

Delirium Versus Dementia Versus Psychosis

All three can look confused and strange, but delirium flips on fast (hours to days), dementia builds slowly (months to years), and psychosis messes with what feels real without wrecking attention first.

THE ONE-LINE TRUTH

Delirium is a sudden break in attention that flips on and off — and you can fix it. Dementia is a slow, steady loss of thinking that doesn't come back. Psychosis is seeing or believing things that aren't real.

The chain — how it unfolds

1. Step 1: The brain's attention and reality-testing circuits go offline — why: In delirium, a sudden stressor — infection (urinary tract infection, pneumonia), anticholinergic drug (diphenhydramine, oxybutynin), dehydration, low oxygen (hypoxia), metabolic crash (low sodium, high ammonia) — floods the brain with inflammatory cytokines or blocks acetylcholine receptors. The prefrontal cortex (your brain's control tower, right behind your forehead) can't filter distractions or hold focus, so attention shatters in hours to days. In dementia, neurons in the hippocampus (the memory filer) and cortex (the thinking engine) die slowly from Alzheimer's plaques, vascular damage, Lewy bodies, or frontotemporal shrinkage over months to years. Memory and reasoning fade, but attention holds up early because the attentional networks (prefrontal cortex, thalamus, parietal lobes) are still intact. In psychosis, dopamine floods the mesolimbic pathway (the emotional and reward circuits deep in your brain) and the dorsolateral prefrontal cortex (the front part that checks if thoughts match reality) can't keep up. Hallucinations and delusions feel absolutely real to the person because the reality-testing circuit is broken, but attention and memory can still work fine at first.

2. Step 2: You see confusion, but the TYPE of confusion tells you which one it is — why:
Delirium: attention jumps around — lucid one moment, totally lost the next (waxing and waning). The person can't focus on your questions, loses the thread mid-sentence, speech is disorganized and rambling, and confusion gets worse at night (sundowning). Onset is sudden: hours to days. Dementia: memory fades steadily — forgets recent events (what they ate, where they put keys), repeats the same question five times, gets lost in familiar places, can't manage bills — but attention is okay early on (can follow a conversation, stay on topic) and there's no sudden flip in and out. Onset is slow: months to years. Psychosis: attention and memory CAN BE FINE, but the person hears voices (often commenting on them or giving commands), believes someone is spying on them or trying to harm them (paranoid delusions), or sees things that aren't there — and they can't tell it's not real. Onset can be sudden (drug-induced, manic episode) or gradual (schizophrenia developing over months). The key: if attention is broken and flipping on and off, think delirium first. If memory is the main problem and it's been building slowly, think dementia. If reality testing is broken but attention is intact, think psychosis.
3. Step 3: The motor behavior split shows you the delirium subtype — and the quiet ones are the most dangerous to miss — why: Delirium has three motor subtypes. Hyperactive: agitated, restless, pulling at IV lines and tubes, yelling, trying to get out of bed — gets noticed immediately because it disrupts care. Hypoactive: quiet, sleepy, withdrawn, staring into space, barely responds — MISSED 60-80% of the time because the person looks 'calm' or 'just tired,' but this subtype has WORSE mortality and longer ICU stays than hyperactive delirium (Critical Care Medicine 2004, Intensive Care Medicine 2001). Mixed: flips between hyperactive and hypoactive hour by hour. The waxing-and-waning itself — not the motor behavior — is the hallmark of delirium. Dementia and psychosis do NOT wax and wane by the hour like delirium; motor and cognitive patterns stay steady UNLESS delirium is layered on top (very common: up to 50% of hospitalized dementia patients develop superimposed delirium). Always use CAM screening on every confused patient, especially the quiet ones.

