

#MIND&BODY

Salt Reaction in Brain

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New research in rodents reveals surprising new information about the relationship between neuron activity and blood flow deep in the brain, as well as how consuming salt affects the brain.

When neurons are activated, it typically produces a rapid increase of blood flow to the area. This relationship is known as neurovascular coupling, or functional hyperemia, and it occurs via dilation of blood vessels in the brain called arterioles. Functional magnetic resonance imaging (fMRI) is based on the concept of neurovascular coupling; experts look for areas of weak blood flow to diagnose brain disorders.

However, previous studies of neurovascular coupling have been limited to superficial areas of the brain (such as the cerebral cortex) and scientists have mostly examined how blood flow changes in response to sensory stimuli coming from the environment (such as visual or auditory

increased blood flow, the researchers found a decrease in blood flow as the neurons became activated in the hypothalamus.

"The findings took us by surprise because we saw vasoconstriction, which is the opposite of what most people described in the cortex in response to a sensory stimulus," says Stern. "Reduced blood flow is normally observed in the cortex in the case of diseases like Alzheimer's or after a stroke or ischemia."

The team dubs the phenomenon "inverse neurovascular coupling," or a decrease in blood flow that produces hypoxia. They also observed other differences: In the cortex, vascular responses to stimuli are very localized and the dilation occurs rapidly in the hypothalamus, the response was diffuse and took place slowly, over a long period of time.

"When we eat a lot of salt, our sodium levels stay elevated for a long time," says Stern. "We believe the hypoxia is a



Anu Kumar

In the age of sailing travel was slow, leisurely, and full of danger and anticipation. A voyage from Britain to India took between three to four months; ships stopped at St. Helena in the western Atlantic, the Cape of Good Hope, Aden or Socatra (Yemen), before finally reaching Bombay. There was the unexpected too: not least the prospect of shipboard romances. Warren Hastings, on his second appointment to the East India Company met the love of his life, the Dutch-born Baroness Imhoff, on board the Duke of Grafton.

By the mid-19th century steamships that were smaller and faster, sailed via the Mediterranean and the Red Seas toward the East. The Suez Canal reduced travel time yet further and there were more travelers. Men who came east to serve the British Empire and then, as the 19th century wore on, more women travellers.

stimuli). Little is known about whether the same principles apply to deeper brain regions attuned to stimuli produced by the body itself, known as interoceptive signals.

Salt Intake & The Brain

To study this relationship in deep brain regions, a team of scientists led by Javier Stern, professor of neuroscience at Georgia State University and director of the university's Centre for Neuro-inflammation and Cardio-metabolic Diseases, developed a novel approach that combines surgical techniques and state-of-the-art neuro-imaging. The team focused on the hypothalamus, a deep brain region involved in critical body functions including drinking, eating, body temperature regulation, and reproduction. The study, which appears in the journal Cell Reports, examines how blood flow to the hypothalamus changed in response to salt intake.

"We chose salt because the body needs to control sodium levels very precisely. We even have specific cells that detect how much salt is in your blood," says Stern. "When you ingest salty food, the brain senses it and activates a series of compensatory mechanisms to bring sodium levels back down."

The body does this in part by activating neurons that trigger the release of vasopressin, an anti-diuretic hormone that plays a key role in maintaining the proper concentration of salt. In contrast to previous studies that have observed a positive link between neuron activity and



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Husband-hunting In The Raj

Here's the advice British women received when traveling to India

#TID-BITS

To Reside in India (1882) by an Anglo-Indian (a compilation of articles published in the magazine called Bazaar); In 1909, Maud Diver's The Englishwoman in India, that in its epigraph extolled the British woman in India, without whom the Empire would have been impossible; the pseudonymous Chota Mem's The English Bride in India, and Topical Trials: A Handbook for Women in the Tropics by Major Leigh Hunt and Alexander Kenny. Catering to a growing group of solo women travellers was Lillias Campbell Davidson's Hints for the Woman Traveller at Home and Abroad (1889).

For the Voyage Eastward

In the late 19th century most ships to Bombay left from Southampton, Southwest of London, and a journey of around 28 days with stoppages. They sailed via Gibraltar to Malta before reaching, four days later, Port Said in North Egypt. The journey from the Red Sea to Aden was described in most advice books as trying. There were those who preferred to travel overland through Europe by first taking the steamer from Dover to Calais and then the train through Paris, Macon, to Turin, before taking the steamer from Brindisi in Sicily to Alexandria.

