

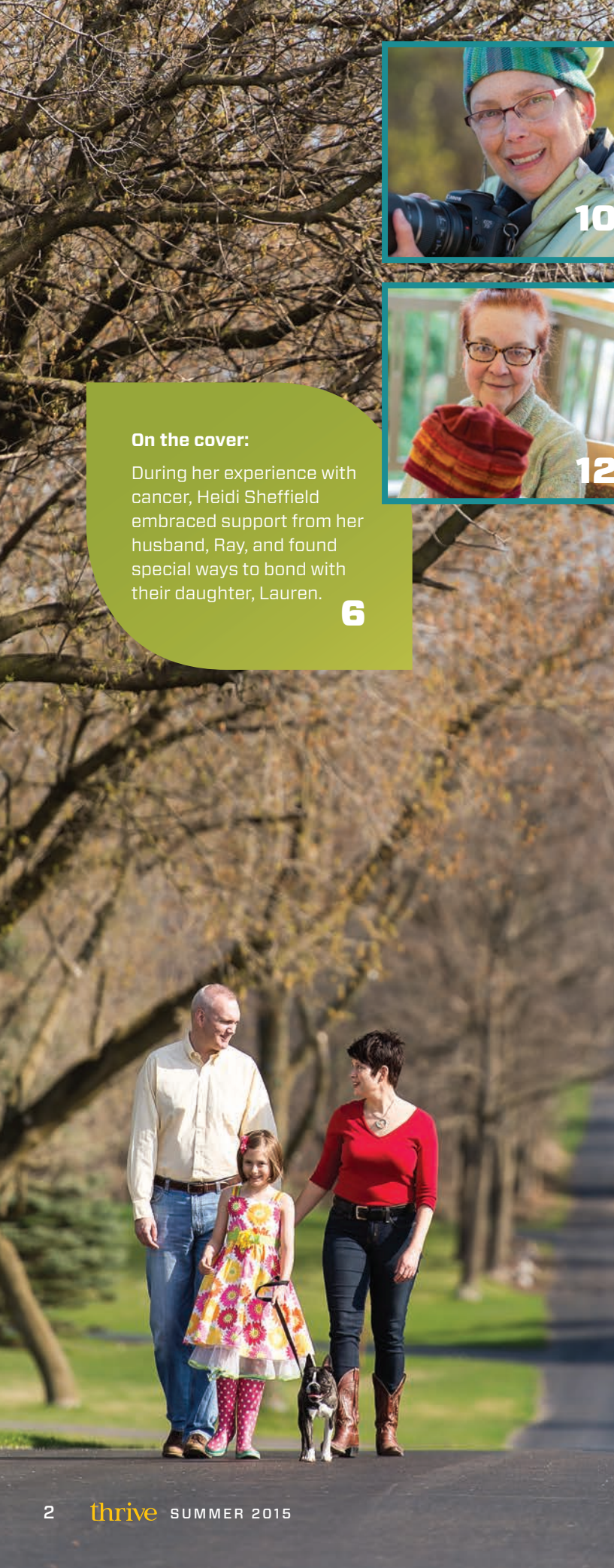
thrive

Support Systems

Find YOUR best approach to
get through cancer



**COMPREHENSIVE
CANCER CENTER**
UNIVERSITY OF MICHIGAN
HEALTH SYSTEM



On the cover:

During her experience with cancer, Heidi Sheffield embraced support from her husband, Ray, and found special ways to bond with their daughter, Lauren.

6

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For more information about the stories in Thrive or any other cancer-related information, please call the Cancer AnswerLine at 800-865-1125.

A Look Into the Future

Using technology to record and share patient appointment summaries

Communication with your cancer doctors is essential to successful treatment, but sometimes it's hard to remember details from your appointment. A cancer diagnosis is overwhelming and patients receive a wealth of information to sort through. Even if you take notes or bring someone else to your appointment as a second set of ears, relaying that information to other friends, family and loved ones can be challenging.

Physicians at the University of Michigan Comprehensive Cancer Center decided to test a new technology to help patients review their appointments and share that information with others.

Their idea? Have physicians record 2-3 minute video summaries immediately following a patient's appointment. The video contains details such as major findings and recommendations for treatment and next steps that were discussed that day. Leading the project, called MiVideo, were physicians John C. Krauss, M.D., Vaibhav Sahai, MBBS, Lawrence An, M.D., and Diane M. Simeone, M.D., with technical and data analysis support from Matthias Kirch at the U-M Center for Health Communication Research.

How do patients access their MiVideo? Participating patients receive an email containing a link to their visit summary video on a secure website. Patients can forward the video link to friends and families if they choose to share the information. This allows them to hear the discussion firsthand from the physician and removes the possibility of information being lost in translation or misinterpreted.

"This is just one example of how we can make lives better for cancer patients. Delivering state-of-the-art clinical care and effectively communicating that information to patients and their families is a key part of our mission," says Simeone, director of the Pancreatic Cancer Center and Gastrointestinal Cancer Program.

The physicians recorded and sent 58 MiVideo summaries over six months to patients seen in the multidisciplinary pancreatic cancer and colorectal cancer clinics. Over three-quarters of the patients logged into the secure site to watch their video. Fourteen patients shared their video, inviting a total of 46 others to view the information.

