

# Health Matters

## Mild cognitive impairment can lead to dementia: Study

Individuals with mild cognitive impairment, especially of the "amnestic subtype" (aMCI), are at increased risk for dementia due to Alzheimer's disease relative to cognitively healthy older adults. Now, a study co-authored by researchers from MIT, Cornell University, and Massachusetts General Hospital has identified a key deficit in people with aMCI, which relates to producing complex language.

This deficit is independent of the memory deficit that characterizes this group and may provide an additional "cognitive biomarker" to aid in early detection -- the time when treatments, as they continue to be developed, are likely to be most effective.

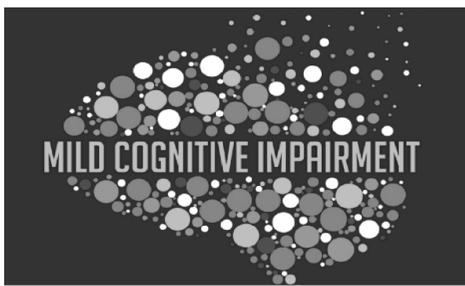
The researchers found that while individuals with aMCI could appreciate the basic structure of sentences (syntax) and their meaning (semantics), they struggled with processing certain ambiguous sentences in which pronouns alluded to

people not referenced in the sentences themselves.

"These results are among the first to deal with complex syntax and really get at the abstract computation that's involved in processing these linguistic structures," says MIT linguistics scholar Suzanne Flynn, co-author of a paper detailing the results.

The focus on subtleties in language processing, in relation to aMCI and its potential transition to dementia such as Alzheimer's disease is novel, the researchers say.

"Previous research has looked most often at single words and vocabulary," says co-author Barbara Lust, a professor emerita at Cornell University. "We looked at a more complex level of language knowledge. When we process a sentence, we have to both grasp its syntax and construct a meaning. We found a breakdown at that higher level where you're integrating form and meaning."



To conduct the study, the scholars ran experiments comparing the cognitive performance of aMCI patients to cognitively healthy individuals in separate younger and older control groups. The research involved 61 aMCI patients of Massachusetts General Hospital, with control group research conducted at Cornell and MIT.

The study pinpointed how well people process and reproduce sentences involving "anaphora." In linguistics terms, this generally refers to the relation between a word and another form in the sentence, such as the use of "his" in the sentence,

"The electrician repaired his equipment." (The term "anaphora" has another related use in the field of rhetoric, involving the repetition of terms.)

In the study, the researchers ran a variety of sentence constructions past aMCI patients and the control groups. For instance, in the sentence, "The electrician fixed the light switch when he visited the tenant," it is not actually clear if "he" refers to the electrician, or somebody else entirely. The "he" could be a family member, friend, or landlord, among other possibilities.

On the other hand, in the sentence, "He visited

the tenant when the electrician repaired the light switch," "he" and the electrician cannot be the same person. Alternately, in the sentence, "The babysitter emptied the bottle and prepared the formula," there is no reference at all to a person beyond the sentence.

Ultimately, aMCI patients performed significantly worse than the control groups when producing sentences with "anaphoric coreference," the ones with ambiguity about the identity of the person referred to via a pronoun.

"It's not that aMCI patients have lost the ability to process syntax or put complex sentences together, or lost words; it's that they're showing a deficit when the mind has to figure out whether to stay in the sentence or go outside it, to figure out who we're talking about," Lust explains. "When they didn't have to go outside the sentence for context, sentence production was preserved in the individuals with aMCI whom we studied."

## Healthy exercise key to good night's sleep

Early riser or night owl, everyone appreciates a good night's sleep. But despite the best of intentions, quality sleep can elude us, sometimes to the point where it can contribute to serious health issues.

Now, a world first study from the University of South Australia shows that getting a good night's sleep is tied to how you structure your day, with exercise at the heart of sleep quality.

The study examined different components of time use and different aspects of sleep among 1168 children (average age 12 years) and 1360 adults (their parents, average age 44 years, mainly mothers) the study found that children and adults with higher levels of moderate to vigorous physical activity had less troubled sleep, reduced tiredness, and better sleep quality.

Australian guidelines indicate that most adults need about eight hours of sleep per night, with children and teenagers requiring 8-11 hours per night.\*

UniSA researcher, Dr Lisa Matricciani, says understanding factors that affect sleep quality is vital for good health and



wellbeing. "Despite what we know about sleep, many people still struggle to achieve a good night's sleep," Dr Matricciani says.

