

After a stint over these Tyre Cutters and Axle Breakers, barely skimming a speed of 30 to 40 kmph, it is a joy to get back on to a National Highway with a max speed limit of 80 to 100 kmph. Some are now going up to 120kmph. It is always possible to do more on the present highways which are like - to quote what Laloo Prasad Yadav said many years ago - "like the cheeks of Hema Malini". Laloo Yadav may not have achieved that in Bihar, but Nitin Gadkari definitely has achieved that in the National Highways of India.

Let's Hit the Road! On Cheeks Like Hemamalini!



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#DRIVE-AWAY

Many years ago, when driving in the UK, on those beautiful and scenic motorways, with endless stretches of excellent road, and fluffy sheep dotting the landscape, one wished that we had the likes of it in India. BAM! Wish granted.

India's Golden Highways

In 1998 India embarked on a very ambitious plan of highway upgrades in which the main North-South and East-West corridors and highways connecting the four metropolitan cities of Delhi, Mumbai, Chennai and Kolkata have been widened into four lane highways. Some of the busier National Highway Sectors have been converted into six lane highways. This project became even more ambitious in June 2014 with the formation of the National Highways and Infrastructure Development Corporation, a fully owned company of the Government of India, under the Ministry of Road Transport and Highways.

This Ministry has adopted a new systemic numbering of National Highways, based on their orientation and geographic location. The new system has odd numbers for East-West highways and even numbers for North-South highways. The even numbers increase from East to West, starting with NH2, and odd numbers increase from North to South starting with NH1. These highways constitute just 3% of India's road network, but carry more than 40% of road traffic.

The new project of the

Government called Bharatmala, involves the construction and upgradation of over 34,000 kms of National Highways. The majority of the existing highways are four lane roads (two in each direction), though much of this is being expanded to six or more lanes. Some sections of the roads are toll roads. In these highways, a toll gate always fills me with joy - because a toll means that the roads are almost guaranteed to be excellent. With a FASTag you only need slow down to get your tag scanned. A few years ago, driving in the United Kingdom - maybe to the Isle of Skye - we had to cross a fairly long bridge where toll had to be paid. I remember sticking my head out and look up to a pale face peering down at me and saying "That would be ten quid". Makes one proud to be an Indian and a fan of Nitin Gadkari.

The State of State Roads!

Only complaint, if you could call it that, is really a wish that Nitin Gadkari could or would do something about the State Highways and other arterial roads. A branch off from the National Highways into State Highways of some states is like a piercing of the wall between bliss and agony. In a recent road trip to a well-known tourist destination in Karnataka, the roads (if you could call them that) were the utter pits. They seemed to be layered with gravel and sharp-edged stones which look like, and sometimes do serve the purpose of being "Tyre Cutters". On such roads it is impossible to go fast unless you are in a tank or any other armoured vehicle. By some very strange and quirky rationale, on these roads they have many rumble strips - which are not really rumble strips, but several huge speed breakers built together. These strips are actually "Axle Breakers", which



has caused one very enterprising gentleman to open a shop abutting the State Highway with the placard "Broken Axles Repaired Here - As Good As New". After a stint over these Tyre Cutters and Axle Breakers, barely skimming a speed of 30 to 40 kmph, it is a joy to get back on to a National Highway with a max speed limit of 80 to 100 kmph. Some are now going up to 120kmph. It is always possible to do more on the present highways which are like - to quote what Laloo Prasad Yadav said many years ago - "like the cheeks of Hema Malini". Laloo Yadav may not have achieved that in Bihar, but Nitin Gadkari definitely has achieved that in the National Highways of India.

Respect (on) the Road

Fellow drivers in India are by and large courteous and helpful. This courtesy is seen more in truckers on the highways than in the nouveau riche driving high end SUVs, although heavy vehicles on the highways rarely follow the appropriate lane. You can find them

either in the slow lane, or in the fast lane, or sometimes both - quite often straddling lanes. To overtake a set of these heavy vehicles, one has to weave one's way across the highway. However, very high-end courtesy is shown on ghat roads. In Tamil Nadu, downhill traffic always stops before the curve, giving ample space for the turn radius of uphill traffic. On crossing, the uphill vehicle gives two honks - "Thank you". The reply given by the downhill vehicle is a single honk "You are welcome".

On the national highways, one does come across motorcycles and scooterists who manage to do a speed of between 60 - 70 kmph, some of them with wife/kids/brother/both/all on board. Bicyclists are very few and extremely far between - unfortunately they do not get the courtesy due to them. These days with a plethora of banks giving two-wheeler loans, almost everyone aspiring to be mobile has a motorcycle. A two-wheeler showroom is a more common sight than a bicycle mechanic. So, if you are bicycling anywhere in India, the message that a person on a motorised vehicle gets is that "he cannot afford a motorcycle - he has no place on the road - edge him out".