4. Step 4: Reversibility separates delirium from dementia; insight separates psychosis from both — why: If you find and fix the trigger fast — treat the urinary tract infection or pneumonia with antibiotics, stop the anticholinergic or benzodiazepine, give IV fluids to correct dehydration, give oxygen to fix low oxygen (hypoxia), correct the sodium or glucose — delirium resolves in days to weeks and the brain goes back to baseline (though subtle cognitive deficits can linger for months, especially in older adults). Dementia does NOT reverse because the neurons are dead. Memory and thinking loss is permanent. You CAN slow progression: cholinesterase inhibitors (donepezil, rivastigmine, galantamine) modestly help symptoms in Alzheimer disease; controlling blood pressure, diabetes, and cholesterol slows vascular dementia. Psychosis can resolve with treatment — antipsychotics (risperidone, olanzapine, aripiprazole), mood stabilizers (lithium, valproate), stopping the substance that caused it — but the person often has NO INSIGHT while it's happening (anosognosia). They don't realize the voices or beliefs are not real, so they resist help, refuse medication, or hide symptoms. Delirium and dementia patients usually KNOW something is wrong (they feel confused, scared, lost), but psychosis patients often do not — the false perception or belief is 100% real to them.
5. Step 5: Life stress and social factors amplify every one of these — and ignoring them guarantees relapse or decline — why: Isolation, poverty, chronic stress, sleep deprivation, homelessness, food insecurity, and trauma all raise cortisol (the body's main stress hormone) and inflammatory cytokines (immune signaling proteins), which poison the same prefrontal and hippocampal circuits that delirium, dementia, and psychosis attack. An older adult living alone with no social support, poor nutrition, and untreated hearing or vision loss has much higher delirium risk during hospitalization (Lancet 2014). A person with schizophrenia who faces housing instability, medication access barriers (no insurance, can't afford it, pharmacy deserts), or community stigma (can't get a job, family rejects them) will relapse no matter how good the antipsychotic is. A dementia patient whose caregiver is burned out (depression, no respite, financial strain) will decline faster because the caregiver can't provide the structure and supervision the patient needs. Evidence-based care means treating the medical problem AND addressing the social determinants of health. Connect patients to case management, home health, visiting nurse, Meals on Wheels, adult day programs, respite care for caregivers, community mental health services, housing assistance, and peer support. If you don't, the same crisis will come back.

- 6. Step 6: Know the dangerous medication traps and avoid them — polypharmacy, anticholinergics, benzodiazepines, and antipsychotics in dementia — why:** Anticholinergics (diphenhydramine, oxybutynin, promethazine, tricyclic antidepressants like amitriptyline) block acetylcholine receptors and CAUSE delirium, especially in older adults. Check every medication against the Beers Criteria (American Geriatrics Society 2023: list of medications to avoid in older adults) and stop or swap them (use loratadine instead of diphenhydramine, mirabegron instead of oxybutynin). Benzodiazepines (lorazepam, diazepam, alprazolam) in older adults cause delirium, falls, hip fractures, and paradoxical agitation — avoid except for alcohol withdrawal (use symptom-triggered lorazepam protocol) or active seizures. Antipsychotics in dementia patients carry a black-box FDA warning: 1.6× increased mortality from stroke, pneumonia, and sudden cardiac death (Cochrane 2006, NEJM 2005). Reserve for severe agitation that threatens immediate safety and has failed all nondrug interventions. Use the lowest dose (quetiapine 12.5–25 mg, risperidone 0.25–0.5 mg), monitor closely, taper and stop as soon as possible. Polypharmacy (taking 5 or more medications) is an independent delirium risk factor — each added drug raises risk exponentially. Deprescribe ruthlessly in older adults using evidence-based tools (STOPP/START criteria, Beers Criteria) (JAMA 2020).
- 7. Step 7: Prevent delirium before it starts — because once it's here, outcomes are worse even if you treat it — why:** Delirium prevention works. Multicomponent nonpharmacologic programs like the Hospital Elder Life Program (HELP) cut delirium incidence by 30–40% (NEJM 1999, Cochrane 2016). Components: reorientation (calendar, clock, tell the person where they are and what day it is every interaction), sleep hygiene (quiet at night, no vital signs at 2 AM unless critical, lights off), early mobility (get out of bed on day 1, walk three times daily), hydration and nutrition (oral fluids, remove IV when possible), vision and hearing aids in place, avoid Foley catheters (cause infection and tethering), avoid physical restraints (worsen delirium and cause injury — JAMA 2003). Once delirium occurs, in-hospital mortality doubles (5% → 10%), ICU length of stay extends, hospital length of stay extends, discharge-to-nursing-home rate triples, and 1-year mortality climbs to 35–40% (JAMA Internal Medicine 2015, Lancet 2014). Even after delirium resolves, many patients never return to cognitive baseline — persistent delirium-related cognitive impairment is common. Bottom line: preventing delirium is MORE effective and safer than treating it. Every hospital should have a delirium prevention bundle and screen every at-risk patient (age ≥65, preexisting dementia, severe illness, hip fracture, ICU admission) daily with CAM or CAM-ICU.