"When it was time for the next change in treatment, several patients asked for an updated video visit summary because the first summary was so informative," says Krauss, medical oncology director at the Multidisciplinary Colorectal Cancer Clinic.

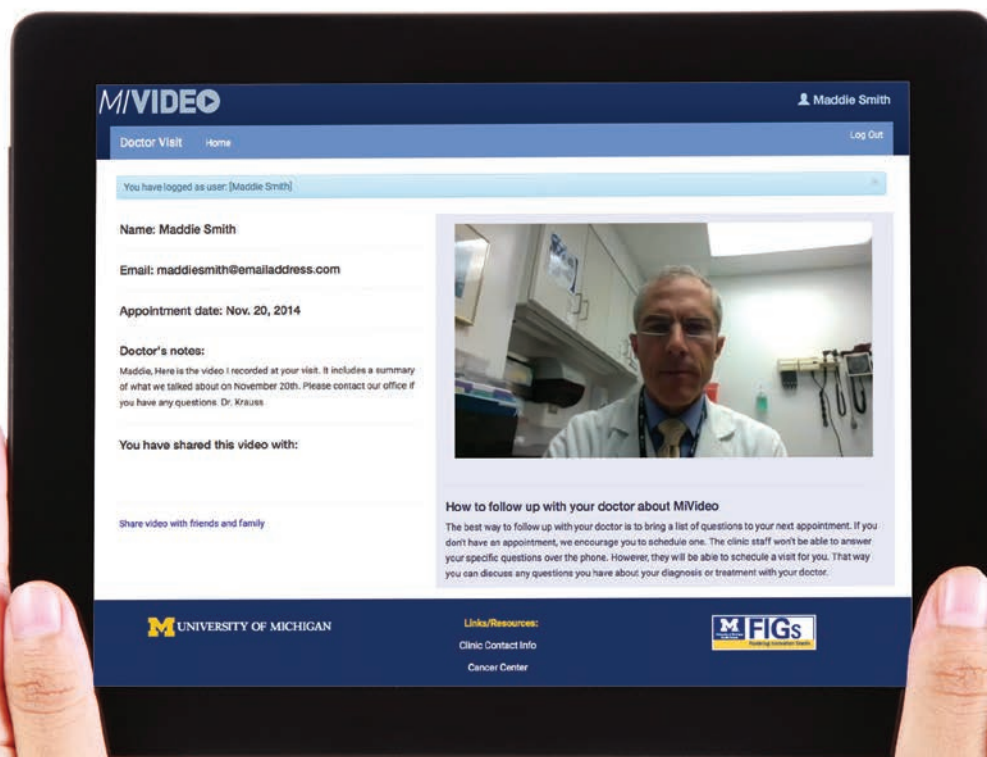
The average overall satisfaction with MiVideo was 9 on a 1-10 scale. Patient comments included:

- "Provides details which may have been forgotten or misunderstood"
- "A great synopsis of the current condition"
- "It reviews what the doctor said at the appointment"

What's next for MiVideo? The group is seeking viable technology options to make it available to all physicians and their patients at the U-M Cancer Center in the near future.



Visit mCancer.org for other stories on better and safer health care through technology.



Cancer and a Good Night's Sleep

Understanding sleep cycles, circadian rhythms and how cancer and treatment can affect sleep

SLEEP TIPS:

- Use a sleep diary to track your patterns
- Put away e-readers, tablets and other devices at night
- Light therapy boxes should be at least 10,000 lux, similar to a bright sunny day
- Ask your doctor about ways to improve sleep hygiene
- See your doctor if insomnia occurs three or more times per week or persists for three months



Deidre A. Conroy, Ph.D.

Human beings cycle in and out of the four sleep stages throughout the night. Ideally, you'll have dream stages every 90 minutes and wake up rested and ready to go in the morning. However, every person has a master body clock that can get out of sync with the external world.

Add a cancer diagnosis to the mix and while sleep becomes even more essential to good health, it can also be harder to come by based on your personal situation.

We sat down with Deidre A. Conroy, Ph.D., the clinical director of the Behavioral Sleep Medicine Program at the University of Michigan Health System, to understand how cancer and the treatment of cancer can affect a person's sleep and what promising therapies exist to treat sleep problems.

Q Can you explain how the human sleep cycle works in general?

Sleep is regulated by very sophisticated systems in the brain. In one system, our exposure to light or darkness sends a signal to the suprachiasmatic nuclei, also known as the master clock of the brain, to regulate our body's rhythms, also known as circadian rhythm. Another system in our body, called the homeostatic system, keeps tabs on how long we have been awake. Basically, the longer you stay awake, the sleepier you become.

Sleep-wake cycles are controlled by this 24-hour master clock. The master clock regulates all kinds of bodily functions, such as performance, alertness and mood. It also regulates production of melatonin, a natural hormone in the body that helps to regulate sleep. When it is dark, your body produces more melatonin, promoting sleep. When it is light, you produce less.

However, sometimes our internal circadian rhythm gets out of sync with the outside world. When this happens, sleep disturbances can occur.

A

Q How does a cancer diagnosis fit into this process?

