



**BHAGAVAD GITA: Chapter 11, Verse 43**

tasmāt pranamya pranidhāya kāyam  
prasādāye tvām aham īsham īdyam  
piteva putrasya sakheva sakhyuh  
priyah priyāyārhasi deva sodhum

◆ **TRANSLATION**

BG 11.44: Therefore, O adorable Lord, bowing deeply and prostrating before You, I implore You for Your grace. As a father tolerates his son, a friend forgives his friend, and a lover pardons the beloved, please forgive me for my offences.

◆ **COMMENTARY**

Considering his behavior as transgressions toward God, Arjun is asking for pardon. While interacting with Shree Krishna—playing, eating, jesting, talking, and resting—he did not show the respect that is appropriate toward the Supreme Almighty. However, no one minds transgressions when they are made because of a high level of intimacy shared with the other person. No government officer has the privilege to joke with the President of a country. Yet, the President's personal friend, teases him, jests with him, and even scolds him. The President does not mind, rather he values that jest of an intimate friend more than all the respect he receives from his subordinate officers. Thousands of people salute an army general, but they are not as dear to his heart as his wife, who sits intimately by his side. Similarly, Arjun's intimate dealings with Shree Krishna were not transgressions; they were gestures of the depth of his loving devotion in the sentiment of being a friend. Yet, a devotee is by nature humble, and so, out of humility, he feels that he may have committed transgressions, and hence he is asking for forgiveness.



**17,000 Brain Scans Reveal Surprising Ethnic Differences in Alzheimer's Biology**

**A**s new Alzheimer's drugs increasingly target amyloid plaques in the brain, researchers are working to understand whether the biology behind the disease is the same for everyone. A new study suggests the answer may be more complicated than previously thought.

Analyzing brain imaging and clinical data from more than 17,000 participants across five major aging and Alzheimer's studies, researchers at the USC Mark and Mary Stevens Neuroimaging and Informatics Institute (Stevens INI) found that Hispanic participants generally had lower amyloid levels than non-Hispanic white participants with similar cognitive status and genetic risk factors. The findings were published in *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

Amyloid plaques are a key hallmark of Alzheimer's disease, and APOE ε4 is the strongest common genetic risk factor for developing the late-onset form of the disorder. While both groups showed higher amyloid levels when carrying APOE ε4 or experiencing cognitive impairment, the association appeared weaker among Hispanic participants.

"APOE ε4 is a major Alzheimer's disease genetic risk factor, but our results suggest its relationship to amyloid buildup may be more nuanced in Hispanic populations," said Cally Xiao, PhD, the study's lead author and a researcher at the Stevens INI. "This work is important because it may influence how we interpret risk, understand cognitive decline, and ultimately design or apply treatments across diverse communities."

Leveraging Global Alzheimer's Data

The project relied in part on the Global Alzheimer's Association Interactive Network (GAAIN), a data sharing



platform created at the Stevens INI with support from the Alzheimer's Association. GAAIN enables scientists to find, explore, and connect large datasets from studies of Alzheimer's disease, related dementias, and aging from around the world.

Through GAAIN, the researchers identified studies that reported amyloid PET scan results using the Centiloid scale, a standardized system that allows amyloid measurements to be compared across different imaging tracers, scanners, and research sites.

The team gathered data from five major research efforts: the Anti-Amyloid Treatment in Asymptomatic Alzheimer's study, the Alzheimer's Disease Neuroimaging Initiative, the Health and Aging Brain Study-Health Disparities, the Imaging Dementia-Evidence for Amyloid Scanning study, and the Standardized Centralized Alzheimer's and Related Dementias Neuroimaging initiative.

Combining these datasets

allowed the researchers to identify trends that may have been difficult to detect within any individual study.

"This is exactly the kind of work GAAIN was built to enable," said Arthur W. Toga, PhD, director of the Stevens INI and senior author of the study. "When researchers can identify compatible datasets, connect across studies, and conduct analyses at a scale that no one group could achieve independently, we gain a much clearer view of Alzheimer's disease. That is especially important when we are trying to understand how disease biology may differ across populations that have historically been underrepresented in research."

Comparing Amyloid Burden Across Populations

The analysis included 17,017 older adults, of whom 1,427 identified as Hispanic. Researchers used Centiloid scores to measure amyloid burden while accounting for factors such as age, sex, education, and cognitive performance.

