

SPECIAL POINTS  
OF INTEREST:

- Understanding and preventing Cavities
- Tips on rehydrating after exercising or staying in heat
- Health risks of sitting too much
- Wellness Center Services information

INSIDE THIS  
ISSUE:

Tips on staying hydrated 2

Processed food may disrupt gut microbiome 2

Broken rice with grilled pork chop and meatloaf 3

Slow cooker beef roast 3

Sitting too much? 4

Students: Would you like to be PAL? 4

Katrina 10 year memorial service event 5

Stay on track with fitness apps 6

# The Healthy Balance

VOLUME II, ISSUE III

AUGUST, 2015

## Welcome to Fall!

Along with the end of the summer semester and the start of the fall semester, we are pleased to bring you another issue of the Healthy Balance.

First, I would like to welcome all of the new students, staff and faculty who are joining the LSUHSC family starting this fall semester.

In this issue of the healthy balance, we explore at different ways to stay hydrated. We also have your appetite covered with delicious new recipes!

Further in the issue, explore the option of being PAL and study regarding effect of certain processed food on gut microbiome. Don't forget to avoid sitting too much!

We would also appreciate everyone join us in the 10 year Katrina memorial service event. As many people may know, Katrina was a devastating hurricane that hit New Orleans in 2005. It is one of the most costliest natural disaster that caused a lot of damage. However,

much progress has been made since the disaster and the community has recovered a great deal. This memorial event will constitute several volunteering events and Evacuteer training, more details on page 5.

Lastly, keep track of your fitness schedule and goals by taking advantages of smartphone apps.

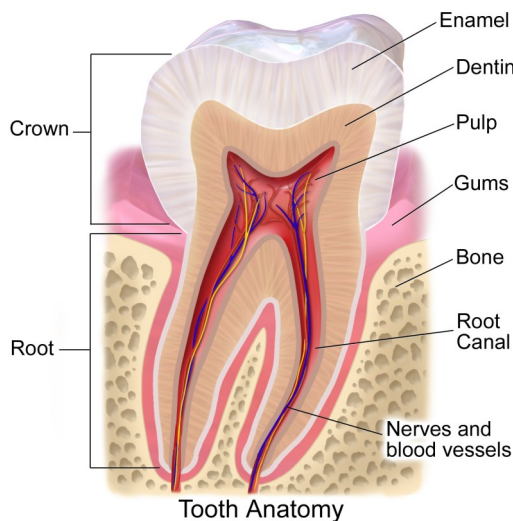
Remember to be fit, be healthy, and be balanced!

-Swornim M Shrestha, Editor

## Understanding and Preventing Cavities

By Jack W Daigrepoint

The development of dental caries, or a cavity, requires three things: a tooth, bacteria and substrate. While all teeth are susceptible to developing a cavity, proper oral hygiene and monitoring leads to better oral and systemic health. A cavity starts in the enamel, the outermost layer of a tooth. Certain oral bacteria colonize the teeth, forming biofilms which metabolize dietary sugars for energy while producing acid as a byproduct. The acid produced by these bacteria weakens the mineral structure of enamel. Over time, prolonged and repeated exposure to acid leads to increased porosities in the enamel, allowing bacteria to enter the



tooth and reach the deeper layer: the dentin. Once beneath the enamel, the bacteria continue to spread, and the cavity increases in size. Once a cavity has progressed into this stage, the only way to

treat it is to remove the infected tooth and restore it with a filling. The good news is that these biofilms of acid producing bacteria can be mechanically disrupted by brushing the teeth. Fluoride containing toothpaste delivers fluoride ions, which help remineralize superficial enamel cavities. Avoiding frequent snacking helps reduce the number of 'acid attacks' and is vital to decreasing the rate of cavity development. Limiting sugar intake also helps reduce the amount of acid that bacteria produce. With dietary planning and brushing after meals, a reduction in cavities and a better overall health can be achieved.

## Tips on staying hydrated By Lauri Byerley, PhD



**“Before exercising or spending time in heat drink 1 oz of water for every 10 lbs body weight”**

Water is an essential nutrient. We cannot live long without it – only a few days. The heat of the summer always reminds me the importance of this nutrient. Staying hydrated is the best way to survive the summer heat. What is the best hydration beverage? Water!

Here are a few hydration tips. It is important to hydrate several hours before you go outside and then replenish your fluid loss during and after you are outside.