"When people think about sleep quality, they tend to focus on adjustments immediately before bedtime - for example, avoiding screens, not eating too much, and avoiding alcohol - but our research looks beyond this to the range of activities we undertake during the day.

"What we found is that our daytime activities are tied to different aspects of our sleep, from sleep quality, sleep efficiency (how much of the time you spend in bed when you are actually asleep), and the overall amount of sleep we get, to levels of tiredness during the day, and when we choose to go to bed.

"Sometimes, the

activities we choose might directly displace sleep - think of kids playing video games late into the night - but other times, it's how we spend our daytime hours.

"In this study we created different simulations to see how extending and restricting aspects of time were related to different aspects of sleep.

"We found that if children and adults increased moderate to vigorous physical activity, they would feel less tired, have less troubled sleep and better-quality sleep.

"Interestingly, simply making more time for sleep predicted more restless sleep.

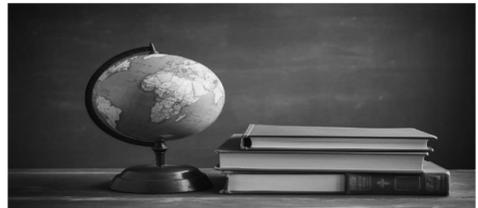
"Everyone wants a good night's sleep. If it's simply a matter of being more active during the day, then it may be a relatively achievable goal for most of us."

## Higher education helps life's longevity

Participants in the Framingham Heart Study who achieved higher levels of education tended to age more slowly and went on to live longer lives as compared to those who did not achieve upward educational mobility, according to a new study at Columbia University Mailman School of Public Health and The Robert N. Butler Columbia Aging Center. Upward educational mobility was significantly associated with a slower pace of aging and lower risk of death.

The Framingham Heart Study is an ongoing observational study first initiated in 1948 that currently spans three generations.

The Columbia analysis is the first to connect educational mobility with the pace of biological aging and mortality. "We've known for a long time that people who have higher levels of education tend to live longer lives. But there are a bunch of challenges in figuring out how that happens and, critically, whether interventions to promote educational attainment will contribute to healthy longevity," said Daniel Belsky, PhD, associate professor of Epidemiology at Columbia Mailman School and the Aging



Centre and senior author of the paper.

To measure pace of aging, the researchers applied an algorithm known as the DunedinPACE epigenetic clock to genomic data collected by the Framingham Heart Study. The latest findings showed that, according to the yardstick of the DunedinPACE epigenetic clock, two years of additional schooling translated to a two- to three percent slower pace of aging. This slowing in the pace of aging corresponds to a roughly 10 percent reduction in risk of mortality in the Framingham Heart Study, according to previous research by Belsky on the association of DunedinPACE with risk of death.

DunedinPACE was developed by the Columbia researchers and colleagues and reported in January 2022. Based on an analysis of chemical tags on the DNA contained in white blood cells, or DNA methylation marks,

DunedinPACE is named after the Dunedin Study birth cohort used to develop it. DunedinPACE (stands for Pace of Aging Computed from the Epigenome), is measured from a blood test and functions like a speedometer for the aging process, measuring how fast or slow a person's body is changing as they grow older.

Biological aging refers to the accumulation of molecular changes that progressively undermine the integrity and resilience capacity of our cells, tissues and organs as we grow older.

The Columbia researchers used data from 14,106 Framingham Heart Study spanning three generations to link children's educational attainment data with that of their parents. They then used data from a subset of participants who provided blood samples during data collection to calculate the pace of biological aging using the DunedinPACE

epigenetic clock. In primary analysis, the researchers tested associations between educational mobility, aging, and mortality in a subset of 3,101 participants for whom educational mobility and pace of aging measures could be calculated.

For 2,437 participants with a sibling, the researchers also tested whether differences in educational attainment between siblings was associated with a difference in the pace of aging.

"A key confound in studies like these is that people with different levels of education tend to come from families with different educational backgrounds and different levels of other resources," explained Gloria Graf, a PhD candidate in the Department of Epidemiology supervised by Belsky, and first author of the study. "To address these confounds, we focused on educational mobility, how much more (or less) education a person completed relative to their parents, and sibling differences in educational attainment -- how much more (or less) education a person completed relative to their siblings. These study designs control for differences between families and allow us to isolate the effects of education."