Late autumn was the best season to travel out, for then one arrived in Bombay in time for a

mild winter. It made, if required, the later rail journey through India easier to endure than in summers when it could get very hot. HMLS provided advice on what to wear for the journey: "...choose a simple dress of soft warm tweed, of a dark grey colour, made in the Princess form and buttoned down the front from the neck; the skirt must be furnished with pockets on either side, made deep enough to hold little things likely to be required whilst lying on the berth, such as a few pocket-handkerchiefs, smelling-bottle, eau-de-cologne, small brush and comb, scissors, etc. A more stylish dress must be worn for landing... It is a good plan to use very old underclothing, such as can be thrown away when soiled."

Travel advice books covering myriad subjects, from travelling in comfort to household management and cookery, became a popular genre from the 1870s onward. They ranged in style from the mere pedantic to those gossipy and amusing; they were also fancifully titled and dedicated. For example, Flora Annie Steele and Grace Gardiner's book on household management.

Travelling Solo

For the likes of solo intrepid women travelers who journeyed on their own, Lillias Campbell Davidson offered some special advice in her Hints to Lady Travellers.

Besides essentials such as bath and bath towels, medicines, a reading lamp, light reading material (to also not increase luggage weight), Davidson suggested some safety measures as well: "A door-wedge which is a great convenience", a railway-key that allows access through train compartments, and a compass vital for the traveller "who has to be her own guide." And there were quirky health essentials too, such as packing along an eyestone to pick off dust in one's eye. This was inserted below the eyelid, and the eyeball rolled along with



the stone, the dust mote then stuck to the stone and then could be easily retrieved. All advice books were unanimous about not carrying or packing too much – either as hand baggage or for use in India. The parcel post and friends who travelled often allowed for things to be quickly dispatched from England.

In praise of the Durzee As for clothes for the memsahib, the book, Indian Outfits and Establishments stated, "Enough at starting should be taken for a year, or even two years; for in India fashions do not succeed each other so rapidly as at home, and even in last year's bonnet or hat you will not feel yourself demode." HMLS added that most things could also be stitched in India. There were several advice books that provided guarded praise for the durzee or the tailor. In Outfits and Establishments, there was more detail.

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often as necessary and he will turn out a dress very nicely, with strong, neat workmanship." Advice books listed some essentials and HMLS made especial recommendations about formal wear. "The black silk dress has to be really a good one and I should advise, as well as two bodices, two skirts also... in fact you should be able to make two costumes out of one dress. Your evening dresses you will be able to alter with the occasional addition of little extras, such as flowers, ribbons, and so on. If you can afford a lace dress (I should prefer it of white), so much the better; it will outlast many other evening dresses, and lace, even if not of an expensive kind, is always useful, and can be made up over and over again on different coloured silks."

The memsahib had to be cautious when handing out clothes for washing;



Canine Fact



All dogs can be traced back 40 million years ago to a weasel-like animal called the Miacis which dwelled in trees and dens. The Miacis later evolved into the Tomarctus, a direct forbear of the genus Canis, which includes the wolf and jackal, as well as the dog. Ancient Egyptians revered their dogs. When a pet dog would die, the owners shaved off their eyebrows, smeared mud in their hair, and mourned aloud for days.

#TRIED&TASTED Delicious Winter Diet

Soups don't just soothe your soul but also are extremely healthy for the body. What's more? They are super easy to prepare!

Winters are just about here and we can't help but think about all things warm and comforting. And when it's about comfort during the winters, there's absolutely nothing like having a bowl of soup curled up in a quilt on a nippy night. Soups don't just soothe your soul but also are extremely healthy for the body. What's more? They are super easy to prepare! So whether

you are warding off the winter chill or looking for a light and easy comfort meal, a bowl of soup can always come handy. They are a whole meal in itself depending upon the ingredients. Add as much or as little according to your needs and you can have a quick meal or a snack all ready to be savoured. We've got a list of some of the best soups to prepare at home this season and warm up with your loved ones.

