

DECEMBER 2013

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

# ENDOCRINE **news**

## PIPE dreams?

Is **GASTRIC BYPASS**  
a Cure for **DIABETES**  
in Obese Patients?



THE  
ENDOCRINE  
SOCIETY®

**THE NAME GAME:**  
**Metabolic or**  
**Bariatric Surgery?**

**FUNNY BUSINESS:**  
**Humor as a**  
**Treatment**



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**COVER Story**

**13 Pipe Dreams?**

*By Eric Seaborg*

Aside from weight loss, gastric bypass surgery has been shown to eliminate diabetes in certain patients. Studies find a remarkable increase of insulin-raising hormones post-surgery. Could this be the first steps to a cure?

**22 The Name Game**

*By Miriam E. Tucker*

Some surgeons recommend calling “bariatric” surgery “metabolic” surgery when used to treat diabetes and other metabolic conditions. However, there’s more involved than just semantics.

**26 Laughing Matters**

*By Melissa Mapes*

The old adage says that “laughter is the best medicine.” While humor can help with patient care, it’s important to know the right time to crack a joke.

**28 Social Therapy**

*By Melissa Mapes*

Online networks are for more than just posting cat photos and commenting on your latest meal; now they are a vital tool to help patients handle diabetes without feeling alone.

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## You Can Be The Endocrine Society's Best Advocates

As we near the end of the year, much work is left to be done on Capitol Hill. Members of Congress continue to debate important budget issues, and physician payment cuts loom unless Congress takes action.

The Endocrine Society continues to engage with your senators and representatives on your behalf, but the best tool in our armamentarium is you. Although professional organizations such as the Society are an important voice to educate members of Congress, policymakers

need to hear from their constituents that they must act on these issues.

The Society has developed an advocacy toolkit that provides our members with resources to help them advocate for themselves. These tools are as simple as sending a pre-written letter to your representative, attending a "Town Hall Meeting" hosted by your member of Congress, or submitting a letter-to-the-editor in your local paper. The Society's staff of experienced government affairs professionals is ready and eager to make your engagement in advocacy as easy as possible. I've used the tools that have been created for us, and they are fantastic, fast, easy, direct, and I've received notes back from my congressmen, so they are effective!

Since the Society launched the National Institutes of Health advocacy toolkit in August, our members have sent hundreds of letters to Capitol Hill and have shared numerous stories about the impact of declining research budgets with the media. If you have participated in this advocacy campaign, or any other campaign supported by the Society, thank you! But unfortunately, your work is not done as Congress is still grappling with

these issues, so I urge you to become further engaged by visiting [www.endocrine.org/congress](http://www.endocrine.org/congress) to learn about additional advocacy action steps. If you have not yet gotten

involved in the Society's advocacy efforts, there is still time and I urge you to join us by visiting [www.endocrine.org/toolkit](http://www.endocrine.org/toolkit). Your efforts will have a tremendous impact in support of the Society's efforts and for endocrinologists.

The Society has a core group of members who have dedicated themselves to supporting the Society's advocacy work, which includes the members of the Society's Advocacy and Public Outreach Core Committee (APOCC). Committee members visited Capitol Hill on the eve of the government shutdown (below left) to urge policymakers to protect the National Institutes of Health from additional budget cuts and to identify a balanced approach to deficit reduction, and to replace the Medicare payment formula with a new payment model and stable payments for five years. I also had the opportunity to carry these messages during a visit to Washington, D.C., in November, and was able to see first-hand the impact that our work is having on Capitol Hill. I encourage everyone to engage with their representatives so that you too can appreciate your influence. You can make a difference to your field, your laboratory, the next generation of scientists and practitioners, and your patients.

Please share your comments, questions, and ideas by writing to me via [president@endo-society.org](mailto:president@endo-society.org). EN



Teresa K. Woodruff, PhD



Teresa K. Woodruff meets with senate deputy majority leader Richard Durbin (D-Ill.).



APOCC members on the steps of the Capitol on the eve of the government shutdown: (l to r) Jingjing Kip, Vineeth Mohan, Steve Anderson, Robert Vigersky, Jonna Frasor, and Tom Zoeller.

Teresa K. Woodruff, PhD  
President, The Endocrine Society

DECEMBER 2013

# ENDOCRINE NEWS

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

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The Endocrine Society

*Endocrine News* informs and engages the global endocrine community by delivering timely, accurate, and trusted content covering the practice, research, and profession of endocrinology.

The mission of *The Endocrine Society* is to advance excellence in endocrinology and promote its essential and integrative role in scientific discovery, medical practice, and human health.

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*Endocrine News* is published 12 times a year by  
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Suite 900, Chevy Chase, MD 20815  
Phone 301-941-0200 • Fax 301-941-0259  
www.endocrine.org

Print ISSN 2157-2089 Online ISSN 2157-2097  
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We've taken a slightly different approach with the December issue, coincidentally just in time for the high caloric intake of the holidays as we give you a doubleheader with two features on the much publicized and often controversial topic of surgery to address obesity.

Gastric bypass surgery has been well known for its ability to significantly reduce the weight of the patients who seek out this remedy. However, new research seems to indicate that in many of those patients with diabetes, their symptoms are abated or eliminated after undergoing a gastric bypass procedure. While it's too early to tout gastric bypass as a cure, Eric Seaborg's article, "Pipe Dreams" on page 13 certainly gives us an in-depth look at the research as well as what the experts have to say.

Likewise, writer Miriam E. Tucker discusses the controversy over what to call bariatric surgery when it's used specifically to treat diabetes or alleviate other metabolic issues. In "The Name Game" on page 22 she gives us opinions from both sides of this debate, including the issues involving outcomes, treatment, cost-effectiveness, and even insurance coverage. Rest assured this conflict will be ongoing for a while.

For decades, *Reader's Digest* had a humor column called "Laughter: The Best Medicine," that spawned numerous books and postings on many a physician's bulletin board. Melissa Mapes actually puts this theory to the test in "Laughing Matters" on page 26 that includes comments from a variety of healthcare professionals about the healing power of humor. While jokes can prove to be an effective healing tool, it's important to know when — and with whom — to crack a joke.

With the advent of social media, it's not surprising that this medium has been used for populations afflicted with certain conditions and ailments. In "Social Therapy" (page 28), Melissa Mapes hones in on this phenomenon and how it has been effectively used by people with diabetes. While it gives a welcoming, community-like forum for diabetics to talk about their specific issues, it's not a bad idea for physicians to log in and see what concerns their patients have.

Here's hoping that everyone reading this has a happy and healthy holiday season. See you in 2014 when *Endocrine News* aims to tackle the Affordable Care Act and how it will affect the field of endocrinology. If you have any story ideas or topics you'd like to see in upcoming issues, feel free to drop me a line at [mnewman@endocrine.org](mailto:mnewman@endocrine.org). EN



Mark A. Newman,

Mark A. Newman  
Managing Editor, Endocrine News

By Derek Bagley

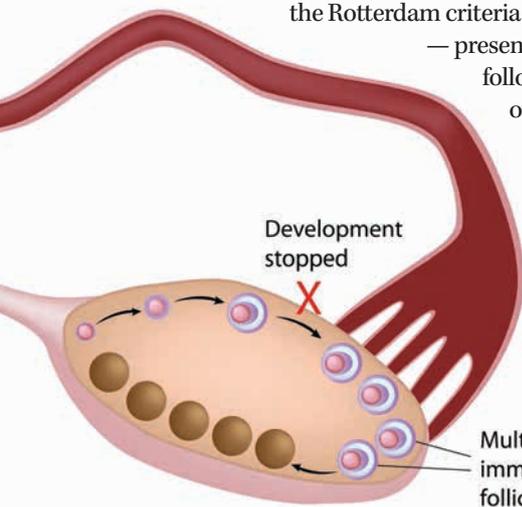
## The Endocrine Society's Guidelines for **DIAGNOSIS AND TREATMENT OF PCOS**

The Endocrine Society, along with a Society-appointed task force, a methodologist, and a medical writer, has developed new practice guidelines for the diagnosis and treatment of polycystic ovary syndrome (PCOS).

The evidence-based guidelines, published in this month's *Journal of Clinical Endocrinology and Metabolism*, aim for a consensus among medical providers for managing PCOS, a disorder that affects more than 5 million in the U.S. alone, and can occur in girls as young as 11. Symptoms include infertility, irregular or even absent menstrual periods, acne, hirsutism, obesity, anxiety, and depression, among others.

The Society task force, led by Richard S. Legro, MD, of Penn State University College of Medicine, recommends using the Rotterdam criteria for diagnosing PCOS

— presence of at least two of the following: androgen excess, ovulatory dysfunction, or polycystic ovaries. Caution should be used when diagnosing adolescents and menopausal women with PCOS, as “hyperandrogenism is central to the presentation in adolescents, whereas there is no consistent phenotype in postmenopausal women,” according to the authors.



The guidelines lay out suggestions for associated morbidity and evaluation of the disorder, as well as each of the symptoms and complications associated with PCOS:

- For pregnancy complications, the Society recommends preconceptional assessment of BMI, blood pressure, and oral glucose tolerance.
- Women with PCOS are at a higher risk for endometrial cancer, but the Society warns against routine ultrasound screening for endometrial thickness in women with PCOS.
- Women and adolescents with PCOS should be screened for depression and anxiety by history and treated appropriately.
- Hormonal contraceptives should be the first-line management for menstrual abnormalities and hirsutism/acne in PCOS. The Society recommends against the use of metformin as a first-line treatment for cutaneous manifestations, prevention of pregnancy complications, or obesity.
- Lifestyle therapy should be used for overweight and obese women with PCOS, as it improves weight loss and lowers cardiovascular and diabetes risk.



## Combination Therapy for Treating **ADVANCED PANCREATIC CANCER**

The drug nab-paclitaxel, when used in combination with gemcitabine, showed promise in significantly improving overall survival in patients with advanced pancreatic cancer, according to a study recently published in the *New England Journal of Medicine*.

The Metastatic Pancreatic Adenocarcinoma Clinical Trial (MPACT), led by Daniel D. Von Hoff, MD, of the Translational Genomics Research Institute, treated 861 patients randomized to receive either a combination of nab-paclitaxel and gemcitabine or gemcitabine alone. Overall, patients who were treated with the nab-paclitaxel/gemcitabine combination had a median survival of 8.5 versus 6.7 months, with doubling of the two-year survival rate compared with patients treated with gemcitabine only (9% vs. 4%).

More patients treated with nab-paclitaxel plus gemcitabine showed a significant reduction in a key tumor marker called carbohydrate antigen 19-9 (CA19-9), which led to longer survival. Patients who had a decrease of at least 90% in CA19-9 and who received the combination therapy had a median survival of 13.5 months, while patients on gemcitabine alone had a median survival of 8.2 months.

PET scans were performed on 257 patients to measure their metabolic response rate, the percentage of patients whose tumor signals decreased (von Hoff et al., ASCO 2013). The results of that particular study showed that 63% of patients who took nab-paclitaxel plus gemcitabine had a reduction in tumor signal, while just 38% of patients who took gemcitabine alone had the same outcome.

## A Novel Approach to Treating **BENIGN PROSTATIC HYPERPLASIA**

Researchers may have discovered a new avenue for treating benign prostatic hyperplasia (BPH), a potentially debilitating disorder that affects many older men.

A team of scientists, led by Chawnshang Chang, PhD, at the University of Rochester, established the first stromal fibromuscular androgen receptor knockout (ARKO) in a probasin promoter–, driven prolactin transgenic (Pb-PRLtg) mouse to study the stromal AR functions in the benign prostatic hyperplasia development.

BPH is a slow, progressive disease that commonly affects men age 50 and older. Symptoms include urinary hesitancy, frequent urination, urinary retention, and increased risk of urinary tract infections, among others, which severely diminish quality of life in these men.

The study, published in

*Molecular Endocrinology*, demonstrated that the stromal fibromuscular AR was able to modulate the epithelial-stromal interaction through epithelial prolactin/prolactin receptor (PRL/PRLR)-granulocyte macrophage-colony stimulating factor (GM-CSF)–stromal signal transducer and activator of transcription 3 (STAT3) axes to facilitate the stromal cell growth. Phenotypic characterization showed that loss of stromal fibromuscular AR displayed reduced prostate size, diminished epithelial/stromal cell proliferation, and alleviated microenvironmental changes including extracellular matrix remodeling and immune cells infiltration.

The researchers concluded that targeting stromal fibromuscular AR with the AR degradation enhancer, ASC-J9®, led to the reduction of prostate size.

## The Importance of Clinician-Performed **ULTRASOUND FOR THYROID CANCER**

Researchers at the Endocrinology & Metabolism Institute at Cleveland Clinic recently presented findings that stress the importance of clinician-performed ultrasounds (C-US) for the proper initial surgical management of differentiated thyroid cancer (DTC).

The study results, presented at the American Thyroid Association's 84<sup>th</sup> Annual Meeting in Coronado, Calif., make the case for endocrine surgeons performing the initial ultrasounds on their patients, since radiology-performed US (R-US) do not typically evaluate the lateral neck for pathologic lymph nodes (LN). According to lead author Jamie Mitchell, MD, "As many pathologic lymph nodes are not palpable, reliance on radiology reports alone can lead to an inadequate operation being performed."

The scientists analyzed 137 patients who underwent modified radical neck dissection (MRND) for DTC. Ninety-four (69%) had pre-referral imaging of their necks, which included US, CT, and MRI. The remaining patients had C-US done as their initial imaging test. "Of those patients with pre-referral imaging," the authors wrote, "C-US detected non-palpable cytologically confirmed, pathologic lateral LN previously not identified in 29 (31%)." Furthermore, 55 (59%) patients had R-US done as part of their initial pre-referral imaging, and 39 (41%) had other imaging procedures done. "Of the 55 patients with R-US, 19 (35%) had non-palpable ultrasound-detected pathologic lateral LN detected on C-US, significantly altering the surgical plan."

Based on these results, Mitchell and his team concluded that without C-US, one-third of the patients in their study population would have had an "inadequate initial operation" to manage their DTC. Healthcare providers should be aware of the limitations of R-US when evaluating patients with DTC, "and C-US is critical in ensuring patients with DTC get the correct initial operation."



## Higher Glucose Levels and **COGNITIVE IMPAIRMENT**

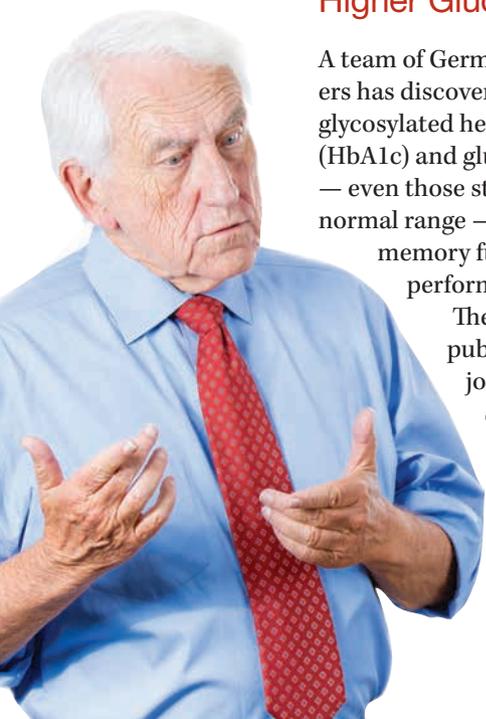
A team of German researchers has discovered that higher glycosylated hemoglobin (HbA1c) and glucose levels — even those still within the normal range — can impair memory function and performance.