The complete absence of coronary calcifications, on the other hand, is a good indicator of the absence of advanced atherosclerosis. However, the role of coronary artery calcium in patients with stable chest pain is less clear. Stable chest pain is a temporary but recurring condition triggered by stress, exercise or cold weather. Under the direction of Marc Dewey, M.D., professor and vice chair of radiology at Charité, Biavati and colleagues assessed the prognostic value of coronary artery calcium scoring for major adverse cardiovascular events in 1,749 individuals, mean age 60. The participants were drawn from the DISCHARGE trial, a research project involving 26 centers in 16 European countries.

## Coronary artery calcium score to predict heart attacks

Coronary artery calcium scoring with CT can identify symptomatic patients with a very low risk of heart attacks or

strokes, according to a new study. Researchers said the findings may one day help some patients with stable chest pain avoid invasive

coronary angiography.

Coronary artery calcium scoring with CT was developed to noninvasively measure the amount of calcium in the arteries of the heart. Higher scores are linked with atherosclerosis, a buildup of plaque in the arteries.

A score of 1 to 399, for instance, suggests a moderate amount of plaque, while 400 or higher indicates a large plaque burden.

"Coronary artery calcium is a strong and independent predictor of cardiovascular events," said study first author Federico Biavati, an M.D./Ph.D. candidate in the BIOIC research training group and a radiology resident at Charité -- Universitätsmedizin Berlin, Germany.

"The presence of coronary artery calcification indicates that atherosclerosis may have been present for some

## Tiny magnetic particles in air linked to Alzheimer's

Magnetite, a tiny particle found in air pollution, can induce signs and symptoms of Alzheimer's

disease, new research suggests. Alzheimer's disease, a type of dementia, leads to memory loss, cognitive decline, and a marked reduction in quality of life. It impacts millions globally and is a leading cause of death in older individuals.

The study, Neurodegenerative effects of air pollutant particles: Biological mechanisms implicated for early-onset Alzheimer's disease, led by Associate Professor Cindy Gunawan and Associate Professor Kristine McGrath

from the University of Technology Sydney (UTS) was recently published. The research team, from

UTS, UNSW Sydney and the Agency for Science, Technology and Research in Singapore, examined

the impact of air pollution on brain health in mice, as well as in human neuronal cells in the lab.

**SHIVALIK SMALL FINANCE BANK LTD.**  
 Registered Office : 501, Salcon Aarum, Jasola District Centre, New Delhi - 110025  
 CIN : U65900DL2020PLC366027

**AUCTION NOTICE**

The following borrowers of Shivalik Small Finance Bank Ltd. are hereby informed that Gold Loans availed by them from the Bank have not been adjusted by them despite various demands and notices including individual notices issued by the Bank. All borrowers are hereby informed that it has been decided to auction the Gold ornaments kept as security with the Bank and accordingly 21.03.2024 has been fixed as the date of auction at 03:00 pm in the branch premises from where the loan was availed. All, including the borrowers, account holders and public at large can participate in this auction on as per the terms and conditions of auction. online <https://egold.auctiontiger.net> on 21.03.24 from 03:00 pm to 05:00 pm.

Branch	Account No.	Act Holder name	Father's/ Spouse Name	Address	Ac opening Date	Payoff
CHENNAI	101042516543	A BALA SUBRAMANIAM	S/O M AMBIKADASAN	HOUSE NO 1989 106 STREET 3RD MAIN ROAD MMIDA MATHUR.MANALI TIRUVALLUR TAMIL NADU 600068	20-06-2023	603,445.48
CHENNAI	101042516126	DHINESH .	S/O MARUTHU PANDIAN	N 0 189D,MARAVAR STREET NAMBUTHALAI, RAMANATHAPURAM TN 623403	01-06-2023	175,568.78
CHENNAI	101042518709	THENNARASI W/O BALA SUBRAMANIAN	D/O KARUPPAIYA	5,VELACHERY ROAD LITTLE MOUNT, SAIDAPET CHENNAI TAMIL NADU 600015	04-11-2023	180,203.35
CHENNAI	101042515992	V VENKATESWARAN	C/O S/O K VISWANATHAN	A2 A BLOCK 3RD FLOOR AGNI RAINBOW END APARTMENT CHITTALAPA, DHANALAKSHMI NAGAR 1ST CROSS STREET, CHITLAKKAM, KANCHEEPURAM, NEAR VOILET SCHOOL CHENGALPATTU TAMIL NADU 600064	26-05-2023	748,493.94
CHENNAI	101042515753	VINOTHRAJ MAICHELDHAS	S/O MAICHELDHAS	425, A M BEDKAR NAGAR, KAIYANDUR THIRUPACHUR THIRUVALLUR TAMIL NADU 631203	16-05-2023	187,620.96

Auction date is 21.03.2024 @ 03:00 pm.  
 The Bank reserves the right to delete any account from the auction or cancel the auction without any prior notice.  
 Authorised Officer, Shivalik Small Finance Bank Ltd.

