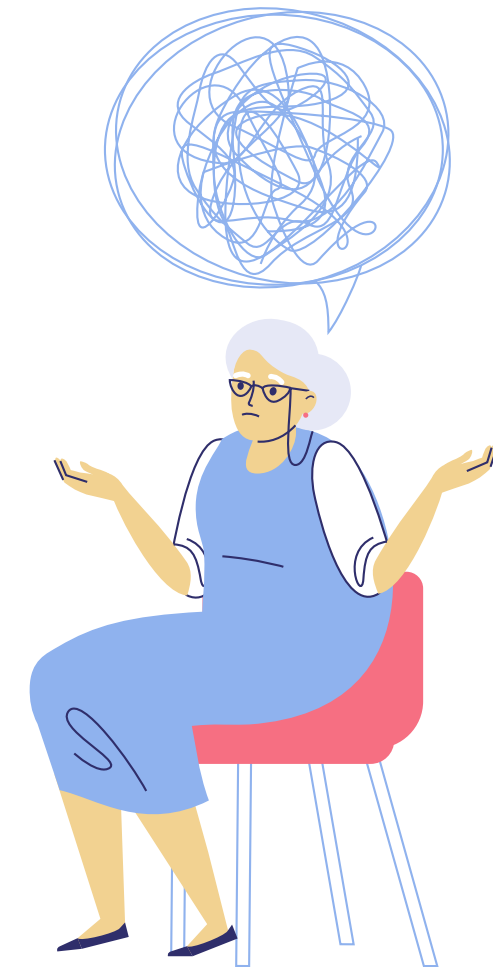
**Source: Alzheimer's Association and CDC**

- 61.3% Arthritis
- 28.4% Cardiovascular Disease
- 26.7% Diabetes
- 21.5% COPD
- 15.1% Asthma
- 14.8% History of Cancer
- 80.2% report at least one of these conditions.

# SCD Early Warning Sign of Cognitive Impairment or Even Alzheimer's

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- Self-experienced decline or perception in cognitive performance, even in those with normal performance on cognitive tests.
- This is a risk factor for future dementia.





# Symptoms of Subjective Cognitive Impairment (SCI)

## Also Known as Subjective Memory Disorder

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### Similar symptoms to MCI (Mild Cognitive Impairment):

- Increasing forgetfulness.
- Losing a train of thought.
- Feeling overwhelmed when making decisions or planning.
- Depression.



# SCD remains primarily associated with an increased risk of developing dementia.

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## Source

- Journal of Alzheimer's Disease

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# Risk Factors for Subjective Cognitive Impairment



Source: Cedars-Sinai, [www.cedars-sinai.org](http://www.cedars-sinai.org)

- High cholesterol, high blood pressure.
- Diabetes.
- Smoking and alcohol use.
- Lack of physical exercise.
- Sleep disorders.
- Head injury.
- Psychiatric conditions.
- Not participating in mentally or socially stimulating activities.

# Risk Factors for Dementia



Source: Current Psychiatry

- Family history of Alzheimer's disease.
- Slow gait.
- Mild Behavioral Impairment.
- Depression.
- Rapid weight loss.
- Multiple subtle neurologic abnormalities.
- Vascular dementia (e.g., peripheral vascular disease, coronary artery disease, cerebrovascular disease).
- Advanced age.
- Medication side effects.

# Source: Diagnosing Subjective Cognitive Impairment: A Non-Dementia-Related Context, September 2015

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- There are also people for whom etiology cannot be determined. This is evidenced from research studies and clinical investigation in which participants with SCD have met exclusion criteria for known potential causes of SCD but failed to develop dementia.
- Another factor receiving little attention is the propensity of SCI to diminish and cease to exist in some cases.

# Diagnosis of Subjective Cognitive Impairment



Source: Cedar-Sinai

- No specific test or assessment can diagnose subjective cognitive decline.
- Physicians conduct physical exams, review patient medical histories, and order diagnostic tests, such as:
  - Full blood count.
  - Biochemistry (e.g., renal function, thyroid function, B12, and folate).
  - Screen for anemia.
- Neurological exams may test patients' cognitive abilities and their capacity to perform complex routine tasks, such as Mental Status Exams.
- Imaging tools like MRI and CT scans can show damage to brain structures causing symptoms.
- EEG is sometimes used to record brain electrical impulses to determine if epilepsy is present.

# Screen for Treatable Causes for Cognitive Decline and Reversible Dementias

Examples include urinary tract infections (UTIs).



# Screening Tools for Detection of Dementia



**These are the most common screening tools, but there are many others:**

- Mini-Mental State Exam (MMSE).
- Modified Mini-Mental State Exam (3MS).
- Mini-Cog.
- Montreal Cognitive Assessment (MoCA).
- Saint Louis University Mental Status Exam (SLUMS).
- General Practitioner Assessment of Cognition (GPCOG).
- Memory Impairment Screen (MIS).
- Clock Drawing Test.