The study, published in the journal *Neurology*, examined a "cohort of healthy, older, nondiabetic individuals without

dementia" — 141 individuals (72 women, mean age 63.1 years ± 6.9 SD). Agnes Floel, MD, of Charite-University Medicine in Berlin, and her team tested memory function of the participants using the Rey Auditory Verbal Learning Test. They also determined peripheral levels of fasting HbA1c, glucose, and insulin through blood samples, and used 3-tesla MRI scans to measure hippocampal volume and microstructure.

The scientists observed that higher levels of HbA1c were significantly associated with lower

scores on delayed recall, learning ability, and memory consolidation. They also noted the relationship of higher HbA1c levels and reductions in hippocampal volume, which could explain some of the cognitive impairment. The authors wrote that "mediation analyses indicated that beneficial effects of lower HbA1c on memory are in part mediated by hippocampal volume and microstructure," and concluded that chronically elevated levels of HbA1c and glucose in the older population could lead to an overall decline in cognitive function, although further research is needed.





# Partnering with Physicians for Better Patient Outcomes

## We need your support!

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NETWORK

For more than ten years, the Hormone Health Network has been the go-to resource for delivering trusted, clinically accurate, patient-friendly information on endocrine-related disorders.

With more than 100 **FREE** Fact Sheets and Patient Guides in both English and Spanish, the Hormone Health Network and The Endocrine Society are committed to helping patients better understand their condition and treatment options.

Your contribution is a vital part of creating and distributing these valuable resources.

**Making a donation to the Hormone Health Network has never been easier. Here's how to give:**

1. Use the form provided and send your gift via mail
2. Visit our website at [www.hormone.org/donatenow](http://www.hormone.org/donatenow)
3. Use your annual Society membership renewal form and check the box for Network donations





# Anorexia

## WHAT IS ANOREXIA?

Anorexia nervosa (often just called anorexia) is a condition in which a person loses an unhealthy amount of weight on purpose through dieting, sometimes along with excessive exercise, bingeing, and/or purging. People with anorexia have a fear of gaining weight and a disturbed body image (such as thinking they are fat even when they are very underweight). Doctors do not know the exact cause of this eating disorder.

## DID YOU KNOW?

About ten to fifteen percent of people with anorexia or bulimia are male.

## WHAT ARE THE RISK FACTORS FOR ANOREXIA?

People most at risk for anorexia include those who are young (teenage or young adult) and female. They may have a history of being depressed, anxious, or having obsessive-compulsive disorder. Those at risk may have family members with eating disorders, mental illness, or substance abuse.

Some personal traits may contribute to anorexia. People at risk may feel that they must try to be perfect. They may have poor self-esteem and rigid ways of thinking about food and other issues in their lives. They may feel pressure to be thin. Taking part in certain sports or activities in which they are expected to be thin, such as gymnastics or ballet, could contribute to this feeling.

## DEFINITIONS

**Binge:** To eat a lot of food all at once, with a feeling of lack of control over eating; a person may binge several times a day for weeks or months

**Purge:** To vomit one's food on purpose, or use laxatives, diuretics (water pills), or enemas to lose weight

**Bulimia nervosa:** A condition in which a person both binges and purges but does not limit the number of calories they eat

## WHAT ARE THE WARNING SIGNS OF ANOREXIA?

Warning signs include

- Losing a lot of weight
- Refusing to eat
- Undergoing a change in eating habits and/or being obsessed with food and counting calories
- Exercising a lot or purging to lose weight
- Being depressed or irritable
- Feeling isolated from one's family and/or friends

## WHAT ARE THE SYMPTOMS OF ANOREXIA?

Common physical symptoms include

- Being tired, weak, and dizzy
- Feeling cold all the time
- Being constipated, bloated, or unable to eat a full meal

Someone with anorexia may lose hair, have dry skin, and develop very fine body hair.

## WHAT HEALTH PROBLEMS CAN ANOREXIA CAUSE?

Serious health problems that occur with anorexia include

- Heart problems, such as abnormal heart rhythms or heart failure
- Dehydration and malnutrition, which can lead to fainting, seizures, or pancreatitis (inflammation of the pancreas)
- Anemia
- Tooth decay and/or gum infections

Serious health problems also can occur if a person who has been starving starts taking in too many calories too quickly (called refeeding syndrome). These problems can include heart failure, serious breathing problems, seizures, and even sudden death.

Some people can also have mental health problems, such as thinking about or attempting suicide.

## HOW DOES ANOREXIA AFFECT HORMONE HEALTH?

Anorexia can lead to low bone density, meaning weak bones. When growing teenagers have weak bones, they may end up with weak bones for life, even if they recover from anorexia. Their risk for fractures (broken bones) may increase.

Other hormone problems include

- Delayed puberty and/or growth failure in preteens and teens
- Amenorrhea (lack of menstrual periods)
- Too little estrogen in women, causing vaginal dryness and reduced fertility

## WHERE CAN I GET HELP FOR MY LOVED ONE OR MYSELF?

You can get help from a primary care doctor, a dietitian, a doctor who specializes in adolescent health, or a mental health professional with experience treating eating disorders. If you suspect a loved one has anorexia, get help for them as soon as possible.

## WHAT IS THE TREATMENT FOR ANOREXIA?

A team of medical providers is best for treatment. The person is treated as an outpatient, or sometimes if the weight loss is severe and has caused health problems, in residential programs or the hospital. The team should include a doctor to handle medical problems, a mental health professional for individual and/or family therapy, and a dietitian to manage nutritional issues.

The goals of treatment are to get the person back to a healthy weight and a healthy mental status. Sometimes a person also needs to take medicines, such as anti-depressants, or hormones, such as estrogen.

Treatment can help you or your loved one overcome anorexia and the problems that come with it. But some people find they need ongoing therapy to fight the urge to become anorexic later in life.

## Questions to ask your doctor

- Does my loved one have anorexia (or do I)?
- What are the options for treatment?
- What are the risks and benefits of each treatment option?
- How long will my loved one (or I) need treatment?
- How can I support my loved one during treatment?

## RESOURCES FOR PARENTS

- Maudsley Parents, a site for parents of children with eating disorders: [www.maudsleyparents.org](http://www.maudsleyparents.org)
- Families Empowered and Supporting Treatment of Eating Disorders: [www.FEAST-ED.org](http://www.FEAST-ED.org)
- Books:
  - *Help Your Teenager Beat an Eating Disorder* by James Lock and Daniel Le Grange; Guilford Publishers, 2005
  - *Skills-Based Learning for Caring for a Loved One with an Eating Disorder: The New Maudsley Method* by Janet Treasure, Gráinne Smith, and Anna Crane; Routledge, 2007

## GENERAL RESOURCES

- Hormone Health Network information about:
  - Osteoporosis: [www.hormone.org/Osteoporosis/overview.cfm](http://www.hormone.org/Osteoporosis/overview.cfm)
  - Delayed puberty: [www.hormone.org/upload/FS\\_GD\\_Delayed\\_Puberty\\_EN-web.pdf](http://www.hormone.org/upload/FS_GD_Delayed_Puberty_EN-web.pdf)
- MedlinePlus (National Institutes of Health) information about anorexia: [www.nlm.nih.gov/medlineplus/ency/article/000362.htm](http://www.nlm.nih.gov/medlineplus/ency/article/000362.htm)
- Mayo Clinic information about anorexia: [www.mayoclinic.com/health/anorexia/DS00606](http://www.mayoclinic.com/health/anorexia/DS00606)

### EDITORS

Madhusmita Misra, MD  
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May 2013

The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society ([www.endo-society.org](http://www.endo-society.org)). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at [www.hormone.org/Spanish](http://www.hormone.org/Spanish).

Anorexia Fact Sheet



[www.hormone.org](http://www.hormone.org)



## PTH and CARDIOVASCULAR PROBLEMS

Elderly people who have elevated serum parathyroid hormone (PTH) levels could be at a higher risk for cardiovascular disease (CVD), according to a study recently published in the *Journal of Clinical Endocrinology and Metabolism*.

Researchers at the VU University Medical Center in The Netherlands wrote that “PTH is known to be

one of the key regulatory hormones of mineral homeostasis and bone metabolism. Furthermore, hyperparathyroidism has been reported to be associated with cardiovascular mortality and cardiovascular morbidity.”

The scientists, led by Elisabeth M. W. Eekhoff, analyzed data of the Longitudinal Aging Study Amsterdam (LASA), including 558 men and 537 women, aged 65–88 years. Participants for this particular study were chosen from a larger cohort of 3,107 people who “took part in a baseline examination” in 1992–1993 and were subsequently seen for a follow-up in 1995–1996, as well as being born in 1930 or earlier. Blood samples were taken from this group in 1995 and 1996 after an overnight fast and stored at -20 degrees Celsius. Serum PTH levels and serum 25-hydroxyvitamin D

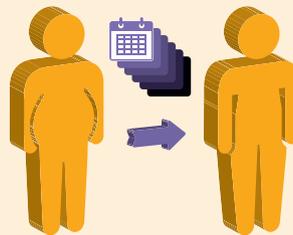
(25(OH)D) levels were then determined in 1997 and 1998 and measured against the extent of abdominal aortic calcification (AAC) and self-reported chronic CVD in each patient.

The authors found that those in the highest quintile of serum PTH levels had a “significantly higher” risk for CVD than those in the lowest quintile, “independently of serum 25(OH)D, BP, or other known confounders.” They found no association between serum 25(OH)D and CVD. They also observed that only the men in the study showed a relationship between PTH and AAC, writing, “this association may partly be explained by a direct relation of PTH to calcifications of the abdominal aorta.” They concluded that “because CVD poses an important health risk, further elucidation of the role of serum PTH in CVD and arteriosclerosis is relevant.”

# Fast FACTS About Bariatric Surgery

Each WEIGHT LOSS PROCEDURE can cost

\$10,000 to \$43,000

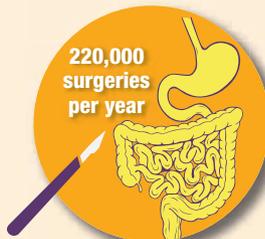


Depending on the type of bariatric surgery, patients often lose 30% to 50% of their extra weight in six months.



The most common form of bariatric surgery — Roux-en-Y gastric bypass surgery — accounts for 80% of weight loss procedures in the U.S.

Morbidly obese patients who are treated with bariatric surgery also reduce their risk of dying from an obesity-related disease, cutting the risk of death from diabetes in half and from cancer by 60%.



The number of bariatric surgeries performed in the U.S. is now more than 16 times higher than it was 15 years ago, totaling around 220,000 a year.

Morbidly obese patients who have bariatric surgery can increase their life expectancy by 89%.



Only 1% of the clinically eligible population is being treated for morbid obesity through bariatric surgery.

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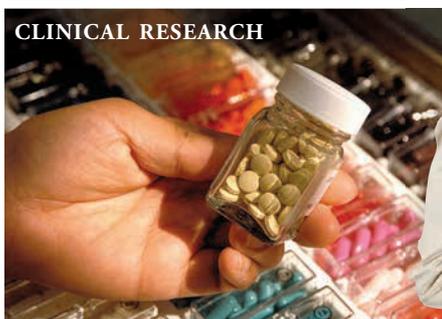
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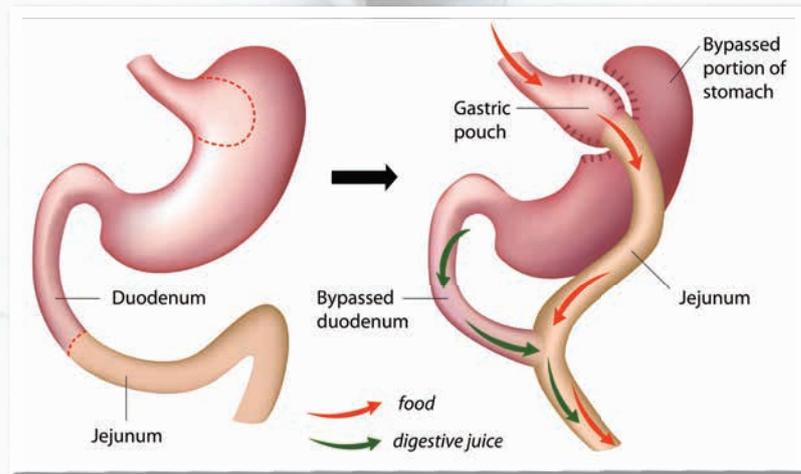
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# PIPE dreams?

By Eric Seaborg

Aside from weight loss, gastric bypass surgery has been shown to eliminate diabetes in certain patients. Studies find a remarkable increase of insulin-raising hormones post-surgery. Could this be the first steps to a cure?



**D**iabetes often resolves in patients who have gastric bypass operations well before the patients lose the weight expected to induce metabolic changes, but the process remains somewhat mysterious. Innovative new studies with unique approaches to comparing pre- and post-operative conditions point to a pair of insulin-stimulating hormones that could play important roles.

“Exploring the impact this surgery has on digestion could yield new, nonsurgical strategies for treating diabetes and obesity,” says the lead author of one of the studies, Nils Wierup, PhD, associate professor at the Lund University Diabetes Centre in Sweden.

Reported in the May issue of *The Journal of Clinical Endocrinology and Metabolism*, the Lund study examined four obese female patients who had recently undergone Roux-en-Y gastric bypass (RYGB) operations. What made these patients special was that they also had a gastrostomy tube inserted at the time of surgery because they were at risk for complications that might necessitate such exigencies as tube-feeding or emptying the stomach of fluids. So each patient had two feeding routes, orally (and, therefore, via the gastric bypass) or directly into the “old path” of the stomach.

### Incretin Increase

A real-time comparison of different feeding methods about 30 days after surgery avoided the confounding effects that may have plagued other RYGB studies, Wierup says. Most studies have been done so long after surgery that patients have had time to lose large amounts of weight and change their eating habits. After the

patients received separate mixed-meal feedings via the two routes, the researchers screened the patients’ blood for approximately 100 hormones and metabolites.

Compared with feeding into the stomach, feeding via the bypass route yielded an almost five-fold increase in plasma insulin, as well as increases in a pair of the hormones called incretins for their stimulation of insulin production: a doubling in glucagon-like peptide 1 (GLP-1) and a 2.5-fold increase in glucose-dependent insulinotropic peptide (GIP, also known as gastric inhibitory peptide). These changes in hormone levels were accompanied by higher branched-chain amino acid levels and lower fatty acid levels. The researchers say that the higher incretin and insulin responses provide “a potential explanation for the rapid remission of type 2 diabetes observed after” RYGB.

In a study published in *Diabetes Care* in April, researchers at Vanderbilt University mimicked the effects of RYGB in 10 obese patients who had not had any surgery by delivering nutrients directly to the jejunum via a nasal feeding tube. In separate visits to the clinic, the patients received glucose to either the stomach or to the jejunum in random order. As in the Lund study, the jejunal delivery increased peak levels of the incretins GLP-1 and GIP.

