Welcome to the BULLetin!

Healthy People 2010

The statistics are staggering. Both in pure numbers and in financial expenditures, the increasing burden of “sick-care” threatens the security and health of our nation. Well aware of the threat, the federal government rolled out its *Healthy People 2010* campaign several years back. *HP2010* is “a set of health objectives for the Nation to achieve over the first decade of the new century. It can be used by many different people, states, communities, professional organizations, and others to help them develop programs to improve health.” As we approach the 2010 mark it is a good time to review the goals and to see how close we are to our mark and what we can do to accelerate the process.

First for a touch of history. *Healthy People 2010* was built on initiatives including the 1979 Surgeon General’s Report, *Healthy People*, and *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Like its predecessors, *HP 2010* has been a “team” effort. It was developed through a broad consultation process with more than 350 national membership organizations and 250 State health, mental health, substance abuse, and environmental agencies. Additionally, through a series of regional and national meetings and an interactive Web site, more than 11,000 public comments on the draft objectives were received and specific goals were established. (cont. on Pg. 2)

Editor’s Corner

This is it folks, the 2nd edition of your BULLetin hot off the presses. It’s hard to believe 2007 is almost on the down-slope but here we are deep into July and it is hot. Familiar faces from the class of 2007 have found new homes in residencies across the country and a new class of accomplished 1st years will soon re-define the campus culture with their own unique flavor.

Since we received loads of positive feedback about the 1st BULLetin and about my article “Golden Reflections,” in particular, I wished to give you a quick follow-up. When the heads of the Surgery Dept. read my article they were shocked that anything of this kind would happen on their watch. They immediately initiated dialogue and sought to make productive changes. In fact I was invited to share my piece and be a part of the dialogue at M and M conference soon after. Taking it even further, Dr. Richard Karl, chief of the Surgery Dept. has now scheduled follow-up grand-rounds with Dr. Martha Brown (a specialist in abuse and impairment) and has also founded the first ever Committee on Standards. This committee will be establishing a code of conduct for both doctors and students alike as they train, teach and practice surgery here at USF. Dr Karl and the Surgery staff are to be applauded for their continued commitment to creating an empathetic, patient-centered surgery dept; and for those of us who loved the clerkship Dr. Goldin works hard to create every year, that is all great news! (by the way, check out my review of Dr. Karl’s book on page 14)

So for those of you who think your opinion doesn’t matter cause’ you’re just a student; or that staff and faculty don’t listen to legitimate patient-centered concerns, let’s talk!

In this edition we’ve chosen to focus on Obesity. The perspectives voiced throughout the 28 pages are diverse, and are intended to challenge and inspire as we face the rising epidemic together. There are also a pot-pouri of interactive quizzes, new highlights such as our Letter’s to the Editor and EBM Wellness sections and so much more. We hope you will enjoy perusing the contents and look forward to your feedback on how we can continue our tradition of excellence.

“Be the change you wish to see in the world.”

Seek Health,
Stephan Esser
Editor
sesser@health.usf.edu
Healthy People (cont. from page 1)

The 2 main goals are:
1: Increase Quality and Years of Healthy Life
2: Eliminate Health Disparities

In an effort to quantify these goals, HP2010 established 28 health focus areas: including: Nutrition and Overweight/Heart Disease and Stroke/Diabetes/Arthritis/Cancer/Physical Activity and Fitness. HP2010 also catalogued 10 “Leading Health Indicators” to monitor thru 2010. These were: physical activity, overweight and obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, immunization and access to health care. By following these key indicators HP2010 hopes to determine national trends and to then outline strategies to make improvements where needed.

HP2010 is an excellent road map for us as future physicians. It clearly outlines the major health challenges faced by Americans today and provides us with some key factors to follow in our patient populations and in our own personal lives. If you haven’t already been there then go to: www.healthypeople.gov and see the wide array of resources for both physicians and patients alike.

Together we can make our nation healthier!!

Around Campus Comments

1: Which Reality TV Show could you win/would you like to be on?
2: Your Occupation Before Med-School?
3: What’s the answer to American Obesity?
4: Favorite Medical TV Show?
5: Medicine or Surgery? (Field of interest)

Letters to the Editor

Dear Reader,

We are pleased to introduce this new feature to the Wellness BULLetin! Did something in this or a past issue

Pique your curiosity,

Get your goat,

Or leave you stumped?

Then be heard and send us the good, the BAD, and the UGLY in less then 100 words and we will include your offerings in the next edition.

The WB is devoted to you, so be heard and mix the pot! Submit your thoughts to sesser@health.usf.edu with the subject line “Letters to the Editor.”

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Thanks to our Sponsors!
The diagnoses of obesity, heart disease and cancer are as common as reality shows on TV, so it is no surprise that Americans spend trillions of dollars on health care annually. The surprising statistic is that only four percent of those dollars are devoted to prevention, which may have stopped chronic conditions from occurring in the first place. The U.S. Prevention Network is the nation’s first health care network devoted exclusively to prevention. USF Health is among the first Academic institutions to be involved.

“They chose us because we’re awesome! USF Health was recognized this year as one of the top 20 health science centers in the country. We’re in the national spotlight,” said VP of USF Health and dean of the college of medicine Steven Klasko. “We believe a far greater emphasis on prevention is the solution to this problem—putting in place programs, protocols and procedures that detect and treat health risks early, preventing them from becoming life-threatening diseases.”

Participating patients can expect to spend one full day at the Advanced Health Care facility each year. Depending on age, gender and other personality factors, the patients will receive a finely orchestrated barrage of screenings, risk assessments, medical tests, and consultations with medical staff; the facility will virtually be a “one-stop health shop.” Klasko describes the patient experience as “concierge medical service.”

USF Health will open its first Center for Advanced Health Care at Tampa General Hospital in August and then an additional facility on the USF campus in February. USF Health students will be heavily involved in the new programs since the facilities will be the primary locations for students to learn clinical skills.

The U.S. Prevention Network hopes that by implementing these programs, national healthcare spending will eventually decrease. “Ultimately, spending dollars on prevention will be cheaper than waiting for people to get sick,” Klasko says. Now that’s something we can all be proud of!

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The Future is Prevention!

By Whitney Lapolla MSII

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The Fat Kid

By: Jessica Teav MSIII

A warning to all who read the contents of this article—no great new truths or tidy solutions are found within its paragraphs, just the frustrated thoughts of one who is both alarmed by the rising rate of obesity in children across the world and saddened by the future that looms ahead if the status quo persists.

As a young child in elementary school I figured out pretty quickly that in our society skinny meant good and beautiful and fat meant bad and ugly. Being thin meant you might be popular, while being on the chubby side meant your chances of being a member of the “cool” group of kids were slim to none. I saw what happened to the handful of fat kids at my school—how they were left out at recess and teased by the other kids. I saw happen to them what I did not want to happen to me. I remember feeling sad for those kids, but also wishing that I would never be like them.

I wasn’t afraid to be like them because being fat meant I would be at risk for type II diabetes mellitus or hypertension. I was not conscientious of staying at a healthy weight because I was worried that I might die early from heart disease or have a stroke in my 40’s or 50’s from accelerated atherosclerosis. And right heart failure induced by sleep apnea was the furthest thing from my mind when I saw how the fat kids were teased. I just knew that I did not want any part of their daily torment.

Yet today, with more than 15% of children over 6 years of age and older in the United States being significantly overweight or obese, the health risks these young people are facing are truly frightening.[1] It is tragic that so many young people deal with the physical and emotional effects of obesity every day. From depression and eating disorders to diabetes, asthma, sleeping problems and fatty livers, the prevalence of co-morbidities associated with pediatric obesity is greater than ever before imagined. Increased risks of cancer, joint disease, polycystic ovarian syndrome, gallbladder disease—the list of co-morbidities is long.
conditions goes on and on, and as the number one chronic
disease of childhood, obesity is killing our kids. It may
take decades, but slowly & surely, quality years are being
stripped off their life-expectancies.

How did this happen, and what can we do to stop it? What can we do to protect these children from further harm and help them to regain their health in both mind & body? There is no easy answer.