*Before exercising or spending time in the heat:* Drink 1 oz of water for every 10 lbs body weight. For example, if you weigh 180 pounds you should drink 18 oz. (A cup is

8 oz, so 18 oz is 2 ¼ cups.) Drink this slowly over several hours before you exercise. Do not guzzle. You want to give your body time to absorb the fluid. Don't worry if you urinate during this time. That is a sign you are hydrated.

*After exercise or being in the heat:* The amount of fluid you need to drink after exercise or being in the heat depends on the quantity of fluid you lost. There are two ways to determine how much fluid you lost. The best way is to weigh yourself before and after. Be sure to weigh yourself in the same clothes including shoes. Often, a scale is not available. Instead, you can check the color and quantity of your urine. The best color is pale yellow. If your urine is darker, than you need to drink more water. Be sure to start replacing your fluid losses as soon as possible.

Remember, sweat contains electrolytes, particularly sodium and po-

tassium. If you sweat profusely, you need to replace these electrolytes. Eight oz of sweat generally contains 200-300 mg sodium and 40-50 mg potassium (5:1 ratio sodium to potassium).

Many people drink sports beverages like Powerade or Gatorade. Beware, you may consume a considerable amount of calories before hydrating yourself adequately. Check the Nutrition Facts label for sugar, sodium and potassium content. Because these beverages are high in calories for the amount of sodium and potassium, I recommend food and water instead.

Many foods combined with water are an excellent way to replace your water, sodium and potassium losses. For example, 1 cup diced watermelon with six dashes of salt provides 930 mg sodium, 170 mg potassium, and 4-5 oz water. Don't use salt pills to replace sodium.

## Processed foods may disrupt gut microbiome by Denise Capps



**“PS-80 and CMC in mice food promoted adiposity, metabolic syndrome, and colitis in wild-type mice.”**

A study published in March 2015 Letter in Nature magazine indicates that additives in certain processed foods may have the ability to disrupt the gut microbiome leading to colitis and metabolic syndrome. Chassaing and Gewirtz of Georgia State University studied the effects of polysorbate-80 (PS-80) and Carboxymethylcellulose (CMC) in mice. PS-80 and CMC are dietary emulsifiers found in foods such as ice cream, non-dairy creamers, salad dressing, breads, biscuits, margarines, peanut butter, chewing gum, and baby formula, to name a few. The researchers found that PS-80

and CMC act on the gut microbiota in two major mechanisms: (1) they allow the microorganisms to more directly interact with the epithelium of the colon which induces an inflammatory reaction and (2) alter the species composition of the gut microbiome. Both PS-80 and CMC are FDA approved for human consumption as food additives in concentrations up to 1% and 2%, respectively. The FDA considers PS-80 and CMC generally regarded as safe (GRAS) but neither have been extensively studied. Chassaing and Gewirtz studied PS-80 and CMC in the same concentrations as are FDA-approved for human use and 0.1% concentration as well. Both 2%, 1% as well as 0.1% concentrations of PS-80 and CMC in mice food promoted adiposity, metabolic syndrome, and colitis in wild-type mice, mice predisposed to metabolic syndrome, as well as mice generally regarded as obesity-resistant. These results echo similar

results found in a September 2014 article of Nature by Suez and others who researched the effects of the artificial sweetener, saccharine, on the gut microbiome. Suez and others found that saccharine exacerbates metabolic syndrome through the disruption of the host-microbiome interface.

When reading food labels, PS-80 is also called Tween 80 and Polyoxyethylene Sorbitan Mono-Oleate; CMC is also called Cellulose Gum and is produced by the Dow Chemical Company.

These studies have many implications. How our food affects the gut microbiome is a topic that should enter our dialogue of what means to eat healthy? The original articles can be found at: [goo.gl/aAn94E](http://goo.gl/aAn94E), [goo.gl/l4ISyn](http://goo.gl/l4ISyn)

# Try something new!

## Broken Rice with Grilled Pork Chop and Meatloaf By Khanh V Do



Picture courtesy: [www.danangcuisine.com](http://www.danangcuisine.com)

**What you need:** *For Pork chop:* 2 pcs Pork chop, 1 tbsp minced lemongrass, 1tbsp Garlic, 1 tbsp fish sauce, 1 tbsp soy sauce, 1bsp honey, 2 tbsp vegetable oil. *For Meatloaf:* 40g bean thread, 1/2 cup dried wood ear mushroom, 4 eggs, 200g minced pork, 3 tbsp shallot, 1 tbsp fish sauce, 1 tbsp vegetable oil, 1/2 tsp salt, 1/2 tsp pepper. *Other ingredient:* 3 cups broken rice, 1

medium tomato, 1 cucumber, 1/2 cup pickled daikon and carrots, and 1/4 cup scallion oil.