There are many ways a cancer diagnosis and subsequent treatment can affect a person's sleep. First, a person could be predisposed to a sleep problem like insomnia, even before cancer. If a person has anxiety, for example, a cancer diagnosis might be the event that precipitates, or causes, a bout of insomnia.

Insomnia in cancer is common, with 30 percent to 60 percent of patients reporting difficulty falling asleep or staying asleep. Being worried about falling or staying asleep can perpetuate the cycle. We know sleep disturbances, with or without cancer, are connected to a number of negative health consequences, such as fatigue, depression and increased pain.

Q How does cancer treatment affect a person's sleep?

It largely depends on the individual and his or her treatment plan. For example, one study reported that chemotherapy disrupted circadian rhythms in women with breast cancer. Even though the treatment helps the patient fight cancer, it can have negative consequences to sleep.

The study measured sleep, depression and circadian rhythms both before and after treatment. Higher rates of insomnia persisted even beyond completion of treatment.

It is important for caregivers to think of the patient as a whole, including their diagnosis, sleep history and how sleep patterns have changed.

Q What treatments are available to help cancer patients sleep better?

Your physician may prescribe a sleep aid. Sometimes low-dose antidepressants, anticonvulsants or antipsychotic medications are also prescribed. Or, there are medications to increase melatonin, such as ramelteon.

Cognitive behavioral therapy for insomnia (CBTI) is a multi-session sleep treatment program to address sleep-incompatible behaviors, such as drinking caffeine before bed, as well as how a person can anticipate and better cope with the worry of not getting enough sleep. CBTI also focuses on sleep hygiene, or the best habits to get good sleep.

Another non-medication treatment is the use of bright light therapy, as studies have reported that exposure to bright light at certain times of the day improves sleep.

Q What is coming in the future to help cancer patients with sleep issues?

Chronotherapy is a growing field of research that aims to optimize cancer treatments by integrating information about an individual's circadian rhythm in the design of anticancer drug delivery. That means delivering chemotherapy, for example, at certain times of the day depending on the individual's circadian rhythms rather than the hospital or staff's schedule. Bright light therapy may also be more effective for certain people at certain times of the day.

Possible outcomes to cancer patients are milder nausea, improved quality of life, higher doses with fewer side effects, less fatigue and longer survival.

SUPPORT

One patient reflects upon what helped her most throughout cancer

Heidi Woodward Sheffield, a graphic designer, artist and writer, wasn't one to do breast exams—frankly, they scared her—but one morning she heard the voice of her father, who had passed away a few years earlier.

“Look here,” he said. She was sure her mind was playing tricks on her. “Look here, NOW,” he said. Her hand went right to the lump, which was eventually diagnosed as stage 2 invasive breast cancer.

As a wife and working mom, Sheffield looks back on the past two-and-a-half years of surgeries, chemotherapy, radiation therapy and reconstruction with relief. She is cancer-free and feels fortunate to have had a sense of rebirth throughout the process.

In retrospect, she shares her best bets on coping, accepting help and support systems.

TRUTHS ABOUT TREATMENT

One of the toughest parts of treatment, Sheffield says, was the waiting. In her case, it took months to determine the margins of her tumor. She had three surgeries leading up to the removal of her right breast.

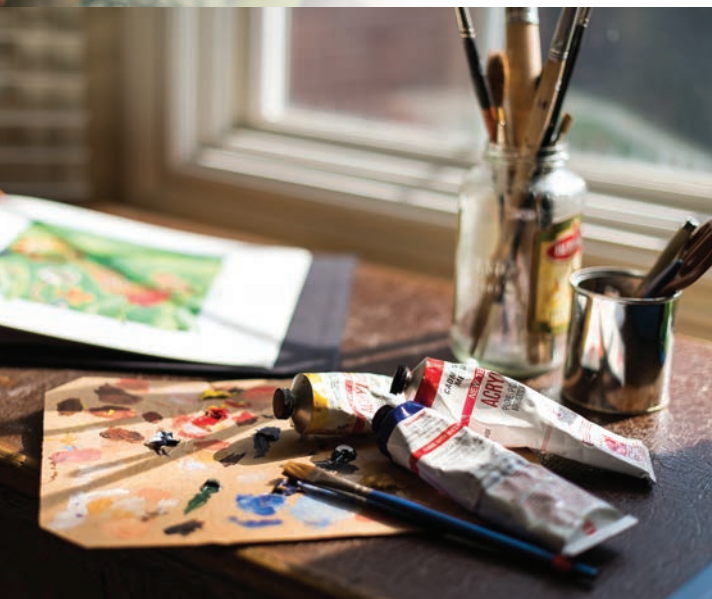
During her subsequent radiation therapy, her skin became bright red and began to peel. In order to proceed, Sheffield had to take a break and give herself time to heal.

“Just as every patient is different, how every patient tolerates their treatment, in this case, radiation, also differs by individual,” says Lori Pearce, M.D., professor of radiation oncology. “Individualizing care, from the caregiver’s perspective, and having patience to allow the body to heal, from the patient’s perspective, are both extremely important in optimizing a successful treatment course.”

And, because of Sheffield’s treatment regimen, she had to wait to make decisions about reconstructive surgery.

“I waited more than a year, weighing the pros and cons of breast reconstruction, both physically and mentally,” she says. During this time, she gained back much of the weight she’d lost during treatment, making her eligible for a DIEP flap reconstruction, a procedure she preferred. It resulted in less scarring.

Sheffield, in hindsight, can see the advantages of taking time to make decisions and heal. In her case, it resulted in positive outcomes.



Reconnecting with art helped Sheffield cope with the emotional difficulties of cancer.



Sheffield created butterfly pictures to send a message of hope and rebirth to her daughter, Lauren.

Photo courtesy of Heidi Sheffield

SYSTEMS



Visit mCancer.org for details on the Families Facing Cancer Program.

Sheffield's Tips for Parents with Cancer

1. Communicate with your child's teachers to ensure they are sensitive during a difficult time.
2. Share special moments as much as possible. For example, Sheffield and her daughter decorated her head with butterfly stickers.
3. Take advantage of the Cancer Center's Families Facing Cancer program and its Come & Visit Tour.
4. Read books for children, such as *The Goodbye Cancer Garden*.

FINDINGS ON FAMILY

“My husband is an engineer and able to look at things analytically, whereas I’m an artist and more emotional,” Sheffield says.

During her experience with cancer, Sheffield learned to embrace these differences and let her husband, Ray, provide the support she needed.

“He helped me weigh out the options, sift through tough decisions and, as a result, I didn’t have to burden myself with details, which was very comforting,” she says. “Ray had the ability to research, digest and compartmentalize vast amounts of information while examining cause and effect.”

Sheffield’s sister, B.G., also provided encouragement and attended every chemotherapy appointment.

“She was my advocate, reminding the nurses of my latex allergy, helping me figure out between using a port or an IV and reminding me to use numbing cream before they plugged me in for chemo.”

Sheffield describes this time with her sister as especially poignant. She believes her sister’s support was instrumental in her healing.

COMMENTS ON COPING

It seemed natural to take time off to heal and cope, but for Sheffield, too much time left her in a depression.

“I felt guilty and panicked to find I couldn’t look at one person who had lost her hair. It was unnerving and I was in denial,” she says. “I also found it hard to continue my daily work, activities and had withdrawn from public life.”

She turned to the Cancer Center’s PsychOncology program and was referred to Sharon Mudd, a nurse practitioner in the U-M Department of Psychiatry.

“Most people face some degree of depression, anxiety and fear when cancer becomes a part of their lives,” says Mudd. “We help people work through their grief, offer support during these difficult times, problem solve around new problems that arise because of the onset of the cancer, and work with the Cancer Center staff to coordinate the patient’s care.”

Sheffield suggests people do what they can during cancer treatment to stay engaged in regular life to keep their mind off cancer.

She also discovered the Cancer Center’s art therapy program and, though she felt like she’d fallen out of touch with art, experienced renewed creativity and a rekindled desire to pursue her passion of writing and illustrating children’s books. **t**



“We provide the cancer community knowledge to empower, hope and compassion to heal, and commitment to help them have the best patient care experience possible.”

—Annette Schork, R.N., BSN, OSN, CBCN, a Cancer AnswerLine nurse.



Finding Answers Fast

Cancer AnswerLine Empowers Patients, Families and...*Everyone*

Robert McGee of Ann Arbor can't remember exactly where he saw an ad for the University of Michigan Comprehensive Cancer Center's Cancer AnswerLine (CAL). He simply remembers the helpless feeling when his sister announced she had a mass on her pancreas. They didn't know if it was cancer, but needed to find out. That's when McGee recalled the 800-number he saw as a resource for anyone with questions about cancer.

"I called the Cancer AnswerLine on a Thursday," he says, "They listened patiently, explained her options in everyday terms and advised that my sister could be seen in the pancreas clinic the following Monday."

The Cancer AnswerLine was established in 1995 as a community resource to provide personalized information and support to those affected by a cancer diagnosis. Whether the caller is a patient, family member or loved one, each speaks to a certified oncology nurse. CAL's four nurses keep the line available Monday – Friday, from 8 a.m. to 5 p.m.

In addition to providing answers to questions on treatment options, support groups and community resources, the CAL nurses offer information on:


- Risk reduction
- Warning signs
- Detection methods
- Clinical trials
- Doctor referrals
- Appointment scheduling

McGee's sister, thankfully, was only a cancer scare. Years passed and his daughter's friend received a brain cancer diagnosis. She was on a drug with side effects and wanted a second opinion on her treatment. McGee became her advocate and called CAL again.

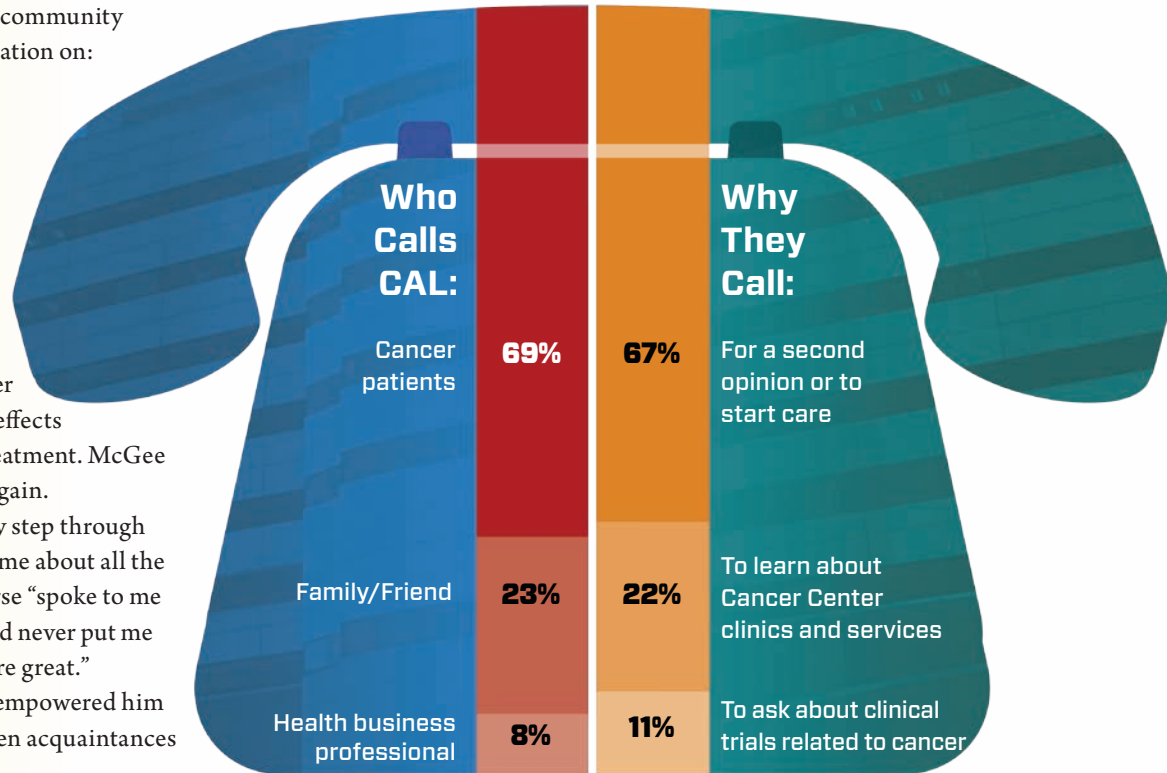
"I spoke to the nurse in detail, step by step through her situation. Cancer AnswerLine told me about all the support she could get," he says. The nurse "spoke to me like she had all the time in the world and never put me on hold. We called them often, they were great."

McGee realized CAL and its nurses empowered him to help friends, family members and even acquaintances facing cancer.

"Everybody unfortunately knows someone who has cancer. Any one of us can be that person's champion and help them walk that path. A resource like Cancer AnswerLine can guide us through red tape and give direction on what to do. They will listen, answer medical questions and provide resources to anyone," he says.

Since then, McGee has referred many people he knows to CAL for questions about cancer care and how to get appointments. He became so interested in the cause, he now volunteers his time helping cancer patients and their families and manages a Facebook page specifically for people with cancer who live alone or need support. He frequently reminds followers about the CAL nurses and the 800-number to call: 800-865-1125. 

In 2014, the U-M Cancer AnswerLine helped 2,746 people with appointment requests and referred 431 callers to clinical studies at the Cancer Center.



One Doctor, Five Minutes, New Life

How an immediate connection with her medical oncologist changed one patient's outlook on treatment and life



Madeline P., an avid wildlife photographer, makes her hobby a priority after beating cancer.

“I’ll give her just five minutes,” vowed Madeline P. of West Bloomfield as Sofia Merajver, M.D., Ph.D., walked into the exam room in 2000. After two bouts of breast cancer with an ulcerative colitis diagnosis in between, she didn’t feel emotionally or physically equipped to handle more treatment.

Looking back, Madeline, 67, says she wouldn’t be alive today without the care of her University of Michigan Cancer Center medical oncologist.

“I truly marvel that it all boiled down to the first five minutes we met. She made a lightning-fast appraisal of my hot buttons and managed to push them all in those five minutes in an appeal for me to have chemo. Dr. Merajver convinced me that I had nothing to lose and everything to gain, so instead of saying no, I found myself agreeing to it.”

Today, when Madeline isn’t lugging a camera into fields, woodlands or swamps and setting up for hours of wildlife photography, she’s organizing photos, prepping equipment and planning her next outing. She also enjoys traveling with her husband, John.

“It’s a good thing John has taken over cooking and some other household chores because my years of cancer treatment have given me a new set of priorities,” she says.

A TURN IN HEALTH

Madeline’s good health changed in the 1990s. She underwent a double mastectomy for breast cancer (removing the second breast was a preventive decision) and a preventive hysterectomy. In 1995, she became the first woman in Michigan to test positive for the BRCA gene, the now well-known biomarker pointing to a high risk for breast and other cancers. Over the next five years, she dealt with the exhausting effects of ulcerative colitis and the side effects from treating it.

Nearly nine years after her mastectomy, Madeline’s breast cancer returned.

“There really wasn’t much left to take off except chest tissue, so we went ahead and did that, following up with a month of radiation therapy,” she said. “I was physically and emotionally depleted by the time radiation therapy was done, but I agreed to have my colon removed,” which was necessary for her ulcerative colitis.

This cleared the way for the last step in Madeline’s cancer treatment plan: chemotherapy. Madeline admits that she was ready to spurn chemotherapy and all that came with it: more fatigue, more nausea, more medical appointments. But she agreed to meet with Merajver. In five minutes, her outlook changed completely.

COMMUNICATION COUNTS

“Communication with the patient and family is at the heart of the relationship between the patient, her family or friends, and the doctor,” Merajver says. “Nothing supplants the bond that forms when the patient knows her doctor is watching out for her health and for her life. As a doctor, you must convey that commitment with words and actions forever.”

Six months of chemo had its ups and downs but Merajver closely monitored Madeline’s tolerance for the infusions. Madeline found her to be an active listener. If Madeline was discouraged by how she felt, Merajver adjusted the dosages to help her feel better during the process.

“These conversations didn’t last long, but Dr. Merajver was always available, always comforting me,” says Madeline. “Not once did I regret saying yes to her about chemo.”

Madeline placed her full trust in the oncologist and that included trusting Merajver to respect her comfort zone when discussing treatment and making recommendations.

“You cannot promise a certain length or even for sure a certain quality of life, but what I promise is to always accompany them and try to maximize both, to be by their side intellectually and emotionally and also often physically when the patient is in the office or ill in the hospital or in hospice at home or anywhere in the world on vacation and they need your help or have a question,” Merajver says.

Fifteen years later, Madeline sees Merajver for an annual checkup and always thanks her for another chance to live. **t**



Madeline is grateful her husband, John, supports her passion for art and photography.

Weaving a Better Cancer Care

For the four volunteer weavers at the U-M Comprehensive Cancer Center, the first step in the weaving process is choosing yarn and colors. **1** The weaving program has been in the Cancer Center for over 12 years, offering demonstrations and short lessons on the loom. The cloth is used to create hats, pockets and tear cloths for patients and family members.

2 Next comes winding out 7 yards worth of thread, 15 threads per inch, 24-inches wide.

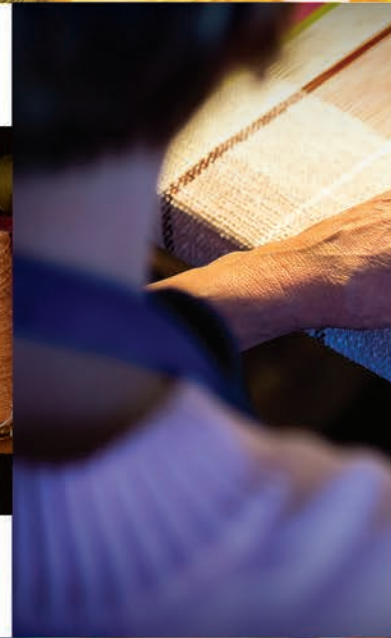
“A lot of patients speak of childhood memories of a grandmother or neighbor who wove,” says Georgia Gleason, a member of the Ann Arbor Fiberarts Guild and volunteer weaver since the program’s inception. “Usually we don’t discuss their illness. Weaving on the loom is a distraction and a way to put their minds on something else.”

3 After the yarn is carefully counted and prepared (400 threads on a loom, 7 yards without getting tangled) the weavers make a warp chain.

“I really enjoy sharing the process with patients,” says Barb Schutzbruber, another volunteer weaver. “I was the kid my parents lost every place we went where there were demos. I’ve always liked doing something while talking about it and teaching others.”

4 The chain is attached to the loom and pulled on slowly. This is when patients and families can see the weavers in action on the loom. The number of visitors and participants varies from day to day, with some watching and others wanting to try it themselves.

“Our format is educational,” Schutzbruber says. “We’re connecting patients with something most of us don’t think about anymore. We all wear clothing, but no one considers how the cloth is made. Even garments in large clothing chains start on a loom.”



From left to right (top):
Louis Kane, Barb Schutzbruber,
Joann Green, Margaret Nowak
(bottom): Bettie Bahen,
Georgia Gleason



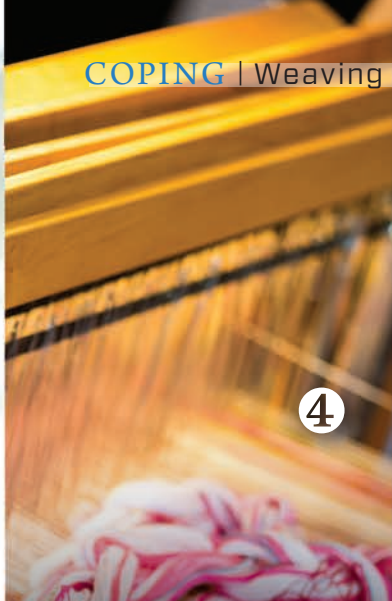
Experience



2



3



4

5 The final step at the Cancer Center is cutting the 7 yards of woven fabric. Historically, tapestries were cut with golden shears in a ceremony. The Cancer Center weavers use a pair of yellow scissors.

“Once, we cut it off surrounded by a crowd. They applauded. We stretched the cloth across the floor so they could see the different colors,” says Gleason.

6 The cloth is transported to an off-site volunteer seamstress who sews the hats and pockets. They are brought back to the Cancer Center, where patients can try them on and take one to keep.

Volunteer weavers work the looms in two-hour blocks at the Cancer Center lobby on Monday, Wednesday, Thursday and Friday. The Ann Arbor Fiberarts Guild has provided opportunities for weavers, like the Cancer Center volunteers, since 1956.



6



5



Visit mCancer.org/thrive for the schedule of when to see the weavers in action.



Detox Diets

AND CLEANSING TRENDS

Beneficial or a recipe for disaster?

BY NANCY BURKE, R.D., DANIELLE KARSIES, M.S., R.D.,
AND MELISSA SHANNON-HAGEN, R.D., CSO
UNIVERSITY OF MICHIGAN COMPREHENSIVE CANCER CENTER
SYMPTOM MANAGEMENT AND SUPPORTIVE CARE PROGRAM

Perhaps you have been thinking about trying a detox or cleansing diet. Is there any evidence these diets are beneficial? That depends.

- Fasting and juice-based cleanses are nutrient-deficient and very low in calories, which hinder normal body processes.
- Interventional cleanses can be dangerous, even causing death, as they include laxatives, colonics and diuretics to “flush out the system.”
- Clean-eating is relatively safe with its focus on whole, organic foods and minimal processing, but often limits the ability to eat outside of the home.

If weight loss is your goal, a detox diet is not the answer. Studies report that very-low calorie diets work for only 20 percent of participants. Detox diets can also stimulate appetite, reduce metabolism and energy levels, and potentially increase stress hormones — all of which hinder weight loss.

Our bodies *naturally* detoxify our systems each day.

Here are tips to help:

- Drink at least 8-10 cups of fluids per day to aid digestion and bowel regularity.
- Eat at least two servings of citrus fruit a week. The pulp and rind add even more nutrients.
- Include fruits such as apples, blueberries and grapes that naturally help eliminate toxic metals.
- Choose fatty fish, nuts and seeds that help reduce inflammation and are high in selenium to detox the body of mercury.
- Eat whole grains, lentils, beans, fruits and vegetables, all high in fiber and phosphorus, to promote normal bowel function.
- Include fermented foods like yogurt, kefir, tempeh, sauerkraut and kimchi that contain helpful bacteria for a healthy gastrointestinal tract.
- Spice your food with ginger, hot pepper and coriander, which may aid digestion and eliminate heavy metals.

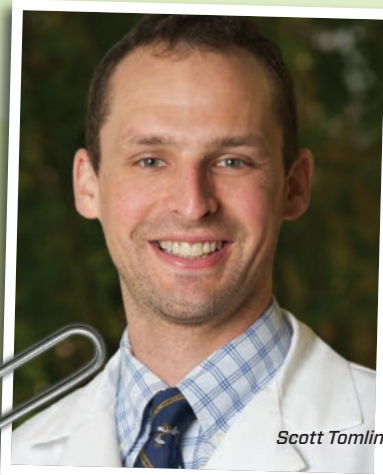
WEB EXCLUSIVE

Visit mCancer.org for all new videos from the Cancer Center dietitians.



To make an appointment for nutritional counseling, call **877-907-0859**.





Scott Tomlins, M.D., Ph.D.

Urine-based test improves on PSA for detecting prostate cancer

A new urine-based test improved prostate cancer detection — including more aggressive forms of prostate cancer — compared to traditional models based on prostate serum antigen, or PSA, levels, a new study finds.

The test, developed at the University of Michigan Comprehensive Cancer Center, is called Mi-Prostate Score, or MiPS. It combines PSA with two markers for prostate cancer, both of which can be detected through a urine sample.

“Around 50 percent of men who undergo a prostate biopsy will not have cancer. We need better ways to manage elevated PSA and determine who really needs to have a biopsy. MiPS gives men and their doctors better information to help make those decisions,” says lead study author Scott A. Tomlins, M.D., Ph.D., assistant professor of pathology and urology at the University of Michigan Medical School.

The study looked at a total of 1,977 men who were undergoing prostate biopsy because of elevated PSA levels. Using urine samples, the researchers assessed how well the individual biomarkers and combinations of biomarkers predicted the likelihood of cancer and the likelihood of high-risk cancer — the aggressive type that needs immediate treatment.

The test reports individual risk estimates for prostate cancer and high-grade cancer. Each patient’s personal threshold for choosing to undergo biopsy may vary. Using one MiPS cutoff score to decide whether to biopsy patients would reduce the number of biopsies by one-third, while delaying the diagnosis of only about 1 percent of high-risk prostate cancers. The study is published in *European Urology*.

Mi-Prostate Score is available to anyone but requires a request from a doctor. Patients with questions about prostate cancer detection or treatment may call the U-M Cancer AnswerLine at 800-865-1125.

New device offers clues to what makes cancer cells spread

Why do some cancer cells break away from a tumor and travel to distant parts of the body? A team of oncologists and engineers from the University of Michigan teamed up to help understand this crucial question.

In a paper published in *Scientific Reports*, researchers describe a new device that is able to sort cells based on their ability to move. The researchers were then able to take the sorted cells that were highly mobile and begin to analyze them on a molecular level.

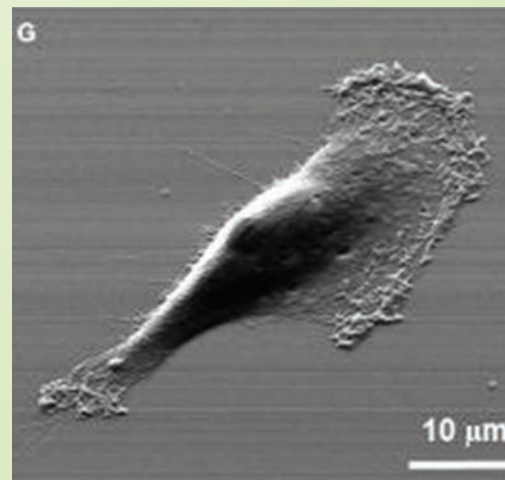
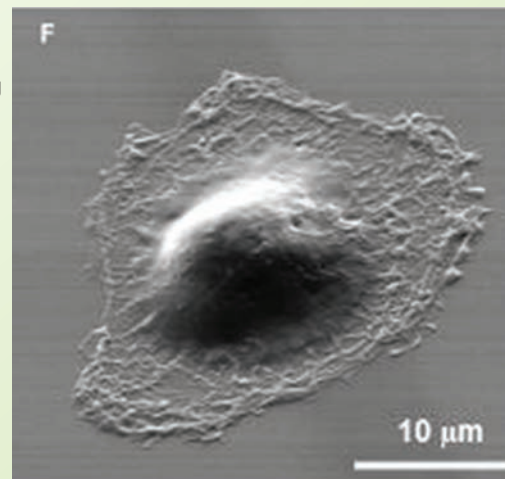
“People have used microfluidic devices before to look at the movement of cells, but the story typically ended there. We developed a device that separates the mobile cells and allows us to determine the gene expression of those highly mobile cells in comparison to the less mobile ones. By studying these differences in live cells, we hope to gain an understanding of what makes some cancer cells able to spread to other areas of the body,” says study co-lead author Steven G. Allen, an M.D.-Ph.D. student in the University of Michigan Medical School’s Medical Scientist Training Program.

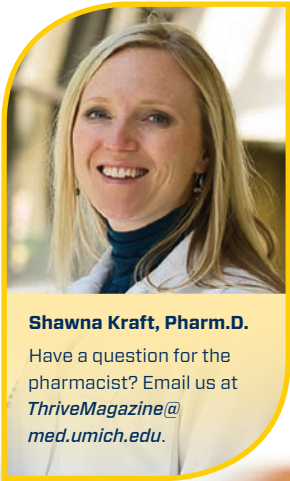
The highly mobile cells are believed to be the more aggressive cells that cause metastases. By understanding how those cells tick, researchers believe they can develop targeted treatments to try to prevent metastasis. The differences in individual cancer cells are a key aspect of how cancer evolves, becomes resistant to current therapies or recurs.

“A primary tumor is not what kills patients. Metastases are what kill patients. Understanding which cells are likely to metastasize can help us direct more targeted therapies to patients,” says co-senior study author Sofia D. Merajver, M.D., Ph.D., scientific director of the breast oncology program at the University of Michigan Comprehensive Cancer Center and a professor at the U-M Medical School and U-M School of Public Health.

The researchers believe this type of device might someday help doctors understand an individual patient’s cancer.

Individual cancer cells were isolated with a new device. The cell on the top is less likely to metastasize.





Shawna Kraft, Pharm.D.

Have a question for the pharmacist? Email us at ThriveMagazine@med.umich.edu.

THE FUTURE: Personalized Vaccines for Cancer?

Cancer treatments are becoming more and more personalized, from the genetic typing of your cancer to vaccines created using patient-specific cells.

Vaccines work by providing the body an example of what it should fight. Many vaccines already exist for viruses, bacteria, disease and other foreign substances. If the body becomes infected, the vaccine makes it “remember” to kill the substance.

This technique, a very exciting area of research, is being explored for cancer.

One example of personalized vaccines is the medication sipuleucel-T (Provenge) for prostate cancer. Vaccines are also being studied in other cancer types, such as brain cancer and melanoma. The general idea is to remove cancer cells from a patient and create a vaccine in a lab using the patient-specific cells. It is given back to the patient to generate memory cells that attack cancer in their body.

Personalized vaccines will likely work well in cancers where immunotherapy tends to be effective, such as melanoma. Unlike chemotherapy, which works by weakening a patient’s immune system, vaccines stimulate the immune system by helping it recognize what is foreign.

Expect to see more news on vaccines as a part of personalized cancer treatment in the future.

Just a Phone Call Away

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THRIVE ONLINE

mCancer.org/thrive

Thrive doesn’t end here! Visit mCancer.org/thrive for more. Here’s what you’ll find:

- A starting list of questions to ask your doctor when making the first connection
- The schedule for the Cancer Center’s volunteer weaving demonstrations
- New videos from Cancer Center dietitians on cleansing diets and more
- Healthy recipes including superfoods known for cancer prevention
- Details on the Cancer AnswerLine and its nurses
- Links to resources to help you understand sleep patterns and how to improve your sleep