# Who Should Have Cognitive Screening?



- The American Academy of Neurology recommends cognitive screening in patients with noticeable changes in thinking, behavior, or function.
- Older individuals recently undergoing surgery or hospitalization are at high risk for cognitive changes and should be screened.
- Patients with medical conditions associated with dementia, such as Parkinson's disease, should be screened.
- Many patients may not report cognition changes, but family members, coworkers, or caregivers might.

# Be Aware of Screening Tools' Shortcomings!

## Source: Clinician Review

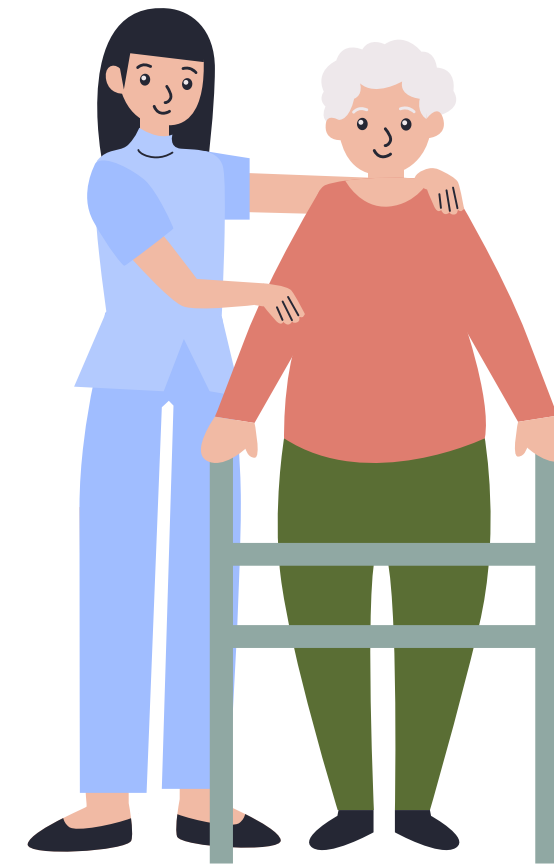
- No single ideal cognitive screening tool exists for all situations.
- Tools should be easy to administer and score.
- Screening should take minimal time.
- Many tools overemphasize memory, neglecting other cognitive areas like executive function, language, and praxis.



# Limitations of Current Screening Tests

## **Source: Clinician Reviews**

- Each tool has known limitations.
- Administration time can be a barrier.
- Risk of false positives.
- Non-English-speaking populations or translated tests may yield invalid results.
- Tests may have an educational basis (e.g., counting backward by 7).
- May exhibit a ceiling effect with highly intelligent individuals or miss changes in those with low education levels.
- Current tools are insensitive to small changes and may not detect long-term progressions.



# What Should a Screening Tool Include?



## Source: Clinician Review

- Executive function.
- Abstract reasoning.
- Attention/working memory.
- Non-verbal learning and recall.
- Expressive language.
- Visuospatial construction.

# Treatments of SCI



**Source: Cedar-Sinai**

- Observation and management of symptoms.
- Reevaluate and monitor patients' memory loss over time.
- Treat other conditions, such as high blood pressure and high cholesterol, through lifestyle changes or medications.

# Strategies to Improve Memory and Maintain Cognitive Vitality

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## Source: Current Psychiatry

- **Mindfulness:** Focus on one task at a time to improve cognitive efficiency.
- **Cognitive Strategies:**
  - Use mnemonics (e.g., "Roy G. Biv" for colors of the rainbow).
  - Utilize cues, such as a memory notebook.
  - Learn new challenging skills, such as a new language, a musical instrument, or dancing.
  - Engage in computer-based brain exercises.
- **Rehearsal:** Practice information you want to remember (e.g., repeat or write it down).
- **Be Patient:** Frustration can make it harder to remember.



# Strategies to Improve Memory and Maintain Cognitive Vitality

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Continued...

- **Exercise (Mental and Physical):**

- Engage in mental activities, such as reading or doing crossword puzzles.
- Research shows physical exercise aids in memory improvement.

- **Diet:**

- A heart-healthy diet is also brain-healthy:
  - Fruits and vegetables.
  - Foods rich in Omega-3 fatty acids (e.g., fatty fish like salmon).
  - Whole grains.
  - Spices like turmeric.
  - Tree nuts like walnuts (in moderation).



# Patients with SCI worry that their perceived cognitive decline could be an early sign of Alzheimer's disease.

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Such patients should undergo thorough evaluation to identify reversible causes of cognitive impairment and receive neuropsychological testing to differentiate SCI, SCD, MCI, and dementia.