**What to do:** *To make grilled pork chop* 1) Mix the minced lemongrass, garlic, soy sauce, fish sauce, honey, and vegetable oil in a bowl. 2) Rub the marinade on both sides of pork chop and set aside it aside overnight or few hours

(marinating overnight will allow the flavor to seep through pork more). 3) Preheat oven to 375F and bake the pork chops for 15 minutes. Turn and bake them for 15 more minutes. *To make the meatloaf.* 4) Crack 4 eggs in a bowl and separate the 2 yolks and put them in a separate bowl (separating yolks is not essential). 5) Beat the eggs and add the chopped bean threads, minced wood ear mushroom, shallots and meat. 6) Season the mix to your taste with salt, pepper, fish sauce, and vegetable oil and mix 7) Line a square

mold/container with food plastic wrap and add the meat mixture. 8) Steam the mixture for 30 minutes in a steamer. (If you don't have a steamer handy, you can find alternatives at <http://goo.gl/jkFyzs>) 9) Open the lid and spread the reserved egg yolks on the surface of the meatloaf if you separated the egg yolk before. 10) Steam for another 5 minutes, uncovered to achieve a meatloaf with yellow surface. 11) Wash the broken rice a few times until water becomes clear and cook the rice. 12) Assemble the dish by compressing the cooked broken rice in a bowl and turning it upside down on a plate. 13) Add cucumber and tomato slices, pork chop, pickled daikon, and carrots. 14) Top the rice and pork chop with some scallion oil. 15) Serve with a bowl of Vietnamese dipping fish sauce.

More details on the recipe can be found at <http://goo.gl/Vwtjtz>

## Slow Cooker Beef Roast By Rebecca Crawford

**What you need:** 2lb beef roast (I used shoulder roast), Smoked Paprika, Black Pepper, Cayenne, Chili powder, Ground Ginger, Cinnamon, Salt, 1.5 cups Beef Broth, 1/2 onion (chopped), 3tbsp Balsamic Vinegar

**What to do:** 1) Rub the roast with the paprika, black pepper, cayenne, chili powder, ground ginger, cinnamon, and salt. 2) Use your judgment for how much of each spice you want, but don't be shy. 3) Place the roast in the slow cooker and add the beef broth, onion, and balsamic vinegar. 4) Cook on low for 8 hours. 5) Serve over spicy, mashed, sweet potatoes and enjoy with your favorite, green veggie for a delicious dinner.

This recipe was adapted from Performance Paleo.



# Sitting too Much?

By Nigel Baron

**“People who sit for long periods throughout the day had higher risk for developing cardiovascular disease – even if you exercise.”**

Recent reports have noted that sitting too much during your work or school day can lead to dangerous health consequences. According to researchers, people who sit for long periods throughout the day had higher risk for developing cardiovascular disease, diabetes, and even cancer – even if you exercise! So you may have to do a self-evaluation and ask – “How many hours per day do I sit?” This evaluation should include home, work, and school sitting.

If your outcome is 8 or more hours of sitting, then there are some simple things you can do to offset your sitting. Use your smart phone as a reminder to move. Set your smart phone to



“alarm” and get up and move! You don’t need a special app to do this. Also moving around while studying will help you re-

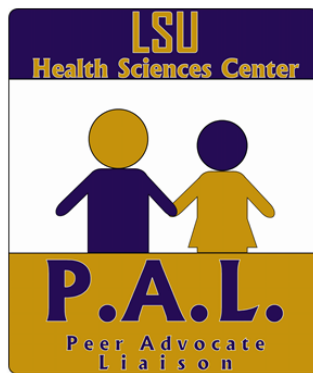
tain more information in the long run. Walk to Wellness – use it! You don’t have to walk a mile. Get up walk down and walk up a couple of times per day. As a matter fact intermittent bouts of exercise is just as effective as longer bouts of exercise. Stand up at your desk and use your computer. Standing burns more calories than sitting. Instead of sending an email to a coworker or classmate, walk and give them the message. They may be happy to see you. There are many things that you can do to get moving.

