

COGNITIVE HEALTH

DEFINITION OF DEMENTIA

Dementia is not a specific disease, but the chronic development of multiple cognitive deficits including personality changes and impaired reasoning and memory. The persistent decline of mental processes can cause be a severe detriment to occupational or social functioning. Potentially reversible causes of Dementia include drugs, isolation, hypothyroidism, anemia, infection, or tumors.

DIFFERENTIATING CONDITIONS

	Cognition	Changes in	Duration	Memory Loss	Onset	Physiologic signs
DEMENTIA	Gradual loss	Mood	Progressive over years	Greater for recent events	Gradual	Minimal
DEPRESSION	Fluctuating	Cognition	Variable months to years	Equal for recent and remote events	Recent and observable	None
DELERIUM	Unpredictable	Behavior	Acute within days or weeks	Temporary loss	Acute and definable	Prominent

TYPES OF DEMENTIA

Alzheimer's Disease AD	Most common type of dementia. Gradual deterioration that will cause problems with short-term memory.
Vascular Dementia VD	Common in patients with hypertension, diabetes, and stroke risk factors. Immediate recall of information is affected as well as gait and other visuospatial defects.
Dementia with Lewy Bodies DLB	Fluctuating alertness and attentiveness. Hallucinations are both auditory and visual as well as detailed and recurrent.
Parkinson's Disease PD	Problems with reasoning, judgment, and understanding information. Difficulty remembering daily tasks causing confusion, irritability, and sometimes hallucinations.
Frontotemporal Dementia FD	Often genetic, affecting the front and side parts of the brain. Rapid progression will cause noticeable language and personality changes.

WHAT ARE THE SIGNS OF DEMENTIA?

Patient's with Dementia will experience different behaviors and symptoms depending on the disease.

AD	FD	Agitation	AD	VD	DLB	PD	Hallucinations
AD	PD	FD				FD	Inappropriate behavior
		VD				DLB	Paranoia
AD	VD	DLB	PD		DLB	PD	Poor coordination
AD	FD	Eating disorder			DLB		Trouble sleeping

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ALZHEIMER'S DISEASE

Alzheimer's Disease is characterized by the death of brain cells. Early signs include depression, forgetting names, and trouble recalling recent memories. Overtime, patients with Alzheimer's experience confusion and mood swings as well as trouble communicating or walking.

Stage	Characteristic
Mild	<ul style="list-style-type: none">Progressive loss of recent memoryPrefers the familiar, avoids the unfamiliarSome motor difficultyMay seem apathetic, depressed, irritable, or withdrawn
Moderate	<ul style="list-style-type: none">Chronic loss of recent memoryGets lost easier, even at homeDeclined motor function, needs help with most activitiesMay appear anxious, wandering, or delusional
Severe	<ul style="list-style-type: none">Frequently confuses the past and presentUnable to identify familiar people or placesIncreased risk of falling and impaired swallowing, needs constant helpMay display agitated or combative behavior

COMMON ALZHEIMER'S MEDICATIONS

CLASS	MEDICATIONS	NOTES
Acetylcholinesterase Inhibitors	Donepezil, Galantamine, Rivastigmine, Tacrine	May cause headache, nausea, diarrhea, or excitability. Give with food to lessen side effects.
Anxiolytics	Benzodiazepines, Buspirone	May cause confusion, vertigo, or increased fall risk
N-Methyl-D-Aspartate Antagonists	Memantine	May cause dizziness, confusion, and constipation. Avoid in cases of renal impairment.
Mood Stabilizers	Divalproex Sodium, Lithium	Various adverse effects including headache, dizziness, tremor, and stomach pain.
Atypical Antipsychotics	Quetiapine, Risperidone, Olanzapine, Ziprasidone, Aripiprazole	Can cause weight gain and hyperglycemia. Expensive compared to typical agents, better tolerated over long-term use.
Typical Antipsychotics	Haloperidol, Loxapine	Monitor for signs of motor disorders, tardive symptoms, or increased prolactin levels. Has flexible dosing options.

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ASSESSMENT OF INSOMNIA

Accurate identification of the factors contributing to insomnia is key to treating the symptoms efficiently and safely. Improve the effectiveness of medications by targeting specific symptoms and addressing the underlying issue. To minimize the side effects of medications, non-drug therapies should be considered. Example situations:

If **pain** is preventing sleep;
provide **analgesic medications**.

If **heartburn** is disrupting sleep;
re-evaluate **timing of meals** before bedtime.

Medications and Conditions that Cause Insomnia

- Alcohol
- Amphetamines
- Anticholinergics
- Antidepressants
- Antihistamines
- Antihypertensives
- Anxiety
- Asthma or COPD
- Corticosteroids
- Decongestants (phenylephrine, pseudoephedrine)
- Dementia
- Depression
- Diuretics
- Gastrointestinal discomfort (constipation, ulcer)
- Incontinence or overactive bladder
- Menopause
- Nervous System Stimulants (caffeine, nicotine)
- Pain
- Stress
- Thyroid disease

PHARMACOLOGICAL TREATMENT

Short-term or temporary insomnia can often be resolved after making changes to a patient's bedtime routine and sleep hygiene. Drug therapy should only be used after trying non-pharmacologic therapies.

1. Consistent wake time during the week to create a regular schedule
2. Regular exercise during the day
3. No caffeine or alcohol consumption in the evening
4. Avoid stimulating activities before bedtime (i.e. watching tv) and reserve the bed for sleeping only
5. Try relaxation training or white noise therapy 30 minutes before bed



MEDICATION

INTENTION

Estazolam	Sleep onset or maintenance
Temazepam	Sleep onset or maintenance
Zolpidem (Ambien)	Sleep onset
Eszopiclone (Lunesta)	Sleep onset or maintenance
Ramelteon (Rozerem)	Sleep onset

MEDICATIONS TO **AVOID** WHEN TREATING THE ELDERLY:

***Amitriptyline, Barbiturates (Phenobarbital, Secobarbital, etc),
Diphenhydramine, Glutethimide, Hydroxyzine, Meprobamate***