UW HealthLink

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Active Living and Learning Changes Lives

Your waist plays a big role in your risk for type 2 diabetes. If you are a woman with a waist measurement greater than 35 inches or a man with a waist of 40 inches or more, your chances of getting type 2 diabetes might be excellent—if that's the right word to describe a disease with the potential for multiple serious health consequences.

"Type 2 diabetes is a major risk for stroke, heart disease, kidney failure, blindness and more," says Dr. Patrick McBride, UW Health physician and co-director of UW Health's preventive cardiology program. "Yet, if caught early enough, it is treatable and reversible with lifestyle changes."

The trouble is that when it comes to exercising and eating better, it can be extremely difficult to change habits that have been in place for 20, 30 or 40 years. Difficult, but not impossible.

For people newly diagnosed with type 2 diabetes or at risk for it—and who are serious about changing the way they live and eat—UW Health has a program that can help: Active Living and Learning (ALL).

ALL is not a piece of cake. It's a year-long program. To get into it, you have to convince UW Health that you are committed. You also have to put money upfront to prove that you are serious. And the proof will definitely not be in the pudding. It'll be in class participation and the loss of a few pounds.

"Type 2 diabetes is controllable with modest weight loss—usually 5-7 percent of body weight, or 10-14 pounds for a 200-pound person. That will reverse most of the negative metabolic problems of the disease," says Dr. McBride, who agreed to lose 12 pounds with the first class (and did, just like his classmates).

"This is an individualized program. We are teaching lifestyle strategies tailored to each person."

"Many people think they have to lose a lot of weight to get health benefits, and that is not always true," explains UW Health Preventive Cardiology Clinic Director Jean Einerson.

"A National Institutes of Health (NIH) study showed that when people lost only 5-7 percent of body weight, it was enough to tip the scales in a positive way: their blood sugar went down, their blood pressure went down and their cholesterol levels improved."

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A Few Terms to Know

Cholesterol – a waxy substance natural to and used by the human body. Too much cholesterol in the bloodstream can block arteries and lead to heart disease.

Diabetes – a disease in which the body can't convert food into energy due to a lack of insulin or because the body is unable to use insulin. Without treatment, diabetes can cause complications such as loss of vision or coma. It also raises the risk for heart disease and stroke.

Metabolic syndrome – a group of conditions that increase the risk for heart disease: abdominal obesity, high blood sugar, high blood pressure, high triglyceride levels and low levels of HDL ("good cholesterol"). Metabolic syndrome is present if you have three or more of those conditions.

Pre-diabetes – a condition in which one has fasting blood sugar levels above normal but the levels are not high enough to diagnose diabetes; also called impaired glucose tolerance. Pre-diabetes increases a person's risk for type 2 diabetes and heart disease.

Triglycerides – a kind of fat carried through the bloodstream in lipoproteins. Lipoproteins that are rich in triglycerides are also rich in cholesterol and can contribute to heart disease.

Type 2 diabetes – the most common form of diabetes, in which the body does not produce enough insulin or in which the cells ignore insulin. Glucose (sugar) is the basic fuel for cells in the body, and insulin is needed for cells to use glucose.

Active Living and Learning Class Schedule

The year-long ALL program involves an initial personal evaluation and assessment, weekly group classes for the first 12 weeks and monthly group sessions for an additional eight months. The two-hour classes (5:30-7:30 p.m.) are led by nutrition and exercise experts and include:

- One hour of education about diet, behavior change and exercise, and
- One hour of exercise at the UW Health Research Park location.

Sample Education Sessions

1. Physical Activity: Putting it into Practice
2. Nutrition Overview and Daily Food Guide
3. Carbohydrates and the Glycemic Index
4. Strategies for Making Successful Changes
5. Fats in Foods and Low Fat Cooking: Friend or Foe?
6. Lifestyle Physical Activity vs. Structured Exercise
7. Emotional Eating
8. Food Labels and Grocery Shopping
9. Adding Variety to your Exercise Program
10. Healthy Dining Out
11. Staying Committed

Active Living *from page 1*

The NIH Diabetes Prevention Study involved 3,234 people who were overweight and whose blood sugar levels were higher than normal, a condition that often precedes diabetes. The study introduced intensive counseling on lifestyle, diet, and exercise behaviors to one group and compared the results to those of another group taking a diabetes medication (metformin) and a control group. After three years, the results were clear. The group that ate better and maintained good exercise habits reduced their risk for type 2 diabetes by 58 percent, compared to 31 percent for those taking the diabetes medication.