Although genetics play a definite role in obesity, a healthy diet and regular exercise are crucial parts of maintaining a healthy body weight in both adults and children. Furthermore, they are essential elements of the best treatment of pediatric obesity—prevention. Unfortunately, with schools cutting recess and physical education programs and parents modeling for children their own diet and exercise struggles, prevention itself is a formidable task. Listed below are several strategies that physicians can share with parents of pediatric patients to help them in their efforts to keep their kids healthy:[2]

- **Exercise as a family**: Take walks or bike rides together after dinner; play basketball on the driveway or a game of soccer or tag in the back yard.
- **Keep the pantry and refrigerator stocked with healthy snacks and avoid buying junk food and sweets. If you do not buy them, you will not eat them.**
- **Teach your kids how to read nutrition labels and how to make healthy choices.**
- **Set boundaries on computer, TV, and video game time—limit your children to 2 hours a day for these very sedentary activities.**
- **Help build your child’s self-esteem and self-image by refraining from criticizing your child’s body or your own body.**

For children that are already overweight with a BMI in the 95% percentile or above for their age and gender categories, a family approach to treatment has been found most successful. [3] By making healthy changes in diet and exercise as a family, the child will be less likely to feel singled out and more likely to adhere to the plan. They are also more likely to successfully attain a healthy weight long-term.

The priority for these children should be a complete history and physical with accompanying lab work to look for co-morbid conditions that may require medical treatment.[4] Once co-morbid conditions have been identified and a plan created for their control, a dietician can help set up a meal plan tailored to the individual. Depending on the degree of obesity and the presence of co-morbid conditions, the goal of the diet may vary from weight maintenance in a growing child to moderate weight reduction. Exercise is another key component of the treatment plan. Starting slowly and gradually building up intensity and duration of physical activity is best. Likewise, it is important to find physical activities that not only provide health benefits, but are also enjoyable for children and, preferably, are family oriented. Last but not least, many of these children may bear emotional scars and poor self-esteem related to their weight struggles. As a result, assessing the need for psychosocial therapy to address problems with relating to peers and self-image is often an essential part of treating the whole child.

While pediatric obesity is a serious problem with frightening complications, this epidemic is not without hope. Several studies have proven that family centered treatment plans that incorporate behavioral diet and exercise modifications can help both children and their parents lose weight and gain better health.[5]


Stress is a normal physical reaction that occurs when you feel threatened or overwhelmed by actual or imagined situations or events. The perception of a threat is just as stressful as a real threat. This is further complicated when you are dealing with an unusually large number of everyday responsibilities. With increasing demands of home and work life, many people are under enormous stress. Stress in one setting can have a rippling effect that affects stress levels in other settings. As a result, your ability to think clearly and function effectively is compromised. It can disable you physically and emotionally. The goal of stress management is to bring your nervous system back into balance, giving you a sense of calmness and control in your life. Controlling your life means balancing various aspects of it: work, relationships, leisure, physical, intellectual and emotional parts. People who effectively manage stress consider life a challenge rather than a series of irritations and frustration. They believe that they have control over their lives even in the face of setbacks. There are no “one size fits all” solutions to managing stress. Every person has a unique response to stress so it is important to learn what approach to managing and reducing stress works best for you.

Here are some strategies that you might consider using to better manage stress:

- Get enough sleep: Adequate sleep helps your mind as well as your body.

- Develop a support system and share your feelings. Perhaps a friend, family member, teacher, clergy person or counselor can help you see your problem in a different light.

- Exercise regularly. Exercise does not need to be excessive. Develop a plan that is medically appropriate for you given any physical considerations or limitations.

- Develop a lifelong nutritional program that is appropriate for you. Reduce caffeine and sugar. In excessive amounts, the temporary "highs" they provide often end in fatigue or a "crash" later. You'll feel more relaxed, less jittery or nervous, and you'll sleep better.

- Don't self-medicate with alcohol or drugs: While consuming alcohol or drugs may appear to alleviate stress, it is only temporary. When sober, the problems and stress will still be there. Don’t mask the issue at hand; deal with it head on and with a clear mind.

- Learn to develop a hobby and take reasonable breaks throughout the day.

- Learn how to change your thinking to have more realistic expectations.

- Learn to develop a sense of humor. Don’t take yourself or others too seriously.

If you need help in developing a specific plan to address whatever is contributing to your stress, the HELPS is a benefit available to you. Help is available 24-hours a day, 7 days a week. Call: (813) 870-0184.
Getting to Know You
An SAO Quiz!

The first person to correctly identify each SAO staff member and where their little friends live wins 2 free Jamba Juice Smoothies. Submit your answers to sesser@health.usf.edu

What’s My Name?

#1.          #2.

#3.                #4.

#5.                #6.

#7.

Whose Office do I live in?

A.  

B.  

C.

Kerry Thomas MSIV

Which reality show? “I never thought of it, no idea!”

Occupation before Med School? Teacher

Answer to Obesity? Taking Responsibility

Favorite Medical TV Show? Scrubs

Medicine or Surgery? Neither: Radiology
I was surprised when I read the article “Golden Reflections” by Stephan Esser about his experience during his surgery clerkship. Being the Clerkship Director, I initially thought the title was analogous to my name and was offended. More importantly there were several issues raised surrounding professionalism and the resident and rotation site related in the article were readily identifiable to many in surgery. The resident felt belittled amongst his peers, and the departmental members felt maligned.

This response to Mr. Esser’s article addresses some fundamental issues of the article and delves into some of the expectations faculty have towards students and vice versa.

Mr. Esser and the Office of Student Affairs said the name chosen for the title reflected the setting of an incident and was unrelated to any individual. Be that as it may, I thought it was a bit ironic that the reading of this article by the majority of our department faculty occurred during the weekly Morbidity and Mortality conference, which has as one of its goals, the improvement of patient care. To my knowledge, ours is the only conference like this in the School of Medicine.

Mr. Esser’s article suggested that patients are not receiving optimum care in our clinical settings. I believe that some physicians’ may at times express displeasure in the system or anger due to stress but that does not correlate to mistreatment of patients. Cynicism does develop in some health care professionals; is not unique to surgery, and has been well studied. Investigation into the incident related in Mr. Esser’s article noted that treatment rendered was at or above the standard of care. The uttered statements were related to a “system” breakdown. Mr. Esser is correct in stating that bad language is unacceptable in a patient care setting. The article, however, was overstated and I, as a surgeon, believe that there is no bigger honor or act of faith and trust than that given by a patient to a surgeon, i.e. permission to operate.

Another point raised in the article was that a patient was operated upon without adequate anesthesia. There is, by definition, some discomfort felt by patients undergoing surgery and anesthesia does not necessarily alleviate all of it. A goal of anesthesia is to make the discomfort tolerable and safe and it is always inappropriate to operate on patients in pain. The identified patient’s pain level documented on the anesthesia record throughout the case was zero. During follow up of the article the patient was contacted and remembered the surgery and needing more anesthetic which he says he received he said he was very happy with the operation, the anesthesia given, and the care he received. The reason for Mr. Esser’s perception of the patient’s pain may have been best addressed by discussion about the nuances of anesthesia and surgery. Perceptions are important and students of medicine are obligated to learn the facts, notably as pertains to patient’s sensations of pain related to anesthesia.

The Department of Surgery, under Dr. Richard Karl’s direction is working diligently to create a positive environment for training. The dept. is proud of the current clerkship, which students recognize as being a very good learning experience and according to the Curriculum Committee it is outstanding. When I became the Clerkship Direc-
tor, medical student feedback about the clerkship was extremely poor and the clerkship ranked approximately two standard deviations below the mean on nineteen of 21 questions obtained in a survey by the Dean’s office. Changing the departmental image and clerkship content has been a significant focus. Towards this end, the surgery clerkship has been through two major curricular redesigns. Student input has been integral to the process and is solicited in efforts to continue educational improvements. Our new clerkship goals include teaching medical students not interested in a surgical career the basic surgical skills needed to be a physician, giving students an understanding of what family members and patients’ experience, and giving students a feel for what it might be like to be a surgeon if this was their desired career path.

It is appropriate for faculty to expect students to take an active role in improving their own educational programs. As an educator, I would like nothing more than to discuss troubling issues with students either individually or as a group without fear of retribution. Students are invited to contact me at any time to discuss these issues. There are also a variety of methods for students to report information including using the class liaisons, putting information under my office door, giving the specifics to the Office of Student Affairs or anonymously using the Professionalism Survey on the Student Affairs webpage.

In conclusion, we should all strive to be humanists; however, at times, stress, cynicism, and perhaps anger may intrude. Recognizing when this occurs is important and it should never impact patient care or allow for mistreatment of students. The highs and lows that surgeons experience are difficult to express in written words but the lows certainly have the ability to impact ones performance and emotional stability. Students experiencing this emotional rollercoaster during the clerkship have better insight into the stresses of a career in surgery. Students should expect experiences throughout training that they may not understand and are encouraged to discuss them with the hopes of improving the educational program and gaining a better understanding of their mis-perceptions. Perceptions sometimes differ from fact. Faculty and students are responsible for ensuring that difficult issues are discussed and pathways for improvement are identified and improvements implemented. These discussions must be based on trust; include open, candid dialogue and honest response. Students, who are our younger peers, are crucial participants in these conversations!

Farah Sultan MSIV

Which reality show? “Deal or No Deal!”
Occupation before Med School? Employee at Bagel-Bagel
Answer to Obesity? Get rid of X-Box
Favorite Medical TV Show? Mystery Diagnosis
Medicine or Surgery? Both—OB/Gyn
Obesity: More then Meets the EYE!

By: Stephan Esser MSIV

When I was little I used to categorize people and think,"He’s fat, she’s thin, he’s tall, she’s short, he’s tan, she’s white." How times have changed. Now after 3+ years of med-school I look and think,"He’s at risk for CAD, she’s at risk for osteoporosis; I wonder if he has Addison’s or Marfans and she is at risk for skin CA." (Oh to be young again!)

Most notable in this mind shift has been my new appreciation for the risks associated with obesity. According to the NIH, the percentage of overweight pts has increased from 44.8 to 65.2, while obesity more than doubled from 13.3 to 30.5 percent, and the prevalence of extreme obesity increased to 4.9 percent, up from 0.8 percent in 1960.(1)

These statistics are sobering in light of the CDC’s recent statement that by 2008 Obesity will surpass Cancer as the leading cause of preventable mortality in the US. (2)

The list below is far from complete, but is intended to highlight the growing number of health concerns that are linked to and complicated by obesity!

**Obesity**

**Orthopedics**
- Osteoarthritis
- AVN
- Joint Arthroplasty
- Hip/Knee/Ankle
- Claudication
- PVD/Impotence
- Venous Stasis/Ulcers
- AVN
- Joint Arthroplasty
- Hip/Knee/Ankle
- Claudication
- PVD/Impotence
- Venous Stasis/Ulcers

**CVD**
- CAD/CHF
- HTN/CVA
- PVD/Impotence
- Venous Stasis/Ulcers

**OB/GYN**
- Gestational DM
- Macrosomia
- Inc. C-Sections
- Inc. Perinatal Morbidity
- Pre/Eclampsia

**OTHER**
- Hyperuricemia—Gout
- Pancreatitis
- Gallstones
- Sleep Apnea
- Alzheimer’s
- Dyslipidemia

**Endocrine**
- PCOS/HyperAndrogenism
- -Infertility
- -DUB
- Diabetes
  - #1 cause of Kidney failure
  - #1 cause of prev. Blindness
  - #1 cause of Limb Amp.
- Peripheral neuropathy
- Gastroparesis
- Ulcers
- Skin and bone infections

**Cancer**
- Increased Rates of:
  - Prostate
  - Colon
  - Breast
  - Ovarian (?)
  - Endometrial
  - Renal Cell
  - Esophageal Adeno.
  - Gallbladder
  - Pancreatic (?)

**Hepatic**
- #1 Cause Liver dz in US
- NAFLD/ NASH
- Cirrhosis

So, how are you preparing yourself and what are you learning in Med. School that will enable you to combat the epidemic? Or will you just treat the cascade of syndromes and complications rather then ever addressing the real problem? This is not about acceptance or some kind of prejudice. This is about recognizing objective risks and helping our pts to protect themselves and to stay healthy. We are called to heal & protect. Are we effectively answering the call?

We re-affirm our Choice everyday? **What’s Your Choice?**

- [http://www.diabetes.org/diabetesstatistics/complications.jsp](http://www.diabetes.org/diabetesstatistics/complications.jsp)
THE BULLETIN Quiz

The first reader to correctly answer all 10 questions and submit them to sesser@health.usf.edu wins a $40 gift certificate for Metagenics Inc. The questions are derived from articles throughout this edition.

#1: *USF Health* is one of the first academic institutions to join this organization which is dedicated to the prevention of disease in America.”

#2: According to Jessica Teav MSIII, Pediatric Obesity is not an epidemic without hope because what kind of programs have been proven to help both parents and children?

#3: What happens to the length of “slow-wave” sleep as we age?

#4: What modality has enabled contributing author, attorney and medical student Veronica Tucci to achieve dramatic weight loss?

#5: Dr. Moering saved what kind of creature while he was resting on the banks of the Li River?

#6: The *Vase of Chrysanthemums* by Auguste Renoir is painted in what medium?

#7: What is the 2nd Law of Thermo-dynamics?

#8: What is the name of Dr. Richard Karl’s book which is reviewed in this edition?

#9: Farah Sultan’s favorite medical TV show is_________ _________?

#10: What is the traditional Hebrew word for commandment?
Lessons Learned, Lessons Remembered

By: Robert G. Moering, Psy.D.

The most frequent questions asked of me over the past nine months included “China? Why would you want to go to China?” My usual reply was something along the lines of “Why not?” Now, I can certainly understand the hesitation from some individuals about visiting China, and I must admit that I certainly would never have envisioned myself visiting China twenty years ago. Well, my wife and I recently had an opportunity to spend two and a half weeks visiting China for our twentieth wedding anniversary and I’m quite certain I would need an entire edition of this bulletin to describe the wonderful sites and incredible people we met along the way. Instead, I have decided to spare you the details and give you a few of the highlights and lessons learned and lessons remembered.

As a psychologist, I often help individuals deal with “poor communication” skills. The inability to effectively communicate is often quoted as one of the primary causes of conflict between individuals (not to mention agencies, departments, or even countries). While walking along the Li River in Guilin (truth be known we were actually playing in the river and climbing on the elephant statues) we saw a Chinese couple sitting on bamboo chairs eating fried fish, fried crabs, fried who-the-heck-knows what else, and watermelon. Without a word of English, they invited the two of us to sit down with them and enjoy dinner. Other than ‘hello’ and ‘thank you’ I would have to say my spoken Chinese is nonexistent. In spite of the obvious language barrier, my wife and I enjoyed one of the most enjoyable dinners with a wonderful couple. Two hours flew by and the evening ended with the saving of a life (there is one very happy crab swimming around the Li River). Communications is not always about what is said, but how it is said and what effort is put into what you are trying to say. It is also about listening and attempting to understand what is being communicated. If you want to communicate, there’s always a way.