Strangely this lack of courtesy to cyclists does not extend to vil-

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lages/rural areas, where the cyclist is always given right of way. Best however are some Military Cantonment Roads which have the right of way clearly specified in order of priority - first is troops under training, next is pedestrians, third are cyclists. Then come Flag Cars followed last by other vehicles.

A Wanderer is Never Lost

Road Trips are mostly avoided by travel fanatics, for whom journeys make more memories than the destination itself. Some of these national highways lead to obscure but stunning places with breathtaking landscapes and they lure wanderers into never ending long drives. There are many such in India. A few of the best ones are the Chennai-Pondicherry East Coast Road in South India, the Himalayan Highways in the north, and Mumbai-Goa in the West.

A personal experience on the East Coast Road, the Chennai-Pondicherry highway, is a road for discerning travellers. The road runs parallel to the Bay of Bengal. This road is epitomised by a fine sea view, cool salty sea breeze and large tracts of pine. Arguably one of the best highways of India, it is the most preferred road to reach Pondicherry from Chennai, and not just for the convenience.

Highway to Hell?

However, there are some stories of people on this road having seen a woman in a white saree appearing out of nowhere. This has led to drivers losing control of their steering wheel, leading to accidents. There are other stretches on other highways too, like the Bhangarh Fort area, just off the Delhi-Jaipur highway, which is said to be one of the most haunted places in India. People have claimed that they have experienced frightening things on this highway - things that have no logical explanation.

Another weird highway is NH209 in Tamil Nadu. Remember Dacoit Veerappan, who was notoriously famous for kidnapping, smuggling and murdering people? If you drive along NH 209 through the Satyamangalam Wildlife Sanctuary, your sixth sense will awaken and you'll feel a prickle down your spine. For it is believed that this stretch is haunted by the ghost of Veerappan, and one can hear hysterical laughter and even see soft floating lights in the dark. People claim that the dacoit still wanders through the highway.

But by far the most haunted highway of India, is the Mumbai-Goa highway, especially the Kashedi Ghat stretch. People have claimed to have gotten scratches on their face, neck and back by some unknown force. Victims have also claimed that their car halted

The East Coast Road is a road for discerning travellers. The road runs parallel to the Bay of Bengal. This road is epitomised by a fine sea view.



at some point on the highway abruptly, and all the non-vegetarian food disappeared from their vehicle. So, a word of advice - when cruising down to Goa for a sun-soaked getaway, stay light on animal proteins!

Coping with the Cops

If you are travelling to Pondicherry and staying there, there are a lot of nice hotels just short of the Tamil Nadu-Pondicherry border. Try to avoid these and stay in a hotel in Pondicherry itself, as overzealous Tamilian cops insist on checking cars with out-of-state license plates for booze. If it is close to the month end, when these cops have targets to meet, then the vehicle search/frisking becomes much more frequent, diligent and irritating.

A large number of accidents on the highways are due to booze - driving under the influence. Apart from being dangerous to life and body, the legal penalties are huge. In some places in the United States, the host of a party is held legally

liable if his guest has an accident after the party when driving under the influence of alcohol. In India, so far, the liability is only moral. Even the designated driver needs to be careful not to overuse perfume before the start of the evening. In some states, like Telangana, the breathalysers used by overzealous cops beg even to the heady aroma of cologne!

What goes in, must come out

The highway has got a zillion middle points for men - nature being the endless bow to receive what man giveth. However, for a lady on board, locating a clean toilet is an unenviable task. The National Highways now have some very high-end gas stations, but toilet hygiene is a matter of luck. Quite a few dhabas and hotels on the highway lure in customers with prominent lead-in boards which proudly proclaim "Clean Ladies Toilet Available". However, "clean" is open to interpretation.

There are a large number of dhabas/restaurants on the high-



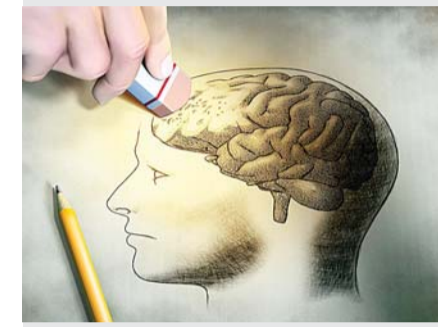
Day of the Horse

The Day of the Horse was created to remember and pay tribute to the cultural, historic, and economic contributors that horses have made. Equine enthusiasts will often get together so that they can show their appreciation for these incredible creatures. It does not matter whether you have never been on a horse in your life or you are a seasoned rider, we can all appreciate the amazing work that horses have done over the years and just how precious these animals are.

#RESEARCH

The swelling caused by a by-product of amyloid plaques in the brain may be the true cause of Alzheimer's disease, say researchers.