UW Health's ALL program could be right for you if you are overweight, have pre-diabetes or have recently been diagnosed with type 2 diabetes. Before acceptance into the program, you'll meet with program staff to make sure you understand the required commitment. Next, you'll come in for an hour of exercise analysis to learn your level of fitness. After that, you'll spend an hour with a nutritionist going over your eating habits. You also must agree to keep a journal of your physical activity and what you eat for the entire year. Despite those demands, the program has a dropout rate of only 7 percent.

The program cost is $1,500, and may be covered by your insurance or employer. If the cost is covered, you pay a $250 commitment fee, which is refunded at the end of the program if you meet attendance and participation requirements. If your insurance or employer does not cover the program, you pay $1,500 in six bimonthly installments of $250 each.

"ALL is not a turn-key program like weight-loss companies offer," says Einerson. "This is an individualized program that teaches lifestyle strategies tailored to each person. It's a medically supervised program, offering the services of a nutritionist, exercise specialists and a clinical psychologist. We look not only at habits, but also at emotional eating and relapse prevention."

Having seen some impressive changes in behavior, Einerson is proud of those who make the commitment.

"It's powerful to see a 62-year-old overweight woman who has never exercised in a gym, do this in front of other people she doesn't know. That's powerful because it's a confidence booster that lets that person know, 'Hey! I can do this!'"

For more information, call UW Health Preventive Cardiology at **(608) 263-7420**.

laser precision

Using pulsed-dye technology to help voice patients

It looks like a tool from "Battlestar Galactica." But for the past several months, it's the instrument Dr. Seth Dailey, a UW Health otolaryngologist, has been using to treat vocal-cord patients: A 585 nm pulsed-dye laser. Originally designed by dermatologists to treat small vascular lesions in infants, the technology helps otolaryrngologists care for patients suffering from vocal-cord problems caused by misuse or overuse of their voices. Patients who have benefitted from the laser range from teachers and coaches to disc-jockeys and karaoke singers.

"Basically, the laser allows us to treat patients in the office instead of the operating room," explains Dr. Dailey. "There's no need for general anesthesia for adult patients, some of whom may have a risk of heart attack and stroke. There are no chipped teeth from the laryngoscope, no time off from work. Typically, patients are in and out within 30 minutes."

The treatment is convenient to use. The laser passes through a channel in a slightly larger version of the flexible fiberoptic scope physicians use to diagnose voice disorders. The larynx is first dosed with topical anesthetic to minimize discomfort.

In patients with papilloma, the most common benign tumor of the larynx, the laser zaps red blood cells, which then absorb the energy and coagulate, cutting off the blood supply to the tumor. Papillomas occur most often on the vocal cords themselves; depending on the location, a mass as small as 1 millimeter can have a devastating effect on the voice.

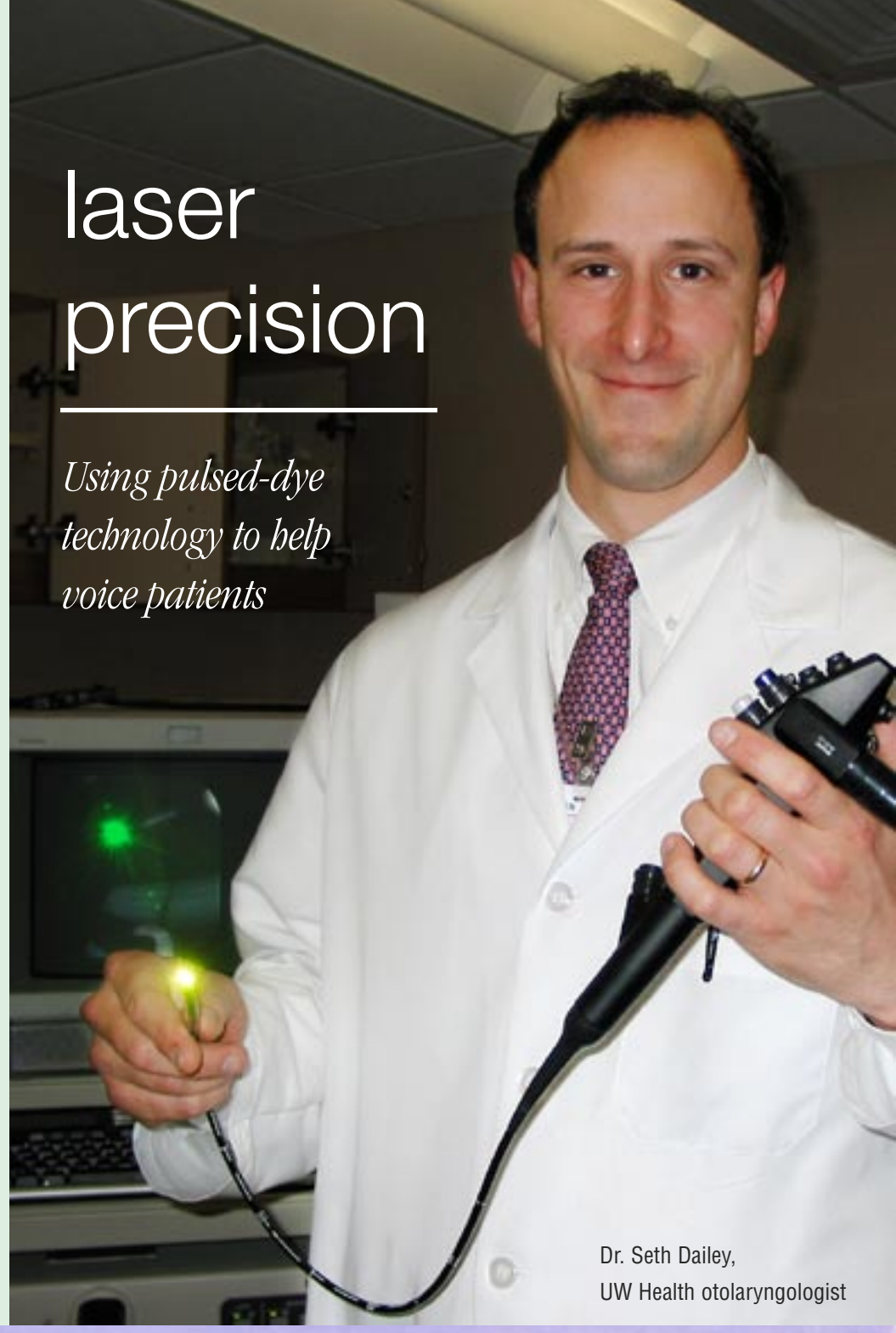
"Because the laser is very delicate, it doesn't induce much scarring. In fact, it may even reduce scarring," says Dailey.

Leukoplakia, the second condition that doctors now treat with the pulsed-dye laser, occurs when changes in the tissue beneath the vocal cords cause white-colored keratin to build up on the surface. The keratin often indicates the tissue is becoming pre-malignant, similar to precancerous cervical cells in women. "This is a red flag that we need to address that area," explains Dr. Dailey.

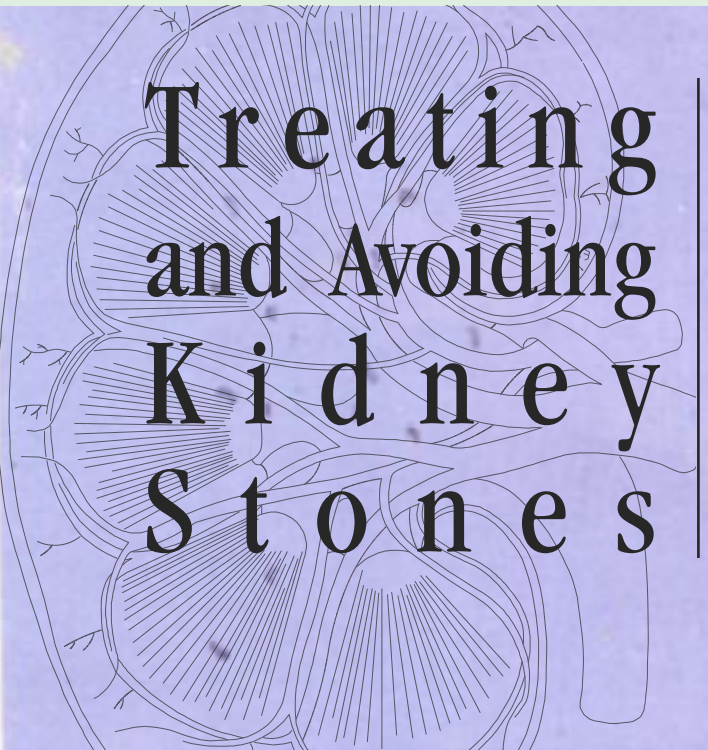
The laser introduces a mild injury to the area, which is then replaced by normal tissue, the same way a scraped knee heals with new skin. When the white lesions go away, doctors know the underlying problem is being treated.

"For people who have already been biopsied and found not to have cancer, this is a great choice," explains Dr. Dailey. "You save people from having surgery, anesthetics and discomfort."

For more information about the pulsed-dye laser, call **(608) 263-6190** or visit **uwhealth.org**.



Dr. Seth Dailey,
UW Health otolaryngologist



Treating and Avoiding Kidney Stones

Kidney stones. If you've ever had one, you probably wince when you hear the term. But how do they occur? What's the treatment for them? And most importantly, how can they be prevented?

Kidney stones occur when crystals form and accumulate in or outside the kidney. Most of these crystals pass through the urinary system without ever being detected—the rest, however, can cause considerable pain.

Up to 10 percent of adults will have a kidney stone by age 70, making it one of the most common urological conditions. Additionally, 70 percent of patients who've had one stone have a recurrence within 10 years.

"The good news is that many kidney stones can be prevented," says Dr. Stephen Nakada, UW Health urologist and chairman of urology. Each year, Dr. Nakada performs about 200 interventional surgeries for kidney stones.

Diagnosis

Routine kidney stones are usually simple to diagnose, says Dr. Nakada, and treatment depends on the patient. Edward Herbst, 54, visited Dr. Nakada because his primary physician did not have the technology to treat his complex kidney stone. "I was nervous because my doctor said he couldn't do anything," says Herbst, an active golfer and grandparent. "He said I could lose a kidney if we didn't take care of it."

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TENSION, MIGRAINE, OR CLUSTER?

Headache diagnosis is changing

Not so long ago, patients with occasional headaches, even persistent and debilitating ones, tended to chalk them up to tension or stress.

Some people had migraines, headaches characterized as extremely painful and occasionally disabling for hours. But headaches that didn't fit the "classic" migraine pattern—intense throbbing pain on one side of the head, nausea and vomiting, and sometimes "auras" as the headaches came on—were usually classified as tension headaches, to be treated when necessary with over-the-counter painkillers.

Those old classifications are changing. Brain-imaging studies suggest that many "tension headaches" are actually migraines. These studies also challenge the conventional wisdom that migraine headaches are caused by blood flow abnormalities in the blood vessels of the brain.

"We now see migraines as a nerve-cell dysfunction, rather than a vascular problem," says Dr. Nicholas Stanek, a UW Health neurologist who sees patients at the headache clinic. "The blood-vessel problems are a secondary process that results from the problem with the nerve cells."

Stanek and his headache clinic colleagues Dr. Douglas Dulli and Dr. Susanne Seeger say that other long-standing views about migraines are shifting as well. Migraines do not cause pain on only one side of the head; in fact, patients often report pain in the neck, shoulders and upper extremities as well. Most patients don't have an aura with a migraine attack. And there is clearly a genetic component to migraines that researchers are only now beginning to unravel.

It remains true that women, especially those under age 40, are much more likely than men to have migraines. Of the 28 million migraine sufferers in the United States, 21 million are female. Women's hormonal fluctuations are the main reason; in fact, up to 70 percent of women are likely to have more headaches associated with their menstrual period.

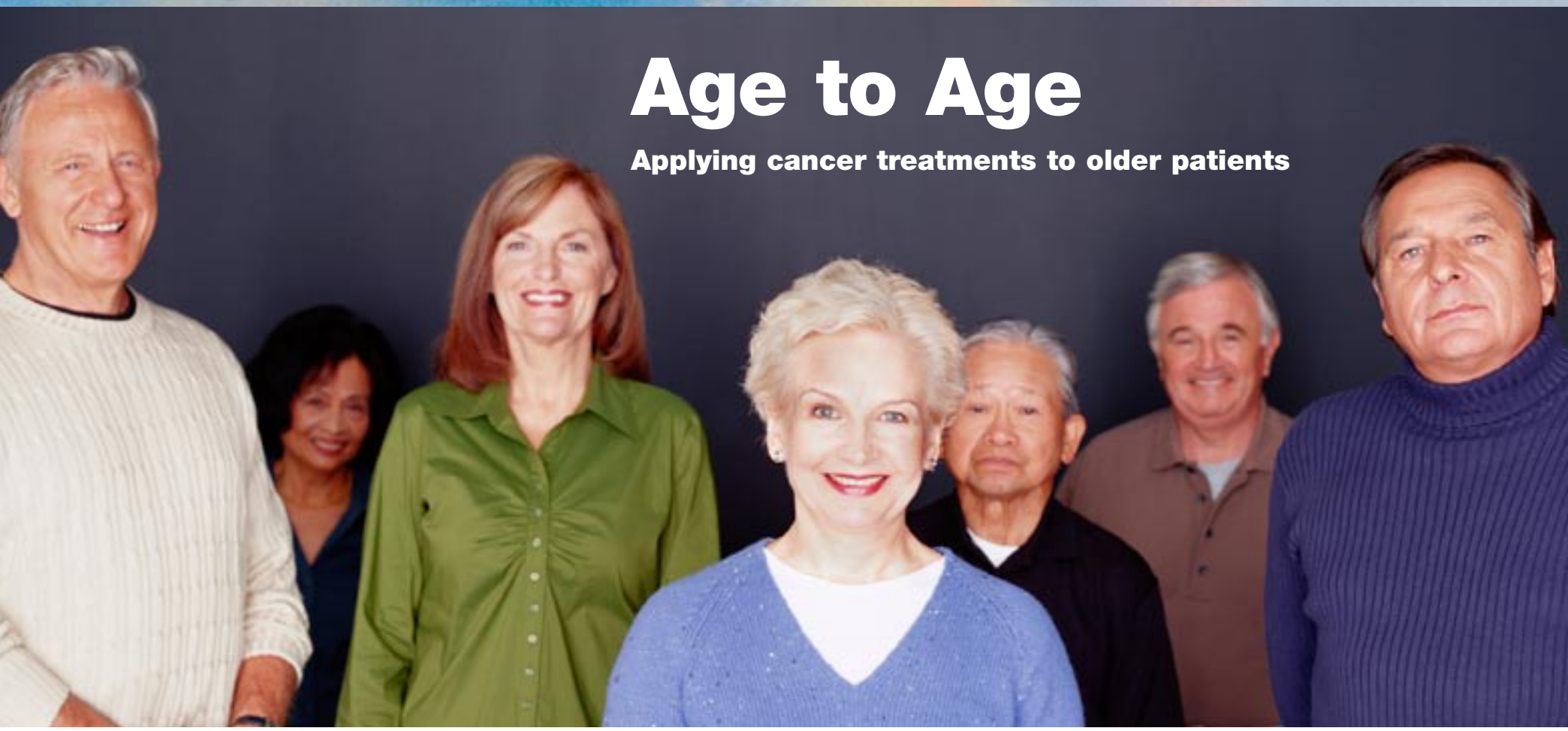
Migraines can vary immensely from patient to patient. For the majority of patients with mild to moderate pain, over-the-counter pain medications work well. But moderate to severe migraine requires prescription medicine, both for prevention and for treatment.

Without proper treatment, migraines tend to worsen over time. Some patients even develop depression from the frequent (more severe) headaches. But if a headache is properly recognized and treated as a migraine, patients have a better chance of avoiding worse and more frequent headaches, or of developing a 'rebound' headache that occurs when painkillers are abruptly stopped.

People who have more than one truly disabling headache or who have less severe headaches that last for days should see a doctor for proper diagnosis and treatment. Headache specialists can prescribe a treatment plan, then monitor and adjust it as necessary. The class of drugs called triptans is very effective for most migraine sufferers, particularly those who have severe pain.

"It's critical to know what kind of headache you're dealing with," Seeger notes, "because the cause determines the approach to treatment. This is an area of medicine that is really moving forward and offering new options for patients."

The Headache Clinic at UW Health East accepts patients by physician referral only. For further information, call **(608) 263-9550**.



Age to Age

Applying cancer treatments to older patients

Had he lived in a different generation, Bob Zitzler might have died many years ago, claimed by heart disease, diabetes or any of a number of maladies that advances in modern medical science have brought under better control. Instead, at 76, he's lived a long, full life. Long enough to enjoy a full career as a salesperson for NBC, enjoy 55 years of marriage to his wife, Jean, and see his three children grow to adulthood.

And now, long enough to see his melanoma recur.

In 2004, Zitzler's cancer, 20 years after it was surgically removed, resurfaced. At his age, surgery was no longer a good option, so Dr. Mark Albertini, a UW Health oncologist, sat down with Zitzler to wrestle with a quandary cancer specialists are facing more and more often: applying cancer treatments that have been successfully used in a younger population to patients 70 years and older.

As doctors are learning, it's a complicated issue.

"In older patients, the treatment you choose comes down to a balance," says Dr. James Stewart, a medical oncologist with the UW Comprehensive Cancer Center. "How much benefit are you going to get? How much toxicity are you likely to have? What will the older patient get out of the treatment? It can be a difficult situation, and with the older population growing, it's going to be more and more common. I don't think the medical system is totally ready for it."

If older patients have good liver and kidney function and their overall health is strong, treatments like chemotherapy can be quite effective. But in some cancers, a patient's age changes the treatment options completely. For instance, traditional breast cancer treatment protocol often includes surgery to remove the breast tumor, a node procedure in the armpit, and then radiotherapy.

"Now, when we get a patient in her eighties, it's very rare that we would do a node dissection, although it's very standard to do that in a 40- or 50-year-old," says Dr. Stewart. "On the other hand, I recently saw an 80-year old woman who had a vigorous discussion of what kind of breast surgery she was going to have."

Zitzler was fortunate that his overall health didn't present an obstacle to treatment.

"Dr. Albertini said I was strong enough to be able to handle the treatment," says Zitzler, who underwent a specialized course of chemotherapy, delivered in a pill form. The only side effect he experienced was fatigue.

"I'm not a napper, but I need a little nap now and then," he jokes.

Currently, researchers with the UW School of Medicine and Public Health are conducting a study assessing the physical skill levels of geriatric patients newly diagnosed with breast or lung cancer.

Although Dr. Stewart doesn't expect new cancer therapies targeted to an elderly population, the push to make cancer therapies less toxic is likely to have a strong positive impact on older patients. As doctors become better educated about treatments elderly patients can tolerate, he expects the quality of outcomes to improve.

"It's helpful to remember that if you're doing well at 80, and you haven't been stricken with heart or kidney disease, you've got a good chance of living well into your 90s," says Dr. Stewart. "I want those patients to have a good quality of life."

To learn more about cancer treatments for older patients, call **(608) 622-8922** or visit **cancer.wisc.edu**.

Power²

Power² Summer Programs

Four week summer sessions begin June 12.

Session I	June 12-July 7
Session II	July 10-August 4
Session III	August 7-September 1

DEVELOPMENTAL PERFORMANCE PROGRAM (Ages 10-13)

Sessions I, II and III	*Tues/Thurs*	*11 am-noon*

SPEED AND AGILITY CAMP (Ages 13-18)

Sessions I, II and III	*Mon/Wed*	*10:30 am-noon*
Session III	*Mon/Wed*	*1-2:30 pm*
Session III	*Tues/Thurs*	*10:30 am-noon*

STRENGTH AND POWER CAMP (Ages 13-25)

Sessions I, II and III	*Mon/Wed/Fri*	*1-2:30*

POWER FOOTBALL (Ages 13-18)

Sessions I and II	*Mon/Wed*	*1-2:30 pm*
Sessions I and II	*Tues/Thurs*	*10:30 am-noon*

POWER VOLLEYBALL (Ages 13-18)

Sessions I and II	*Mon/Wed*	*10:30 am-noon*
Sessions I and II	*Tues/Thurs*	*1-2:30 pm*

POWER SOCCER (Ages 13-18)

Sessions I and II	*Tues/Thurs*	*1-2:30 pm*

POWER BASKETBALL (Ages 13-18)

Session III	*Mon/Wed*	*10:30 am-noon*

POWER HOCKEY (Ages 13-18)

Session III	*Tues/Thurs*	*1-2:30 pm*

Watching a son or daughter play sports offers some of the most exciting—and nerve-wracking—times of a parent's life. There's the thrill of watching your child score the game-winning goal or basket, but there's often a nagging doubt. Have you done everything you can to help your child prevent injuries and excel in their sport?

The answer may depend on how much time you've helped them spend practicing the basics. No, not basics such as dribbling a basketball or catching a fly ball—although those are certainly important. We're talking about the basics of proper movement.

David Knight, athletic performance coordinator with UW Health Sports Medicine, explains that many injuries can be prevented simply by using proper movement techniques.

"Knowing how to move correctly can decrease the force on joints and muscles and decrease the risk of acute and long-term injuries," he says. "Acute injuries occur from a single, high-stress movement, while chronic injuries are due to a series of low-stress movements over time. Proper body alignment will decrease these stresses, leading to a more productive and injury-free athlete."

Even athletes who've spent years playing their sport can improve performance and prevent injury through an appropriate athletic training program. At the Princeton Club's west-side Madison facility, Knight runs an athletic training program called Power², a series of sessions designed to help young athletes understand how to correctly align their body when cutting, landing, jumping or running.

Getting started

Everything begins with an understanding that each sport requires particular movements. For example, skiing and swimming force muscles to work in very different ways.

"Some sports require more rotational movement, some more vertical and some more lateral," continues Knight. "Our performance training program works to develop all dimensions of movement to develop a well-rounded multidirectional athlete."

Before signing up for an athletic training program, Knight says that it's important to consider what you want to get out of it. "The athlete should have goals that are based on sound reasoning, not on popular opinion," he says. "For example, people glorify the 40-yard dash time in football. In reality, agility is much more important than your 40-yard dash speed."

Knight also recommends that student-athletes and their parents choose a program that is tailored to their sport, and led by qualified professionals. The program should offer an athletic approach to training and work to develop technique in movement before focusing on running faster, jumping higher or lifting more weight.

The Power² Athletic Training program teaches athletes how to develop into the best player possible on all levels. "We take a very integrative approach. We help them build skills from the ground up," says Knight. "Before athletes can adequately train for a specific sport, they need to focus on the physical components of stability, coordination, mobility and balance."

Power² currently has two different programs. The Varsity program is a small group, sports conditioning program that offers three age-specific training levels. Student-athletes may participate in this program at one of the three levels from grades 4-12. Each level of the program builds on the next with the goal of maximizing performance while preventing injury.

The Championship program is geared toward improving performance with an entire team of athletes at once. The program staff works with high school or club organizations to develop athletes' power, agility, speed, coordination, balance, quickness and footwork. The program leader will work with the team coach to address the team's needs during the season, or during the pre- or off-season.

For more information about the Power² Athletic Performance program, call **(608) 261-1775**, or visit **uwsportsmedicine.org**.

Laura's Story

Eleven-year-olds shouldn't have to endure what Laura Slusser did. Diagnosed with type-1 juvenile diabetes at an early age, the Park City, Utah, resident was forced to wear an insulin pump, and like most diabetics, had to carefully monitor her diet and blood sugar levels.

Then, on a cruise ship vacation with her family in the Bahamas in early 2005, catastrophe struck: Laura's kidneys suddenly failed. Only an emergency airlift to a Miami hospital saved her life.

"When we spoke with Laura's endocrinologist later, he told us, 'It doesn't happen like that,'" recalls Sherrie Slusser, Laura's mother. "He told us that diabetics typically go 10-20 years before experiencing any kidney problems."

And so, a new indignity was added to Laura's mix—dialysis. To facilitate the three times a week blood-cleansing process, she had a catheter installed in her neck and was forced to receive schooling at home.

At that point, Laura's doctor referred her to UW Hospital and Clinics, where the transplant program headed by Dr. Hans Sollinger, UW Health transplant surgeon, performs more kidney-pancreas transplants than any other center in the world. Dr. Sollinger was immediately impressed with how bravely Laura faced her surgery.

"Laura can do anything," says Sollinger of his young patient. "She has a remarkable maturity and calmness for someone her age."

In July of last year, Laura received a new kidney and a new pancreas, effectively removing her need for dialysis, curing her diabetes and making her one of the youngest patients ever to receive a kidney-pancreas transplant.

"We solved two problems with one surgery," says Sherrie Slusser.

Laura still must take anti-rejection medicine and endure a monthly blood draw to check her blood sugars and guard against viral infection, but aside from these precautions, she's feeling great. The thing Laura misses least is the dialysis catheter.