**homefirst** Home First Finance Company India Limited  
 CIN: L65900MH2010PLC240703,  
 Website: homefirstindia.com  
 Phone No.: 180030008425 Email ID: loanfirst@homefirstindia.com

**DEMAND NOTICE U/s 13(2)**

You the below mentioned borrower has availed loan by mortgaging the schedule mentioned property and you the below mention has stood as borrower/co-borrower guarantor for the loan agreement. Consequent to the defaults committed by you, your loan account has been classified as non-performing asset on 04-03-2024 under the provisions of the Securitisation & Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (in short SARFAESI Act). We Home First Finance Company India Limited have issued Demand Notice u/s 13(2) read with section 13(1)(3) of the SARFAESI Act to the address furnished by you. The said notices are issued as on 04-03-2024 and these notices state that you have committed default in payment of the various loans sanctioned to you. Therefore, the present publication carried out to serve the notice as the provision of Section 13(2) of SARFAESI Act and in terms of provision to the rule 3(1) of the Security Interest (Enforcement) Rules, 2002:

Sr. No.	Name and Address of the Account, Borrower(s) & Guarantor(s)	Details of the security to be enforced	Total Outstanding as on date of Demand Notice plus further interest and other expenses (in Rs.)
1.	S Karthikeyan, Revathi S,	Compact Homes- Megha, Block 1, T-24, Karanaithangal - village, Sriperumpudur-Tal, Kancheepuram-Dist, 603012	775,842
2.	Antony Kondaiah, Mariamma Asirvatham,	Plot No.432 (South West Portion), S.No.368 (Part), Patta No.1450 as per patta New S.No.11/221, Saraswathi Nagar, Thirumullavoyal Village, Ambattur Taluk, Thiruvallur District, Thiruvallur Tamil Nadu 600062	885,027
3.	Late Rajendiran perumal (Deceased), Dheenan Rajendran, Nishanthi Rajendran, Vanaja Ramachanthiran, Other legal representatives of Late Rajendiran perumal (Deceased)	PLOT NO 10 S.No.122/28 Rajendran Thimmasamuthiram Village, Patta No.3893 as per Patta New S.No.122/28, measuring with an extent of 2644 Sq.ft., Situated at Jina Kanchi Nagar Vide DTCP Approval No.14/2013, NO.59, Thimmasamuthiram Village, Kancheepuram Taluk & District Kanchipuram Tamil Nadu 631502	1,844,331
4.	Balaji Dhamotharan, Amsa, Damodaran,	House no- S.No.1024/2, New S.No.1024/2C measuring with to an extent of 1300 Sq.ft., Situated at Sri Lakshmi Nagar Approval No.CSAR/DTCP M 84-262/LP219, Manimangalam Village, Sriperumpudur Taluk Now Kundrathur Taluk, Kancheepuram Chennai Tamil Nadu 602301	2,161,023
5.	Ramesh V, Divya Jothi,	House- Ayanallur Village Grama Natham Old S.No.107, New S.No.107/129, measuring with an extent of 48 Sq.Mtrs., or 516 Sq.ft., Situated at Ayanallur Village, Gummidipoondi Taluk, Thiruvallur District Tiruvallur Tamil Nadu 601201	548,029

You are hereby called upon to pay Home First Finance Company India Limited within the period of 60 days from the date of publication of this Notice the aforesaid amount with interest and cost falling which Home First Finance Company India Limited will take necessary action under the Provisions of the said Act against all or any one or more of the secured assets including taking possession of secured assets of the borrowers, mortgagors and the guarantors. The power available to the Home First Finance Company India Limited under the said act include (1) Power to take possession of the secured assets of the borrowers/guarantors including the rights to transfer by way of lease, assignment of sale for releasing secured assets (2) Take over management of the secured assets including rights to transfer by ways of lease, assignment or sale and realize the secured assets and any transfer as of secured assets by Home First Finance Company India Limited shall vest in all the rights and transferring the secured assets transferred as if the transfer has been made by you. In terms of the Provisions of the Section 13(1)(3) of the said act, you are hereby prohibited from relation to, either by way of sale, lease or otherwise (other than in the normal course of your business), any of the secured assets as referred to above and hypothecated/mortgaged to the Home First Finance Company India Limited without prior consent of the Home First Finance Company India Limited.