### Similar Studies

The Vanderbilt group also did a similar study in 2011 in nine subjects who had had both RYGB and gastrostomy tubes. That study found an increase in GLP-1 but not GIP when patients were fed via the RYGB route, although

#### AT-A-GLANCE

- The insulin-stimulating hormones GLP-1 and GIP increased after gastric bypass surgery.
- Findings like these advance understanding of why diabetes can resolve after surgery but before significant weight loss.
- Bariatric surgery remains the most effective weight-loss intervention, but a better understanding of its effects could lead to less invasive treatments.

GIP peaked much more quickly in the bypass patients.

The findings of increased meal-stimulated insulin and GLP-1 are similar to what has been seen in most before-and-after studies of RYGB, according to Bruce M. Wolfe, MD, professor of surgery at the Oregon Health and Science University in Portland. The GLP-1 effect has been recognized long enough that pharmaceutical companies have marketed incretin mimetics, with a GLP-1 analog — exenatide — on the market for several years. Exenatide helps with modest improvements in blood sugar control, although nothing game-changing. It leads to modest weight loss, in contrast to the weight gain generally associated with insulin use, but requires uncomfortable and too-frequent injections. Drug companies are working to come up with a longer-acting version, Wolfe says.

“Exploring the impact this surgery has on digestion could yield new, nonsurgical strategies for treating diabetes and obesity.”

— Nils Wierup, PhD, associate professor, Lund University Diabetes Centre, Sweden

Randy Seeley, director of the Cincinnati Diabetes and Obesity Center, agrees that the literature is consistent when it comes to the effects of RYGB on GLP-1, but says the finding of increased GIP is more controversial. He says some studies show it is increased and others find it reduced, but that GIP is made in the upper duodenum, “so the general version in the literature is that it is reduced after Roux-en-Y bypass because the nutrients aren’t hitting that part of the intestine that is most responsible for making it.”

How then did these researchers find an increase? The Lund paper suggests that “distal GIP production may be induced to compensate for the loss of proximal GIP production in the intestine.”

### Fruitless Debate?

Researchers have no clear idea of how big a player GIP is in the diabetes game, but the question of its production leads into an ongoing debate between two competing hypotheses on which aspect of RYGB provides its diabetes benefits: because it bypasses the foregut and, therefore, excludes anti-insulin hormones secreted there or because accelerating the delivery of nutrients to the hindgut increases the secretion of incretins. Seeley and Wierup concur that after years of inconclusive study, the foregut-hindgut debate may have outlived its usefulness, particularly because RYGB by definition delivers both conditions. And another factor confounding this debate is that studies have shown that simple calorie restriction, whether provided by diet or surgery and independent of weight loss, can lead to fast and dramatic improvement in diabetes measures.

Wierup says that the study’s finding that branched-chain amino acids increased after feeding via the bypass



### SURGERY to Treat Diabetes?

Interest continues to grow in using bariatric surgery not simply for weight loss among the morbidly obese, but as “metabolic surgery” to treat diabetes. Many supporters of greater use of surgery maintain that guidelines have not kept up with technical advances and are too restrictive.

The June 5 issue of *JAMA* contained a pair of articles germane to the topic. A 12-month randomized clinical trial in 120 mild to moderately obese patients with poorly controlled diabetes found that adding Roux-en-Y gastric bypass surgery to lifestyle and medical management increased the likelihood of achieving the American Diabetes Association composite goals for glycosylated hemoglobin, low-density-lipoprotein cholesterol, and blood pressure. But the authors noted that the potential benefits had to be weighed against the still-problematic risks of complications.

A literature review of surgery for weight loss and glycemic control among nonmorbidly obese adults with diabetes found that in patients with a BMI of 30 to 35, bariatric surgery is associated with greater short-term weight loss and better glucose outcomes compared with nonsurgical treatments. But a dearth of studies led the authors to say that the “evidence is insufficient to reach conclusions about the appropriate use of bariatric surgery in this population.”

route “was unexpected because other researchers have shown, at least a long time after surgery, you get reduced branched-chain amino acids.” He says the finding could be significant because some branched-chain amino acids are direct stimulators of insulin secretion — in vitro experiments with leucine have demonstrated a powerful insulin effect. Wierup notes that despite this effect, branched-chain amino acids have been considered a marker for insulin resistance, and that the new findings call this role into question.

The significance of the changes these researchers identified is still an open question because, as Wolfe says, “There are so many changes occurring after surgery, you can’t measure them all.” And researchers will continue to sort out their importance.

But there is no disputing Wierup’s conclusion: “The take-home message is that the metabolic state is better if you get the food the bypassed way compared to the non-bypassed way.” **EN**

— Seaborg is a freelance writer based in Charlottesville, Va., and a regular contributor to *Endocrine News*.

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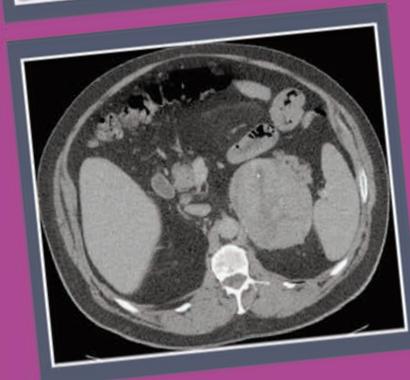
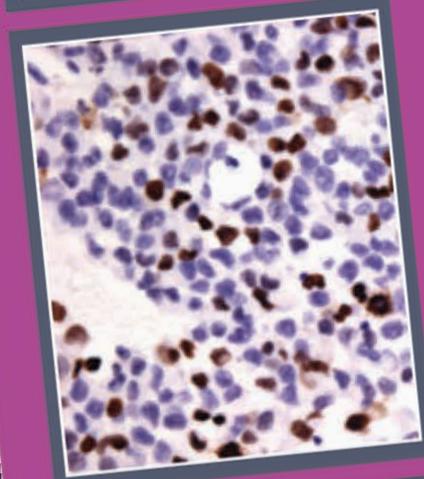
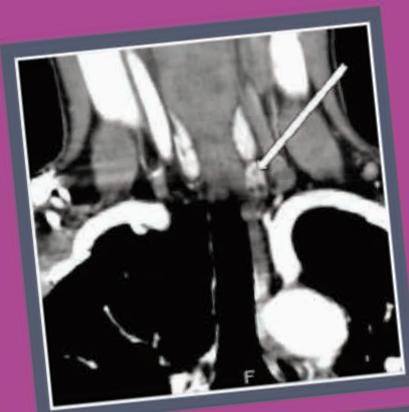
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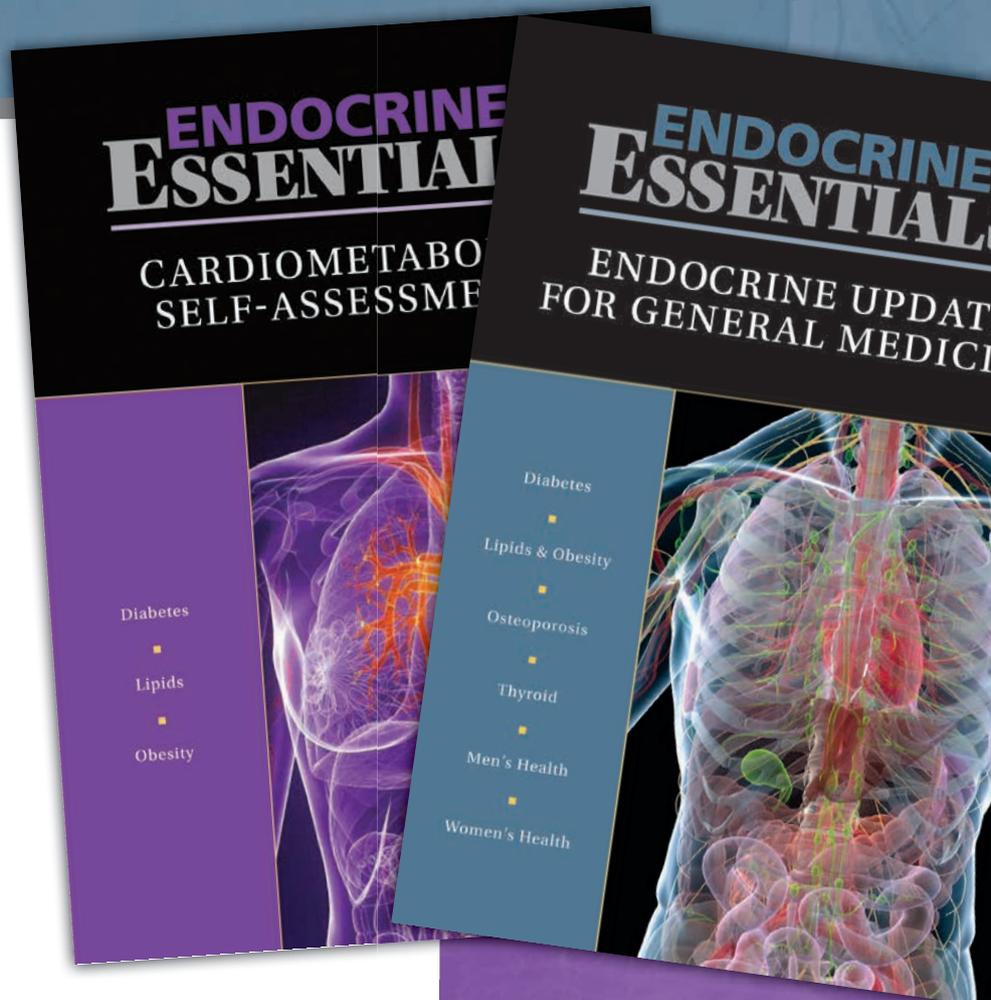
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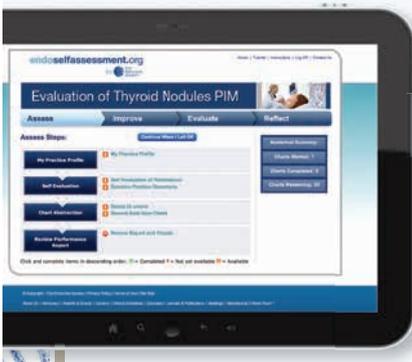


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# The Name Game

By Miriam E. Tucker

Often in medicine, a treatment for one condition turns out to be useful for another. Aspirin, for example, started out as a pain reliever and became a go-to pill for heart attack prevention. Similarly, evidence is mounting that surgery to treat weight loss is also a powerful anti-diabetes therapy ... but the concept is proving a bit more controversial than aspirin.

Gastrointestinal surgeon Francesco Rubino, MD, would like the medical community to embrace surgery as a viable option for selected patients with type 2 diabetes who don't respond to medical treatment. To facilitate that, he's pushing for a categorical name change: Rather than "bariatric" surgery, which refers to weight loss, he believes that if the surgery is being done specifically to treat diabetes and related conditions — regardless of the patient's body mass index (BMI) — "metabolic" surgery is a more appropriate term.

Of course, the term "metabolic" surgery isn't new. In 2007 the then-titled American Society for Bariatric Surgery officially changed its name to the American

Society for Metabolic & Bariatric Surgery (ASMBS), in recognition of the accumulating data suggesting that gastric bypass and other gut-altering procedures trigger immediate improvements in glycemic control and other metabolic parameters among obese patients with diabetes even prior to weight loss, presumably due to gut hormonal changes. Over the last decade, many individual bariatric surgery centers have added the word "metabolic" to their names.

Yet, Rubino notes, there are still no universally accepted clinical practice guidelines or standards for the practice of "metabolic" surgery, such as pre-operative and follow-up requirements for glucose and hemoglobin A1c testing, or for endocrinology consultation.

"Metabolic surgery isn't just the technique or procedure you use. It's also the model of care around it: How you prepare the patient for surgery, what diagnostic evaluations and post-operative strategies you use. All of these things depend on the disease you want to treat, not the BMI," says Rubino, who has recently moved from

## AT-A-GLANCE

- Some gastrointestinal surgeons are pushing for the term "metabolic" surgery instead of "bariatric" when the procedures are being used specifically to treat diabetes and other metabolic conditions.
- Controversy surrounds the use of surgery to treat diabetes in patients who aren't morbidly obese.
- Regardless of the name, most health insurance plans don't cover the surgery for patients with a BMI below 35kg/m<sup>2</sup>.

# METABOLIC SURGERY



Some surgeons recommend calling “bariatric” surgery “metabolic” surgery when used to treat diabetes and other metabolic conditions. However, there’s more involved than just semantics.

New York to London to establish a multidisciplinary metabolic surgery program at King’s College.

But some endocrinologists question the extent to which surgery should be considered as a primary treatment of type 2 diabetes, particularly for patients at the lower end of the obesity scale. “For BMI 30-35 [kg/m<sup>2</sup>], we don’t know what the risk benefit ratio is,” says Harold E. Lebovitz, MD, professor of medicine at the Division of Endocrinology and Metabolism/Diabetes at the State University of New York, Health Sciences Center at Brooklyn.

Lebovitz points out that while there is currently no effective medical treatment for morbid obesity — therefore, shifting the risk/benefit ratio in favor of “bariatric” surgery — at least 14 medications are available for the treatment of type 2 diabetes, as well as statins and antihypertensives for the related metabolic conditions.

And, he notes, there are risks to bariatric/metabolic surgery, including anastomotic ulceration and leakage, nutritional deficiencies, and death. With regard to treating diabetes, “The question is, does metabolic surgery give you better long-term clinical outcomes? The answer is we don’t know.”

## What’s in a Name?

The terminology difference isn’t trivial, Rubino says. While at Cornell University, he and his colleagues had set up a metabolic surgery program, separate from the already-existing bariatric surgery program.

They found distinct differences in the patient groups referred to the respective programs: Those referred for metabolic surgery were older, had a lower BMI, were more likely to be male, and more likely to have diabetes, dyslipidemia, and hypertension.

Bariatric surgery patients, in contrast, were primarily younger and female and less likely to have co-existing conditions beyond obesity.

“I don’t think we’re going to change this unless we really understand that we’re doing surgery for a disease such as diabetes.

**We need to be more consistent with trying to prevent illness and death.”**

— Francesco Rubino, MD, King’s College, London

Philip R. Schauer, MD, who was president of the ASMBS in 2007 and spearheaded the society’s name change, agrees with Rubino. “The term ‘bariatric’ had become only partially correct,” he says. “It only means weight loss. That’s a big part of what these operations do, but not the only. These procedures — particularly the bypass-type procedures — have a secondary benefit.”

According to Schauer, who directs the Cleveland Clinic Bariatric and Metabolic Institute, “The term ‘bariatric’ to the public, and even to doctors, is confusing. We’ve struggled in this whole field with this extra stigma and prejudice ... [Obesity] is one of the

## OnPOINT from The Endocrine Society

In 2012, the Endocrine Society published a Metabolic Surgery Update in its journal *Translational Endocrinology & Metabolism* (TEAM) available at [www.endojournals.org](http://www.endojournals.org). The Society also has a Clinical Practice Guideline that delves deeper into the post-surgery care for bariatric patients entitled *Endocrine & Nutritional Management of the Post-Bariatric Surgery Patient* (2010) that can be found at [www.endocrine.org](http://www.endocrine.org). Additionally, there are a series of fact sheets published by the Hormone Health Network that can be accessed at [www.hormone.org](http://www.hormone.org).

few diseases that still has the connotation of the individual being irresponsible and lazy.”