Across the full study pop-

ulation, people with mild cognitive impairment or dementia tended to have higher amyloid levels than cognitively healthy participants. Carrying the APOE ε4 variant was also associated with greater amyloid burden in both Hispanic and non-Hispanic white participants. Even so, Hispanic participants consistently showed lower average amyloid levels than non-Hispanic white participants across diagnostic categories. Among APOE ε4 carriers, Hispanic adults with either normal cognition or mild cognitive impairment also had lower amyloid levels than their non-Hispanic white counterparts.

The researchers also found that APOE ε4 had a weaker association with amyloid pathology among Hispanic participants. Non-Hispanic white carriers of APOE ε4 were more than four times as likely to show evidence of amyloid pathology, while Hispanic carriers were about two and a half times as likely.

"These findings do not mean that Hispanic adults are

at lower risk for dementia," Xiao said. "In fact, Hispanic populations face a higher overall burden of dementia. Instead, our results suggest that cognitive impairment in Hispanic older adults may not always be driven by amyloid in the same way, and that other biological, vascular, or social factors may also be important."

Implications for Alzheimer's Treatment and Research

The findings come as anti-amyloid therapies are becoming an increasingly important part of Alzheimer's treatment. Because these drugs are designed to target amyloid plaques in the brain, understanding how amyloid burden relates to cognitive decline and genetic risk in different populations could have important implications for patient care.

The researchers emphasize that further studies are needed, including larger groups of Hispanic participants, more detailed information about ancestry and Hispanic origin, and long-term data tracking changes in amyloid levels and cognition.

*Word of the Day*

**SYMBIOSIS**

*noun sim-bee-OH-sis*

**What It Means**

Symbiosis is a formal word that refers to a relationship between two people or groups that work with and depend on each other. In biology, symbiosis refers to the relationship between two different kinds of living things that live together and depend on each other.

// The new playground is the result of symbiosis be-

tween multiple stakeholders, including residents, donors, and town officials.

// The bacteria exist in symbiosis with the plant's roots.

**SYMBIOSIS IN CONTEXT**

"In the old days, which weren't that long ago ... there was that ritual moment when a rock 'n' roll idol, in the midst of delivering a classic anthem, would point the mic away from himself and into the arena, indicating that it was time for the audience to take

over and sing the lines. It might be Springsteen doing 'Thunder Road,' or Madonna doing 'Holiday.' ...

The loving symbiosis of pop star and pop audience doesn't get much more reverent than that." — Owen Gleiberman, *Variety*, 7 May 2026

**Did You Know?**

Symbiosis was adopted by the scientific community in the late 1800s, coming ultimately (via German) from the Greek *sympōsis*, meaning "living together, companionship."

**Is it your Birthday Today?**

**JUNE 27**

Ruled by number 9 and the planet Mars. You are active, energetic, trustworthy, systematic and quick in taking decisions. You always welcome new ideas and are fond of reading to increase your knowledge and discover new and unknown things, but you need to control your tendency to behave shy, arrogant and moody at times. This year you would make new contacts, which would help you in your line of work. You would also receive unexpected advancements in your career. You would do extremely well socially if you travel and get involved in clubs and other social events. Your income would be much better than the past few years. Your beloved though possessive at time would be helpful and supportive. Minor health ailments such as backache, stiff neck or body pains will pose frequent problems. The month of September, December and March will bring in the desired result.

**SUDOKU PUZZLES**

SOLVE THE PUZZLE AND GET HANDSOME REWARDS. SEND YOUR SOLUTIONS AT: [EARTHNEWSROOM@GMAIL.COM](mailto:EARTHNEWSROOM@GMAIL.COM)

	3	5	2					
		6	7	4				
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**SOLUTION OF PREVIOUS PUZZLE**

2	6	5	8	7	1	3	4	9
9	7	4	5	3	2	6	1	8
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5	2	8	6	1	9	4	3	7
7	4	9	3	2	5	8	6	1
4	9	3	2	5	7	1	8	6
8	5	7	1	6	3	9	2	4
6	1	2	9	8	4	7	5	3

**STARS & PLANETS**

**What is My Zodiac Sign?**

List of Zodiac Signs Based on Birth Dates

Your zodiac sign is determined by your date of birth. You may check the zodiac sign that you are in a zodiac period of zodiac you birth date.