Place: Chennai  
 Date: 07.03.2024

Signed by: AUTHORISED OFFICER,  
 Home First Finance Company India Limited

**Kotak Mahindra Bank Limited** Online E - Auction Sale Of Asset

Registered Office: 27 Bldg, C-27, G-Block, Bandra Kurla Complex, Bandra (a) Mumbai, Maharashtra, Pin Code-400 051. Branch Office: Kotak Mahindra Bank Ltd, 185, 2nd Floor, Mount Road, Anna Salai, Chennai 600 006. (Land Mark: Xilgreen Car Showroom And Next To Thousand Lights Metro Railway Station)

**Sale Notice For Sale Of Immovable Properties :-**  
 E-Auction Sale Notice For Sale Of Immovable Assets Under The Securitisation And Reconstruction Of Financial Assets And Enforcement Of Security Interest Act, 2002 Under Rule 8(5) Read With Proviso To Rule 8 (6) Of The Security Interest (Enforcement) Rule, 2002. Notice Is Hereby Given To The Public In General And In Particular To The Borrower (s) And Guarantor (s) That The Below Described Immovable Property Mortgage/Charged To The Secured Creditor. The Possession Of Which Has Been Taken By The Authorised Officer Of PNB Housing Finance Limited (hereinafter Referred To As "PNBHFL") And Pursuant To The Assignment Of Debt In Favour Of Kotak Mahindra Bank Limited By "PNBHFL". The Property Will Be Sold On "as is Where Is", "as is What Is", And "whatever There Is" Basis On 27.03.2024 between 12:00 Pm To 01:00 Pm With Unlimited Extension Of 5 Minutes, For Recovery Of Rs. 32,27,994.14 (Rupees Thirty Two Lakh Twenty Seven Thousand Nine Hundred Ninety Four And Eleven Paise Only) As Of 08.04.2019 Along With Future Interest Applicable From 09.04.2019 Until Payment In Full With Cost And Charges under the Loan Account No. HOU/OMR/0117/342791, Due To KMBL, Secured Creditor From Mr. Sangeeth Kumar M & Mr. Mohan Manoharan. The Reserve Price Will Be Rs. 30,60,000/- (Rupees Thirty Lakh Sixty Thousand Only) And The Earnest Money Deposit Will Be Rs. 3,06,000/- (Rupees Three Lakh Six Thousand Only) & last Date Of Submission Of Emrd With Kyc Is 26.03.2024 up To 6:00 PM (IST).

**Property Description -** All That Piece And Parcel Of Vacant Land, Bearing Plot No. 8 (northern Portion), Measuring An Extent Of 1,200 Square Feet, Comprised In Survey No.17/1, Vide Vide Approval No.NO.MA.PA.NA/2.NA. E. No.49/72, Situated At Kadaperi Village, Kamalchi Nagar, Tambaram Taluk, Kancheepuram District, Within The Registration District Of Chennai-south And Sub-registration District Of Tambaram And Tambaram Municipal Limit, Bounded On The North, Land Owned By Radha Anmal In Survey No. 18, South, M.Bharathi Sold Out Plot, East: Plot No.9, West: 30 Feet Wide Road. The Borrower's Attention Is Invited To The Provisions Of Sub Section 8 Of Section 13, Of The Sarfaesi Act, In Respect Of The Time Available, To Redeem The Secured Asset, Public In General And Borrowers In Particular Please Take Notice That If In Case Auction Scheduled Herein Fails For Any Reason Whereover Then Secured Creditor May Enforce Security Interest By Way Of Sale Through Public Auction, At The Discretion Of The Secured Creditor. In Case Of Any Clarification Regarding Assets Under Sale, Bidder May Contact To Mr. Vishal Adhisheshan (+91 9941016600) (+91-9152219751), & Mr. Rajender Dahiya (+91 8448264515).

For Detailed Terms And Conditions Of The Sale, Please Refer To The Link <https://www.kotak.com/en/bank-auctions.html> Provided In Kotak Mahindra Bank Website I.e. <https://www.kotak.com/and/or/https://bank.auctions.in/>

Authorized Officer,  
 Kotak Mahindra Bank Limited  
 Place : Chennai, Date: 07.03.2024