If you need help figuring it out, contact us at the Wellness Center – [wellness@lsuhsc.edu](mailto:wellness@lsuhsc.edu).

**“PAL representatives are not crisis counselors, but rather a link to resources for students in need.”**

## Students: Would you like to be a PAL?

By Lauren Garnier



The LSUHSC Peer Advocate Liaison (PAL) program was developed several years ago to address the needs of students who may be having personal or academic difficulties, and are more likely to seek guidance from their classmates. Each year, the PAL pro-

gram seeks to identify students in each school, and ideally in each class, who are willing to be available to other students who are seeking assistance or experiencing a crisis. PAL representatives are educated about resources that are available to students, on and off campus. PAL representatives are not crisis counselors, but rather a link to resources for students in need.

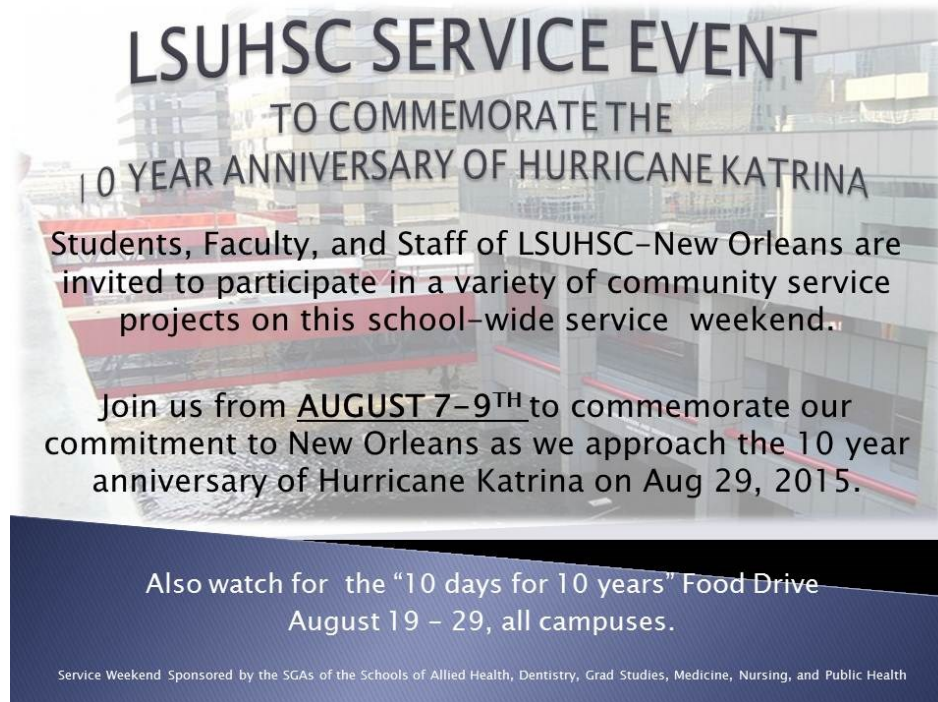
Campus Assistance Program (CAP) staff serve as coordinators of the PAL program, and advisors to PAL representatives. CAP is currently in the process of identifying the new PAL representatives for all of the schools, and a PAL orientation session will be scheduled during the Fall semester. There are occasional PAL

meetings throughout the year to discuss upcoming events, such as the annual Resource Fair or educational presentations. PAL representatives are encouraged to assist in planning and coordinating these events. They are also encouraged to coordinate and promote health and wellness-related activities within their own classes or schools.

If you are interested in learning more about the PAL program, contact CAP staff at [cap@lsuhsc.edu](mailto:cap@lsuhsc.edu). More information about the PAL program is also available at: <http://www.lsuhs.edu/orgs/campushealth/pal.aspx>.



# KATRINA 10 YEAR MEMORIAL SERVICE EVENT



**LSUHSC SERVICE EVENT**  
TO COMMEMORATE THE  
10 YEAR ANNIVERSARY OF HURRICANE KATRINA

Students, Faculty, and Staff of LSUHSC–New Orleans are invited to participate in a variety of community service projects on this school-wide service weekend.

Join us from **AUGUST 7–9<sup>TH</sup>** to commemorate our commitment to New Orleans as we approach the 10 year anniversary of Hurricane Katrina on Aug 29, 2015.

