Overeating may be a brain glitch

By Laurel Mellin, The Conversation

With springtime comes the desire to shed those few extra pounds, in preparation to don swimsuits and head to the pool. This year, new obesity research is making it easier to find a pathway that is right for us.

There is no doubt that weight loss is a higher priority than ever before. Americans have never been fatter, with close to 40 percent obese and 70 percent overweight. Clearly, wishful thinking that the problem is going to go away is not working. Meanwhile, the risk of those extra pounds is ever more apparent. Even one condition, pre-diabetes – with 84 million Americans currently affected – can be daunting, as well as expensive. Moreover, the annual cost of diabetes in the United States is projected to climb to $600 billion by 2030.

We want to lose weight and keep it off, but quick weight loss may not be the answer as it can dramatically slow metabolic rates, making weight rebound more likely. Nor is finding the "right diet" the solution as new research has shown that a variety of healthy eating plans all work similarly well, and with dieting rarely producing lasting weight loss, more people are giving up on weight loss altogether.

I am a health psychologist whose neuroscience research has led me to study the underlying causes of overeating and weight regain, specifically how physiologic stress or "brain stress" sets up a myriad of chemical changes that makes overeating and weight regain almost inevitable. I am convinced that much, if not most, of people's struggles with food are based in the emotional part of the brain, specifically circuits that process stress, or circuits that we can rewire.

Why do people overeat?

One of the primary reasons people overeat and regain lost weight is that they have not changed the underlying behavior that leads them to crave comfort from food. These mechanisms play out mostly in the brain. Studies have shown that they are related to habitual ways of responding to stress that leave us triggered to overeat and awash in the chronic stress that promotes weight regain. It is difficult to overcome physiology with behavior change, medications or surgery, but a new study demonstrated that changing how we process stress changed food behavior without rigid dieting.

The patterns in the brain that control how we respond to stress are "wires." Whether we reach for a cookie or bury ourselves in overwork, our daily responses to stress are the reactivation of instructions of how to respond that were encoded years or decades before. The hand that dips into the cookie jar is driven by the activation of a wire that was encoded during stress long before and unleashes chemical and electrical impulses that make us overeat in our currently daily life.

Traditional weight loss programs have not focused on changing these stress reactions that trigger overeating and I believe this is one reason their long-term effectiveness has been so dismal: Even if people lose weight, two-thirds of them regain more weight than they have lost.

Focus on the brain's habits

The good news is that there are promising ways to retrain the brain and to help people change the way they think about food. In developing a neuroscience-based approach to weight loss, which we call Emotional Brain Training, my colleagues at UC San Francisco and I decided to focus on changing the brain's wiring that triggers stress eating. Our approach was to ask people to focus on something more positive than counting

calories or measuring portion sizes: identify moments when they have cravings, indicating the offending circuit is activated and open to rewiring, and use simple emotional tools to process their stress and change the instructions encoded in that wire to reduce their desire to overeat.

This approach give practical application to the long-established stress-weight link. We know that in times of stress, three brain structures: the amygdala (“fear center”), the hypothalamus (“appetite center”) and the nucleus accumbens (“reward enter”), activate a cascade of biochemical changes that increase hunger, slow metabolism and favor fat deposition.

The missing link has been to find practical ways to control “brain stress” and those overreactions that trigger mindless eating, sugar appetites and food binges. The neuroscience-based approach is to focus on changing our stress wiring, the self-regulatory circuits that are triggered in a matter of nanoseconds that control our response to stress (and whether we eat that cookie or go for a walk instead). These stress wires are stored in parts of the emotional brain that activate automatic, unconscious responses. If we could change those wires, behavior change could be easier and, as activation of these wires contribute to chronic stress, lasting weight loss might be possible.

Survival circuits drive overeating

The specific wires that trigger stress eating and other stress-induced emotional and behavioral patters are called survival circuits. They encode instructions about how to feel, what to think and what to do when stressed and, once encoded, reactivate that response automatically. We all have some of these wires as our hunter-gatherer ancestors survived because of these primal instructions: If they ran to a cave and escaped the jaws of a hungry lion in rapid pursuit, a survival circuit was encoded to ensure the automatic replay of their

response in a similar stressful situation.

However, there's a glitch in the way the brain responds to stress in that the survival instructions that enabled our ancestors to reflexively race to a cave to survive a physical threat were generalized to emotional stress. Any random experience of emotional stress, particularly early in life or in adulthood during those inevitable times of stress overload, encodes this survival drive. If we coped by eating sugary, processed treats, the brain strongly remembers that response based on the associative learning of long-term potentiation, a process of encoding recent experience into circuits that control our strongly ingrained, lasting responses. The brain then reactivates that circuit in response to small daily stresses (to be sure that we "survive") and we find ourselves with strong urges to overeat, as if our life depended upon getting that food.

I call these survival drives "food circuits" and once one has been encoded, dieting becomes very stressful as the circuit tells us that we need to overeat to meet our survival needs (safety, love, protection, security). We can eat healthy for a while, but when stress comes our way, our food circuit fully activates, and we cannot do what we "should" do and stay with our diet. Instead, we surrender to the instructions encoded in our food circuit to eat sugary, fatty foods that cause blood sugar highs followed by blood sugar lows that trigger hunger, stress, lethargy and weight grain. We are caught in a vicious cycle of dieting, weight loss, overeating and weight regain.

Zapping these circuits

What can we do about these wires? Researchers at New York University have opened the doors to using neuroplasticity to erase stress circuits. They found that these circuits could be rewired, but only if we intentionally activate a momentary level of stress that matched the stress level we were in when the circuit was encoded. We cannot relax our way to rewiring

these circuits or think our way around them. We needed to learn how to stress activate them in order to change them.

The Emotional Brain Training approach draws upon this research, but involves two steps. Initially, participants target and weaken the circuits. Instead of counting calories, grams or points, they profile the circuits that trigger their overeating. They then use a technique that stress activates the offending drive and reprocesses the emotions stored in the circuit. This changes the wire's faulty instructions that promote overeating into instructions to eat healthy. Second, after their drives for comfort food fade, they turn their attention to eating healthy and losing weight.

The field needs more research, but the approach is promising. A recent study showed sustained improvements in physiologic stress in a seven-week controlled clinical trial that EBT but not the behavioral comparison group maintained improvements in the stress that underlies weight regain at 20 weeks. In an observational study conducted at UCSF, researchers followed participants after 18 weekly trainings on the method's tools and showed sustained weight loss even two years later, the first intervention to avoid the "V" shaped weight loss curve of obesity treament: losing weight during the treatment, then rapidly regaining it thereafter.

Moving from dieting to rewiring

As obesity causes both personal suffering and a budgetary health care crisis, perhaps it's time to reinvent the wheel. Our relentless pursuit of changing what we eat without changing the brain's habits that cause the stress that promotes overeating and regain needs updating.

Using brain-based methods to make it easier to push away from the table and eat healthy could help turn around the nation's obesity epidemic and, on an individual level, make it easier to peel off those extra pounds and enjoy our summer weekends

at the beach.

Laurel Mellin is an associate clinical professor of family and community medicine and pediatrics at UC San Francisco.

Oil lease plan for Nev.’s Ruby Mountains reopened

By Benjamin Spillman, Reno Gazette-Journal

It’s almost time for the Forest Service to make a recommendation on a proposal to offer oil and gas leases in Nevada’s Ruby Mountains.

But first the agency is giving the public another chance to weigh in.

“We want to make sure if there is any new information out there we didn’t receive the first go around we get it and we consider it like we are supposed to,” said Joshua Nicholes, acting district ranger for the Mountain City, Ruby Mountains, Jarbidge Ranger District of the Humboldt Toiyabe National Forest.

Read the whole story

Snippets about Lake Tahoe

· Kahle Community Center in Stateline offers different

types of classes with new sessions starting soon. Classes being offered are Zumba, Jazzercise, yoga, Pilates, dog obedience, Tae Kwon Do and Philippines stick fighting (Arnis). For more information, call 775.586.7271.

· El Dorado County is hosting a meeting April 18 from 6-8pm at the magnet school to discuss problems and possible solutions to the traffic concerns in the Tahoe basin on Sundays and holidays.

