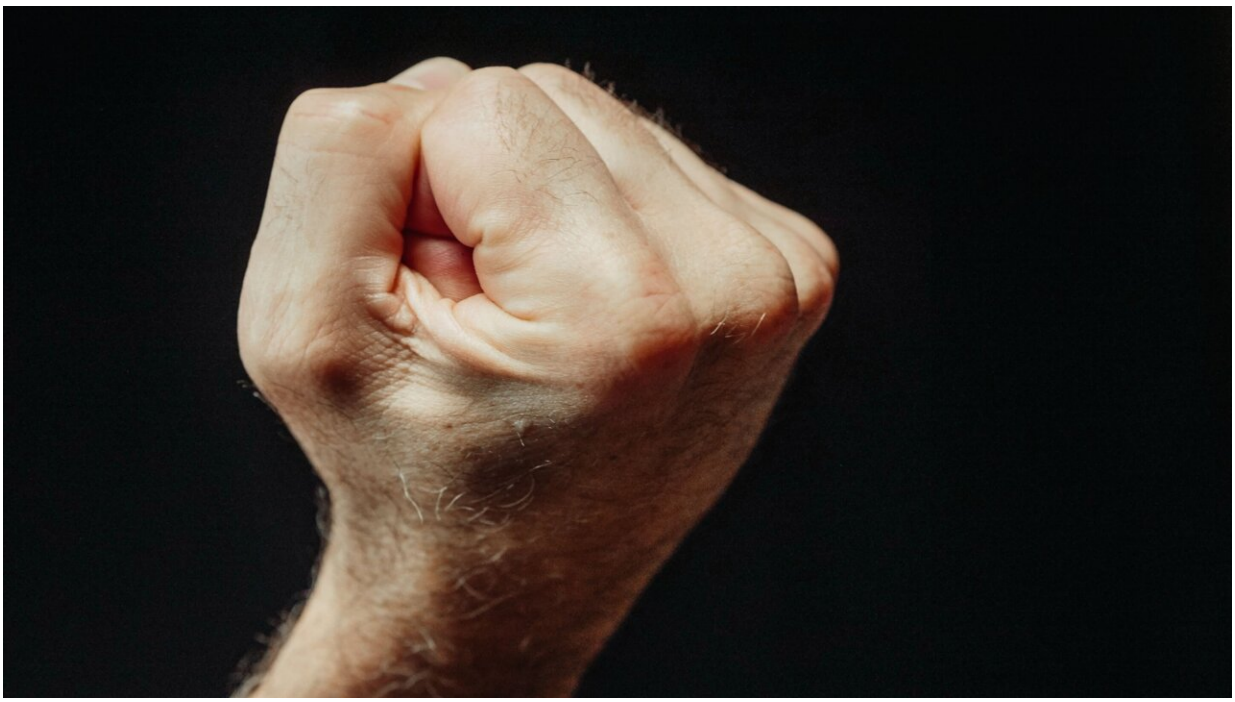
Baby-like reflexes that resurface in older adults may be warning of something much bigger

June 11 2026, by Sanjukta Mondal



Older adults with intact cognition who had two or more frontal release signs were nearly twice as likely to develop dementia. Credit: Kindel Media, Pexels.

Ever seen a baby immediately grip something tightly as soon as it's placed in their palm? Or noticed their lips pucker or move when the area around the mouth is stimulated by tapping? These are the palmar and

snout reflexes, part of primitive reflexes, also known as frontal release signs. Most of these involuntary responses are seen in infants and fade as they grow. However, when these reflexes reappear in adulthood, they may be a sign of something going wrong in the brain, as they are often linked to brain injury or neurodegenerative diseases.