Ask any of my patients and they will tell you I frequently ‘preach’ relaxation and taking time to reenergize. Frequently physicians talk about going on vacation and then bring journals and pagers and cell phones and computers and other work-related materials with them. I recently had to talk a friend out of taking a grant proposal and other ‘paperwork’ with her on a week long family vacation to Hawaii. I must confess that I did take my wife’s phone with me, but only so my daughters could call if they needed something. Otherwise, I can honestly report back that work did not enter my thoughts once. How free I felt. I was amazed how often I saw the Chinese take time out of their day to sit on boxes and play chess, practice Tai Chi, play musical instruments or sing in the park (and let me tell you there were plenty of singers who could not ‘carry a tune if their life depended on it,’ but they could not have cared less what other’s thought). People with a purpose in life would suddenly stop and engage in an activity for self-preservation. I found myself caught up in the freedom and even found myself taking ‘breaks’ and relaxing in some of the coolest places on earth. Lying down on the Great Wall of China should be near the top of everybody’s list of “things to do before I die.” If you don’t stop, relax, and rejuvenate, how long before your battery runs dry or how long before you burn out. No one is so important that vacations (or even weekends) are impossible and left for another. Take time in the middle of the day to dump some of the pent up stress. Physicians work in a demanding environment with frequently demanding patients. Having the ability to relax, clear the mind and ease the pent up tensions help make life just that much better and work a little bit easier!
When I weighed about 300 pounds, I was sitting in Applebees and eating a grilled chicken oriental salad when another restaurant patron remarked to me, “Maybe if you ate like this more often, you would not look the way you do.” Shocking though his comments may be, I was not surprised. It is no longer acceptable in our society to ridicule a person for their race, ethnicity, gender, religion or sexual orientation. However, physical appearance and obesity in particular remains the last bastion of “acceptable” prejudice in our society.

Why are obese people acceptable targets for ridicule? We are assaulted every day with images of bodily perfection on television and in magazines. The older standards of feminine beauty like Marilyn Monroe and Jane Mansfield, both of whom were a size 16, have been replaced with a new ideal embodied by celebrities like Kate Moss, Nicole Richie and Ellen Pompeo. Indeed, characters like Dr. Callie Torres (portrayed by Sara Ramirez), a size 14, on Grey’s Anatomy and Andy Sachs (played Anne Hathaway), a size 6 in the movie, the Devil Wears Prada, are labeled as “fat”. This pervasive imagery has infected not only our culture but also the perceptions of many in the medical profession.

I have struggled with my weight since I turned ten and started menarche. Before that time, I was rail thin to the extent that my mother had to staple my overalls on to prevent them from falling down. However, virtually overnight I gained 150 pounds. My diet and exercise habits had not changed. I was still spending every waking hour in the karate dojo. It made no sense. Concerned about my excessive weight gain, my parents took me to our family physician. He ran the standard lab work—metabolic and thyroid panels. Unfortunately, there was no easy answer. My free T4 was borderline low and the only other finding of note was that my basal temperature was 96.5°F.

Our family physician referred us to an endocrinologist and nutritionist. Dutifully, my mother took me to these appointments where we were lectured and told that items like mayo, cheese, mashed potatoes and gravy and cereals high in sugar needed to be removed from my diet. When my mother informed them that I did not eat any of the “forbidden” items, she was told that I must be sneaking food. Frustrated, my mother explained that she purchased all the groceries in the house and knew exactly what was in our pantry. Unwilling to listen, both practitioners dismissed us and insisted that my mother was living in denial.

It might have been easy to throw my hands up and surrender to the reality that I would be “chubby”, “pleasantly plump”, “big-boned” or any other euphemism for fat. However, my family prides
itself on never taking the easy way out so during my teenage years, I started trying every diet and exercise option available. From Atkins to Weight Watchers to professional nutritionists, no diet plan ever made a dent in my weight, regardless of my activity level. I hung up my nunchuks and went to work as a waitress full-time while I was in high school, figuring that walking 20+ miles per day would reduce the size of my waistline. Wrong! Running back and forth to take care of customers for hours on end, I was faster and had more energy than any of my smaller co-workers but never lost a single dress size.

Suddenly, in 1996 when I was a sophomore at Yale, our physician called and told my family that Dexfenfluramine (Redux) had been approved by the FDA for obesity and weight management. He thought it might be worth a try so he placed me on Redux with strict instructions not to change my diet or exercise. He wanted to establish a baseline for the drug’s efficacy and then would have me make adjustments to diet and exercise as needed. Amazingly, I lost over 90 pounds in six months. I felt great. I looked great. Then we heard the bad news, a number of patients taking dexfenfluramine had developed pulmonary hypertension and the medication was pulled off the market. Within six weeks, I had gained all the weight back and then some. Despondent, my family doctor remarked that if he had any doubts that my weight problem was related to my hormones, my body’s response to Redux silenced them.

I had just about given up on the idea that modern medicine would aid me in my battle with the bulge. In 2000, I started hearing widespread reports about gastric bypass surgery and the dramatic results individuals who underwent the operation had. At this point, I was a lawyer with excellent health coverage. I figured I would investigate it. Ironically, after reviewing my food diary (patients are required to list all the foods they consume in a day), the surgeons in NYC thought that I did not consume enough calories for the surgery to be effective.

Fortunately, by the time I started medical school in 2005, a lot of research had been done into the bypass and its effects on hormones and metabolism. I spoke with Dr. Eichler who encouraged me to speak with Dr. Murr and Dr. Gallagher at Tampa General. With all the new knowledge, I was proclaimed the ideal candidate for the surgery and after a little deliberation, I decided to go for it. My one year surgical anniversary was June 7th and I have lost 160 pounds and am now a size 10. For those of you who have never been overweight, I cannot adequately express the feeling it is to go shopping in regular stores and buy mediums or smalls instead of plus-size clothing.

I wanted to provide a window into what it is like to live both in our society and the way in which obese patients are often treated by health care practitioners. The obesity epidemic threatens to spiral out of control. As the next generation of doctors, nurses and physical therapists, we need to do better.

Undoubtedly, many obese people are overweight due to poor nutritional and exercise habits. However, a substantial minority have exhausted every means available to lose weight— they exercise and eat well. They have consulted nutritionists, personal trainers, endocrinologists to no avail. Now they are coming to you and asking for help. With less than 10 minutes to spend with each patient, it is easy to dismiss obese patients and assume that they are lying or uneducated about their food intake and exercise patterns and doggedly adhere to a “calories in v. calories out” approach to weight loss. Unfortunately, there is no one size fits all solution for obesity!
**Book Review:** *Across the Red Line* by Dr. Richard C. Karl

“*Remember this, surgeon: It’s not just your hands and expertise and degrees and good looks a patient wants. This patient, all patients, want a human being who can look them in the eye, can comfort, can commiserate, can be honest and can at the very least be there.*”

So writes Dr. Richard C Karl in ‘On the table,’ one of 14 short stories he penned and compiled in “Across the Red Line.” This literary offering published in 2002 is a reader-friendly collection of clinical vignettes and personal experiences to which budding physicians and patients can equally relate. Dr. Karl’s candid recollections of triumphs and failures behind the sterile field are appropriately contrasted by his wry humor and revealing insecurities as a man, a surgeon and a patient. His paternal heritage steeped in academic medicine and his own career a testament to his talent and drive, Dr. Karl is in a rare position to offer insight into the heart of a surgeon. “*One of the hardest things I know is when to give up..” that “ is the province of a truly gifted practitioner of any craft”…”*When things don’t work out like we expect…” “I want to set things straight..because it feels to me that I have caused the problem.”*”

Dr. Karl’s poignant renderings of pt, doctor relationships, medical misadventures and the culture of medicine are a worthy read for every med-student. So I give “Across the Red Line” by Dr. Richard Karl a 3.5/5 stars. Pick up your copy and pass it on to your lil’-sib when you’re done. You can find it on half.com for as low as $8.98 and on Amazon.com for around $20. Enjoy!

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**The YASH TACO**

“Once you try the Yash Taco you’ll never ring the bell again”

**Ingredients:**
- Hard Corn Taco Shells / Beans: Refried or Black
- Fresh: Lettuce, Onions, Tomatoe, Green Onions
- Chubby Shredded Cheese / Creamy Sour Cream
- Chunky, spicy Salsa / Optional: Avocado

**Directions:** (Note: it is very, very important you follow these directions **perfectly** to avoid a catastrophe)

1. Preheat taco shells at 325 for 6-7 minutes or till crisp (don’t let them turn black)
2. Stir beans over a low heat stove till warm, usually 5-7 minutes
3. Chop up vegetables (keep separate)
4. Break tacos in ½
5. Gently spread the beans on the toasted taco halves
6. Place on taco in this order ONLY (do no desecrate the Yash Taco)
   - onion/tomatoes/salsa/lettuce   cheese/avocados/sour cream
7. Marvel…pay homage to the great Yash Taco in it’s elemental beauty……
   - NOW..quickly devour it before someone else does and “your bells will be ringing”

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* "Shattered Lives* was not just a job and couldn’t she..that it is a natural majestic and writer..” — Mary McCarthy, for Washington Post
**Metformin vs. Lifestyle Change in DM2 Prevention:**
3234 patients with impaired glucose tolerance were randomized to Metformin at 850mg BID vs a lifestyle change program with the goal of at least 7% weight loss and at least 150 min. of exercise/week. With an average f/u of 2.8 years, the incidence of DM2 was reduced by 58% in the lifestyle arm and by 31% in the Metformin group as compared with placebo. So to prevent 1 case of DM 6.9 people would have to participate in a lifestyle change program. **Count me in!**

**Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin.** Knowler et al.

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**Can More Veggies Stop Prostate Cancer?**

In a 2005 study published in the *J. of Urology*, 93 men with early stage Pr.CA (Gleason <7 and PSA 4-10) were randomized to intensive lifestyle change vs. usual care control. After one year, the PSA levels in the control group had increased by 6% but in the intervention group they decreased by 4%. Even more fascinating, LNCaP cells (Prostate Cancer cell lines from the NIH) were then bathed in the pts serum. Growth was inhibited by 70% with the serum from the intervention group and only by 9% with controls. **Wow, now what if we combined lifestyle changes with a little brachytherapy?**

**Intensive lifestyle changes may affect the progression of prostate cancer.** Ornish et al.

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**Exercise: The Fountain of Youth?**

In a fascinating new study published on PLOS 5/2007 researchers used high tech genome probes, HOPACH algorithms and bioinformatics approaches to assay transcriptome function of skeletal muscle. They compared the transcriptional activity of the muscle cells of young pts (30y/o) vs older (>65y/o/) adults and found a clustering effect on gene expression. In fact as a consequence of aging they found 596 genes differentially expressed. Most notable was a down regulation in genes associated with mitochondrial function and energy metabolism. After a 6 month period of bi-weekly resistance training, the older adults were only 38% weaker than their younger peers and their transcriptome profile was reversed by >40%. These results suggest that the sarcopenia and mitochondrial impairment associated with aging can be partially reversed at the phenotypic level and dramatically reversed at the transcriptome level. **Jack Lalanne was right all along!! Let's hit the gym, and bring your grandparents**

**Resistance Exercise Reverses Aging in Human Skeletal Muscle.** Melov et al.
Measuring Up!

BY: Janese Trimaldi MSIII

I first became aware of my weight, and the way my body looked, when I was 12. I had started dance classes, and my first recital was coming up. The outfit we had to wear was tight; with silver, shiny sequins all over, and little tassels around the waist. As I tried it on in front of the mirror, and practiced eight counts of the dance routine, I suddenly noticed the flab on my legs that jiggled just a bit whenever I had to do a jump. All of a sudden, I panicked about the way it would look onstage: Would people look at me and think, "Oh, look at that poor little fat girl. Doesn't she know how awful she looks jumping around in that outfit that is CLEARLY too small for her?"

MTV had begun 3 years previously. I can remember sneaking off to watch it as often as I could. My mom hated it. She said it was offensive, and had too many R-rated images...too many woman in the videos with almost nothing on (wow....if she could see it today, she would probably have a heart attack), and I was prohibited from watching it in her presence. Being the rebel that I was that didn't stop me.....

I think a lot of those early images burned themselves into my young brain. As I critiqued the silver jazz dance costume in the mirror, I couldn't help comparing myself to the girls I had seen in one of Motley Crew videos. They were tall and thin, with long blonde hair, and legs that went on for days, with not an ounce of fat on their bodies....and I didn't look like any of them. Well, of course I didn't look like any of them!! I was twelve years old!!! But my young brain didn't realize that. I only knew that I wasn't measuring up.

I really believe that this is how it all begins in many young girls' minds. We've all heard that the media has a lot to do with the high prevalence of woman who are weight/looks obsessed, and I can't say that I disagree. Look at the increasing popularity of liposuction, breast implants, and face lifts, etc etc. All around us, everyday, we are constantly bombarded with images of perfect people.

And this isn't just a female phenomenon either. I have male friends who got liposuction, calf implants, and pumped themselves with steroids just so they could look good. I dated two guys who had wrestled in high school/college, who told me how they would run in plastic suits in 90 degree weather, and then go home and vomit, and spit in cups just so they could make weight. One of them never stopped obsessing about his weight. He would alternate between periods of eating, and periods of literally starving himself. He was a yo-yo dieter, to put it lightly. Now that I look back, I realize he was participating in a cycle of binging and purging (through dieting). He often joked with me and said that his sport had 'ruined him.' The other one used anabolics to stay pumped all the time. He would look in the mirror and say "I look small," even though he was 6 feet tall and 240 pounds of nothing but pure muscle.

So back to my story....

I missed dancing so I decided to compete in televised aerobics/fitness competitions in my twenties. There I was again, back in the little silver costume (how ironic), critiquing myself in the mirror, pinching the non-existent fat, searching for the imperfections that only I could see. The girls I competed against did it too. Some of them even went so far as to make themselves throw up to cut some weight, and the really extreme took enhancing drugs that melted the fat right off their bodies, until they were just muscle and veins,
with sunken faces and hollow eyes. Looking back, I realize how unhealthy all the obsessing was. I wonder now if little girls watched me on TV, and then looked in the mirror, hating themselves because they didn’t have 10% body fat.

As physicians I think it’s important to be aware of these issues that face our population. Sure, more often than not, it will be the other way around. We’ll be warning our patients about what will happen if they keep on gaining so much weight. But we need to be aware of the other side as well. Anorexia and bulimia, anabolics and fat burning drugs, can all be just as dangerous to our patients’ health. I think it’s important to also realize that sports that stress aesthetic beauty—like dance/gymnastics, or being at a certain weight—like wrestling, can have an impact on the mental health of those who participate in them. I know that in the future I will keep a close eye on my young athletes to make sure they are not adopting unhealthy behaviors just to ‘measure up’ or be competitive.

As much pleasure as I derive from drinking wine, making your own wine is even more fun. An increasingly popular hobby across this country, winemaking is something you can do in your own home with no more scientific knowledge than you needed to make it through undergraduate microbiology lab. At the core, wine is nothing more than fermented grape juice, and stores across the country (including some here in the Tampa Bay area) cater to home winemakers’ needs for the appropriate grape juice, chemicals, and equipment. In 8 weeks you can transform simple grape juice into drinkable wine. However in winemaking, as is the case in some many things in life, patience is rewarded, and by aging your wine the flavors will mature and mellow. Your eventual reward will be a bottle of homemade wine far better than anything you could buy retail for under $30 per bottle, and you will have made this fantastic wine for about $4 per bottle. If you enjoy the intoxicating world of wine drinking, I invite you to delve deeper into the wine world and try your hand at your own winemaking— I know you will not be disappointed. Cheers!

Ode of an Oenophile!

by Mitch Weinberg, MS IV
Shabbat Shalom: Reflections on Faith

By: Dania Rumbak MSIV

Every Friday afternoon, I rush from clinic, the hospital, the library or the lecture hall to make it home by sundown. At precisely 15 minutes prior to the setting of the sun, I light a candle. I bring my hands to my face, cover my eyes with them, and say in Hebrew, "Blessed are You, Lord our G-d, King of the universe, who has sanctified us with His commandments, and commanded us to kindle the light of the holy Shabbat." With this simple act, I have entered the 24-hour oasis that is the Jewish Sabbath, a time devoted every week to G-d and family.

Over the past three years as a student at USFCOM, my religious practices have been the subject of much discussion between myself, other students, and faculty. People have often asked me why I eat only Kosher food and avoid eating out in Tampa restaurants. In addition, they wonder why I refuse to do any “work” such as driving my car, watching TV, or using my computer on Saturdays. There are of course practical answers to these questions. In short, Judaism teaches that G-d created the world in six days and on the seventh He rested. Thus, He gave us the Sabbath, in remembrance of the work of Creation. As part of this gift, He commanded us to honor and to keep the Sabbath. Likewise, the intricate and complex laws of Kosher derive directly from the Torah (Old Testament) and govern the practical day-to-day aspects of what and how we eat. For example, I don’t eat meat and dairy products together at the same meal because of the prohibition in the Torah against “cooking a kid in its mother’s milk.” There are reasons given for all of our seemingly insane actions and if given enough time and space, I could explain many of them to you.

But the more difficult question I’ve been asked is the following: Why would a 24 year-old medical student living in Tampa, Florida in the 21st century adhere to seemingly restrictive and outdated religious practices? What is so important about the simple act of lighting candles to welcome in the Sabbath that causes me to stop whatever I’m doing, rush home, and fulfill this mitzvah (Hebrew for commandment)?

Judaism teaches us that we can use simple acts such as lighting candles to transform the mundane physical world into a holy place. A simple candle is merely an inanimate object, but when Jewish women light candles every Friday night all over the world, they bring more light into the world and in doing so, make the world a little bit holier. The Book of Genesis tells us that the first words in the creation of the world were “Let there be light.” In the first act of creation, G-d separated light, and therefore all that is good and beautiful, from darkness and all that is evil and negative in our world. While we are all painfully aware of the persistence of evil, poverty, and certainly illness in our world, we also should be reminded every day of our capacity to continue to do good. A room could be
completely dark but when a candle is lit inside of it, the power of that light to spread inside the room and overpower the darkness is self-evident.

Like candles; stethoscopes, blood pressure cuffs and CT scans are merely inanimate objects. However, when combined with the knowledge, skill, and most importantly the heart of a USF-trained physician, they are capable of being involved in the act of healing. They are physical, mundane objects that we use everyday for a larger and higher purpose. Though the spectrum of worldwide disease may seem overwhelming at times, every history we take, physical we perform, vial of blood we draw, and heart we listen to adds a little more light to the lives of the patients that we treat. Maimonides, perhaps the most famous of Jewish physicians, looked at the world as if it were one big scale perfectly balanced between good and bad deeds, or if you will, light and darkness. Every positive act that we do tips that scale over into the category of good and not only makes a difference in the lives of our patients but helps to change the world.

The Vase of Chrysanthemums

Captivating, I thought. I extended my neck and locked my gaze on the piece of art by Pierre Auguste Renoir. I realized that this Vase of Chrysanthemums, which was birthed during the era of Impressionism, held untold wisdom through the ages. It was a movement, which shattered centuries-old traditions of art and liberated color, freedom of expression and diversity. After many turns of the hourglass, the work of these artists, which were once rejected and scorned, is now embraced and celebrated.

As I peered deeper, I could not help but see in the painting the reflection of the diversity amongst us. I studied the variety of colors, shapes and sizes of the chrysanthemums, each unique and able to exude its own beauty but even more radiant when bundled together for a common purpose.

Moreover, I could not ignore the common thread, though hidden, that meandered its way through the diverse colors to help bring form to the abstract painting. This common thread is the love, joy, pain, fear, sorrow and other emotions that we as human beings all experience. It is the thread of blood that courses through our arteries and veins, bringing life to our heart, soul and dreams. It is the thread that pulls us together to live as a Vase of Chrysanthemums.

Gathline Etienne MS IV
¿Qué tal?
Spanish for the medical-minded!
By: Annabella Ferrari MSII

“¡Pero yo como bien, doctor! Como mucha fruta y verdura.” (I eat very well, doctor! I eat lots of fruits and vegetables). This may very well be true. Because they eat fruits and vegetables or use fresh ingredients to prepare home-cooked meals, Hispanic patients may feel like they have a very healthy diet. However, what they may not realize is that the fried plantains, fried pork, and sweets that they also enjoy may be causing their diabetes, heart disease, and weight problems. So don’t be satisfied if a patient simply tells you that they eat well. To find out more about your patient’s eating and exercise habits, here are some phrases to help you along:

What do you eat? ¿Qué come?
You have to go on a diet Tiene que seguir una dieta
Breakfast Desayuno
Lunch Almuerzo
Dinner Cena
Eat/ Don’t eat... Coma/ No coma...
Drink/ Don’t drink Tome/ No tome...

<table>
<thead>
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<th>Food</th>
<th>Spanish</th>
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<tr>
<td>Fruit</td>
<td>Fruta</td>
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<td>Vegetables</td>
<td>Verdura</td>
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<td>Salad</td>
<td>Ensalada</td>
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<td>Carbohydrates</td>
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<td>Cereal</td>
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<td>Rice</td>
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<td>Potatoes</td>
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<td>Pasta</td>
<td>Pasta</td>
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<tr>
<td>Fried plantains</td>
<td>Plátanos fritos</td>
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<td>Red meat</td>
<td>Carne roja</td>
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<td>Chicken</td>
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<td>Pork</td>
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<td>Fish</td>
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<td>Cheese</td>
<td>Queso</td>
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<td>Fried foods</td>
<td>Comida frita</td>
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<tr>
<td>Fat</td>
<td>Grasa</td>
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<tr>
<td>Oil</td>
<td>Aceite</td>
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<td>Butter</td>
<td>Mantequilla</td>
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<td>Sugar</td>
<td>Azúcar</td>
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<td>Sweets</td>
<td>Dulces</td>
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Water Agua
Juice Jugo
Beer Cerveza
Coffee Café
Liquor Licor
Soda Refresco
Tea té

Do you exercise? ¿Hace ejercicio?
How many times a week? ¿Cuántas veces a la semana?
For how long? ¿Por cuánto tiempo?
You should exercise Debe hacer ejercicio
Walk Caminar
Jog Trotar
Run Correr
Swim Nadar
Clean the house Llimpiar la casa
Work in the yard Trabajar en el jardín

Do you want to be heard?
Do you walk around with all kinds of great ideas, funny stories, or outrageous frustrations all bottled up inside? Well let it all out! Put your thoughts to good use and entertain, inform and challenge your peers. Pen up to a one page article, poem, outline or art-work and submit it to: sesser@health.usf.edu for consideration in the next edition of the BULLetin due out this Fall! Be a part of the tradition. Be the BULL!
Laws of Motion

By Lauren Leffler MSII

I. An object in motion will remain in motion unless acted upon by an external net force.

II. Force equals mass multiplied by acceleration.

III. For every action there is an equal and opposite reaction.

I know, I know, you probably haven’t looked at these laws since the time you studied for the MCAT, but rather than talk about balls or cars or other inanimate objects, I’d like to apply these laws to people and exercise. The theme of this edition of the BULLETIN is obesity. Save the statistics and open your eyes; it’s everywhere! Fat, Flubber, Cottage Cheese—call it whatever you will—Americans are carrying an awful lot of it around in their tummies, thighs, and cheeks...both superior and inferior. I will leave it to other articles and lectures to delineate the specific maladies associated with excessive weight, but bottom line is, in today’s society, there is really nothing healthy about it. So what do we do about it? What do we tell our patients to do about it? Over and over again, the answer remains the same: Diet and Exercise. The first edition of the BULLETIN included an article on three keys to a successful diet; in this edition I’d like to use Newton’s three laws as three points to keep in mind when addressing the issue of getting an obese patient to exercise.

Law #1: “An object in motion will remain in motion unless acted upon by a net force.” Flip the coin and we’ll discover that the opposite is also true: an object at rest will tend to stay at rest unless acted upon by an external net force. Whether you are a long-time exerciser or somebody who has never before broken a sweat, the most difficult part of beginning an exercise program is just that—Starting. For myself, an avid exerciser, I find the most arduous part to any run or bike ride is simply getting myself out the door. With that accomplished, I can just roll. It is setting myself in motion which is the hard part. I know that if I struggle with initiating exercise when it is already part of my daily regimen, how much more of a challenge it is and will be to get my obese patients moving.

In considering Prochaska’s Transtheoretical Model of Change, three out of the five stages occur before any action takes place—a lot goes into even reaching the action phase.

As health care providers, we must meet patients where they are, and then assist them to “get rolling” into the next stage. For a patient who is in the Precontemplation stage, not even conscious that he or she needs to change, we must raise their awareness of the health risks associated with their obesity. A patient in the Contemplation stage may need more information on how to go about changing his or her behavior. Patients in the Preparation stage need encouragement and guidance to design an exercise program and then make the commitment to step into the action phase. Once the patient is in motion, the most difficult part is over, but the job is far from finished. These patients will need plenty of reinforcements and check-ups to see how they are doing, making sure that they are holding to their change. However, to keep a moving patient in motion is easier than to set a sedentary one into motion.

Law #2: “Force equals mass multiplied by acceleration.” This law is important to remember especially when choosing the types of exercise in which the obese patient should engage. By being obese, these patients are carrying around a lot of excess mass, which means that every step the patient takes exerts that much more force on his or her knees, ankles, and back. Thus increasing strain on these joints could easily turn into an orthopedic nightmare if one is not careful. With this in mind, it is wise to advise patients to choose low-impact exercises that still require cardiovascular exertion. Swimming or aquatic aerobics is probably the ideal type of exercise if your patient has access to a pool. If swimming does not work for the patient, walking, biking, or rollerblading are good alternates—just be sure the patient has good balance before recommending rollerblad-
ing. Also, remember that it takes time to build fitness. Encourage patients to begin with short intervals, and then to build up in time and intensity.

Law #3: “For every action, there is an equal and opposite reaction.” The benefits of exercising are countless. Probably the most sought after and obvious perk is weight loss. It is a simple physiological principle that weight gain occurs when calorie intake exceeds output, and weight loss happens when output exceeds input. Therefore, when a patient eats right and exercises more, there is a high probability that weight loss will occur. Though weight loss is the primary objective for obese patients, there are plenty of “side-effects” to accompany the trim in pounds. First there are the physiological gains including: reduced risk of stroke and heart disease; improved cholesterol profile; decreased risk for developing hypertension and diabetes; reduced risk for developing colon cancer; and increased bone density and muscle tone. Pretty much all of the maladies that accompany being obese are counteracted by exercise, and nearly every system of the body is benefited by exercise. In addition to these physiological effects, exercise is also profitable psychologically. It reduces feelings of depression and anxiety, enhances psychological well-being, and can decrease stressful feelings. In short, the patient will feel better. And to top it off, exercise helps one to relax and sleep more soundly. As physicians, we can use each of these benefits as carrots to dangle in front of our patients in our effort to help them achieve a healthy body weight.

Obesity Facts and Figures Quiz

1st Person to submit the correct answers to serser@health.usf.edu wins a $20 gift certificate to Chuck’s Natural Food Store

1: According to the CDC, what % of Americans over 20y/o are obese?
2: A BMI of 27 is defined as normal, overweight, obese or morbidly obese?
3: According to the CDC what percentage of adolescent Americans are overweight?
4: ________ Adipose tissue is considered to be most associated with increased risk for cardiovascular disease? (Hint: body location)
5: The WHO estimates that this # _______ people are presently obese in the world.
6: According to the CDC, by 2008 Obesity will be the # __ cause of preventable death in the US.
7: List three commonly used approaches in the fight against Obesity.
8: What specialty of medicine deals exclusively with the causes, prevention and treatment of obesity?
9: How many Calories are in 1 lb of Body Fat?
10: What equation uses height, weight, age and sex to determine basic metabolic rate?
6 1/2 minute Abs Workout  

This is a workout that my volleyball teammates and I did in college. It is composed of 13 different core-exercises done for 30 seconds a piece. Whether you do fast, quick repetitions, or slow and smooth moves, you will definitely feel this by the end. The first time I did it, I didn’t want to laugh or move the next day. It hurts, but it will leave you with some killer abs. Enjoy!

0:00-0:30—Bicycle: With shoulders slightly elevated off the floor, rotate legs as if pedaling a bicycle, bringing the opposite shoulder to knee each time.

0:30-1:00—Toes-to-Ceiling: With legs straight in air, reach up for your toes.

1:00-1:30—0-to-90: If need-be, support your lower back with your hands; elevate and lower your legs from 0 to 90 degrees. Keep your legs as straight as possible, and do not rest them on the floor in between reps.

1:30-2:00—Legs-bent: Bend your legs comfortably, and do regular crunches.

2:00-2:30—Squirm: With shoulders slightly elevated off of the floor and knees bent, reach for your ankle with the “ipsilateral” hand; then alternate and reach for the opposite ankle with the other hand.

2:30-3:00—Legs-flat: Regular crunches with legs flat out.

3:00-3:30—Scissors: Elevate legs 6 inches off the ground, and Criss-Cross your legs over and back again. Support your lower back with your hands if necessary.

3:30-4:00—Back Crunches (aka: “Supermans”): Roll over on your stomach, and with arms extended, lift your chest off of the ground. For a more intense back work-out, lift your legs off of the ground simultaneously.

4:00-4:30—Jack-Knife Left: Roll onto your back, and bring your left knee up to your right elbow, making sure to lift the right shoulder off the ground.  
4:30-5:00—Jack-Knife Right: Same thing, just with right knee to left elbow

5:00-5:30—In-and-Outs: Beginning with your legs off of the floor and tucked in towards your chest, straighten your legs outward while leaning back at the same time. Then return to the tucked position.
5:30-6:00—Roll-ups!: Beginning with back and legs flat on the floor, roll your back up off the floor and reach forward to touch your toes.

6:00-6:30—Six-Inches: With back flat, lift your heels six inches off the floor and hold for thirty seconds.

6:30—Congratulations!! You’re finished!

**Phuong Do Nguyen MSIV**

Which reality show? *I don’t really know that many*

Occupation before Med School? Attraction hostess at Disney

Answer to Obesity? Make veggies cheaper and increase price on junk food

Favorite Medical TV Show? *“Gray’s Anatomy”*

Medicine or Surgery? “Oh, and my favorite

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**Grant Webber MSIV**

Which reality show? *“I Love NY”*

Occupation before Med School? Student/Frat Brother

Answer to Obesity? Larger doorways.

Favorite Medical TV Show? *“ER”*

Medicine or Surgery? Uh . . . Radiology
Impact of Sleep Deprivation

Adequate sleep is essential to health. According to a 2006 IOM Report:

“Effects of sleep loss and sleep disorders have been associated with a wide range of deleterious health consequences including an increased risk of hypertension, diabetes, obesity, depression, heart attack, and stroke.”

Poor sleep also influences cognition, immune function and mood. Consider the results of a 2007 Sleep in America Poll of 1,003 women which found that women who reported daytime sleepiness also described: 80% high stress; 39% spent less time with friends/family; 33% too tired for sex; 27% drove drowsy at least once per month; and 20% were late to work in the past month.

Sleep Physiology

The sleep-wake cycle of 8 hours of sleep and 16 hours of wakefulness is controlled by sleep drive and circadian rhythm. Sleep drive, which grows stronger with each hour of wakefulness, is influenced by a compound called adenosine. Adenosine builds up during the day and breaks down at night. Circadian rhythm is a biological clock set by recurring cycles of light and dark. Response to light signals via the eye control production of melatonin. As melatonin increases, drowsiness increases.

Sleep is an active physiological process with two distinct types: rapid eye movement (REM) and non-REM (NREM) sleep. REM sleep is characterized by intense brain activity. Breathing, heart rate and blood pressure increases, eyes move, and limbs are temporarily paralyzed. This is when most dreams occur. NREM has reduced physiologic activities: brain waves, breathing, heart rate, and blood pressure slows. NREM has four distinct stages. Stage 1 is the drowsy transition to sleep. Stage 2 is light sleep. Stages 3 and 4, known as slow wave sleep, are deeper sleep. Grogginess results if awakened during slow wave sleep. Bedwetting, night terrors and sleep walking typically occur during slow wave sleep.

Generally, REM and NREM cycle throughout the night in predictable patterns that alternate every 90 to 110 minutes. These cycles repeat 4 to 6 times a night. The amount of time spent in each cycle is not constant throughout the night, nor throughout our lives. The percentage of slow wave sleep time declines with each decade of life. The right mix of REM and NREM is important for restful and restorative sleep. (To test your knowledge about sleep, take the AASM Sleep Quiz at http://www.sleepeducation.com/MedSleepQuiz.aspx )

Quantity of Sleep

How much sleep is enough? According to sleep scientists, adult sleep needs vary between ranges of 7 to 9 hours. School age children and adolescents require a minimum of 9 hours of sleep each night, pre-schoolers 10 to 12, and Newborns 16 to 18. Studies indicate that sleep deprivation impacts decision making, reflexes, reaction time, and mood. Unlike adults who slow down when sleepy, children often become more hyperactive when sleep deprived.

Quality of Sleep

The quality of sleep is also important. Common abnormalities in sleep quality include (1) taking an hour or more to fall asleep; (2) waking up and being unable to resume sleep; and (3) broken sleep with numerous, short awakenings throughout the night, lasting several minutes or more. Sleep disor-
ders characterized in this way are labeled insomnias. Chronic insomnia occurs when problems persist for at least three nights a week for a month or more.

**Source of Sleep Disorder**

Before embarking on a treatment plan, it is important to understand the source of your sleep disorder. Medical conditions that can negatively impact sleep include sleep apnea, restless leg syndrome, narcolepsy, menopause, and parasomnias (abnormal arousals). Depression, anxiety, alcohol, caffeine, prescription medications, and night shift work can also interfere with sleep. Gain a better understanding of your unique sleep patterns by keeping a sleep diary to track the quantity and quality of your sleep, exercise, alcohol consumption, medications, and daytime sleepiness. If your current lifestyle does not allow for 8 hours of sleep, you may want to reexamine your priorities.

**Treatment Options**

Effective treatment of chronic insomnia may be nonpharmacologic (environmental changes, lifestyle changes, cognitive behavioral therapy, and/or assistive devices) or pharmacologic, typically hypnotic drugs. Some sleep specialists reserve the use of hypnotic agents for those patients who do not respond to nonpharmacologic treatment. Pharmacologic management can be challenging. The majority of hypnotic agents prescribed are for short-term use: 7-10 days or up to 6 months. There is no evidence to support that sleep improvement will continue after hypnotics are discontinued. Since hypnotics have a CNS depressant effect and the capacity to suppress respiratory function, the concomitant use of alcohol is absolutely contra-indicated. In December 2006, the FDA requested hypnotics manufacturers add label warnings and notify health care providers about the risk of anaphylaxis, sleep-driving, sleep-eating, and making phone calls while asleep.

The following consensus statement on chronic insomnia in adults was issued by panelists from the NIH sponsored 2005 State-of-the-Science Conference:

“Evidence supports the efficacy of CBT and benzodiazepine receptor agonists in the treatment of this disorder, at least in the short term. Very little evidence supports the efficacy of other treatments, despite their widespread use. ......the panel is concerned about the mismatch between the potential lifelong nature of this illness and the longest clinical trials, which have lasted 1 year or less. ......Finally, there is a major need for educational programs directed at physicians, health care providers, and the public.”

Since the management of sleep disorders can be so complex, consider consultation with an accredited sleep specialist or center. The Tampa General Hospital Sleep Disorders Center Program and the Tampa Sleep Center at University Community Hospital are both accredited by the American Academy of Sleep Medicine (AASM).

**Conclusion**

The magnitude of sleep problems in America has grown substantially and there is no “one size fits all” approach to treatment. The IOM Committee on Sleep Medicine and Research has recommended a coordinated strategy to address the current public health burden of sleep disorders. Three of their recommendations are to 1) increase awareness among the general public; 2) expand education and training of health care professionals; and 3) increase invest-
Monell researchers find metabolic defect in liver that can lead to obesity

Study opens door to development of new obesity drugs

Philadelphia (July 24, 2007) -- Researchers at the Monell Chemical Senses Center have identified a genetically-transmitted metabolic defect that can lead to obesity in some individuals. The defect involves decreased production of liver enzymes needed to burn fat and may help to explain why some people become obese while others remain thin.

The global obesity epidemic is thought to be caused in part by the increased availability and intake of high calorie foods rich in fat and carbohydrates. These foods promote weight gain in humans and other animals, leading to a diet-induced obesity. The propensity to gain weight and become obese when consuming a high-fat diet is at least partially controlled by genes.

"Results of this study help explain the interaction between genes and diet that underlies diet-induced obesity," comments senior author Mark Friedman. "They also point to a way to identify individuals at risk for dietary obesity, perhaps even during childhood before the development of unhealthy eating habits."

The current study, published in the August issue of Metabolism, demonstrates that genetic susceptibility to diet-induced obesity is due to a reduced capacity to burn fat.

Fat is one of the fuels that the body's cells burn to provide energy. This process, known as fat oxidation, takes place inside mitochondria, the cell's power plants for generating energy.

If the ability to oxidize fat is impaired, the body's capacity to make energy is reduced. This leads to increased hunger and overeating, as the body tries to increase the amount of energy available to meet its needs.

When the diet is low in fat, a reduced ability to burn fat has relatively little impact on energy production. However, if fat oxidation is impaired and the diet is high in fat, a greater proportion of calories cannot be used and food intake increases to cover the energy deficit. Because fat fuels are stored in fat tissue when they're not oxidized, the increased food intake causes weight gain.

To determine whether preexisting differences in fat oxidation might contribute to individual susceptibility to diet-induced obesity, Friedman and lead author Hong Ji used rats that differ in their genetic predisposition to gain weight and become obese when fed a high-fat diet.

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The closely-related strains weigh the same and eat the same amount of calories when fed a low-fat diet. However, when switched to a high-fat diet, the strain that is obesity-prone overeats and becomes obese, while the obesity-resistant strain does not.

The researchers found that even when eating a low-fat diet and still lean, the obesity-prone rats were less able to burn fat than were the obesity-resistant rats. This intrinsic deficit in fat oxidation was associated with a decrease in the capacity to make two liver enzymes. One, CD36, is responsible for transferring fat fuels into liver cells, while the second enzyme, acyl-coenzyme A dehydrogenase, begins the oxidation process in mitochondria.

When fed a high-fat diet, the obesity-prone rats overate and became obese, gaining 36% more weight than resistant animals. Fat oxidation was further compromised due to a decreased ability to make CPT1A, the liver enzyme responsible for transporting fat into mitochondria.

“The inherited propensity to gain weight when eating a high-fat diet appears to be due to a preexisting limit on the ability to burn fat in the liver. This deficit persists during the development of obesity and is then further compounded by additional deficits in the fat oxidizing machinery,” comments Friedman.

Other studies in Friedman’s laboratory have demonstrated that a decrease in fat oxidation and energy production in the liver generates a signal that stimulates eating. Experiments in his and other laboratories have also found that treatments that increase fat oxidation reduce food intake and cause weight loss in obese rodents.

With this in mind, Friedman notes, “The present findings point to fat oxidation in the liver as a target for the development of drugs that suppress appetite and promote weight loss in obese individuals.”

Future studies will guide development of such interventions by examining more closely the function and activity of the target enzymes.

Fariha Esmail  
MSIII

Which reality show? “Survivor”
Occupation before Med School? Student
Answer to Obesity? Acceptance
Favorite Medical TV Show? “Gray’s Anatomy”
Medicine or Surgery? Medicine

The Monell Chemical Senses Center is a nonprofit basic research institute based in Philadelphia, Pennsylvania. For 39 years, Monell has been the nation’s leading research center focused on understanding the senses of smell, taste and chemical irritation: how they function and affect lives from before birth through old age. Using a multidisciplinary approach, scientists collaborate in the areas of: sensation and perception, neuroscience and molecular biology, environmental and occupational health, nutrition and appetite, health and well being, and chemical ecology and communication. For more information about Monell, please visit www.monell.org.

CITATION: Ji, H. and Friedman, M.I. Reduced capacity for fatty acid oxidation in rats with inherited susceptibility to diet-induced obesity. Metabolism, 2007, 56, 1124-30.