· South Tahoe Vikings Booster is having a shredding fundraiser April 20, noon-3pm at the American Legion parking lot. Cost is $10 per legal storage box.

· Grocery Outlet is on the April 17 Truckee Planning Commission agenda. The meeting starts at 6pm in council chambers.

· Here are the El Dorado-Tahoe and Sierra roadwork schedules for the week.

Sierra to end season with appreciation day

Sierra-at-Tahoe will honor guests with Customer Appreciation Day on April 16.

All season passholders may ski or ride for free, with lift tickets available for $35. All proceeds from lift tickets will benefit youth recreation and education including baseball, soccer, swimming and other youth activities in South Lake Tahoe.

Sierra-at-Tahoe will operate a limited number of lifts from

10am-2pm, including Grandview Express and Easy Rider Express. All guests are invited to join General Manager John Rice and the rest of Sierra's team for the official "last run of the season" from the top of Grandview Express beginning at 2pm. Last call at the Sierra Pub will be 2:45pm, in time for the ending of all winter operations at 3pm.

Official pursues Nevada-California cooperation on gun safety

By Natalie Bruzda, Las Vegas Review-Journal

Nevada and California are "brothers and sisters in more ways than other states can say," and the Route 91 shooting cemented that notion even further, California Attorney General Xavier Becerra said Friday during a gun policy discussion at UNLV.

"Thirty-three of the 58 people who died on Oct. 1 were from California, and I suspect many of the others were transplants from California," Becerra said. "What we do impacts you and what you do impacts us. We have every reason to try to work together."

Becerra spoke Friday during the first in what will be a yearlong series of discussions at UNLV's Boyd School of Law on solutions for reducing gun violence.

Read the whole story

White House, Congress side with Calif. growers to raise Shasta Dam

By Carolyn Lochhead, San Francisco Chronicle

WASHINGTON — Congress and the Trump administration are pushing ahead with a plan to raise a towering symbol of dam-building's 20th century heyday to meet the water demands of 21st century California — a project backed by San Joaquin Valley growers but opposed by state officials, defenders of a protected river and an American Indian tribe whose sacred sites would be swamped.

The fight is over Shasta Dam, at 602 feet the fourth-tallest dam in California and the cornerstone of the federal Central Valley Project, which provides water to cities and farms throughout the state. One of its biggest customers is the Westlands Water District in the arid western San Joaquin Valley, which distributes water to numerous large farms.

With enthusiastic support from Westlands, the Trump administration and Republicans in Congress want to raise the dam 18½ feet to store more water and guard against losing farmland to future droughts. Some farmers in the valley received no water at all from the Central Valley Project for two straight years during the five-year drought that ended with the winter of 2016-17.

Read the whole story

Verizon looking to install cell tower in S. Lake Tahoe

Verizon is looking to put up a 90-foot cell tower near Mt. Tallac High School in South Lake Tahoe.

It would be a monpine communications tower.

Public comments on the project are being taken until early May.

The Federal Communications Commission is investigating the environmental effects. Environmental concerns may be raised by going **online**.

Road Beat: Land Cruiser, not the biggest, but perhaps the best

Land Cruiser is well known for its world-class performance. Photos/Larry Weitzman

By Larry Weitzman

In its current generation, the Land Cruiser is several years old, but that hasn't stopped the refinement of one of the world's best automobiles in terms of comfort, handling, utility, performance and value. Some of you might question that value when the LC with full time four-wheel drive stickers for nearly $85,000. The answer is easy. Land Cruiser provides you with the luxury of some of the best luxo rides in the world, build quality that is above reproach, near world class performance and the utility of a moving van in a package that 5inches short of 200 inches, 78 inches in breath and 6-feet-2-inches tall.

Land Cruiser rides on a long 112-inch wheelbase and in reality, could be considered a large mid-size SUV, not a full size even though its strong, squared muscular shoulders, strong flanks and 65 inches of track make seem bigger than it

really is. While it looks upright, the design is kept simple and smooth with perfect proportions and limited add-ons. Consequently, LC's coefficient of drag is a remarkably low 0.35. The window line is next to perfect and it is a great looking packaged first developed nearly 20 years ago. Toyota was smart to only refine what was already a great looking ride, making this year's rendition the best yet.