# Resources Cited

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## **Subjective Cognitive Decline: The Earliest Sign of Alzheimer's Disease?**

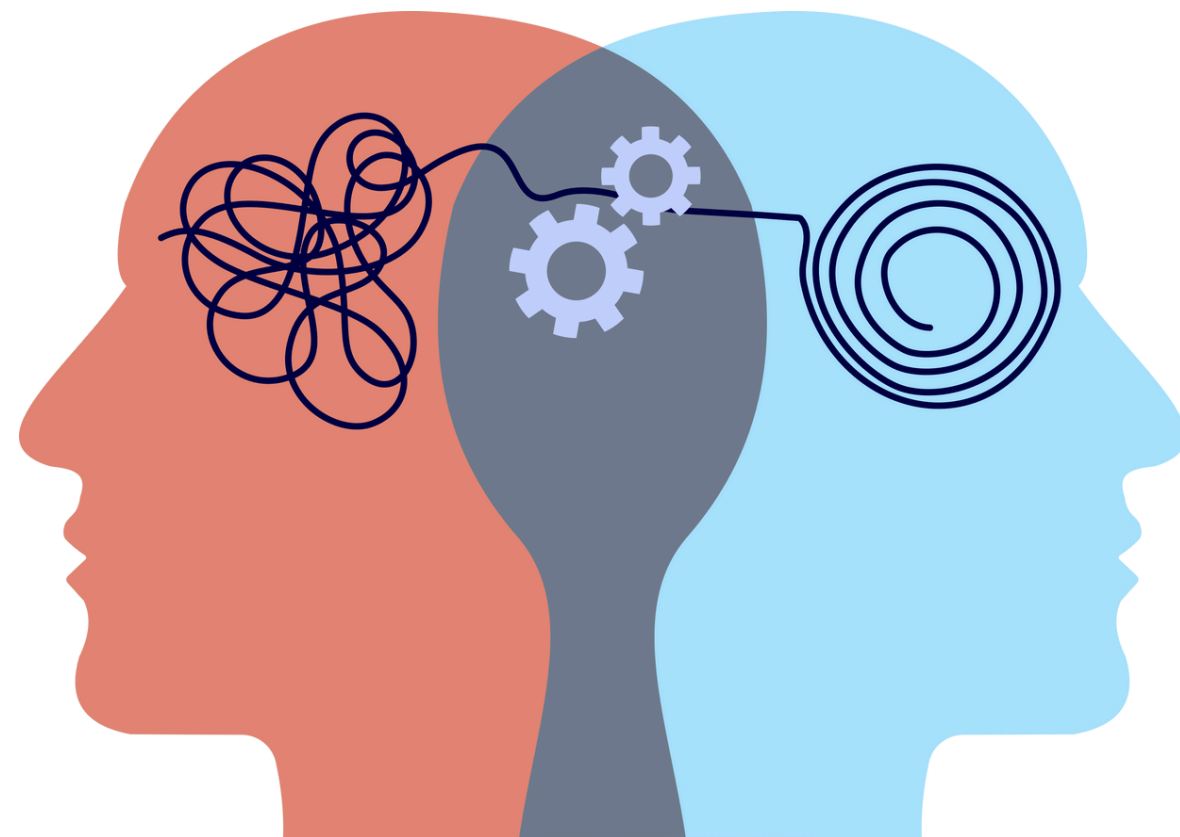
- <https://www.mdedge.com/neurologyreviews/article/77357/alzheimers-cognition/subjective-cognitive-decline-earliest-sign>
- **Subjective Cognitive Decline as the First Symptom of Alzheimer's Disease by Dr. Frank Jessen:**
- [https://www.ema.europa.eu/documents/presentation/presentation-subjective-cognitive-decline-first-symptom-alzheimers-disease-frank-jessen\\_en.pdf](https://www.ema.europa.eu/documents/presentation/presentation-subjective-cognitive-decline-first-symptom-alzheimers-disease-frank-jessen_en.pdf)

# Additional Resources



- Alzheimer's and Dementia Weekly:
- <http://www.alzheimersweekly.com/2013/07/what-is-subjective-cognitive-decline.html>
- Journal of Alzheimer's Disease (Published September 24, 2015):
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923739/>
- Subjective Cognitive Decline Among Adults Aged >45 — United States, 2015–2016:
- <https://www.cdc.gov/mmwr/volumes/67/wr/mm6727a1.htm>

# Certifications & Additional Information



## **National Council of Certified Dementia Practitioners (NCCDP)**

[www.nccdp.org](http://www.nccdp.org)

- ADDC Alzheimer's Disease and Dementia Care curriculum
- CDP Certified Dementia Practitioner
- CADDCT Certified Alzheimer's Disease and Dementia Care Trainer
- CDCM Certified Dementia Care Manager
- CDSGF Certified Dementia Support Group Facilitator
- CFRDT Certified First Responder Dementia Trainer

## **International Council of Certified Dementia Practitioners (ICCDP)**

[www.iccdp.net](http://www.iccdp.net)

- CMDCP Certified Montessori Dementia Care Professional
- CDP Certified Dementia Practitioner