8. Step 8: None of this is random or a 'character flaw' — it's the brain defending itself under overwhelming stress, and compassion is part of the treatment — why: The person with delirium is terrified. They don't know where they are, can't recognize faces, time collapses (morning feels like night, yesterday feels like now), and they may believe they're being attacked or held prisoner. The person with dementia is losing the self they've known for 70 years — can't remember their children's names, can't find the bathroom in their own home, can't understand why simple tasks suddenly feel impossible. The person with psychosis believes the voices and the threats are real — 'Why won't anyone help me? Why doesn't anyone believe the government is watching me?' — and often feels abandoned, terrified, and deeply alone. Dismissing these experiences as 'crazy,' restraining without trying alternatives first, using sedation as a convenience ('they're bothering the nurses'), or lecturing the family for 'not watching them better' adds trauma on top of illness and violates the principle of nonmaleficence (first, do no harm). Compassionate communication is an evidence-based intervention: 'I can see you're scared. You're safe here. We're going to help you.' Speak slowly, use short sentences, don't argue with delusions (it won't work and breaks trust — instead redirect gently: 'I don't see that, but I can see you're upset. Let's sit together.'). Involve family as partners in care (they know the person's baseline, routines, what calms them). Never use physical restraints unless there is imminent risk of harm to self or others AND all other interventions have failed — restraints worsen delirium, cause skin breakdown, strangulation, and death (JAMA 2003). Treat the person, the biology, and the social context together — or you treat none of them. This is whole-person care, and it saves lives.

Spot it — what you see, and why

- Delirium: confusion that starts suddenly (over hours or a few days): Something acute hits the brain — an infection, not enough oxygen, a drug, or a chemical imbalance (like low sodium or high calcium) — and scrambles the signals that keep you alert and focused. The reticular activating system (the deep brainstem network that keeps you awake and aware) and the prefrontal cortex (the front of the brain that organizes attention) both stop working smoothly, so awareness and attention swing wildly from hour to hour.
- Delirium: attention jumps around; the person cannot focus or follow a conversation: The prefrontal cortex and the parietal lobes (the parts of the brain that filter distractions and hold focus) are temporarily disrupted by the acute illness, so thoughts scatter and the person loses track mid-sentence or forgets what you just said.

- **Dementia:** memory and thinking decline slowly (over months to years): Brain cells die or the connections (synapses) between them break down gradually — from sticky amyloid plaques and twisted tau tangles in Alzheimer disease, from tiny strokes blocking blood vessels, or from other slow damage — so learning new things and recalling old ones gets harder and harder. The hippocampus (the brain's memory recorder) and the cortex (the outer layer that handles thinking) shrink over time.
- **Dementia:** the person stays alert and aware of their surroundings (until very late stages): The reticular activating system deep in the brainstem stays healthy early on, so the person is awake and present even though the hippocampus and cortex are losing memory and reasoning power. Arousal and awareness are separate from memory and thinking until the disease is far advanced.
- **Psychosis:** seeing, hearing, or believing things that are not real (hallucinations or delusions): Dopamine (a brain messenger that helps control perception and reward) becomes overactive in the mesolimbic pathway (the deep brain circuit that processes what is real versus imagined), so the brain generates false sights, sounds, or fixed false beliefs that feel absolutely real to the person. In schizophrenia this is chronic; in brief psychotic disorder or drug-induced psychosis it is temporary.
- **Psychosis:** thoughts may be disorganized or speech may jump from topic to topic without a clear link: The prefrontal cortex and the connections between the frontal lobes and other brain regions malfunction, so the circuits that organize and link ideas stop working smoothly. Sentences come out jumbled, or the person loses the thread of their own story and leaps to unrelated topics.