Also watch for the “10 days for 10 years” Food Drive  
August 19 – 29, all campuses.

Service Weekend Sponsored by the SGAs of the Schools of Allied Health, Dentistry, Grad Studies, Medicine, Nursing, and Public Health

## Schedule of Service Events

### • **Friday 8/7**

- St Bernard Project (8am-12pm shift, 1pm-5pm shift) Rebuild houses in New Orleans during one of two half-day shifts.
- Youth Rebuilding NOLA (9am-3pm) Rebuild houses for teachers in New Orleans, with a group in a full day shift.
- New Orleans Mission (5:30pm - 7:30pm)- Make and serve dinner for shelter members.
- Green Light NOLA - Help provide energy efficient home solutions with Green Light (groups will meet in the morning and receive instructions on distribution of energy efficient lights)
- Lafitte Greenway (8am - 9am) - Beautify Lafitte Corridor Greenway.
- Second Harvest Food Bank (9am-12pm) - Assist with sorting and distribution of donated food items.
- Dental School Thank-a-thon

### • **Saturday 8/8**

- St Bernard Project (8am-12pm shift, 1pm-5pm shift) Rebuild houses in New Orleans during one of two half-day shifts.
- Habitat for Humanity Build (7:30am - 3:30pm)
- Campus Garden Project [time TBD]

### • **Sunday 8/9**

- First Responder Thank-you Meals [time TBD]. Make a meal in a group for a police station, fire station, EMS site to say a special thank you to our first responders of NOLA. Sign up as a group to receive your station assignment.

### • **Monday 8/10**

- Evacuteer Training Session 4pm-5:15pm. Train to assist in the event of a mandatory evacuation of the city. (Note: This training is for volunteers to assist in organization of evacuation. All students are still advised to evacuate in the event of a mandatory evacuation. Involvement with Evacuteer will not keep you in N.O., you will have the time and ability to evacuate.)

• Food and Toiletry Supply Drive for the Rebuild Center will take place over 10 days leading up to the anniversary of the storm, Aug 19-29.

• If you do not have the chance to participate in one of these activities, we hope that you join one of the many volunteer opportunities at LSUHSC during the month of August and log your hours with us!

Also, please consider donating to our partnering organizations. All organizations listed on Katrina 10 LSUHSC webpage Visit <http://www.medschool.lsuhschool.edu/sga/katrina-10-year/> and use the sign up link at the top of the page



## LSU Health Science Center Wellness Center

Stanislaus Hall – Floors 3 and 4

Direct Line – 504-568-3700

Fax – 504-568-3720

Email – [wellness@lsuhsc.edu](mailto:wellness@lsuhsc.edu)

Web – [www.lsuhs.edu](http://www.lsuhs.edu)

Manager – Nijel Baron, [nbaron@lsuhsc.edu](mailto:nbaron@lsuhsc.edu)  
or via text 504-234-4800

**LIKE US ON FACEBOOK!**

**Be healthy, be fit, be balanced!**



*The Healthy Balance* is a student run newsletter with the goal of providing information intended to promote health and wellness to students and employees of LSUHSC as well as throughout the New Orleans area. We are comprised of graduate and medical students, as well staff from the Wellness Center and the Campus Assistance Program who are passionate about good health.

If you are interested in submitting an article for publication, have an idea of something you would like to see covered in an upcoming issue or just want to give some feedback please contact Swornim Shrestha ([sshre3@lsuhsc.edu](mailto:sshre3@lsuhsc.edu)).

# Stay on Track with Fitness Apps By John Maxi

Sometimes that hardest part of working out is deciding what exercises to do. Should I work on a certain body part today? My whole body? Lift heavy weight or light weight? These are the decisions that can really take the momentum out of a workout and waste time. However, thanks to smart phones, anyone can now carry around a personal trainer in their pocket. There are lots of options available; I personally use Jefit. Jefit has pre-designed workouts to achieve different goals. In addition, Jefit allows users to upload and download custom made



workouts so anyone with an account can try them. Once you pick a routine, it takes the decision making out of deciding how to workout. You simply

open the app, push start, and follow the instructions. Jefit has animated pictures to demonstrate how to perform the exercise, keeps track of your performance and counts down the time between sets. At the end of the workout, Jefit displays the time spent exercising and the total amount of weight lifted. Apps like Jefit can help you stay focused and get the most out of your workout. John Maxi has no financial relationship with Jefit.