Tomato and Jasmine Tea Soup

Ingredients

- 1 Kg tomato
- 2 gram jasmine tea
- 2 gram thyme
- 1 gram Tabasco
- 1 gram truffle oil
- to taste salt
- Garlic bread (optional)
- to taste pepper

Preparation

1. Take the tomatoes, peel and de-seed them.
2. Boil the tomatoes to make a smooth puree.
3. Once it is strained well, add salt, pepper, fresh thyme and Tabasco.
4. In a fresh vessel put Jasmine tea water to boil.
5. Once you get jasmine tea and tomato soup ready, mix them together.
6. Heat the soup, drizzle truffle oil and serve with garlic bread portions.



Almond and Mushroom Soup

Ingredients

- 1/2 Cup almonds, soaked and peeled
- 1/2 cup milk
- 50 gram mushrooms (wiped) and chopped fine
- 2 tbsp butter
- 4 tsp maida
- 4 cups water
- 2 tsp salt
- 1/4 tsp white pepper powder
- 4 tsp cream

Preparation

1. Chop 2 Tbsp almonds and keep



2. Blend the rest of the almonds with the milk.
3. Heat the butter and oil and add the chopped almonds and mushrooms till a little glossy.
4. Add the maida and sauté over low heat till changes colour slightly.
5. Add the water a little at a time, stirring all the time to blend well. (There should be no lumps of maida).
6. Bring to a boil, lower the heat and add the milk and almond mixture, salt and pepper and simmer for 4-5 minutes, stirring off and on to avoid scorching.
7. Serve hot, garnished with the cream.

Mulligatawny Soup

Ingredients

- 1 1/2 tsp vegetable oil
- 3-4 Shallots (diced)
- 10 gram ginger (minced)
- 1 Garlic (minced)
- 1 Green chili (minced)
- Few cardamom seeds
- 1 Cinnamon stick
- 1/2 tsp turmeric powder
- 1 tsp cumin powder
- 1 1/2 tsp coriander powder
- 100 gram red lentils (diced)
- 1 Bay leaf
- 5-6 Black peppercorns
- 100 gram red lentils (masoor dal) soaked for an hour
- 1/2 cup coconut milk
- 1/2 Lime (juiced)
- 1 tbsp tamarind pulp



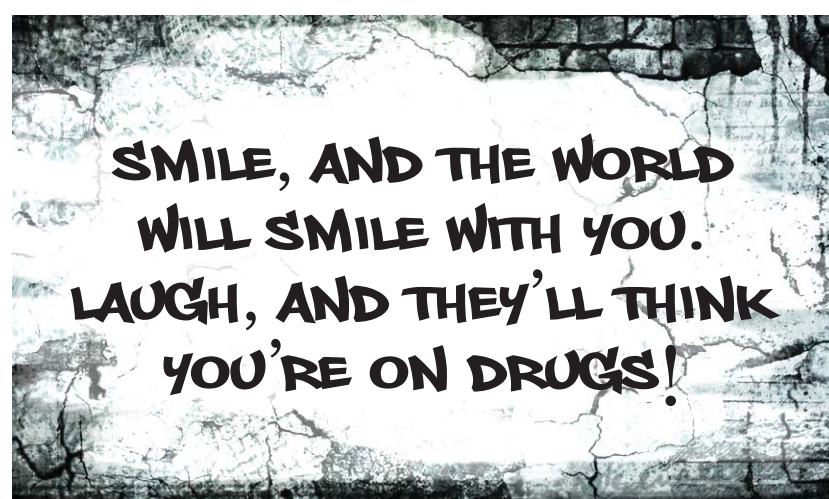
- 1 1/2 litre vegetable stock
- 20 gram apple, grated
- 40 gram carrots, grated
- 1 medium potato, grated
- to season salt and pepper
- 2-3 sprigs fresh coriander leaves

Preparation

1. Heat pan with the vegetable oil, sweat the shallots, ginger, garlic, green chilies.
2. Add all the spices, whole &

- powdered, and cook for 3-4 minutes.
3. Add the soaked lentils, potato, apples, carrots and saute for 3 minutes.
4. Add the vegetable stock and tamarind pulp and simmer till all the vegetables and lentils are cooked.
5. Season to taste.
6. Blend the soup to a smooth puree.
7. Add the coconut milk, fresh coriander leaves and lime juice to finish the soup.
8. Serve hot.

THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman