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***Medical and Psychosocial Factors of Weight Loss Surgery***

Severe obesity is a chronic condition that is extremely difficult to treat. In some people, it can lead to life-threatening health issues such as diabetes, hypertension, stroke, and respiratory problems.

For the approximately 5% of people in the US who are severely obese, bariatric surgery to restrict food intake or interrupt the digestive process can be a safe and effective option.

**James Wallace, MD, PhD**, is a Medical College of Wisconsin Associate Professor of Surgery and Director of the Froedtert & the Medical College Bariatric Surgery Program.



There are three main categories of bariatric surgeries, he explains:

“Restrictive operations, such as the ‘lap band’ surgery, reduce the size of the stomach and make it difficult to eat too much. “Malabsorptive operations such as the ‘duodenal switch’ alter the flow of food from the stomach to the intestine, causing less absorption of calories.

“A combination operation involves characteristics of both restrictive and malabsorptive procedures.”

Dr. Wallace specializes in a combination surgery called the Roux-en-Y gastric bypass, the most commonly performed weight-loss surgery. In this surgery, a smaller stomach pouch is created by stapling or banding, so food intake is restricted. This causes reduced calorie and nutrient absorption.

Weight-loss surgery is not without risks, but there are also many benefits, says Dr. Wallace, who has performed more than 1,200 gastric bypasses.

“The effects of the surgery are remarkable, and quite profound in all areas. Medical conditions that are related to obesity, such as diabetes, hypertension, sleep apnea, and a long list of others, are all substantially improved by surgical weight loss.”

In addition, many of Dr. Wallace’s patients

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***Maternal-Fetal Health Specialists Make High-Risk Births Safer***

Preterm births – those occurring before 37 weeks of pregnancy – are the nation’s leading cause of infant death, responsible for more than one-third of infant deaths before age 1, says **Mary Ames-Castro, MD**, an Assistant Professor of Obstetrics and Gynecology at the Medical College of Wisconsin.

Dr. Ames-Castro is one of four perinatologists – specialists in maternal-fetal health – who practice at the Maternal-Fetal Care Center, a collaborative effort located within Children’s Hospital of Wisconsin.

About 25% of preterm births are actually intentional, Dr. Ames-Castro notes – that is,

they are medically induced to give mother and baby a better chance of a healthy outcome.

“We induce delivery when we believe continuing the pregnancy may compromise the health of the mother and/or baby. One benefit is that, today, many women with health conditions that used to make them high risks for pregnancy are able to carry babies to term or near-term. It’s amazing how far prenatal care has come in the past decade or two.”

Dr. Ames-Castro and her fellow perinatologists diagnose and treat women with high-risk complications, often in consultation with patients’ own obstetricians or primary care

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experience significant societal barriers and discrimination, and weight loss changes that.

The American Society of Metabolic & Bariatric Surgery has designated Froedtert & the Medical College's Bariatric Surgery Program a "Center of Excellence."

The ASMBS has very specific requirements that the hospital, the practice, and the surgeons must meet to receive this designation. In addition to the honor of the designation, Centers of Excellence are the

### ***Nightmares, Night Terrors, and Sleepwalking Haunt Many***

Most researchers think that when we dream, we process what we've learned during the day, store some of it, and throw the rest out. Another theory is that dreaming helps us deal with emotions that we might have been putting aside during the day.

**Rose Franco, MD**, Fellowship Director of the Medical College of Wisconsin's Sleep Medicine Program, says that while dreaming is normal, recurrent nightmares, night terrors, and sleepwalking are considered disorders and often indicate more serious sleep health issues.

**Nightmares:** "Sometimes nightmares occur because of disturbing things that happen during the day, as in the case of someone who's going through a depression or an anxious period in their lives," says Dr. Franco. Very vivid recurring nightmares can also be an indication of post-traumatic stress disorder.

"Even food that brings on heartburn or indigestion, a new medication or supplement, medical diseases, fever, or pain can lead to nightmares," says Dr. Franco.

If dreams or nightmares have very distressing content and occur frequently, Dr. Franco recommends seeking a physician's attention. "When nightmares happen on a recurrent basis, to the point where they distress the individual, then we consider it a sleep disorder that should be evaluated."

**Night Terrors:** Night terrors are sleep disorders in which the individual awakens abruptly in a terrified state, sometimes screaming or yelling. They can occur as part of normal development in early childhood, but when they

only locations where Medicare patients are guaranteed coverage for weight-loss surgeries.

The principal work in the field now, Dr. Wallace stresses, is addressing obesity as a disease. "We are increasing our understanding of how appetite is controlled and how satiety is regulated, and that's where the big breakthrough is going to be.

This disease is ultimately going to be treated by medications - surgery is not the final evolution of how you take care of someone who is morbidly obese. But at present, it's the best option."

are recurrent or occur outside of the normal age range, they are considered sleep disorders.

"Often there's not only a genetic predisposition, but a factor that triggers it," says Dr. Franco. "The trigger could be something such as sleep apnea. When the sleep apnea is treated, it will often end the night terrors and sleepwalking as well."

**Sleepwalking:** While it is considered normal during early childhood to occasionally sleepwalk, when it occurs repeatedly and outside of the normal age range, sleepwalking is considered a disorder.

Sleepwalkers "can hurt themselves simply because they don't recognize their environment," says Dr. Franco. "They can sleepwalk down the steps and fall and hurt themselves. One-third of adult sleepwalkers come to the doctor's attention because of injury."

In each of the sleep disorders discussed, recurrent events trigger an evaluation that includes a sleep study. In a sleep study the sleeper's brain activity, breathing, heart rhythm, and oxygen levels are monitored and recorded along with videotaping of the sleep and sleeper's behaviors. The sleep study allows doctors to uncover the sources (such as sleep apnea or limb movements) of the unusual behaviors.

Sleep disorders can be very disruptive, says Dr. Franco, but once the correct diagnosis is made, a treatment plan can be implemented so everyone can get a good night's rest.

physicians, but they also see patients with normal pregnancies. Programs and services include prenatal diagnosis, genetic testing and counseling, and prenatal surgery.

“Ideally,” Dr. Ames-Castro says, “we prefer that patients with hypertension, seizures or diabetes be screened and counseled *before* they become pregnant - or, failing that, as early in their pregnancy as possible.”

Parents often choose to deliver at the Froedtert & the Medical College Birth Center,

located within Children’s Hospital, where advanced neonatal care is available immediately if needed. Parents whose infants are born with complications are able to stay in the same building with their newborn.

“Medical literature has observed that when babies are diagnosed in utero and delivered at a tertiary care center that offers coordinated care, they do much better,” notes Dr. Ames-Castro. “Providing coordinated care for mother and baby at one location can have a tremendous impact on outcome.”

### Who Needs Supplements?

How do we know if we need to take a vitamin or mineral supplement? There are relatively few supplements that are essential to good health, says **Joan Pleuss, RD, MS, CDE, CD.**

Pleuss, a Bionutritionist at the Medical College of Wisconsin Clinical Research Center, says that eating well is the best way to get our vitamins and minerals. But she advises several groups of people to take specific supplements.

“All women of childbearing age should take a folic acid supplement,” she says. “Studies show that 400 micrograms of folic acid per day decreases the risk for neural tube birth defects, one of those being spina bifida. During pregnancy, most physicians will also prescribe a prenatal vitamin with iron because there’s an increased need for vitamins and minerals at that time.”

Pleuss also recommends supplements for post-menopausal women. “Post-menopausal women need vitamin D and calcium,” she says. The need for calcium goes up from 1000 milligrams in pre-menopausal women to 1200 milligrams after menopause. Vitamin D is essential for the absorption of calcium.

Men and women over the age of 50 should take a vitamin B12 supplement. “As stomach acid decreases with age, less vitamin B12 is available to the individual,” Pleuss notes, adding, “One of the symptoms of a vitamin

B12 deficiency mimics certain mental deficits, so a person can be thought to have Alzheimer’s disease, when actually it’s a simple vitamin deficiency.”

People who eliminate animal products from their diet often need vitamin B12 as well. “Vitamin B12 comes only from animal

sources,” says Pleuss, “so people who don’t eat animal products need to eat foods that are fortified with B12 or take a supplement.”

Some supplements call for a bit of caution. The fat-soluble vitamins – vitamins A, D, E, and K – are stored in fatty

tissue and can build up in the body, causing a variety of health problems.

When buying quality vitamin and mineral supplements, Pleuss emphasizes, “Cost is not always a factor. The cheapest can be as good as the most expensive.”

Even when taking supplements, says Pleuss, it’s important to eat a wide variety of nutritious foods.

“A multiple vitamin and mineral supplement, in my opinion, is a very inexpensive thing for people to do for their health. But our goal should be to eat well. Supplements are insurance, not a replacement for eating properly.”



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## Nearsighted? Blame Your Genes

About 30% of Americans are nearsighted.

Nearsightedness (myopia) and farsightedness (hyperopia) are the most common of the so-called "refractive errors."

Refractive errors usually occur in otherwise healthy eyes, and are caused mostly by an imperfectly shaped eyeball, cornea, or lens.

Myopia is caused by the eyeball being too long. People with myopia see near objects clearly, while distant ones are blurred.

The more myopic you are the blurrier your vision is at a distance and objects will have to be closer to you so you can see them clearly.

Myopia is usually hereditary, however, some specialists are now describing a different origin for nearsightedness: "school myopia."

School myopia develops because of increased use of near vision (such as reading or looking at a computer screen), especially if done during

the early teen years to the mid-20s. As an illustration of this principle, more than 60% of medical students are nearsighted. School myopia probably occurs only in those with a genetic predisposition.

According to the National Eye Institute (NEI), 60% of Americans have refractive errors that need correcting for sharper vision.

Glasses, contact lenses, and various eye surgeries and procedures are aimed at reducing refractive errors by focusing light rays properly on the retina.

To reduce eye strain, it's useful to follow the "rule of 20s": every 20 minutes, spend at least 20 seconds looking at a faraway object at least 20 feet away. You could also spend that 20 seconds simply with your eyes closed.

**Julie L. Mitchell, MD, MS**, Medical College of Wisconsin Assistant Professor of Medicine, practices at the Froedert & Medical College General Internal Medicine Clinic - East.

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- promote the health and well-being of our community;
- empower our patients with accurate, timely, impartial and authoritative medical information;
- strengthen the sense of community among our patients and physicians.

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