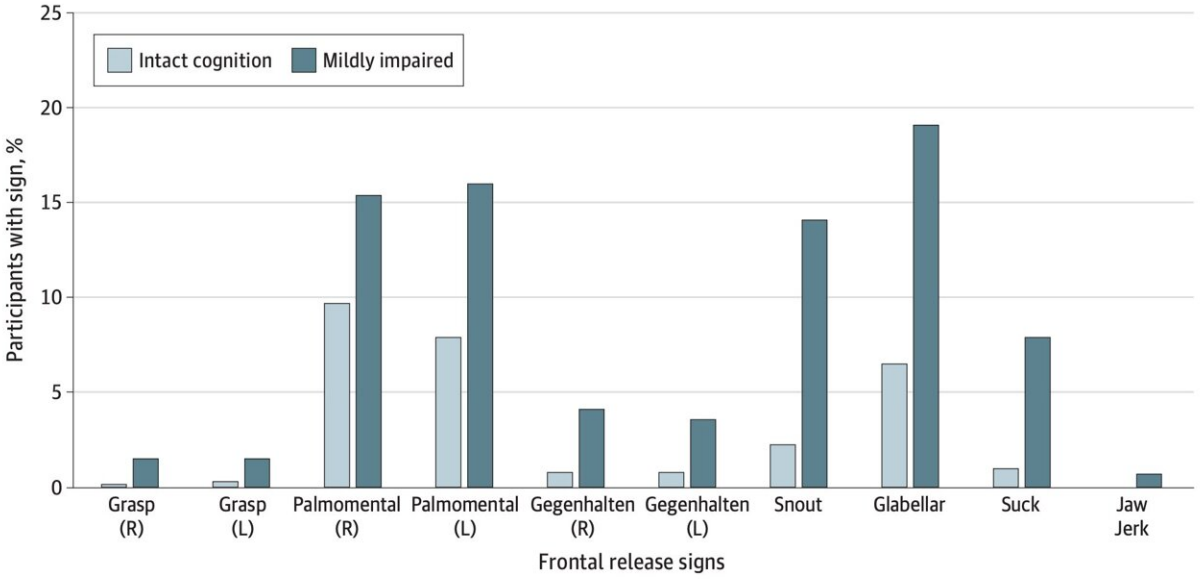
A long-term cohort study found that among people with healthy memory and thinking skills, having two or more of these reflexes was a significant warning sign, as those people faced a higher risk—nearly twice as high—of developing dementia over the following seven years. In fact, about 1 in 4 participants with two or more reflexes progressed to dementia, compared with about 1 in 7 of those with one or no reflexes.

The findings are published in *JAMA Network Open*.

Quick and simple early diagnosis?

As dementia cases continue to rise worldwide, detecting the disease early is becoming increasingly important. Early diagnosis can help people access emerging treatments sooner and preserve their quality of life for longer. The most effective way to find early dementia-related changes in the brain is through brain scans, such as MRI or PET scans, or by testing fluid collected through spinal taps.

Blood biomarkers—such as amyloid-beta, tau proteins and neurofilament light chain (NfL)—can also identify signs of the disease before symptoms become obvious. However, the specialized facilities and expertise needed for these tests are not always readily available.



Bar graph of participants with frontal release signs by cognitive status. Credit: *JAMA Network Open* (2026). DOI: 10.1001/jamanetworkopen.2026.17060.

Frontal release signs offer a noninvasive alternative, as the reflexes can be assessed by a doctor during a routine examination, helping flag people at higher risk of neurodegenerative disorders. Although FRS have long been associated with dementia, it remains unclear whether the signs appear early enough to act as an indicator of cognitive decline in otherwise healthy adults.

In this study, the researchers used data collected over 19 years, from Sept. 1, 2005, to Nov. 30, 2024, from 873 volunteers at the University of Kentucky Alzheimer's Disease Research Center who were 70 or older at baseline. Of those, 672 participants were classified as having healthy brain function, while 201 were classified as having slight memory or thinking problems.

During their annual assessments, participants were evaluated for physical health, thinking abilities and memory. Doctors also assessed five FRS: grasp reflex, snout reflex and palmomental reflex, a chin twitch elicited by stroking the palm, as well as the glabellar tap response, in which blinking persists with repeated taps to the forehead.

Among healthy participants with these signs, 25.4% progressed to dementia, compared with 14.5% of those without them. People who were healthy but had these reflexes showed a slight but significant decline in memory and executive function over time. FRS did not predict dementia risk among individuals who already had mild cognitive impairment.

While these reflexes are not sensitive enough to function as a standalone screening tool, the researchers believe FRS may still provide useful information when combined with other clinical assessments and screening measures. Since the study was limited to a single center, broader studies are needed to ensure the results hold true across diverse populations and clinical settings.

More information: Lauren G. Bojarski et al, Frontal Release Signs and Future Decline in Research Participants With Intact Cognition, *JAMA Network Open* (2026). DOI: 10.1001/jamanetworkopen.2026.17060