Under the hood is Toyota's iForce, long stroking 5.7L, DOHC, 32 valve V-8 that produces 381 hp at a low 5,600 rpm and a stout 401 pounds of twist at another low 3,600 rpm. This baby makes prodigious power as demonstrated at the quickness it can move its curb weight over 5,800 pounds (meaning a test weight of well over 6,000 pounds especially with a full fuel load of nearly 25 gallons). Zero to 60 mph arrives in a near world class 6.24 seconds, a time that a 400 (gross) hp 1960 Chrysler 300F could only dream about. Passing performance is also commensurate with 50-70 mph acceleration taking 3.45 seconds on level ground and just 4.73 seconds up a 6-7 percent grade. That is getting it done. One more note is the engine's sound and feel. It doesn't get any better or sweeter.

Specifications

Price $83,665 to about $87,160

Engine

5.7L, DOHC, 32 valve V-8
381hp @ 5,600 rpm
401 lbs.-ft. of torque @

3,600 rpm

Transmission

Eight-speed electronically controlled automatic

Configuration

Longitudinal front engine/all wheel drive

Dimensions

Wheelbase 112.2 inches
Length 194.9 inches
Width 77.95 inches
Height 74.0 inches
Ground clearance 8.9 inches
Track (f/r) 64.9/64.7 inches
Weight 5,815 pounds
GVWR 7,385 pounds
Weight Distribution (f/r) 51/49 percent
Towing capacity 8,100 pounds
Fuel capacity 24.6 gallons
Cargo capacity third row removed, second row folded 83.1 cubic feet
Turning circle 38.7 feet
Steering lock to lock 3.14 turns
Wheels 18X8.0-inch alloys
Tires 285/60 HR mud and snow
Coefficient of drag 0.35

Performance

0-60 mph 6.24 seconds
50-70 mph 3.45 seconds
50-70 mph uphill 4.73 seconds
Top Speed Electronically limited to 137 mph
Fuel economy EPA rated at

13/18/15 mpg city/highway/combined. Expect 15 mpg in rural country driving and 20-21 mpg on the highway at legal speeds.

Helping this remarkable defiance of gravity and Newton’s first and second law is an eight-speed torque converter automatic cog-swapper that is smoother than a baby’s butt and as responsive as a bull with a rider coming out of the gate.

On the other side of the coin and this LC requires a bit, is fuel consumption. The EPA test cycle says the big LC should return 13/18/15 mpg city/highway/combined. In real life it does perhaps 10 percent better. With the cruise control set at 70 mph on a level highway in a two-way run the LC averaged 20.9 mpg. The engine spins just 1,650 rpm at 70 mph, which is not far above idle. Overall the fuel economy was about 15 mpg in 500 miles of aggressive driving with only five percent of that time on a four-lane level freeway and with significant use of that delicious throttle. In a 200-mile round trip from Placerville to Carson City via Highway 50 the LC averaged a very good 18.7 mpg. So, yes, the LC by today’s standards is not a fuel miser, but compared to the big 6-7.0L V-8’s of the late 1950s and 60s, the LC would blow the doors off of most of those offerings and get significantly better fuel economy, too boot. Everything needs to be in context. The Land Cruiser considering its size and performance is surprisingly economical.

Suspension is what Toyota calls Kinetic Dynamic Suspension System, with double wishbones up front and a four-link system in the rear. It is a solid axle with four locating arms with coils in all four corners and big stab bars at each end. Eighteen by eight-inch alloys are shod with fat 285/60 series rubber and the steering is reasonably quick 3.14 turns lock to

lock. The bottom line is heavy vehicles don’t like to change directions, but this LC does it well with lots of grip from those wide tires. And its not so top heavy to give you an uneasy feeling. I really enjoyed the LC in the twisties and I am sure most other cars I encountered were a bit surprised as to its agility. It will surprise you too. Even when the road was damp from rain it was extremely secure in high speed turns. Turning circle is a reasonably tight 38.7 feet.