Swelling On Axons



The formation of amyloid plaques in the brain is a hallmark of Alzheimer's disease. But drugs designed to reduce accumulations of these plaques have so far yielded, at best, mixed results in clinical trials.

According to the new findings, each formation of plaque can cause an accumulation of spheroid-shaped swellings along hundreds of axons - the thin cellular wires that connect the brain's neurons - near amyloid plaque deposits. The swellings are caused by the gradual accumulation of organelles within cells known as lysosomes, which are known to digest cellular waste, researchers find. As the swellings enlarge, researchers say, they can blunt the transmission of normal electrical signals from one region of the brain to another.

This pileup of lysosomes, the researchers say, causes swelling along axons, which in turn triggers the devastating effects of dementia.

"We have identified a potential signature of Alzheimer's which has functional repercussions on brain



circuitry, with each spheroid having the potential to disrupt activity in hundreds of neuronal axons and thousands of interconnected neurons," says Jaime Grutzendler, professor of neurology and neuroscience at the Yale School of Medicine and senior author of the study. Further, the researchers discovered that a protein in lysosomes called PLD3 caused these organelles to grow and clump together along axons, eventually leading to the swelling of axons and the breakdown of electrical conduction.

When they used gene therapy to remove PLD3 from neurons in mice with a condition resembling Alzheimer's disease, they found that this led to a dramatic reduction of axonal swelling. This, in turn, normalized the electrical conduction of neurons in the brain regions linked by these axons.

The researchers say PLD3 may be used as a marker in diagnosing the risk of Alzheimer's disease and provide a target for future therapies. "It may be possible to eliminate this breakdown of the electrical signals in axons by targeting PLD3 or other molecules that regulate lysosomes" Grutzendler says.

#ART EXHIBITION

Art Galore at Mayo

The Mayo Alumni Artists (MAA) Group organized the first-of-its-kind art exhibition at Mayo College in Ajmer. The event, which was organized under the annual prize distribution ceremony of the school, witnessed a display close to 200 art works created by around 35 artists.



Hazra, Vidita Singh and Harshi Agarwal were displayed in the exhibition. These artists, whose works were displayed, included alumni, teachers and students of Mayo College from batches ranging from 1967 to 2021.

More than 190 artworks created by the artists were put up at the show. It included art works of a wide variety of styles including water colour paintings, acrylic, sculpture, ceramic art, modern art, doodle art, among others. During this, the contribution made in the field of art by late B.C. Gue, who was the head of the Art and Craft Department of Mayo College, was also remembered. Mayo Alumni Artists (MAA) was formed a few years ago by members of the Mayo Alumni, Dushyant Singh Nailla (Batch of 67) and Hemendra Singh Veda (Batch of 85).

On this occasion, Hemendra Singh Veda, artist and co-founder of MAA, said that such



events are organized by Mayo Alumni Artists Group with the aim of inspiring, promoting and supporting the artists of Mayo College through a single platform. Along with this we also organize talk shows and interaction sessions by renowned personalities to create awareness among artists who are interested in learning new techniques to enhance their work in the field of art. He further informed that this event will be an annual feature from now on.



Tusharika Singh
Freelance writer and city blogger

The annual prize distribution ceremony of the Mayo College, which was held after a hiatus of two years owing to the Covid-19 pandemic, saw a unique artistic addition this year. A first-of-its-kind Group Art Exhibition was organized by the Mayo Alumni Artists (MAA). The artworks of around 34 artists including HH Maharaja of Kishangarh, Brajraj Singh, Hemender Singh Veda, Dushyant Singh Nailla, Late B.C. Gue, Ajay Singh Peelwa, Keshav



#TECHNOLOGY

Mind Controlled Wheelchair

Researchers have studied the concept of a thought-powered wheelchair for years, but most projects have used non-disruptive subjects or stimuli that leads the device to more or less control the person rather than the other way around.

In this case, three people with tetraplegia, the inability to move their arms and legs due to spinal injuries, operated the wheelchair in a cluttered, natural environment to varying degrees of success. The interface recorded their brain activity, and a machine-learning algorithm translated it into commands that drove the wheelchair.

The study is also significant because of the non-invasive equipment used to operate the wheelchair. The researchers did not implant any kind of device into the participants, nor did they use any kind of stimulation on them.

Participants wore a cap cov-

ered with electrodes that recorded brain electrical activity, known as an electroencephalogram (EEG). An amplifying device sent those electrical signals to a computer that interpreted each participant's intentions and translated them into movement.

When people suffer major injuries that end in paralysis, the brain loses pathways to deliver commands to the body



and create movement. But the mind remains active, and the interface is able to capture and facilitate movement, as if the brain were talking to the body instead of a computer.

Two important dynamics were major contributors to the success of the study. The first involves a training program for the users. The users were taught methods to visualize moving the chair as if they were imagining moving their hands and feet. As the researchers observed the study participants, they saw changes to their brain activity as they delivered commands.