“I think ‘metabolic’ is a better term, and I think eventually it could replace ‘bariatric,’ because metabolic includes weight loss but goes much beyond weight loss,” says Schauer, who is also professor of surgery at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University.

Rubino says, “It takes time, because this is a conceptual revolution. It’s a revolution in the way of offering surgical care. Everything changes when you make that shift. It’s not just a semantic issue.”

### Interpreting the Data

The success of that shift will depend in large part on the strength of the data. There are now four published randomized clinical trials — three of them including patients with a BMI below 35kg/m<sup>2</sup> — demonstrating superiority in achieving diabetes remission with surgery over medical treatment.

Study sizes range from 60 to 218 patients, and follow-up from one to two years. An article published in the April 26, 2012 volume of the *New England Journal of Medicine* showed that diabetes remission rates ranged from 95% for biliopancreatic-diversion, to 42% to 75% for gastric bypass, while a paper appearing in the January 23, 2008 issue of the *Journal of the American Medical Association* showed a diabetes remission rate of 73% for adjustable gastric banding.

Rubino says, “The bottom line is we now we have randomized clinical trials that have confirmed what we probably knew already from non-randomized observational trials: The efficacy of surgery is of such magnitude that you usually don’t see with medical therapy.”

He points to studies that have identified several possible mechanisms to explain the rapid diabetes remission, including alterations in gut hormones, gut bacteria, bile acids, and nutrient sensing.

But Lebovitz isn’t completely convinced on that point, noting that other studies suggest it’s primarily the weight loss and reduced caloric intake that’s causing the benefit. “This is not a resolved issue,” he says. “The reduction in calorie intake occurs immediately. One has to differentiate between the actual weight loss and the reduction in food intake.”

Lebovitz cautions that the nutritional deficiencies resulting from the procedures can be significant. Moreover, the data also suggest that patients with a lower BMI and longer diabetes duration are less likely to achieve remission.

“The important issue is, if you have diabetes and a BMI of 33, should you consider surgery as being comparable to medical therapy for the treatment of diabetes?” Lebovitz ponders. “I would say probably at the moment not, because we don’t yet know the long-term effects of the surgery.”

But more information is coming, Schauer says. His group plans to publish three-year and five-year data for their aforementioned study. In the meantime, they just published six-year, non-randomized data from 217 patients with BMIs ranging from 32 to 73, of whom one in four was still in remission (A1c less than 6% and fasting blood glucose below 100 mg/dL off all diabetic medications). Other metabolic benefits were also observed and published in the October 2013 issue of *Annals of Surgery*.

“It’s a very hot topic ... It’s controversial. A lot of endocrinologists have a tough time reconciling the data with their upbringing on how the disease is managed,” Schauer says. “They were raised on shots and pills, and surgery is very radical. But the data are the data.”

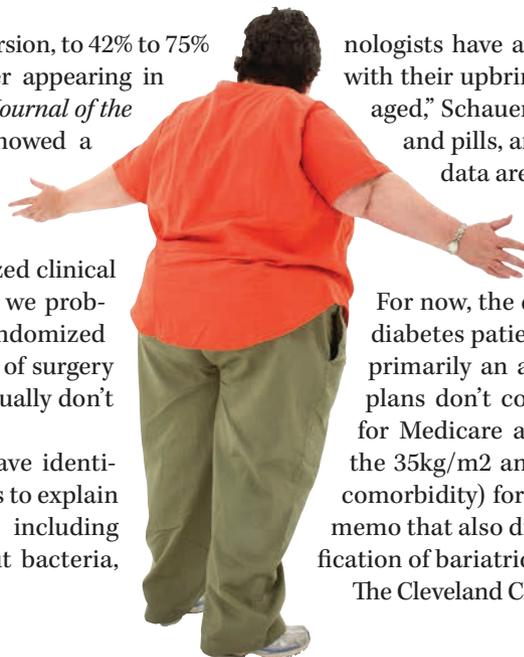
### Coverage and Cost-Effectiveness

For now, the question of metabolic surgery for diabetes patients with a BMI below 35kg/m<sup>2</sup> is primarily an academic one, since most health plans don’t cover it. In September, the Center for Medicare and Medicaid Services reiterated the 35kg/m<sup>2</sup> and above cutoff (plus one obesity comorbidity) for Medicare coverage in a decision memo that also dropped the requirement for certification of bariatric surgical facilities.

The Cleveland Clinic, Schauer’s institution, was the

“The term ‘bariatric’ to the public, and even to doctors, is confusing. We’ve struggled in this whole field with this extra stigma and prejudice... [Obesity] is one of the few diseases that still has the connotation of the individual being irresponsible and lazy.”

— Philip R. Schauer, MD, director, Cleveland Clinic Bariatric and Metabolic Institute





## The Endocrine Society's Response: METABOLIC SURGERY STUDIES

The March 26, 2012 issue of *The New England Journal of Medicine* included two randomized controlled trials reporting superior weight loss and diabetes remission with metabolic surgery compared with medical treatment of obese patients with type 2 diabetes. Here is a part of a statement issued by The Endocrine Society in response:

*Importantly, these studies are relatively short term. Future randomized controlled trials that follow patients for over two years will be required to understand the differences in long-term remission of diabetes.*

*Sustained long-term benefits will require maintenance of the metabolic changes achieved. Bariatric surgery is not a guarantee of successful weight loss and maintenance. In view of the progressive nature of beta-cell failure in the natural history of type 2 diabetes, only long-term studies can establish the ability of surgery to impact quality of life and mortality in type 2 diabetes.*

*Medical treatment has shown evidence that tight control of diabetes reduces the progression to secondary manifestations of diabetes such as retinopathy, neuropathy, and nephropathy. Therefore, it is likely that remission of diabetes, even if temporary, will still lead to a reduction in the progression to secondary complications of diabetes, which would be an important outcome of weight loss surgery.*

*The Endocrine Society recommends that practitioners consider several factors in recommending surgery for their obese patients with type 2 diabetes:*

- the patient's BMI and age
- the number of years of diabetes
- an assessment of the ability to comply with the long-term lifestyle changes that are required to maximize success of surgery and minimize complications.

*Importantly, shared decision-making is critical. The success of weight loss surgery in patients with obesity and diabetes ultimately depends on the partnership of patient, endocrinologist, surgeon, and a support team in the continuum of the long-term care of the patient.*

first of what is still a very small handful of individual facilities that are experimenting with expanded coverage for metabolic surgery. To qualify, employees with diabetes and a BMI 30-35kg/m<sup>2</sup> must be under the care of an endocrinologist, have A1c of 7.5% or above for at least six months despite taking at least three diabetes medications, and must participate in a coordinated care program for diabetes management.

Studies have assessed cost-effectiveness of metabolic surgery in the under-35kg/m<sup>2</sup> BMI group, with conflicting results. More data are expected soon, Schauer says.

But Rubino and Lebovitz — who are actually good friends — agree that BMI should not be the sole criterion used to determine which patients should undergo metabolic surgery or whether it should be covered by insurance.

According to Lebovitz, “The problem with BMI is that it doesn’t really tell you about where the fat is and whether you have the metabolic consequences of obesity. You can have two people with the same BMI, but one will have insulin resistance, dyslipidemia, and

**“The problem with BMI is that it doesn’t really tell you about where the fat is and whether you have the metabolic consequences of obesity.**

**You can have two people with the same BMI, but one will have insulin resistance, dyslipidemia, and hypertension, while the other has none of those.”**

— Harold E. Lebovitz, MD, professor of medicine, State University of New York, Health Sciences Center, Brooklyn

hypertension, while the other has none of those.”

Indeed, Rubino says, “I’m hopeful that in the future, ongoing studies will tell us the best predictive factors for surgical outcomes.”

Meanwhile, Rubino sees the cost-effectiveness discussion as beside the point. “What is the cost-effectiveness of gallbladder surgery? Many of these patients would never go on to pancreatitis. There are cancer surgeries that have dubious effect, but nobody is going to say we don’t cover surgery for cancer. But with bariatric surgery, there is a stigma.”

Hence, the name change. “I don’t think we’re going to change this unless we really understand that we’re doing surgery for a disease such as diabetes. We need to be more consistent with trying to prevent illness and death.” **EN**

— Tucker is a freelance medical journalist based in Bethesda, Md.

# LaUGHing MATTERS

Knowing when and how to  
use humor as a treatment tool

By Melissa Mapes

**W**e have all heard that “laughter is the best medicine.” It took a while for science to show the truth behind this old axiom, but studies indicate that laughter can reduce cortisol and increase endorphins, leading to higher morale and many other improved patient outcomes. Physicians in fields ranging from psychiatry to oncology now hail its healing benefits. However, some experts caution that humor can do more harm than good when used incorrectly. Knowing when to drop a one-liner and when to stay sober is an imperfect science, and often more difficult than it sounds.

At the Schwartz Center for Compassionate Healthcare at Massachusetts General Hospital, resources are dedicated to promoting positive relationships between caregivers and patients. Richard Penson, MD, MRCP, clinical director of medical gynecologic oncology, and his colleagues meet there once a month to discuss different topics related to patient care. When the subject of humor came up, the group had a lot to say — so much so that Penson decided to do some research of his own. He wrote a commentary piece based on his findings for *The Oncologist*, titled, “Laughter: The Best Medicine?”

During the group meeting at Massachusetts General, there were two presenters: a nurse who was famous at the hospital for her laugh, and a doctor who was known for his quick wit. “They talked about how at one end of the spectrum you have high-risk humor, like gallows humor, and the rather more dangerous things about humor — how you could hurt people. At the other end of the spectrum, how it can be really engaging and make the process of modern healthcare humane and personal,” says Penson.

The group decided to categorize humor as a “high-risk” form of interaction. Because of this, Penson warns physicians and other medical professionals to tread carefully when cracking jokes around patients. He summarizes the upsides and downsides of humor in his review, writing that, “When used sensitively, respecting the gravity of the situation, humor can build the connection among the caregiver, patient, and family. However, insensitive joking is offensive and distressing, and experience suggests a variable acceptance of humor by patients with life-threatening illnesses, making humor a high-risk strategy.”

## AT-A-GLANCE

- Some experts caution that humor can do more harm than good when used incorrectly.
- Physicians should be cognizant of their patients' personalities when considering a joke.
- Simulated laughing may seem strange at first, but patients find themselves feeling happier from the experience nonetheless.

## Not Everyone's Laughing

Although humor has been found to be a dicey form of patient interaction, Penson does think it works for certain people. "I'm not much of a joke teller, but I always have a few patients who come in wanting to trade jokes," he explains. He likes to tell a go-to zinger about a seeing-eye Chihuahua, but generally he recommends that patients focus on diet, exercise, and attitude instead.

"People who would use humor should use humor," Penson continues. The lesson he emphasizes is that the interaction should feel natural — not forced — and physicians should be cognizant of their patient's personality when considering a joke. "You can't get someone who has a somber perspective to reframe their situation with an element of humor when they have a diagnosis of cancer," he says.

All in all, Penson's answer to incorporating humor comes down to individual comfort. A good joke can break the ice and form an instant connection with a patient, so if that method of interaction comes normally to a physician, he or she should continue to use it. But if witty banter is not one's regular style, it should be avoided.

## All Kidding Aside

Not all experts are hesitant to try for laughs, though. Ramon Mora-Ripoll, MD, PhD, Spanish Network for Research in Science of Laughter, believes that humor can be easily integrated into treatment plans without risk. With his method — simulated laughter — jokes are not required.

He has studied the use of humor and witnessed positive outcomes firsthand. His interest in the subject began when his colleagues commented on his own funny personality and how it lightened their work environment. Mora-Ripoll decided to investigate the chemical processes behind these effects. "Laughter triggers the release of hormones and neurotransmitters that cause physiological and psychological benefits," he explains. The release appears to be true of both spontaneous and simulated, or fake, laughter.

"Simulated laughter is a form of therapeutic laughter that can be elicited at will. No humor or other stimuli are needed," he says. "Its effects are similar to spontaneous laughter, since the body cannot distinguish one or the other." Mora-Ripoll claims that simulated laughter is widely practiced as a form of therapy, and that fake laughter will feel more and more real over time. Simulated laughing may seem strange at first, but patients find themselves feeling happier from the experience nonetheless.

A good belly laugh sets off a number of neurotransmitters, especially serotonin, norepinephrine, and dopamine.

Since these chemicals distract from pain and stress, patients are able to forget their suffering for a period of time. Mora-Ripoll does not call laughter a cure, of course, but sees it as a therapeutic supplement to regular treatments. He wrote a guide to the use of laughter by medical doctors, titled, *Medicine and Laughter Therapy Handbook*.

Based on his research, Mora-Ripoll maintains that the evidence is strongly in favor of using laughter with nearly all patients. "Laughter as a form of therapy can be universally applied with almost every patient. Very few counter indications exist," he says, adding that the lowering of cortisol is key to laughter's success. By decreasing this stress hormone, a patient might also experience decreases in blood pressure, blood sugar, and cholesterol — making it especially helpful for obese patients and people with diabetes.

## Jokes: PRN

Still, Penson argues that laughter can be equaled by other activities when it comes to improving patient outcomes. He says that common sense steps like diet and exercise will have similar effects, and he also suggests that prayer and meditation can be extremely beneficial to the well being of patients and caregivers. The most valuable tool, though, is information.

"Being well informed is the single most important thing," Penson claims. Although patients with post-traumatic stress disorder (PTSD) or similar psychological sensitivity concerns may find any information terrifying, most will feel empowered and in control when armed with knowledge. Penson specializes in cancer, but the same advice can apply for any patient facing a serious disease or disorder.

Despite the risk of a bad joke, there is still something to be said for the old adage about laughter. It may not always be the best medicine, but laughter's hormonal benefits are undeniable and there are few interventions that are less invasive. Genuine or fake, a good laugh lifts spirits. Practitioners should consider offering laughter therapy as a complementary treatment to modern medicine, and perhaps keep a few good, clean jokes in their pocket to entertain humor-driven patients. **EN**

— Mapes is a freelance writer based in Washington, D.C., and a regular contributor to Endocrine News

## HUMOR RESOURCES

- "Laughter: The Best Medicine?" *The Oncologist*, by Richard Penson, et al.
- *Medicine and Laughter Therapy Handbook* by Ramon Mora-Ripoll
- Jokes.com by Comedy Central

# Social @ THERAPY

Online networks help patients handle diabetes without feeling alone.

By Melissa Mapes

**M**anny Hernandez walked into a pump-user support group for the first time in 2005. He received a misdiagnosis of type 2 diabetes mellitus in 2002, and later discovered that he actually had type 1 diabetes mellitus. He felt overwhelmed by everything he needed to learn to live a healthy life, which led him to the meeting. Hernandez was enjoying the advice and company of fellow patients when he realized something: never before had he shared a room with so many other people with diabetes.

The sense of community inspired Hernandez to take action. In 2007, he put his background in Web product management to use by launching two social networks for individuals with diabetes: TuDiabetes.org in English and EsTuDiabetes.org in Spanish. Over the course of the next year, the two online networks grew into a nonprofit: the Diabetes Hands Foundation (DHF).

“Nobody with diabetes should ever feel alone,” Hernandez explains when asked about the goals of the foundation. Diabetes Hands offers a valuable social component to a patient’s treatment and quality of life that physicians cannot provide on their own. “We offer emotional support and the opportunity to connect to the collective voice and energy to make a difference,” he continues.