But now to the best part, ride quality and this is where the LC competes or even outshines vehicles costing tens of thousands more. First it is about the most solid vehicle the Road Beat has encountered. A literal bank vault on wheels. It is also one of the quietest, smoothest and best riding vehicles ever encountered by the Road Beat, soaking up all road imperfections like a Tempurpedic mattress. There is absolutely no float as it literally sucks up the bumps, big ones, little ones, dips, speed bumps and even curbs. Off road, that first scratch on its magnificent finish will be a killer, so be careful.

LED headlights are outstanding on both high and low beams with the added feature of automatic high beams. Just leave them in auto, it will not only amaze you but keep you safer. Brakes are strong and huge with four-wheel ventilated discs of nearly 14 inches diameter. All the safety acronyms are here, too.

Inside is sublime luxury with semi-aniline perforated leather seating and any seat in the first two rows is a treat to be in. All four are heated with the fronts being ventilated as well. This LC exudes luxury in the doors, dash covering and center console.

Instrumentation is complete with a big tach and speedo and four ancillary gauges plus a complete trip computer. The center stack is touch screen and easy to use. You will be up to speed in about five minutes and the sound system is about equal to Carnegie Hall.

Cargo capacity is voluminous, over 81 cubes behind the front chairs and 43 cubes behind the second row with the third row folded. It still has 16 cubes behind the third row when in use.

Sticker shock is $84,960, including the boat from Aichi, Japan. My tester had the $2,200 rear entertainment system bringing the total to $87,160. But this isn’t your ordinary Camry, the Land Cruiser is a special vehicle. One passenger who owned a 1994 LC remarked how the character of the LC remained the same, just improving the luxury and capabilities, but the feel was quite similar, like riding in an impregnable bank vault. That pretty much sums it up, except for it will be the most comfortable bank vault you will ever experience.

Larry Weitzman has been into cars since he was 5 years old. At 8 he could recite from memory the hp of every car made in the U.S. He has put in thousands of laps on racetracks all over the Western United States.

Minor league park a treat for baseball fans

The River Cats know how to entertain a crowd with baseball and gimmicks in between innings. Photo/Kathryn Reed

By Kathryn Reed

WEST SACRAMENTO – The crack of the bat, the roar of the crowd – those are the same at any ball field. It's the antics between innings and the grass beyond right field that makes this park a little different.

While the game is the same, there is something special about a minor league stadium. It's intimate, much like being at spring training.

The River Cats have been playing at Raley Field in West Sacramento since 2000. In 2015, they became the triple-A affiliate for the San Francisco Giants.

A fan in hopes of catching a foul ball. Photo/Kathryn Reed

Not a bad seat in the house. It’s all field level seating, with the second tier being the suites.

Plus, it’s much more affordable than going to a Big League game. It was comical seeing people with armloads of hot dogs. On Tuesdays they are only a buck, with 10 being the max one could buy.

On Wednesdays dogs are welcome in the grass area.

Based on the attire, most people were Giants fans. Still, many were there as fans of the sport – not necessarily the River Cats or visiting Aces from Reno, which is an Arizona Diamondbacks affiliate.

Food goes well beyond the ordinary hot dog. Photo/Kathryn Reed

The quality of ball is sporadic, but then the same could be said of the Giants at this stage of the season.

This is where those who are on the edge of making it to the show are honing their skills, while those whose glory days are in the rearview mirror are hanging on to a fading dream. As a Giants fan, it was great to see Hector Sanchez behind the plate. Mac Williamson, who was called up last season, is back in right field for the River Cats.

Opening night last week was my first time to visit to this ball park. I'll be back.

Editorial: Calif. lacks a job-friendly economic policy

Publisher's note: ***This editorial is from the April 7, 2018, Orange County Register.***

Amazon’s second headquarters, a shiny object dangled in front of revenue-hungry government officials across the country, appears to be headed for someplace other than California.

The project known as “HQ2” is likely to land in northern Virginia, some observers believe, where Amazon recently located the headquarters of its cloud business a short distance from the site that was pitched for HQ2. It’s also close to the 44-acre site where the company is planning a new data-center campus.

Other Amazon-watchers predict that Atlanta will get the nod for the project, which the company says will bring $5 billion in investment and 50,000 jobs, many of them paying six-figure salaries.

Read the whole story