"I can take showers again," she says. "When I had kidney failure, doctors told me I couldn't get my catheter wet, or infection would set in."

Laura hasn't wasted any time using her newfound health and freedom. Her original artwork (shown at right) was chosen for inclusion in the national Kidney Foundation calendar. She's also become a strong advocate for stem-cell research that might someday cure diabetes, writing letters to President George W. Bush and winning a Nicholas Green Distinguished Student Award for her efforts. When she finishes school, Laura talks of becoming an artist or a writer.

Then she pauses. "Or maybe I'll become a surgeon."

Dr. Sollinger will be happy to hear that.

In July of last year, Laura (above right) received a new kidney and a new pancreas, effectively removing her need for dialysis, curing her diabetes and making her one of the youngest patients ever to receive a kidney-pancreas transplant.

Kidney Stones *from page 3*

Herbst said he felt relieved meeting with Dr. Nakada, who offered him three treatment possibilities.

"We went from no options to three options," says Herbst's wife, Dawn, 53. "When Dr. Nakada said that, I looked at Ed and felt immediate relief."

Most patients can be treated with extracorporeal shock wave lithotripsy (ESWL), in which shock waves are used to break up stones that are too large to pass. Other options include flexible uretoscopy, which uses a tiny basket inserted in the urethra to snare the stone, and percutaneous nephrolithotomy, which involves a small incision in the back to remove the stone. Dr. Nakada has performed almost 400 percutaneous nephrolithotomy procedures, making him one of the most experienced physicians in the field.

The Herbsts chose percutaneous nephrolithotomy because of the size of Edward's stone.

But surgery is not the only option, cautions Dr. Nakada. "We can prevent, dissolve and break up stones," he says. "Technology and the science are improving constantly."

Post-treatment

Because recurrence is likely, Dr. Nakada suggests dietary counseling to prevent future stones, beginning by assessing the passed stone particles. Dr. Nakada's patients then undergo a series of urinary assessments to determine the best dietary regimen. Nevertheless, Dr. Nakada warns against changing your diet without medical counseling. "For example, calcium stones don't mean you get too much calcium," he states. "In fact, they usually means you have too little."

Bottom line

"If someone tells you that you need open surgery or that there's nothing you can do, you should always get a second opinion," says Dr. Nakada. "With our equipment, nearly all stones are treatable—medically or surgically."

To schedule an appointment with Dr. Nakada, please call the UW Health department of urology, **(608) 263-4757**.

"Gear Up" for June 17 bike ride

UW Health

Marketing and Public Affairs
635 Science Drive, Suite 150
Madison, WI 53711

www.uwhealth.org

Get the family together, bring your bikes, have some fun and support a great cause—UW Children's Hospital. You can do it all by marking your calendar for Saturday, June 17, the date of this year's Gear Up For Kids family-oriented cycling event.

While many worthy bicycle rides are held each year, the unique characteristics of Gear Up for Kids include:

- ★ No pledges to solicit or collect!
- ★ Gear Up is a non-competitive ride, not a race.
- ★ Gear Up offers four course lengths (1, 6, 20 and 36 miles).
- ★ Gear Up offers every rider a free T-shirt, body massages, kids' activities and a free lunch when you return to the park from your ride.

"Gear Up is really a great way to spend a Saturday morning," says Tom Young, special events manager at UW Children's Hospital. "We get a lot of great feedback from families, as well as more serious bikers who tell us how enjoyable, affordable and well-organized they find this event."

Register online at gearupforkids.org

Proceeds from Gear Up for Kids provide support for:

- ★ UW Children's Hospital patient and family needs;
- ★ Construction of the new American Family Children's Hospital, now being built next to UW Hospital and Clinics in Madison, and;
- ★ Purchase of bike helmets for children from low-income homes.

RIDE ESSENTIALS

When: Saturday, June 17, 2006
9 a.m. - Check in and free bike checks
9:30 to 10 a.m. - Start of rides

Where: McKee Farms Park Shelter in Fitchburg (just west of Fish Hatchery Road on Highway PD).

Helmets: BICYCLE HELMETS ARE REQUIRED!

Registration: Register online today at www.gearupforkids.org. Advanced registration fees are $10 for individual riders and $30 for families. (The web site also includes "print out and mail" registration form.) You may also register the morning of the ride for $15 (individual riders) or $40 (families).

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