DHF also offers an equitable way for people of all backgrounds to get involved in the diabetes community, since a patient only needs an Internet connection. Hernandez, who gave the keynote speech at The Endocrine Society’s first Health Disparities Summit in Baltimore earlier this year, explained that such accessibility is important for minorities, which tend to be disproportionately affected by the disease. “Considering that nearly two-thirds of new cases of diabetes are among minorities, particularly Hispanics and African-Americans, we need to place particular emphasis of our efforts on these two groups.” He went on to describe the rising rates of mobile Internet usage among minorities and how this contributes to increased participation in social media.



## THYROID FORUMS FLOURISH

A burgeoning online network for thyroid disorders has also evolved. The organization Thyroid Community ([www.thyroidcommunity.com](http://www.thyroidcommunity.com)) offers support to patients, families, and physicians in Europe and beyond. Thyroid Community contains resources focused towards survivors and those recently diagnosed with thyroid cancer. The National Cancer Institute estimates that there are over half a million people living with thyroid cancer in the U.S. alone and, despite a five-year survival rate of 97.7%, people with this cancer generally face daunting changes to their lifestyle.

To successfully make these steps, many patients turn to online forums for tips. Websites like HealthBoards.com, HealingWell.com, and ThyroidBoards.com offer rudimentary — yet popular — discussion boards. Physicians should remind patients to check with a medical professional before following any of the recommendations they find on these websites, but also encourage them to do their own research and connect with others online. As with diabetes networks, online communities for people with thyroid conditions help patients feel empowered in difficult times.

## Community Organizer

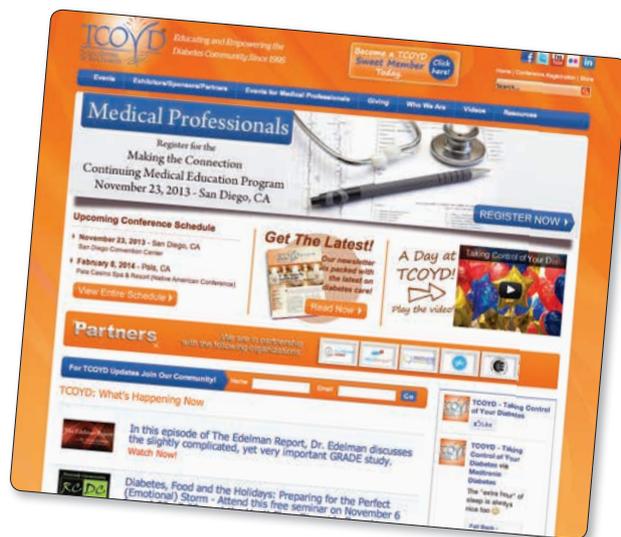
TuDiabetes.org and EsTuDiabetes.org operate like Facebook for people with diabetes. Users create profiles, post updates, and join groups, among other activities. Doctors and other experts are also encouraged to participate in the online community, which can give them insight into frequent concerns among patients. Hernandez emphasized, though, that DHF's social networks are not a place to give or receive medical advice — they are instead a place to share stories, find support, and join advocacy efforts. “We work to make everything consistent with best practices, like making sure statements are supported by science and that comments are not prescriptive,” he says.

Although users are not permitted to give medical direction to one another, patients can find curated advice in the form of weekly streaming interviews with diabetes experts and informational resources on the DHF website. A topic is chosen for each interview, and users from around the world tune in to learn more about their disease. Currently, the two social media networks have more than 50,000 registered users and receive 3.5 million unique visitors each year.

The social media movement in the diabetes community has been gaining momentum for some time. Hope Warshaw, MMSc, RD, CDE, a diabetes educator, dietitian, and owner of a diabetes and nutrition consulting practice in Northern Virginia, has been helping people manage their diabetes for over 30 years, and she noticed the movement three to four years ago. “I observed this rapidly growing online community among people with diabetes and thought it was important to open the dialogue between patients and their healthcare providers,” she says.

Her desire to help bridge this divide led her to contact Hernandez and two other advocates in the diabetes online community (DOC), Amy Tenderich of diabetesmine.com and David Edelman of diabetesdaily.com. Together this foursome presented a session at the 2011 American Association of Diabetes Educators (AADE) conference titled, “The Diabetes Online Community: What the Heck Is Going On?” They presented again in 2012, and in August they presented a workshop entitled “Social Media for Diabetes: Step Up to the Genius Bar.”

Warshaw believes that the burgeoning digital presence of the diabetes online community can be valuable for patients' emotional well-being, as well as their caregivers. “Diabetes can be an extremely isolating disease.



It requires 24/7/365 care and is unrelenting,” she says. “The growth online and some of the amazing relationships that have been formed show that this support is both wanted and needed.”

Although additional research is needed to demonstrate positive clinical outcomes of online support, she believes that social networking can be a great supplement to diabetes self-management training and medical treatment. “It's important that clinicians speak to people about their needs to be supported and let patients know what's out there,” Warshaw says.

## Driving Momentum

Steven Edelman, MD, professor of medicine in the Division of Endocrinology, Diabetes & Metabolism at the University of California at San Diego and the Veterans Affairs Healthcare System of San Diego, has experienced both sides of the equation as a patient with type 1 diabetes and now an eminent physician in the field of diabetes research and treatment. His firsthand knowledge of the importance of connections among people with diabetes led him to establish Taking Control of Your Diabetes (TCOYD) in 1994 — a nonprofit dedicated to improving personal control over one's disease management and increasing education among people with diabetes and their loved ones.

TCOYD is unique in that it organizes conferences for patients rather than experts. Both specialists and inspiring members of the community perform lectures, and health screenings are provided to attendees. Edelman

## AT-A-GLANCE

- Currently, the two social media networks have more than 50,000 registered users and receive 3.5 million unique visitors each year.
- Provides an ideal venue for physicians to see what their patients' concerns really are.
- In addition to the positive effects of online community, similar tools may soon reduce the cost of treatment and help address our physician shortage.



focuses on face-to-face interaction, but claims that social media like TuDiabetes and EsTuDiabetes are important “motivation extenders.” Patients build up energy and confidence at events like those conducted by TCOYD, but may lose the drive to continue self-care once home and alone again. Online outlets help counteract this drop in motivation. “Social media is a great way to maintain momentum,” he explains.

Hernandez participated in one of the TCOYD meetings many years ago, which led to his introduction to Edelman. He has since become a frequent presenter at the Taking Control conferences, and Edelman has joined the Advisory Board of the Diabetes Hands Foundation. The two organizations — in addition to many blogs and other resources — complement each other and the care patients receive from their doctors.

Edelman recommends that clinicians explore such online outlets to gain a greater understanding of their patients. “If a physician has any time at all, it is really important that they go on these websites and see what their patients are talking about,” he says, adding that he also believes that doctors should be recommending social media tools to patients with diabetes. “It could help clinicians too because an educated, motivated patient is much easier to take care of.”

Of course, some blogs and social media tools are not as well curated and should probably be avoided. Taking a look at the many websites for people with diabetes can help providers create a list of safe sources for their patients rather than allowing patients to explore on their own and possibly fall victim to Internet misinformation.

## ONLINE NETWORKS to Help Patients With Diabetes

- **Hope Warshaw Associates**  
<http://www.hopewarshaw.com/>  
 Practical solutions for healthier eating and diabetes meal planning
- **Taking Control of Your Diabetes (TCOYD)**  
<http://www.tcoyd.org/>  
 An organization for the empowerment of people with diabetes that organizes conferences where patients interact face-to-face
- **DiabetesMine**  
<http://www.diabetesmine.com/>  
 A reliable blog about living with diabetes
- **Diabetes Hands Foundation**  
<http://diabeteshandsfoundation.org/>  
 Online communities in both English and Spanish that allow people with diabetes and their caregivers to connect. Hernandez’s keynote address from the inaugural 2013 Health Disparities Summit in Baltimore can be found here <http://www.slideshare.net/mobile/tudiabetes/reducing-diabetes-health-disparities-through-social-media>.

## From a Distance

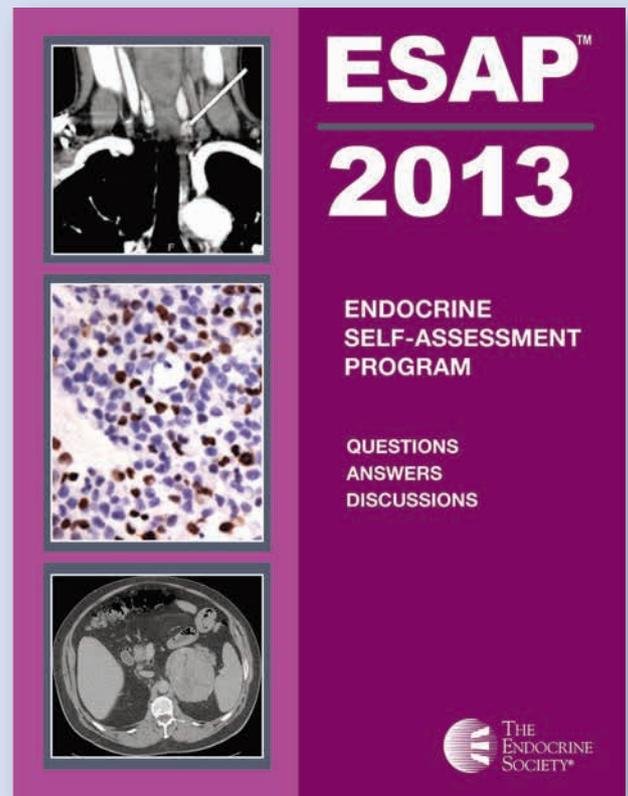
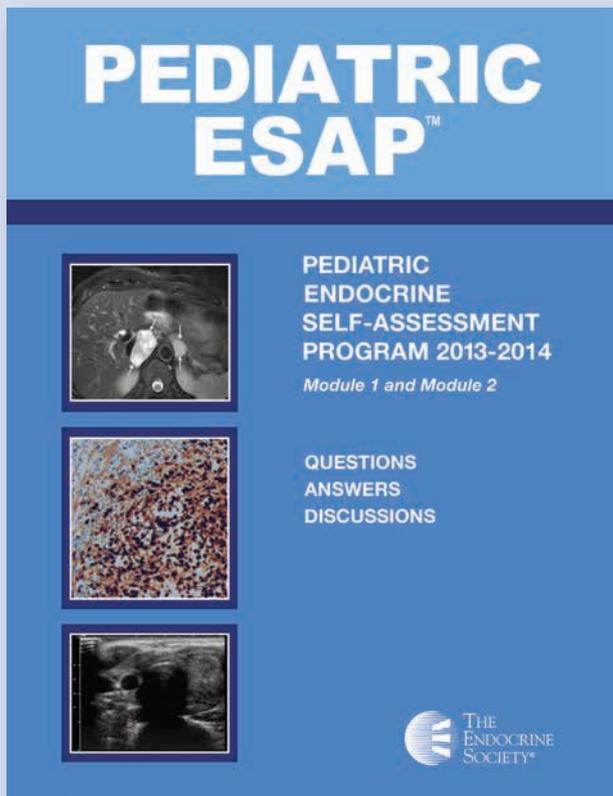
Still, such online data gives a glimpse of future possibilities for diabetes care. In addition to the positive effects of online community, similar tools may soon reduce the cost of treatment and help address our physician shortage. “When you deal with people with diabetes, you don’t need to see them physically most the time,” Edelman explains. “It can help keep people out of the hospital.” Remote care appears to be increasing in prevalence day by day, and fewer in-person appointments and hospital stays leads to more affordable care and less of a time commitment from clinicians.

At present, the Diabetes Hands Foundation is focusing on patient interaction and advocacy. Creative use of technology has allowed Hernandez and his colleagues to provide hope for a better life for those living with diabetes, rather than getting involved in medical research. One short-term goal, according to Hernandez, is for physicians to “feel comfortable about the value of these networks and to start talking to their patients about it.” The growth of the diabetes community online cannot be stopped, and so familiarizing oneself with these activities may be wise. **EN**

— Mapes is a freelance writer based in Washington, D.C., and a regular contributor to Endocrine News.

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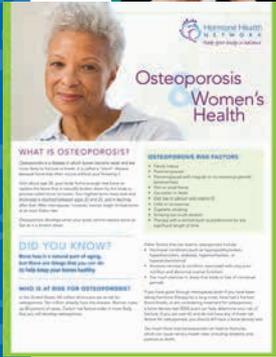
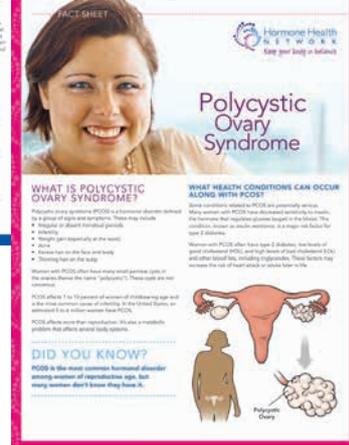
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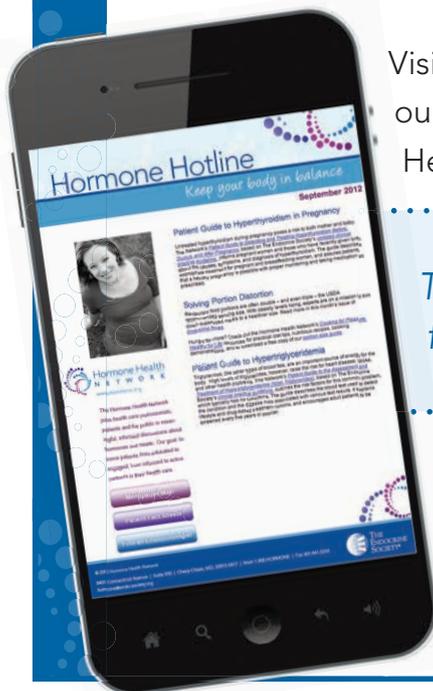
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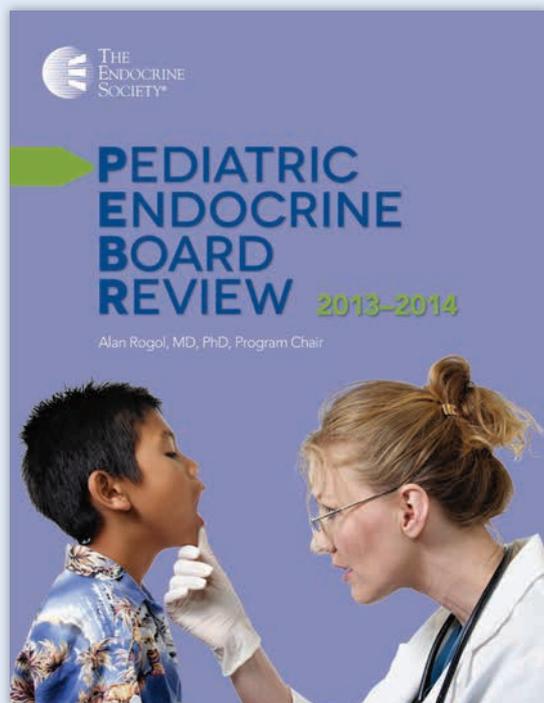


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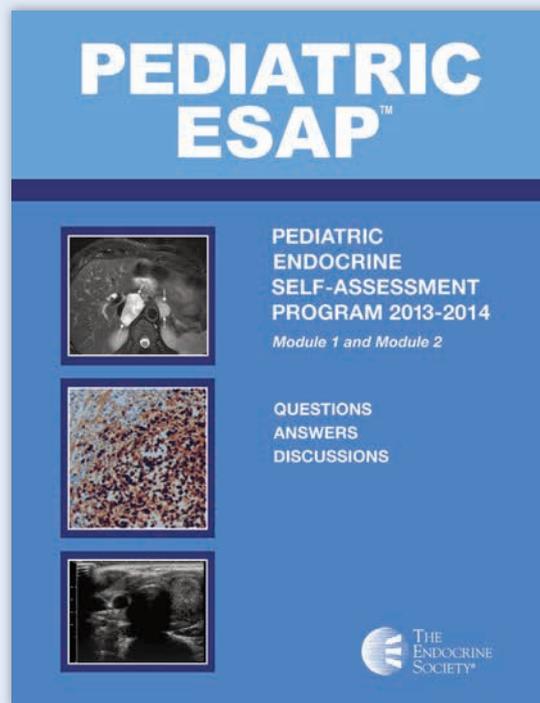
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Published by Springer Science + Business Media, LLC, in cooperation with The Endocrine Society

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## HORMONES AND CANCER

FEBRUARY 2012 • VOLUME 3 • NUMBER 01



 Springer  
12672 • ISSN 1898-9497  
3(1) 001-000 (2011)  
[www.springerlink.com](http://www.springerlink.com)

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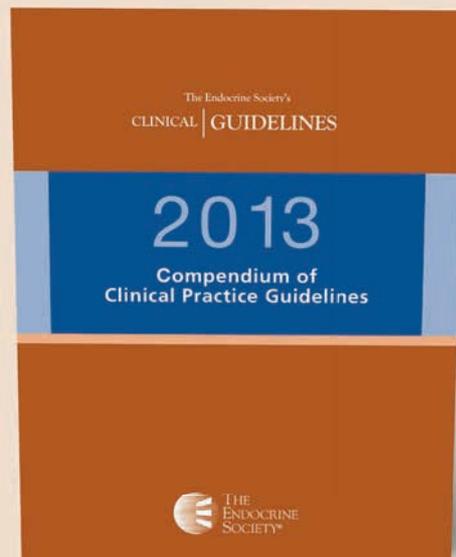
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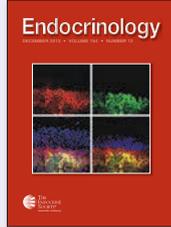
Ishwarlal Jialal, Harmeet Kaur, and Sridevi Devaraj • *In*

*this review, we present evidence for a pivotal role of TLR-induced inflammation in both obesity and MetS and speculate that targeting these TLRs can forestall their adverse sequelae of diabetes and CVD.*

**A Cross-Sectional Study of the Prevalence of Cardiac Valvular Abnormalities in Hyperprolactinemic Patients Treated with Ergot-Derived Dopamine Agonists •** W.M. Drake, C.E. Stiles, T.A. Howlett, A.A. Toogood, J.S. Bevan, and R.P. Steeds • *This large UK cross-sectional study does not support a clinically concerning association between the use of dopamine agonists for the treatment of hyperprolactinemia and cardiac valvulopathy.*

**Subclinical Hypothyroidism and Left Ventricular Mechanics: A Three-Dimensional Speckle Tracking Study •** Marijana Tadic, Sanja Ilic, Nada Kostic, Zorica Caparevic, and Vera Celic • *SHT significantly affects LV deformation assessed by 2DE and 3DE speckle tracking. The improvement of LV mechanics after one-year levothyroxine treatment is significant, but incomplete.*

**Five-Year Relative Survival of Patients With Osteoporotic Hip Fracture •** Young-Kyun Lee, You-Jin Lee, Yong-Chan Ha, and Kyung-Hoi Koo • *Results showed that five-year relative survival after osteoporotic hip fracture was below those of the general populations and was comparable with some cancers, like thyroid and breast cancer. Therefore, osteoporotic hip fracture should not be overlooked.*



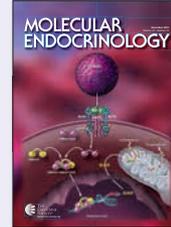
**Analysis of Glucocorticoid Receptors and Their Apoptotic Response to Dexamethasone in Male Murine B Cells During Development •**

Amanda L. Gruver-Yates, Matthew A. Quinn, and John A. Cidlowski • *The data suggest that glucocorticoid signaling has an important understudied role in B-cell life-or-death decisions.*

**Gonadal Steroid Modulation of Sleep and Wakefulness in Male and Female Rats Is Sexually Differentiated and Neonatally Organized by Steroid Exposure •** Danielle M. Cusmano, Maria M. Hadjimarkou, and Jessica A. Mong • *Together our data suggest that, like sex behavior, sex differences in sleep follow the classical organizational/activational effects of gonadal steroids.*

**Impaired Glucocorticoid Production and Response to Stress in Arntl-Deficient Male Mice •** Alexei Leliavski, Anton Shostak, Jana Husse, and Henrik Oster • *Arntl disruption, probably via its effect on adrenal clock function, modulates stress axis activity and, thus, may promote resistance to both acute and repeated stress.*

**Role of Calcium and EPAC in Norepinephrine-Induced Ghrelin Secretion •** Bharath K. Mani, Jen-Chieh Chuang, Lilja Kjalarsdottir, Ichiro Sakata, Angela K. Walker, Anna Kuperman, Sherri Osborne-Lawrence, Joyce J. Repa, and Jeffrey M. Zigman • *Constitutive ghrelin secretion is primarily regulated by Ca<sup>2+</sup> influx through L-type VGCCs and that NE stimulates ghrelin secretion predominantly through release of intracellular Ca<sup>2+</sup>. Furthermore, cAMP and its downstream activation of EPAC are required for the normal ghrelin secretory response to NE.*



**STAT3 Regulates Uterine Epithelial Remodelling and Epithelial-Stromal Crosstalk During Implantation •**

Sandeep Pawar, Elina Starosvetsky, Grant D. Orvis,

Richard R. Behringer, Indrani C. Bagchi, and Milan K. Bagchi • *Collectively, our results uncovered an intricate molecular network operating downstream of STAT3 that regulates uterine epithelial junctional reorganization, and stromal proliferation and differentiation, which are critical determinants of successful implantation.*

**COUP-TFII Regulates Human Endometrial Stromal Genes Involved in Inflammation •** Xilong Li, Michael J. Large, Chad J. Creighton, Rainer B. Lanz, Jae-Wook Jeong, Steven L. Young, Bruce A. Lessey, Wilder A. Palomino, Sophia Y. Tsai, and Francesco J. DeMayo • *The determination that COUP-TFII plays a role in inflammation may add insight into the role of COUP-TFII in embryo implantation and in endometrial diseases such as endometriosis.*

**Androgen Regulation of the TMPRSS2 Gene and the Effect of a SNP in an Androgen Response Element •** Liesbeth Clinckemalie, Lien Spans, Vanessa Dubois, Michaël Laurent, Christine Helsen, Steven Joniau, and Frank Claessens • *The presence of this SNP might have implications on the expression and/or formation levels of TMPRSS2 fusions, since both have been shown to be influenced by androgens.*

## Remote CONTROL

More and more doctors and their patients are successfully utilizing telemedicine, which keeps office visits to minimum.



By Glenda Fauntleroy

The days of a waiting room full of patients may be coming to an end as there's a growing awareness that many doctor-patient encounters do not require face-to-face contact. And, while telemedicine was first implemented decades ago to deliver healthcare to geographically isolated patients, more consumers looking for ways to access convenient, round-the-clock care are demanding this type of service.

Secure patient portals and mobile applications now allow patients to video, email, or text with their physicians' offices, and many are downloading health and wellness applications to their smartphones, refilling prescriptions, and having their vital signs and blood sugar monitored remotely.

"Patient acceptance of this is well documented by hundreds of studies," says Jonathan Linkous, CEO of the American Telemedicine Association (ATA). "Once patients have a doctor who uses this technology and see how easy it is to make an online appointment or get lab results, they say they'll never go back to a doctor who doesn't offer these services. This will be big driver for telemedicine."

### Growing in Popularity

More than half of all U.S. hospitals now use some form of telemedicine, and there are about 200 telemedicine networks with 3,500 service sites across the country, according to the ATA. It reports that the Veterans Health Administration delivered more than 300,000 remote consultations using telemedicine.

"Mobile healthcare is creeping into all areas of medicine," says Linkous. "For example more than half of U.S. physicians are using some sort of medical application on their smartphones or tablets." Patients with chronic diseases, such as diabetes and COPD, are among those leading the charge for the new technology, and it appears endocrinologists are responding in favor.

David E. Cummings, MD, deputy director of Diabetes Endocrinology at the University of Washington in Seattle, works in a Veterans Administration hospital that serves a large region of the Pacific Northwest, especially Washington and Alaska. He says many of his patients live far from the hospital, so an important component of his work includes video-telephone clinic "visits."

"A spot in the clinic is reserved for the doctor to talk with the patient via our equivalent of Skype, in which we see each others' faces on computer screens while the patient is hundreds of miles away," Cummings explains. "Most of what I do in clinic involves just talking with patients and interpreting data from labs and radiology, so the physical exam is not very important. I think our video-telephone clinic visit system is a valuable tool for patient care."

### Efficient & Convenient

At Peyton Manning Children's Hospital in Indianapolis, patients communicate with the pediatric diabetes team by secure email to get services such as prescription refills, insulin dose adjustments, and to ask questions. "Many patients prefer this mode of communication as it can be more efficient and convenient when compared to telephone or FAX," says Andrew Riggs, MD, medical director of pediatric endocrinology and diabetes.

The pediatric diabetes department is currently developing mobile applications to assist with education and communication with their patients. Riggs adds that while his department embraces this type of care, insurance reimbursement lags behind their current model of care.

In fact, insurance reimbursement remains a major issue that slows many clinicians from embracing telemedicine. Although a growing number of health plans reimburse for e-visits, only 19 states actually require private insurers to cover telehealth the same as they cover in-person services, according to the ATA. And under Medicare and Medicaid, there are restrictions as to what services are covered under telehealth, and reimbursements can vary by state.

"We have shown that increased accessibility of the outpatient diabetes team by patients and their families can reduce length of hospital stay and readmission rates, thereby reducing costs while improving the quality of care," says Riggs. "We hope that in the near future this is recognized and translates into improved reimbursement rates for our services." **EN**

— Fauntleroy is a freelance writer based in Carmel, Ind., and a regular contributor to Endocrine News.

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#### Pennsylvania:

Well respected endocrine group with offices in upscale suburban Philadelphia seeks BE/BC endocrinologist for their successful practice. The group has three office locations; Plymouth Meeting, Lansdale, and Collegeville. One of the senior members of the group will be retiring next summer necessitating the need to add another individual. This will be primarily an outpatient practice with I:4 call, however, there will be five physicians in the group, one does not participate in call. The practice will be adding a nurse practitioner to perform routine diabetic patient follow-up in the hospital allowing the

physicians more time to see new patients in the office. The practice is heavily weighted toward diabetes and thyroid management. Local residents in training rotate through the practice. The group is employed by Forance Physician Services, a part of Einstein Medical Center Montgomery which had a very successful opening in September 2012. The offices are near this facility. A competitive compensation package will be available to appropriate candidates along with excellent benefits. For further information please contact Malinda D. Hale, CMSR, President, Physician Options, Inc., 800-208-6088, e-mail: [malinda@VONL.com](mailto:malinda@VONL.com)

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## Endocrinologist Opportunities

**Geisinger Health System (GHS) is seeking Endocrinologists for two locations:**

- **Endocrinology at Geisinger Wyoming Valley Medical Center (GWV), Wilkes-Barre, Pa.**
- **The Endocrinology team at Geisinger-Patton Forrest, State College, Pa.**

### **About the Position at GWV**

- Join a team of 3 Endocrinologists, 2 Nurse Practitioners and 3 Certified Diabetes Educators, and is positioned for additional growth
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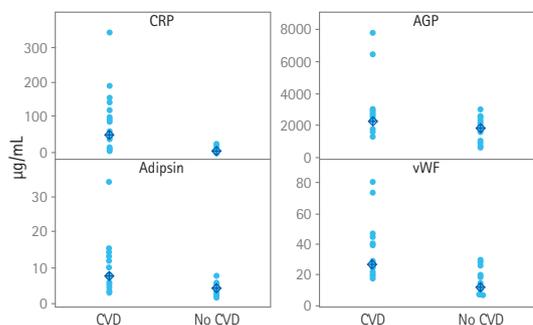
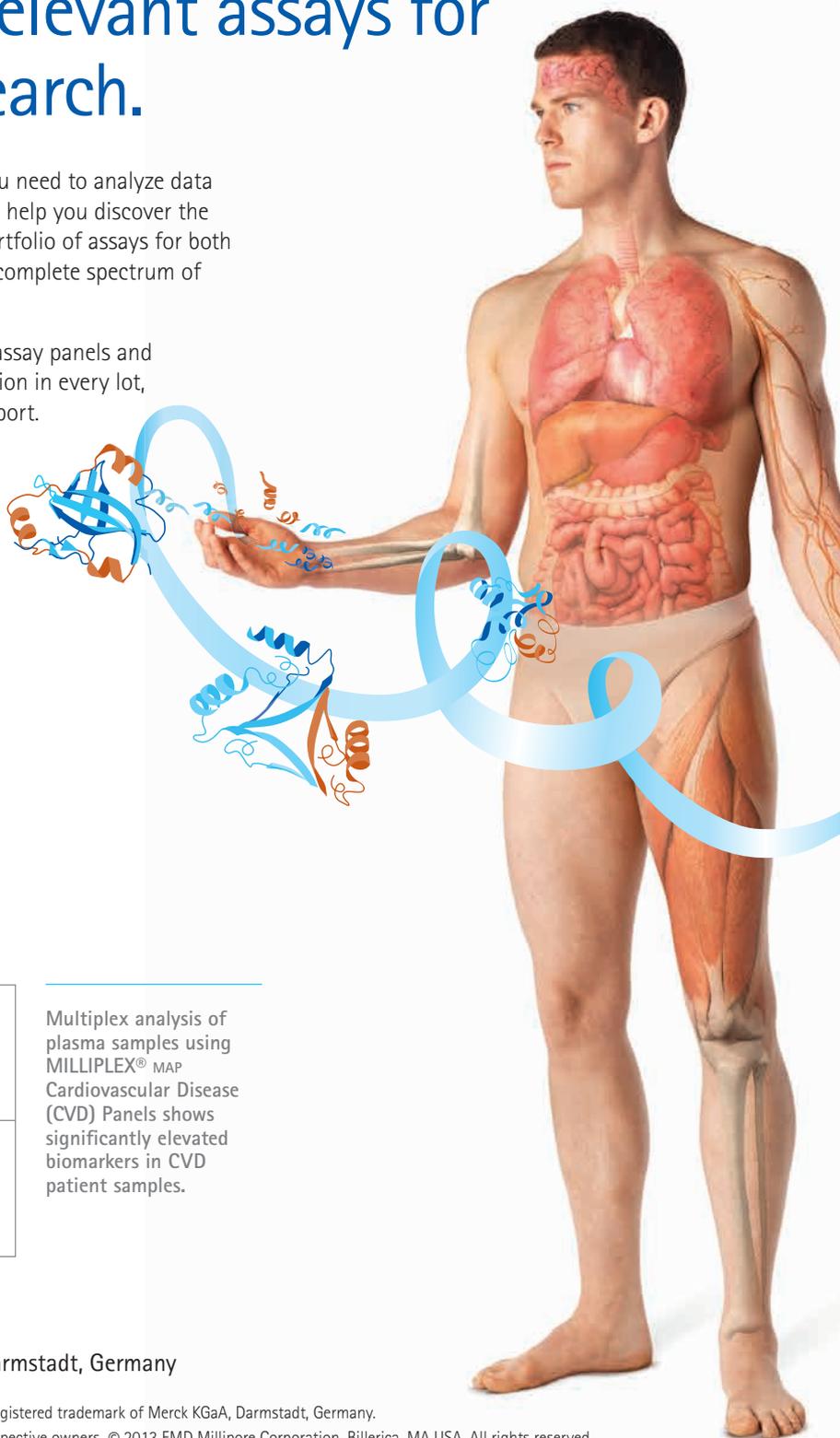
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## Society Expands **EDC ADVOCACY** in the **EUROPEAN UNION**

As part of its efforts to raise awareness of endocrine-disrupting chemicals (EDCs) and improve understanding of the underlying biology through which these chemicals exert their effects, The Endocrine Society has implemented an advocacy strategy in the European Union (EU). The Society's messages about how endocrine principles need to inform policy are particularly timely in this arena, as the EU is evaluating a number of laws and regulations related to EDCs with decisions expected throughout the coming months and year. Further, individual EU member countries will implement their own EDC strategies in response to changes to EU laws and regulations. Beginning with previously reported meetings in 2012 and early 2013 (as reported in the June issue of *Endocrine News*), the Society has devised an advocacy plan that targets both central EU-level decisions and processes in key member countries.

### Letter to EU Officials on Endocrine Principles

In June the Society sent an open letter to the European Commission and to 16 key Members of the European Parliament (MEPs) calling attention to endocrine science and its application to EDC regulations. In the letter, the Society urges the Commission to call upon the expertise of endocrinologists during its deliberations and to incorporate endocrine science into the regulatory process.

Last year, the Society outlined key principles of endocrinology that must be incorporated into hazard/risk assessment protocols and must be considered when devising regulations to minimize exposure to EDCs (*Endocrinology* 2012 153: 4097-4110; doi: 10.1210/en.2012-1422). Drawing on this Statement of Principles, the letter emphasizes central tenets of endocrinology, including:

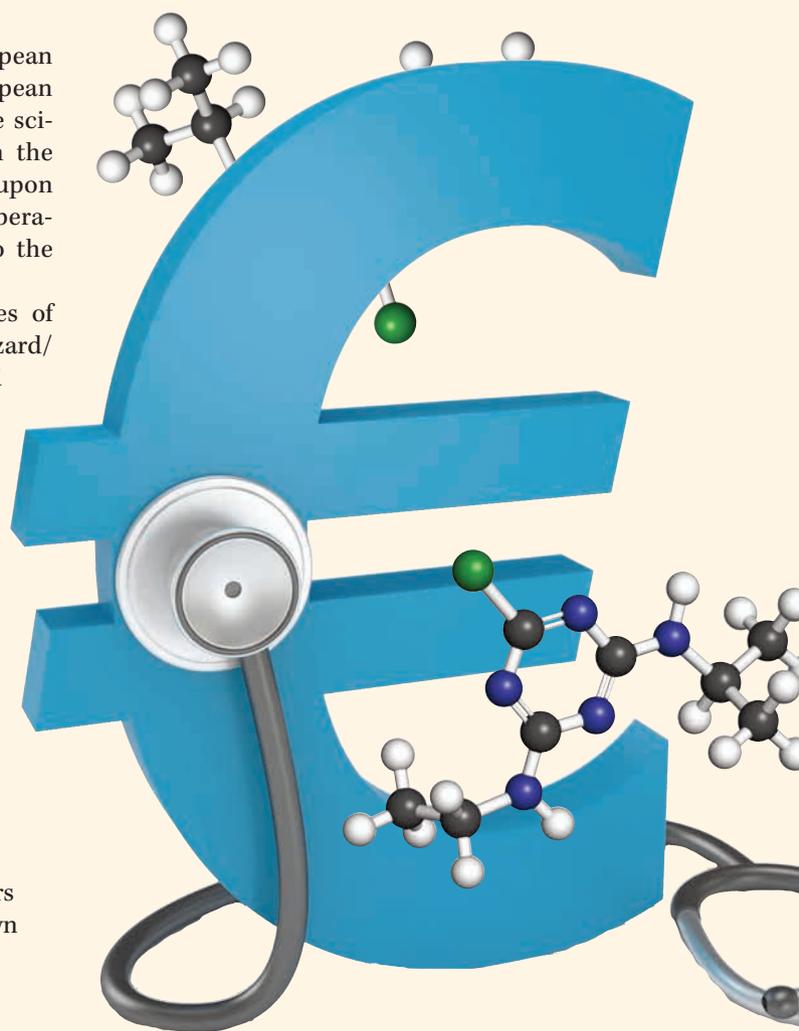
- Hormone effects are mediated by receptors
- Hormone effects can occur at very low doses
- Hormones exert multiple actions in tissue-, cell-, and receptor-specific fashion
- Hormone effects are dependent upon developmental stage
- Effects of aberrant exposure can be irreversible, especially at critical stages of development
- Effects of aberrant exposure can become manifest latently, years after the exposure occurs
- Effects of aberrant exposure can be passed down for generations

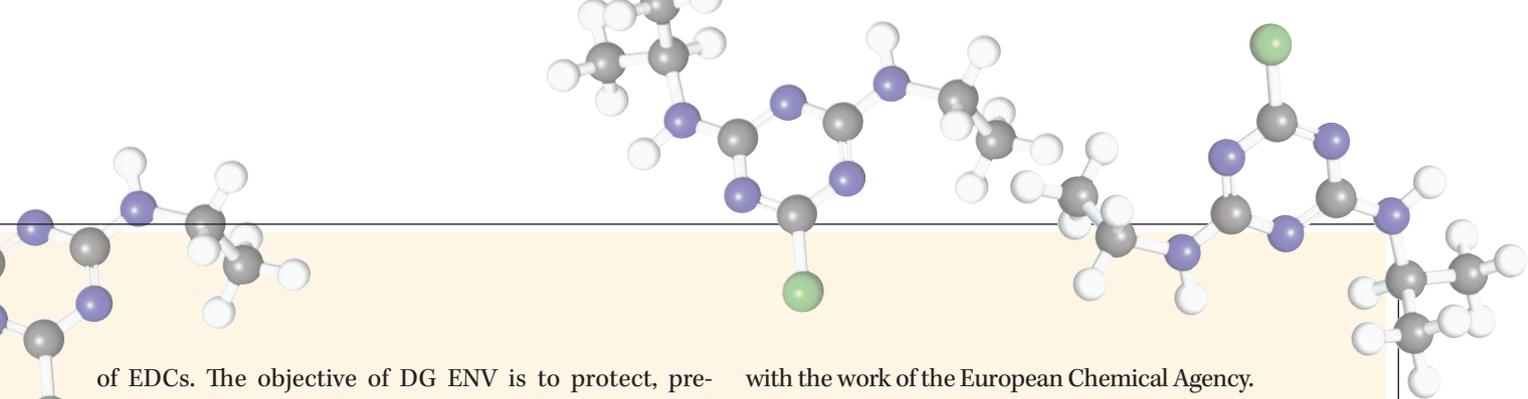
The letter further states it cannot be assumed that a safe "threshold" level of exposure to any given EDC can be identified, given the possibility of low-level results and the impossibility of accurately assessing exposure over time.

### Meetings with EU Policymakers

Working with Liege, Belgium-based Society expert Jean-Pierre Bourguignon, MD, PhD, and an international consultant, the Society has conducted meetings with several key officials in the Cabinets of EU Commissioners and in EU Directorates General that hold some level of influence over EDC laws and regulations.

In July, the Society met with a member of Commissioner Janez Potocnik's Cabinet. Commissioner Potocnik oversees the work of the Directorate General on the Environment (DG ENV); he and his staff have a key role in developing the EU's new criteria for definition





of EDCs. The objective of DG ENV is to protect, preserve, and improve the environment for present and future generations. Meeting participants welcomed Dr. Bourguignon's expertise and encouraged the Society to remain engaged in the process. DG ENV works closely with other DGs and with chief science advisor Ann Glover to decipher the complex scientific issues involved in regulating EDCs, and the Society was encouraged also to engage with officials from these offices to ensure broad dissemination of the Society's scientific messages.

A September meeting with staff of DG Health and Consumers (DG SANCO) was an opportunity to have deeper exchanges of views on the latest scientific research on EDCs, their impact on health and approaches of EU regulators. An impending "road map" will clearly delineate the timing and approach proposed for an upcoming impact assessment on criteria for identifying EDCs for their better regulation in the EU. The impact assessment, which will likely be performed by consultants under the direction of the European Commission, will inform ongoing policy discussions, specifically in areas of economic impacts associated with regulations. As part of the impact assessment a public consultation will be organized, most likely in early 2014. DG SANCO's stated goal is "to make Europe a healthier, safer place, where consumers can be confident that their interests are protected." Several DG SANCO officials who participated in the meeting have a background in science, and they suggested the Society engage in the upcoming public consultation period as a means to ensure a public discourse of critical scientific principles.

Most recently, the Society met with officials in DG Enterprise and Industry (ENTR), which also plays an active role in EU EDC regulations. DG ENTR has the mission to promote a growth-friendly framework for European enterprises. This perspective puts DG ENTR in a position of representing the interests of the chemical industry in discussions about new or revised EDC policies. As the industry stands to suffer some financial burden as a result of stringent chemical regulations, DG ENTR seeks to balance the industry's interests with the overall political will that is driving the EU toward new and improved laws and regulations for health and environmental protection. DG ENTR was receptive to the Society's science-based messages and encouraged the Society to become involved

with the work of the European Chemical Agency.

### Political Pressure Mounts

In October, eight MEPS (seven of whom had received the Society's June letter) sent a letter to EU Commission president Manuel Barroso questioning the Commission's decision to perform an impact assessment before defining EDC criteria. In the letter, the MEPs emphasize that the criteria are to be purely science-based and should apply horizontally across all laws and regulations. Conversely, the planned impact assessment is based on only two laws and would introduce a political aspect if the results are used in developing EDC criteria and definition. The MEPs, therefore, request clarification from the Commission on its intent in delaying publication of criteria until after the impact assessment is performed.

### France Takes a Proactive Approach

While the EU agencies will establish central governing laws, individual member countries will implement and enforce those laws through their own EDC strategy. France has taken a proactive approach to this, having already initiated the process for drafting its national strategy and submitting it to a public consultation period in late summer. The Society took its first steps in the French process in September, submitting a letter to the French Ministry of Health and the French Ministry for Sustainable Development outlining the key endocrine principles that must be incorporated into policies governing EDCs.

As the French process continues, and as more EU member countries will have to engage at the EU level, the Society will remain active with the EU and key member countries to influence the debate in Europe, which is likely to set the stage for future work in the U.S. and globally. Efforts continue in capacity building, and it is important for Society members who live and work in the EU to become involved. As constituents of EU policymakers and direct beneficiaries of improved regulations, EU endocrinologists have a critical role to play in informing EU and national officials of the unique and critical endocrine scientific perspective as it relates to EDCs.

To learn more about advocacy in the EU and to become involved, Society members may contact me at [ldoan@endocrine.org](mailto:ldoan@endocrine.org). **EN**

— Loretta L Doan, PhD, Director, Science Policy, The Endocrine News

As constituents of EU policymakers and direct beneficiaries of improved regulations, **EU endocrinologists have a critical role to play in informing EU and national officials of the unique and critical endocrine scientific perspective as it relates to EDCs.**

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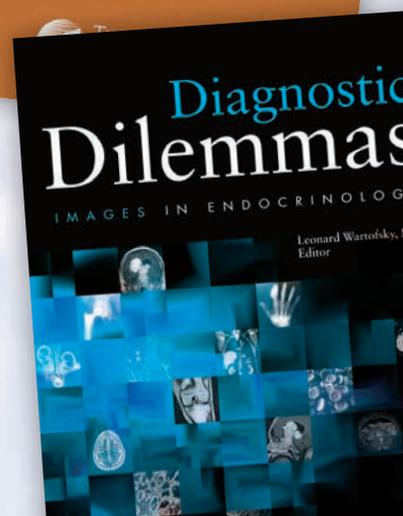
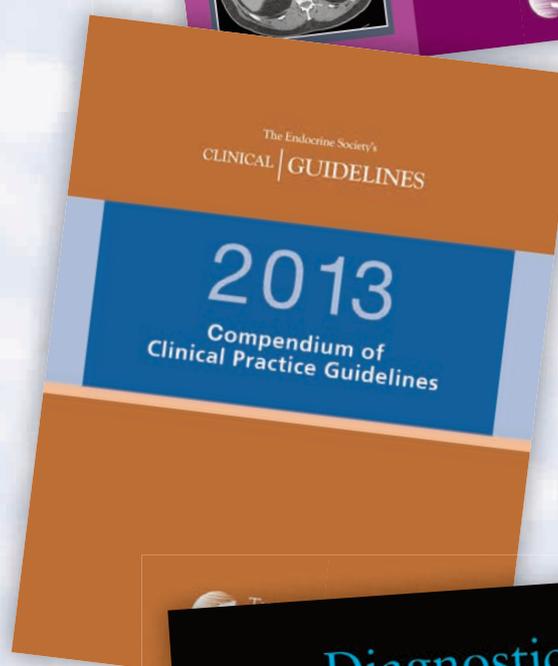
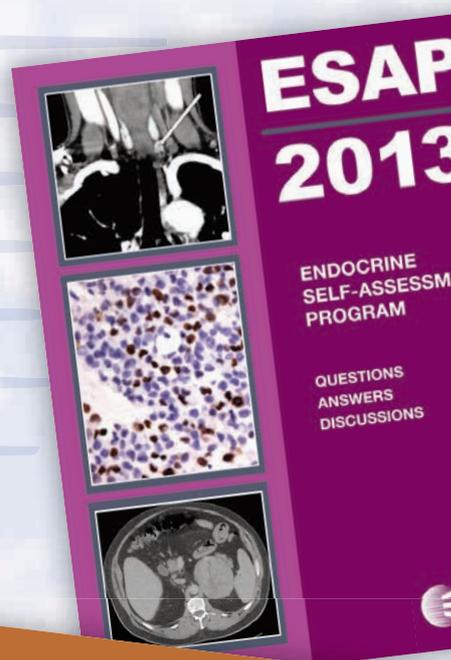
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## THE ENDOCRINE SOCIETY CLOSES ON NEW OFFICE SPACE



Society Secretary-Treasurer Kenneth H. Hupart, MD, Society CEO Scott Hunt, and Society President Teresa K. Woodruff, PhD, make it official as they sign the deed to the new headquarters at 2055 L Street NW (left) in Washington D.C. For the first time in its history, The Endocrine Society owns property.

On Friday Nov. 1, The Endocrine Society officially closed on its purchase of a 34,000-square-foot office condominium at 2055 L Street, NW. The Society will move its headquarters to the new office space in February 2014.

After nearly 11 years in Chevy Chase, Md., the Society has purchased office space for the first time in its nearly 100 year history. The move advances the Society's strategic plan to assume a visible leadership role in significant endocrine-based public health issues, health disparities, and

supporting equity of care for all hormone-related disorders.

"This is a historic event for the Society, and we couldn't be more excited to join the numerous other prominent healthcare, scientific, and nonprofit organizations that already make Washington, D.C., their home," says Scott Hunt, the Society's executive director and CEO. "Being in the nation's capital shows the Society is committed to accelerating its leadership role. There is no better place to advance the Society's advocacy agenda and lead positive change

in health and science policy." The new office provides the Society with ample expansion space to accommodate its projected growth. In addition, a Washington, D.C., location will improve the Society's ability to attract and retain the best talent from the entire metropolitan area.

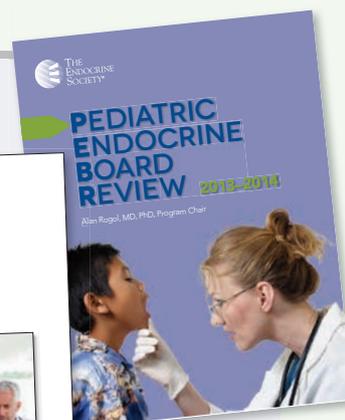
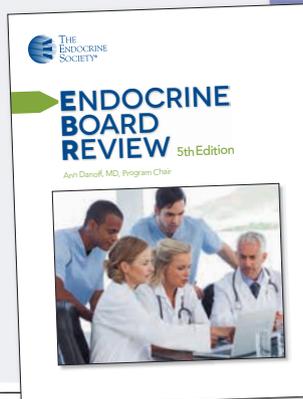
"It's important to make strategic investments in the future," says Hunt. "The long-term financial aspects of this purchase are much better than leasing and will help the Society grow and expand its member services and financial resources." EN

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## Reflecting on Success

As principal investigator of the Society's Future Leaders Advancing Research in Endocrinology (FLARE) Program, I am proud to share the successes of the program's first year and invite you to be a part of the second year. The FLARE program is open to research fellows and senior graduate students from underrepresented minority communities. It provides the knowledge and skills trainees need to transition to independence and to have successful, rewarding careers in endocrine research.

At the two-day FLARE Workshop in San Diego, Calif., in January, 14 graduate students, postdoctoral fellows, and clinical fellows learned the "business of research." Guest speakers helped participants develop individual development plans and discussed topics ranging from grantsmanship to conflict resolution. Participants shared their thoughts in a video available at the FLARE website: [www.endocrine.org/FLARE](http://www.endocrine.org/FLARE).

Three FLARE participants took advantage of the FLARE Mentoring Network. The Mentoring Network allows participants to identify mentors and travel to their mentors' home institutions to visit their labs in person. One participant said she was "pleased to have not one mentor, but a group of mentors" from the visit. For another participant, the visit resulted in a research collaboration and a chance to present at the International Workshop in Neuroendocrinology.

The Society awarded the FLARE ENDO Abstract Award to two FLARE participants for excellence in endocrinology research. They received \$1,000 in travel assistance to attend ENDO, present their research, and meet their FLARE mentor a second time.

In September, four FLARE interns attended their first Society committee meetings as part of their year-long service. The internship provides experiential learning and a chance for FLARE interns to put the lessons learned at the FLARE Workshop into practice.

This fall, the FLARE interns have also helped to recruit undergraduates into the Society's Minority Access Program (MAP). The MAP provides summer research training in the biomedical sciences for underrepresented minority students. The FLARE interns' support helps to encourage younger trainees to pursue research careers and to increase diversity in the field of endocrinology.

Leadership development training is key to sustained success in any field. The FLARE program distinguishes itself as a resource for positive and fundamental development of underrepresented minority scientists. The program strengthens the pipeline of minority scientists who will impact the research and treatment of endocrine disorders that disproportionately affect underserved communities.

Accomplishing these goals requires your support. To learn how you can participate as a trainee, mentor, or speaker, visit the FLARE website at [www.endocrine.org/FLARE](http://www.endocrine.org/FLARE).

FLARE is supported by a grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). **EN**

— E. Dale Abel, MD, PhD

## HHN Fact Sheet

### ADRENAL INCIDENTALOMA

Adrenal masses, among the most prevalent tumors, are frequently detected "incidentally" during an imaging test (such as an ultrasound, CT scan, or MRI) for another condition. The Hormone Health Network's latest fact sheet, *Adrenal Incidentaloma*, describes the function of the adrenal glands and how production of too much or too little of the body's adrenal hormones can cause health problems. The fact sheet describes the two main types of adrenal tumors, functioning and non-functioning, and lists the possible causes and specific symptoms for each type. Although nearly 85% of adrenal tumors are non-functional and may not need treatment, surgery and hormone therapy are the mainstay of treatment. Visit [www.hormone.org](http://www.hormone.org) to view these fact sheets and sign up for *Hormone Hotline*, our monthly e-update, for the latest news on Hormone Health Network publications and events.

## Event CALENDAR

**DECEMBER 2-6, 2013, MELBOURNE, AUSTRALIA**  
World Diabetes Congress  
[www.idf.org/worlddiabetescongress](http://www.idf.org/worlddiabetescongress)

**FEBRUARY 1-2, 2014, HYDERABAD, INDIA**  
The International Clinical Update program in Endocrinology (ICUE)  
<http://icuendo.org/india/>

**MARCH 13-16, 2014, PANAMA CITY, PANAMA**  
3rd Latin America Congress on Controversies to Consensus in Diabetes, Obesity and Hypertension (CODHy)  
<http://www.codhy.com/la/2014/>



## INSIDE WASHINGTON:

### Federal Budget & NIH Funding

As Congress must reach a decision about the federal budget before Jan. 15, 2014 or face a second government shutdown and sequester, The Endocrine Society is working hard to influence the debate. The Society contacted all Budget Committee members urging them to repeal sequestration and protect the National Institutes of Health (NIH) from further cuts; Endocrine Society President Teresa K. Woodruff, PhD, visited several leaders in the House of Representatives and Senate and shared the Society's message; and the Society helped sponsor a new report, "Faces of Austerity," that details the devastating impact of budget cuts to discretionary programs, including medical research.

All members of Congress need to hear that NIH must be protected and sequestration eliminated. One of the most effective ways to do this is to share your personal story of the impact on your research and

on people working in your lab. The Endocrine Society is collecting stories from Society members about the impact of budget cuts on their research to share with Congress and the media. Please visit [www.endocrine.org/toolkit](http://www.endocrine.org/toolkit) to complete the brief online form as soon as possible. A second way you can help is to participate in the Society's advocacy campaign by visiting [www.endocrine.org/congress](http://www.endocrine.org/congress).

### Medicare Physician Payment

Over the past several months, Congress has been considering alternatives to the flawed sustainable growth rate (SGR) formula that results in annual payment cuts, while negatively impacting physicians who provide cognitive services. Recently, the House of Representatives and the U.S. Senate have sought input from key stakeholders, including The Endocrine Society, on new payment methods for reimbursing America's physicians. The Society has recommended that Congress:

- Permanently repeal the SGR and provide physicians with five years of stable payments to all for the testing of alternative payment models.
- Identify opportunities to reward physicians for high-quality care, efficiency, and improved patient outcomes.
- Recognize the value and knowledge that cognitive specialists bring to the care of their patients.
- Develop a menu of delivery and payment options from which physicians can choose.

We need your help to build support for this important matter. It is critical that Congress acts on this issue this year or physicians will be faced with a payment cut of almost 25%, beginning Jan. 1, 2014. Please join the Society's advocacy efforts by visiting <https://www.endocrine.org/advocacy-and-outreach/contact-congress> and sending the provided letter to your congressional delegation. **EN**



### Endocrine Society Congratulates FASEB's Howard Garrison on AAI Award

Each year the American Association of Immunologists (AAI) presents its Public Service Award (PSA) to "individuals who have made outstanding contributions to the advocacy and support of basic biomedical and immunologic research." 2013 PSA awardees are Senator Richard Durbin (D-IL), Representative Rosa DeLauro (D-CT), and Howard Garrison, PhD, (pictured, left). Honorees were recognized for their advocacy in support of the National Institutes of Health (NIH) and biomedical researchers.

As the deputy executive director for policy, and director, Office of Public Affairs at The Federation of American Societies for Experimental Biology (FASEB), Garrison has consistently worked with a variety of research groups, including The Endocrine Society, on diverse topics in support of biomedical research. He has also overseen the development of innovative outreach programs to enhance the public's support of research, including FASEB's "Stand Up for Science" video competition, which awards creative presentations depicting the need for robust support for biomedical research.

DeLauro and Durbin have been consistent and vocal advocates for the NIH in Congress. During the presentation of the awards, DeLauro and Garrison voiced their strong and continuing support for the NIH and federal research agencies. The honorees also remarked on the devastating effects on biomedical researchers of flat funding for biomedical research, cuts due to sequestration, and the government shutdown. **EN**

### Endocrine Society Congratulates Yoel Sadovsky on Election to the Institute of Medicine



Endocrine Society member Yoel Sadovsky, MD, of Magee-Womens Research Institute in Pittsburgh, was elected to the Institute of Medicine.

Sadovsky has made many important contributions to the fields of perinatal biology and reproductive sciences. His scientific expertise and academic acumen will be a tremendous asset to the Institute of Medicine as it works with policy makers and public organizations to make evidence-based decisions that advance public health.

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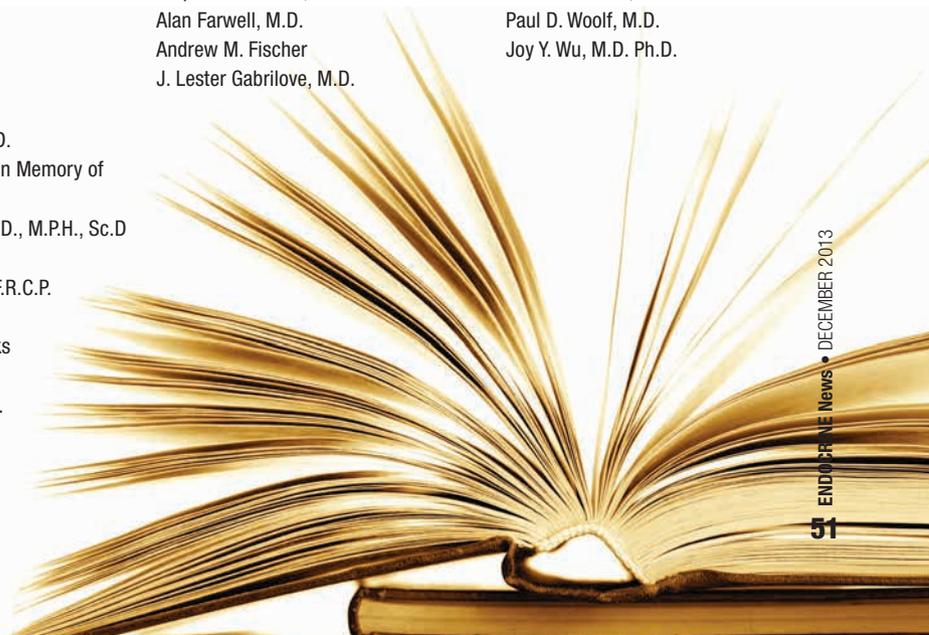
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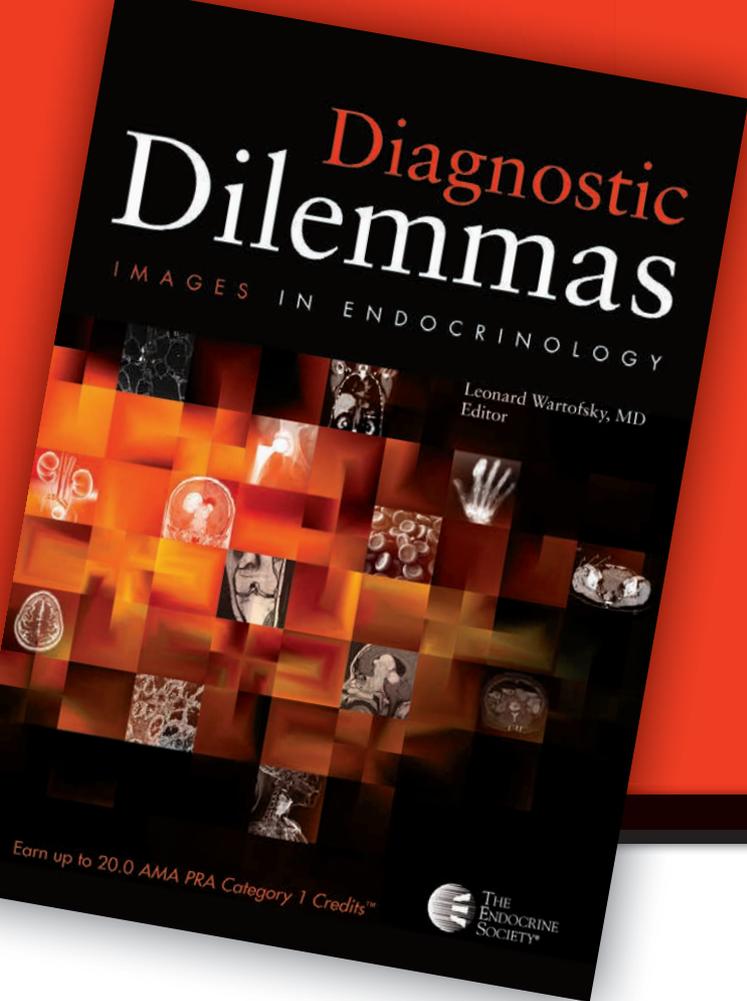
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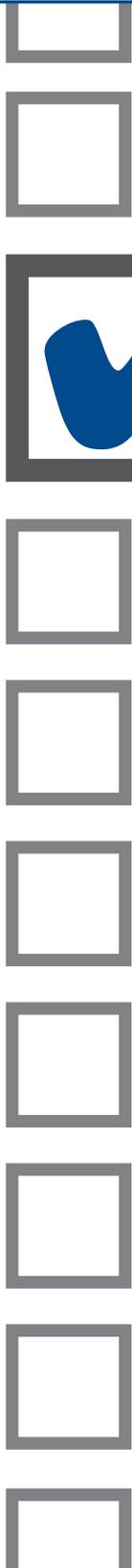
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# LAST CALL VOTE

## 2014 ELECTION

**TIME IS RUNNING OUT TO VOTE.**

Election ballots were sent to members with voting privileges in early November 2013.

Information for online voting can be accessed by visiting [www.endocrine.org/election](http://www.endocrine.org/election).

Questions should be directed to Elizabeth Kan at 301.941.0206 or [ekan@endocrine.org](mailto:ekan@endocrine.org).

**ELECTRONIC VOTES MUST BE RECEIVED  
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