Red flags — act now

- Sudden confusion with fever, low oxygen (blue lips or fingertips), very high or very low blood sugar, or a new medicine — suggests delirium and needs urgent work-up (blood tests, urine culture, chest X-ray, medication review) to find and fix the cause before the brain is permanently harmed
- Hallucinations or delusions with commands to hurt self or others, or the person cannot care for themselves safely (not eating, wandering into traffic, responding to voices) — needs immediate psychiatric evaluation and may need inpatient admission to keep the person and others safe
- Rapid memory loss over weeks (not years) with headache, seizures, fever, or new weakness on one side — may signal a brain bleed, tumor, herpes encephalitis, autoimmune encephalitis (like anti-NMDA receptor), or prion disease (Creutzfeldt-Jakob) rather than typical dementia, and requires urgent brain imaging (MRI) and lumbar puncture

- Delirium that does not improve after 72 hours of treating the cause (antibiotics for infection, stopping the offending drug, correcting electrolytes) — consider a second hidden cause, medication toxicity, or an unrecognized structural brain problem

Treat it — in this order

1. Identify and treat the medical cause: infection (antibiotics), medication side effect (stop the drug), low oxygen (oxygen or treat pneumonia or heart failure), low or high blood sugar (insulin or glucose), organ failure (dialysis for kidney failure, lactulose or rifaximin for liver failure) → Delirium is caused by a medical stress that breaks the prefrontal cortex (the brain's focus center) and floods the brain with inflammatory signals and stress hormones like cortisol. Fix the cause—like clearing an infection or raising oxygen—and the attention circuit usually starts working again within hours to days.
2. Reorient the person repeatedly: use their name, tell them the date and place, correct false beliefs gently, keep family or familiar people nearby, and use familiar objects like photos or glasses → The hippocampus (the brain's memory recorder) and prefrontal cortex calm down when you give them clear, repeated signals about what is real. This reduces confusion, fear, and scary false beliefs (like thinking someone is trying to hurt them).
3. Avoid physical restraints; use one-to-one monitoring (a person stays with them at all times), soft lighting, a quiet room, a normal sleep schedule (wake them during the day, darken the room at night), and get them out of bed and walking as soon as safe → A calm, predictable environment lowers cortisol (the body's main stress hormone) and helps the prefrontal cortex settle down naturally. Restraints cause trauma, worsen agitation, and prolong delirium.
4. Stop or reduce anticholinergic drugs (diphenhydramine, oxybutynin, promethazine, scopolamine), benzodiazepines (unless alcohol or benzodiazepine withdrawal), and opioids if possible → Anticholinergics block acetylcholine (the brain messenger for attention and memory) and directly cause delirium. Benzodiazepines boost GABA (the brain's main calming signal) too much and slow the brain down. Opioids slow breathing and lower oxygen. Stopping them clears the fog.
5. Give haloperidol 0.5–1 mg IV/IM/PO or olanzapine 2.5–5 mg PO for severe agitation, hallucinations, or safety risk only—not for routine delirium → These drugs block dopamine receptors in the limbic system (the brain's alarm and emotion center), calming extreme agitation so the person does not hurt themselves, pull out tubes, or attack staff.

Your top priorities at the bedside

1. Check vital signs, oxygen saturation, and fingerstick blood glucose immediately to find life-threatening causes of confusion — why: Fever signals infection, low oxygen (hypoxia) means the brain is not getting enough oxygen to work properly, very low blood sugar (below 70) can cause seizures and brain damage, and very high blood sugar (above 400) causes confusion and dehydration. All of these are reversible if you catch and treat them quickly.
2. Review the medication list with the provider and stop or reduce any medicines known to cause delirium—especially opioids, benzodiazepines, anticholinergics, and sleeping pills — why: Medicines that sedate the brain or block acetylcholine (a brain chemical that helps with attention and memory) are the most common reversible cause of delirium. Stopping the drug often clears confusion within 24 to 48 hours.
3. Reorient the patient every time you interact: use their name, tell them where they are, what day and time it is, and explain what you are doing in simple words — why: Delirium scrambles the brain's ability to know time, place, and situation. Repeated gentle reminders help the brain reconnect to reality and reduce fear and agitation. This also helps you tell delirium from dementia—delirium patients benefit from reorientation, dementia patients may not remember it minutes later.