**List of 12 Zodiac Signs**

- Aries** (Mar 21 - Apr 20)
- Taurus** (Apr 21 - May 20)
- Gemini** (May 21 - Jun 20)
- Cancer** (Jun 21 - Jul 20)
- Leo** (Jul 21 - Aug 20)
- Virgo** (Aug 21 - Sep 20)
- Libra** (Sep 21 - Oct 20)
- Scorpio** (Oct 21 - Nov 20)
- Sagittarius** (Nov 21 - Dec 20)
- Capricorn** (Dec 21 - Jan 19)
- Aquarius** (Jan 20 - Feb 18)
- Pisces** (Feb 19 - Mar 20)

■ **ARIES:** Today you might feel especially intellectually and creatively inspired, and you could discuss your ideas with others. The process of communication could open new doors in your mind and result in some fascinating insights concerning whatever you're pursuing at this time. Sometime in the course of your conversations, Aries, don't be surprised if you find that one of your friends needs a sympathetic ear.

■ **TAURUS:** A close friend or member of your household could be having money problems, Taurus, and want to draw on your good business sense in order to understand the situation and find ways to put it right. As you're likely to be feeling especially sensitive to the needs of others today, you could be of valuable help to this person and anyone else who might need some insights.

■ **GEMINI:** Heightened intuition and ESP could lead to some interesting conversations with others who are blown away by your insights into their thoughts, feelings, and desires. You could also be feeling more expressive than usual, Gemini. You might want to channel some of that inspiration into writing, speaking, or some other form of self-expression. Reading may also prove especially valuable at this time.

■ **CANCER:** A higher level of intuition and inspiration than is usual for you could enhance your artistic talents, Cancer. A powerful drive to express the stories, pictures, or music that may be flooding your mind could result in your spending as much of the day as possible in seclusion, jotting down thoughts and ideas. By day's end, you might have spent most of your free time alone yet be very satisfied with the results.

■ **LEO:** Moving ahead is today's key phrase, Leo. You should be feeling very optimistic and excited about goals that you've set for yourself. You're probably confident that you'll reach them, and all will go well. This positive attitude spills over into your relationships. You should be in just the right frame of mind to encourage friends to go for their dreams and give them any assistance they need.

■ **VIRGO:** Inspiration is the keyword for the day, Virgo. You may be feeling highly motivated to move on with what others consider impossible dreams. "Impossible" has never stopped you before, and you aren't likely to let it stop you today. You're more likely to consider all contingencies carefully in order to make them work. Friends could be inspired by your vision and determination and follow your example.

■ **LIBRA:** An increased understanding of distant cultures as well as curiosity about the people who live there could spur you on to further learning about those places, Libra. Friends or groups with which you're affiliated could be involved in some way. You're likely to channel a lot of energy into intellectual activities today and inspire others to do the same.

■ **SCORPIO:** The opportunity to increase your income could spur you to channel more energy and inspiration into career and business matters, Scorpio. Some vivid, intense dreams might reveal a lot about you and your motivations, which could increase your self-awareness and make everything easier for you. The drive to succeed in material and spiritual matters is likely to play a powerful role in everything you do today.

■ **SAGITTARIUS:** The desire for travel might hit you today, perhaps to visit a friend who lives far away, and you could set the wheels in motion to make it happen at some point in the future. Socializing could take up your evening, if possible, and you might talk to some interesting people. A friend may need a sympathetic ear. As you're especially sensitive to others right now, you're prepared to hear a sad story.

■ **CAPRICORN:** Today you might hear about opportunities to increase your income, Capricorn, either through your current employment, a new job, or perhaps a project of your own. You're likely to channel a great deal of energy and inspiration to this end. Others may want to pitch in and help you. You're likely to feel energetic and optimistic. This, in turn, can help you attract more opportunities. Go for it!

■ **AQUARIUS:** All your relationships could be enhanced today by your increased sensitivity to the needs and feelings of others, Aquarius. You may provide a sympathetic ear to melancholy friends, help someone resolve problems, or both. Whatever it is, rest assured that your efforts won't go unappreciated. You'll probably grow closer to the ones who mean the most to you now, including a significant other.

■ **PISCES:** Expect to find yourself ministering to the needs of colleagues and family members today, Pisces. People around you might need to draw upon your insights into human nature in order to understand themselves and others. Your common sense could prove valuable to them. In the process of sharing your wisdom with others, you might also shed some light on emotional situations of your own.