The second contributor borrowed from robotics. The researchers outfitted their wheelchairs with sensors to understand the surrounding environment. And they also deployed robotic intelligence software that helped the chair fill in blanks in the users' commands to facilitate accurate and safe movement of the wheelchair.

Scientific Facts On Music

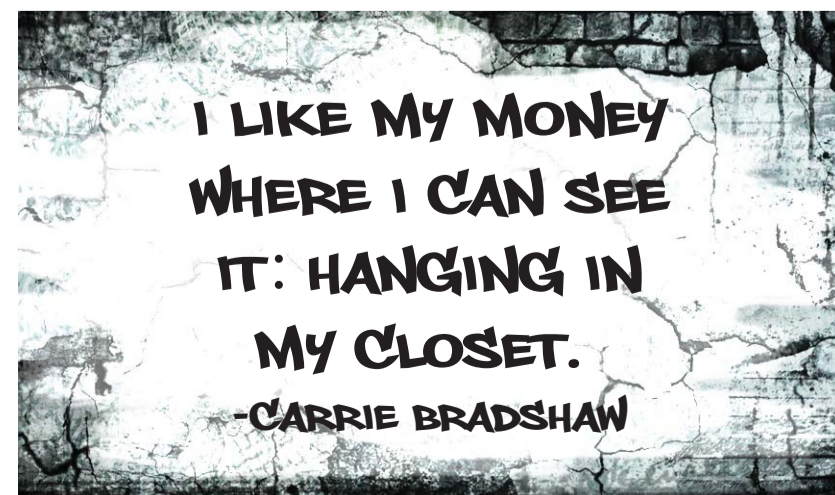
- Music can help you exercise better!
- A 2010 study led by sport psychologist C.I. Karageorghis found that music can improve the way we exercise.
- Good beats can help you keep your heart healthy.
- Researchers from Pavia University, Italy, found that music with quicker tempos helped people breathe better, making sure their heartbeat was up.
- Music can be great for your plants as well.
- If you're a plant person, you should probably play some

good music while watering them because it can help with their growth.

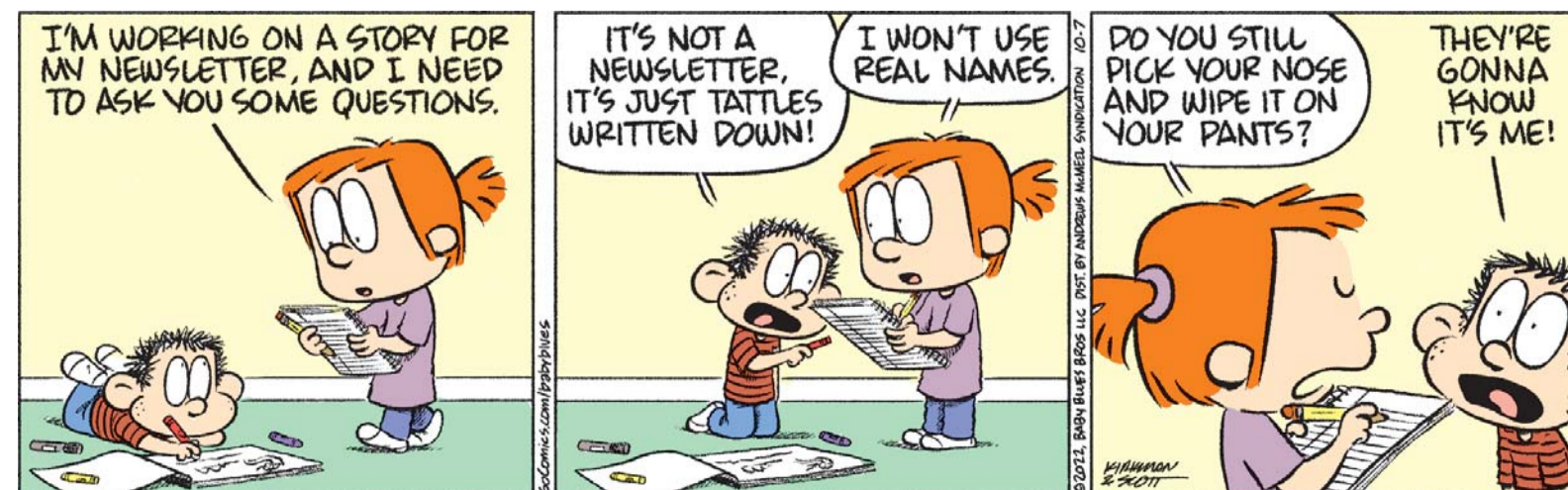
- Music changes the way we see this world.
- According to researchers from the University of Groningen, listening to happy or sad music can even change the way we perceive the world.



THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman