



Knowledge is Power

The Cancer Center patient education program empowers patients and caregivers

06

Defending With Discipline

A patient story about precision medicine and fewer side effects

Creativity is Calling

Art therapy helps patients cope, share stories and help others

Move. Breathe. Eat. Relax

Small steps before cancer surgery lead to a better recovery

Fiber: High or Low?

Cancer and treatment can change your dietary needs. Here's what you need to know about fiber.

Research Round-Up

Learn about the latest in research at the U-M Comprehensive Cancer Center

Published twice a year by the University of Michigan Comprehensive Cancer Center, 1500 E. Medical Center Dr., Ann Arbor, MI 48109-5944. If you have questions or a story idea for Thrive, please call Beth Johnson at 734-764-8311.

Eric R. Fearon, M.D., Ph.D., director

Nicole Fawcett, manager of cancer communications

Beth Johnson, editor and senior writer

Shelley Zalewski, contributing writer

Karen Moeller, art director, MOEdesign

Chas Moeller, project management, MOEdesign

Edda Pacifico, photographer, Edda Photography

Executive Officers of the University of Michigan Health System:

Marschall S. Runge, M.D., Ph.D., Executive Vice President for Medical Affairs; James O. Woolliscroft, M.D., Dean, U-M Medical School: T. Anthony Denton, J.D., MHA, Acting Chief Executive Officer, U-M Hospitals and Health Centers; Kathleen Potempa, Dean, School of Nursing,

The Regents of the University of Michigan:

Regents of the University of Michigan: Mark J. Bernstein, Julia Donovan Darlow, Laurence B. Deitch, Shauna Ryder Diggs, Denise Ilitch, Andrea Fischer Newman. Andrew C. Richner, Katherine E. White, Mark S. Schlissel, ex officio.

The University of Michigan is a non-discriminatory, affirmative action employer. © 2016 Regents of the University of Michigan.

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

thrive quitting smoking is a major factor

Smoking cigarettes is the biggest environmental health hazard facing the world today. Quitting smoking is the best thing you can do for your health, whether you're facing a cancer diagnosis or not.

Smoking is more than a bad habit; it is an addiction. Nicotine, a chemical in tobacco products, is a highly addictive drug that also gives smokers fast and temporary feelings of stress relief and relaxation. Your brain responds and wants more.

Nicotine doesn't cause cancer — that's due to other chemicals in cigarettes. But nicotine makes you want to smoke again.







Visit mCancer.org/thrive for more information on Tobacco Consultation Services or call 734-998-6222.

For some cancers, quitting smoking is a major factor in keeping cancer from coming back after treatment. Anyone in treatment reaps the benefits of quitting.

How can you break the addiction?

It takes more than willpower to guit. Medications to quit smoking double your chances to quit successfully.

If you're seeking support to quit smoking, the University of Michigan's Tobacco Consultation Services can help.

INPATIENT SERVICES

A tobacco treatment specialist provides a brief intervention for patients who are in the hospital. Patients discuss their tobacco use and the specialist provides options to quit, including nicotine replacement therapy to help manage withdrawal symptoms while the patient is hospitalized.

OUTPATIENT SERVICES

Quit tobacco programs: This six-week program covers preparing to quit, how quitting affects your body, tobacco treatment medications, setting a quit date, how to live free of tobacco and preventing relapse. The program is available to patients before surgery or anytime you want to quit.

Post-program support: Tobacco Consultation staff will follow up by phone for 6 months following completion of a program.

Quit tobacco support group: Adults 50 or older who have guit or are thinking about guitting meet twice a month at the Turner Senior Resource Center, 2401 Plymouth Rd. Suite C, Ann Arbor.

TRY QUITTING WITH US

Try quitting for a day to celebrate the Great American Smokeout on Thursday, Nov. 17, 2016. Tobacco Consultation Services will distribute guit kits to participants, including a worry stone and candy to help stop cravings.

Or, quit any day to reduce your cancer risk.

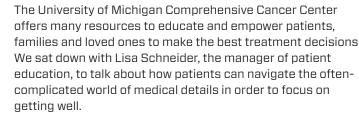
Over time, without cigarettes, cravings become less severe as your brain receptors go back to normal. Withdrawal symptoms generally peak three to five days after quitting, so stick with it.

Knowledge is Power

The Cancer Center patient education program empowers patients and caregivers

A huge challenge facing cancer patients is trying to remember and make sense of complex medical information that comes with any diagnosis. Cancer lingo includes impossibly long words like cholangiocarcinoma, pheochromocytoma and adenocarcinoma, just to name a few. You might have a general idea about treatments like chemotherapy, radiation and surgery, but what is immunotherapy? What is personalized medicine? Not to mention the

medicine? Not to mention the treatment plan that includes multiple medications and sometimes-complex directions for taking them.





Our goal is to provide quality patient education materials in different formats to our patients, created using common language that meets the needs of our diverse patient population. Physicians and other clinicians spend years in medical school and training to become experts in cancer care. There is so much to know that we could never expect non-medical people to remember.

We adhere to national standards of what is called Plain Language. In 2010, President Obama signed a law that materials from federal agencies must be written in a way that the general public understands. This includes health agencies such as the National Institutes of Health and information on programs like Medicare. The aim is to write all materials in a clear and concise manner, using complete sentences and avoiding complicated or unnecessary information.

Chances are, you are not a medical expert. Using plain language is intended to give patients a clear path of communication with their clinicians and caregivers. You deserve to understand the materials we provide about your care.

Lisa Schneider

Where can patients get the materials you create?

There are a variety of places patients can find information at the Cancer Center, starting directly through your clinic. Ask your doctor or anyone on your health care team for information about your diagnosis. Many clinics have created handouts, pamphlets, brochures and new patient folders containing useful information and resources that will apply to you.

A few helpful items include the Radiation Therapy treatment handbook and the Guide to Chemotherapy Infusion. We distributed more than 20,000 pieces of material last year, so there's a lot available.

In addition, anyone can visit our patient library, the Patient Education Resource Center, located on B2 near blood draw. In the past year, we added 42 books and 36 new pamphlets to what was already there. A librarian and volunteers are available to help you find what you're looking for.

Finally, there is information available on the Cancer Center website, mCancer.org. Look for the patient education link and Learning About Cancer section. We have 32 cancer-type-specific information guides that offer some of the most groundbreaking, up-to-date and complete information that's available anywhere.

We link to websites you can trust. We provide titles of books, CDs and other cancer information not readily available at regular libraries or online.





How can patients look up more information?

Any patient at the Cancer Center can visit the PERC and request an expert search. It is above and beyond what a general reference librarian could provide because we have access to databases, subscriptions and the University of Michigan's Taubman Health Sciences Library. All you need to do is complete the form provided to help the librarian focus the search.

We send the packet of materials to patients, who know they're getting information they can trust. The expert search sets us apart from other hospitals and health centers.



What if a patient needs to learn something specific in order to care for himself or herself?

There are clinical nurse educators embedded in all our clinics. Patients often need to learn specific skills. For example, someone might be going home with a continuous infusion pump. Anyone who needs hands-on learning or specific teaching related to self-care will work with a nurse educator.

Some patients need to administer drugs at home using injections. Our nurses will teach you how to safely handle syringes, how to inject under the skin but not the muscle, how to avoid bruising and other need-to-know information related to your care. Our nurse educators use demonstrated teach-back to ensure you know how to care for yourself when you leave here. This means they observe the patient performing the task.

We also use Oncology Care Model chemo regimens, which are helpful printouts for patients on certain drug combinations. You'll learn common side effects, late effects to watch for and when to alert your provider about an issue you're having.



Why not just research an illness on the web? What makes your information different?

Doing a regular web search can result in unreliable, inaccurate or outdated information.

What makes our information different is that it is all vetted by cancer experts. We have a breadth and depth of knowledge when it comes to what cancer resources are out there. Our librarians are trained to find expert material that is not biased. We compile a database with information created by our physicians and experts.

Be wary of anyone trying to sell something as a cure. Some people are looking to make a profit from patients. We stick to organizations and educational institutions so there is research and education behind all the information we provide.



TIP: Ask your provider what information is available in the Clearinghouse and MiChart related to your diagnosis.



thrive fall 2016/WINTER 2017

Thrive fall 2016/WINTER 2017

DEFENDING WITH DISCIPLINE

One patient overcomes a rare cancer and stays strong against late effects

Tichigan's sparsely populated Upper Peninsula **IV** I is a remote and beautiful part of the world. These are ideal conditions for close-knit families and communities, but scary for someone facing a rare and dangerous disease that began as a complicated puzzle.

Barbara Hilija Spiessl, the oldest of seven children, embodies the qualities that define her family — strength, resilience, loyalty and humility. At 33, she plays a leading role in the family business, an outdoor summer produce market. Though often physically demanding, she loves the work, which keeps her connected to family, neighbors and the outdoors.

"I'm happiest when I'm active," she says. "When I'm not working, you're likely to find me doing something athletic." Spiessl plays ice hockey in a predominantly male league and is a fifth-degree black belt in Taekwon-Do, a martial art requiring not only fitness and strength, but discipline and focus.

Five years ago, she called upon all of those qualities to face cancer.

DECODING A MEDICAL MYSTERY

"In late winter 2011, I began feeling run down," Spiessl recalls. "It kept getting worse, and I then noticed a mass in my left cheek. I saw a dentist, a doctor and an ear nose and throat specialist — no one could figure it out."

Soon, those bothersome symptoms were met with something even scarier. Lumps began developing under her skin — on her legs, arms and torso. Spiessl's search for answers led her to specialists in Green Bay, Wisconsin. Shortly after returning to Michigan, still in grave condition and without a diagnosis, she was admitted to a hospital in nearby Marquette.

There, additional tests and a painful bone marrow biopsy provided the first real clue to cracking the case.

Spiessl was diagnosed with hemophagocytic lymphohistiocystosis. A rare and life-threatening condition, HLH is driven by a faulty activation of the immune system, causing a number of profound symptoms that can rapidly become life-threatening.

A medically equipped charter flight brought her to Ann Arbor. As Spiessl tells it, "as soon as we arrived, we were met with a brigade of doctors." At the head of the brigade: hematologist Ivan Maillard, M.D., Ph.D., now director of the Cancer Center's Leukemia Program.

"Although HLH was diagnosed first," he explains, "we soon determined that it was caused by an aggressive cancer called subcutaneous panniculitislike T-cell lymphoma, a rare subtype that accounts for less than 1 percent of all non-Hodgkin lymphomas."

THE ROAD TO RECOVERY

Spiessl's initial chemotherapy treatments resolved her high fever and skin lesions. But her lymphoma relapsed soon after. She needed a bone marrow transplant to reset her system. But it could only be undertaken after restoring her to remission.

After several rounds of different chemotherapies, each with taxing side effects, her medical team arrived at the right combination.

To find a bone marrow match for the transplant, all of her siblings were tested.

"We were discouraged when no one matched," she recalls. "Happily, the national registry came through with four 10-point matches."

The transplant, performed by a team including Attaphol Pawarode, M.D., and Steven Goldstein, M.D., was a success.

Spiessl applied both her physical conditioning and Taekwon-Do training to her recovery.



"Right away I started doing my best to speed walk the hospital halls," she says. "And I went through Taekwon-Do patterns in my head to relax my mind." Spiessl was a fourth-degree black belt at the onset of her illness and wanted to continue her training in order to test for the next level, along with her sister, Heidi.

Spiessl had a family member by her side every step of the way. "I never spent a day alone in the hospital," she says. "Not everyone has that kind of support. I'm so fortunate."

MANAGING LATE EFFECTS

Now cancer-free, Spiessl still faces some late effects — the long-term side effects often experienced by cancer survivors after they've gone through extensive treatment.

She endured a bout of scleroderma, an autoimmune disease that causes hardening of the skin and other connective tissues. The steroid prednisone was used to treat it. That triggered diabetes. Both of those conditions are now almost entirely resolved.

A recent diagnosis of lipodystrophy, a condition that makes it difficult for the body to make, use and store fat requires her to adhere to a very low fat diet.

Despite these challenges, in the nearly four years Spiessl's cancer has been in remission, she has regained most of her strength and stamina. Her recipe for coping with cancer's late effects: a commitment to physical fitness, the mind-body discipline of Taekwon-Do, and the resilience that comes from staying connected to a loving, supportive family and community.





One patient shares his artistic abilities to cope with cancer

Creativity is Calling

THE PICTURE CHANGES WITH A CANCER DIAGNOSIS

For 66-year-old Christian Rasmussen, to be human is to be creative. Despite changing his major in college from art to psychology, his artistic calling never left him. He ended up in the field of occupational therapy, a health discipline that involves teaching patients to find new and creative ways to perform daily tasks and adapt to disabilities.

He also took art classes every chance he got, developing an interest in drawing, painting and creating murals.

A series of stomach issues earlier this year led to a hospitalization. The doctors told him he had a golf ball-sized mass on his pancreas. initially thought to be a pancreatic cancer. Biopsy, however, diagnosed a diffuse large B-cell lymphoma. In his case, the malignant lymphocytes formed a tumor in his pancreas.

His treatment plan at the University of Michigan Comprehensive Cancer Center consisted of multi-agent infusional chemotherapy.

COPING | Creativity is Calling

In the midst of adjusting and trying to maintain a positive attitude, he heard about an art therapy workshop at the Cancer Center. His creative calling beckoned. He signed up to attend.

CREATIVITY AS A WAY TO COPE

The Cancer Center offers art therapy workshops at no cost to patients and a loved one. No artistic background or experience is required. The workshop Rasmussen attended was a group workshop with a specific project goal: to develop a page to be included in a coloring book for cancer patients.





Art therapy patients work on their coloring book pages.

"The emotions involved in coping with treatment, living with uncertainty and meeting the challenges of everyday life are often hard to describe in words," says Art Therapist Melinda Hallenbeck-Kostecky. "Making art that is meaningful to you can provide support that is nontraditional, creative and unique to your personal journey."

Coloring books have become a popular resource for stress relief. Hallenbeck-Kostecky felt it was important that a coloring book for the Cancer Center be designed by and for the community.

Art therapy in health care is a proven complementary therapy to cancer treatment and offers many benefits, including:

- Decreasing stress, depression, anxiety and feelings of isolation
- Increasing relaxation, self-awareness and self-esteem
- Enhancing coping skills, resiliance and quality of life

Rasmussen experienced several side effects from chemotherapy and much of his care involved recovering from the drugs. He relates the unpredictable experience to that of another cancer survivor, Kathleen Galligan, who described it like "a joyride with a drunken driver."

Rasmussen is an experienced artist compared to most workshop participants. He ended up seated next to a patient, Elaine Jacobs, who wanted to create a coloring book page, but had no artistic background.

"I was able to engage with the woman next to me because I used to draw caricatures. We drew a caricature of the cancer experience, coming up with all the ingredients of a cancer stew. It started out pretty dark, but we added different ingredients to make a healthy cancer stew in a big pot," he says.

Rasmussen also created his own coloring book page, which reflects his passion for art and the changing of the seasons. His page includes a tree for each season throughout the year.

"To everything, including cancer, there is a change and purpose," he says.

Workshop participants continued to meet at the Cancer Center over several months to work on their pages. They also worked at home. The final pages will be compiled into a book that will be given to patients as a way to relieve stress.

MORE THAN ART: THE HEALING ASPECT

Art therapy includes more than making art. Hallenbeck-Kostecky, in addition to being a skilled artist, is trained in mental health counseling and directs workshops with healing in mind. After introductions and some group discussion, many participants continued individual discussions while making art, some sharing cancer stories and others enjoying conversations about other topics.

Rasmussen completed treatment late last summer, needing to extend his medical leave of absence to regain his strength. He returned to work after Labor Day and the two coloring book pages were keeping him busy. Hallenbeck-Kostecky will compile and produce the final book.

Attending a group workshop: What to expect

Listen to your art

Art Therapist Melinda Hallenbeck-Kostecky guides

patients through workshops with healing in mind.

- Register ahead of time for a 2-hour workshop
- A meeting room with a large table and all the necessary art supplies
- Introductions led by the art therapist
- Participants share as much or little about diagnosis as they're comfortable
- Art therapist talks about the project and coping
- Individuals use supplies to create (i.e. have fun!)
- Art therapist observes, assists, suggests and answers questions
- Group shares progress and wraps up

22

Visit mCancer.org/thrive to learn how to sign up for a workshop or individual art therapy session.



Martha Driskel, 68, was glad to finally be enjoying the tourist resort area in Missouri where she'd worked for 25 years. She and her husband, Ron, spent their time fishing and boating until acid reflux symptoms led to a diagnosis of esophageal cancer in early 2016, requiring surgery. Driskel wanted to recover and get back to her retirement, fast.

She came to the University of Michigan Comprehensive Cancer Center because of its reputation for treating esophageal cancer and its better rates for long-term survival. Thanks to the new Michigan Surgical and Health Optimization Program, her recovery went better

"I was told about MSHOP after my appointment with Dr. (Jules) Lin. I hadn't realized it was optional, but of course I agreed to it. Why not? I wanted the best results after my surgery," Driskel says.

She returned home to Missouri to prepare for surgery and, soon after, a box from MSHOP arrived in the mail. It contained a breathing tool called a spirometer, a pedometer to track daily steps, an information booklet and DVD to introduce the program.

"Making small changes in your daily routine can make a big impact. Our program is based on four pillars that can have a big effect on how well you recover following surgery," says William Palazzolo, the medical director of MSHOP. "They are MOVE, BREATHE, EAT and RELAX."

Palazzolo explains there are certain risk factors that increase the chance of complications during and after surgery:

- Being inactive decreases muscle mass and weakens muscles
- Eating a poor diet depletes the immune system and may cause nutrient deficiencies
- Smoking or using tobacco products decreases breathing capacity and ability to heal
- Drinking too much alcohol decreases nutritional status and negatively impacts the immune system
- Being stressed drains the immune system
- Not sleeping well also depletes the immune system

Driskel went online to MSHOP and began tracking her progress. She aimed to walk 5,000 steps per day, ate several small meals each day, added protein to her diet and tried to get enough sleep. Because she is lactose intolerant, she spoke to a cancer nutritionist for food tips. The program sent reminder messages to track her progress if she missed a day. She was able to view graphs to see improvements.

"It's wonderful that they have this kind of program so people are better prepared physically. You try to prepare yourself emotionally and spiritually, but you also have to do your work to be sure your body is healthy," Driskel says.

Driskel spent only seven days — the minimum stay — in the hospital recovering from her transhiatal esophagectomy. She and her daughter Beth began walking together in the hospital after just a few days. She continued using tools she'd learned from MSHOP at their hotel after she was released and continues to do so back home in Missouri.

Because she found the program so helpful, she shared what she'd learned when a good friend was diagnosed with breast cancer. She bought her a pedometer and spirometer, and copied some of the printed materials.

At a check up back home in Missouri, the gastroenterologist told Driskel "it was one of the nicest esophagectomies he'd ever seen, and compliments to Dr. Lin."







BE HEALTHFUL E HIGH Cancer and treatment can change your dietary needs

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

We often hear that fiber is great for our health. It's true that fiber in our diets acts as a wonderful scouring brush that cleans our gastrointestinal tract, keeping it healthy and reducing the risk of diverticulitis and colorectal cancer.

Evidence also shows that fiber lowers cholesterol levels, controls blood glucose levels and promotes heart health and weight management.

But, for cancer patients, there are instances when fiber-rich foods may actually aggravate your stomach. At these times, a modified fiber diet can help.

Your Symptom:

DIARRHEA

Abdominal radiation and chemotherapy can cause diarrhea, which means the beneficial scouring action of fiber rubs your already inflamed GI tract. Focus on limiting insoluble fiber or roughage (such as whole grains, legumes) while still allowing some soluble fiber (such as bananas, oats) in small amounts.

CONSTIPATION

Chemotherapy and some medications for pain related to cancer treatment and surgery increase your risk of constipation. Signs to watch for include not having a bowel movement at least every three days, bowel movements that require significant effort or the feeling that it's not complete after you have one.

Constipation can be caused by:

- Decreased movement of your GI tract
- Impacted reflexes involved with having a bowel movement
- · Reduced intestinal secretions

Adding more fiber to a backup of stool within your GI tract is not always helpful. Think of it as a traffic jam; if you add more cars to the backup you add to the jam.

NAUSEA

Chemotherapy and abdominal radiation can cause nausea, and these treatments can make digestion less efficient. Asking your stomach to break down high-fiber foods can make your nausea worse.

The Solution:

MODIFIED FIBER DIET

- Peel fresh fruits and vegetables before eating
- Use canned fruits and vegetables in place of fresh
- Use oat bread or white bread in place of 100 percent whole wheat/grain or varieties with seeds or nuts
- · Choose nut and seed butters (such as peanut or sunflower butter) over whole nuts or seeds
- Eat cooked vegetables over raw vegetables

MOVE MORE

- Physical activity regularly encourages the GI tract to
- Drink 64-80 ounces of fluids daily (water, juice, tea,
- Eat frequent small meals to encourage GI movement more often. This also means your GI tract doesn't have to work as hard at one time.



SOCIAL MEDIA LINKED TO MORE SATISFACTION WITH BREAST CANCER TREATMENT DECISIONS

Women who engaged on social media after a breast cancer diagnosis expressed more deliberation about their treatment decisions and more satisfaction with the paths they chose, a new study from the University of Michigan Comprehensive Cancer Center finds.

However, there are also significant barriers to social media for some women, particularly older women, those with less education and minorities.

"Our findings highlight an unmet need in patients for decisional support when they are going through breast cancer treatment," says lead study author Lauren P. Wallner, Ph.D., MPH, assistant professor of general medicine at the University of Michigan Medical School.

"But at this point, leveraging social media and online communication in clinical practice is not going to reach all patients. There are barriers that need to be considered," she adds.

Researchers surveyed 2,460 women newly diagnosed with breast cancer about their use of email, texting, social media and web-based support groups following their diagnosis. Women were identified through the Surveillance, Epidemiology and End Results database. The study appears in JAMA Oncology.

Overall, 41 percent of women reported some or frequent use of online communication. Texting and email were most common, with 35 percent of women using it. Twelve percent of women reported using Facebook, Twitter or other social media sites, and 12 percent used web-based support groups.

"Women reported separate reasons for using each of these modalities. They used these outlets to deal with the negative emotions and stress around their breast cancer diagnosis. They're using these communications to cope," Wallner says.



Find the U-M Comprehensive Cancer Center on social media: facebook.com/UniversityofMichigan ComprehensiveCancerCenter

youtube.com/UMHealthSystem

twitter.com/UMCancerCenter



GENE SEQUENCING MAY WIDEN RACIAL DISPARITIES IN CANCER CARE



As scientists learn more about which genetic mutations drive different cancers, they're targeting treatments to small numbers of patients — with the potential for big payoffs in improved outcomes.

But a recent study suggests this new science might be leaving racial and

ethnic minorities behind.

"Even when studies have a reasonable relative representation of racial and ethnic minorities, the overall absolute number of minorities examined may not be enough to detect small differences in the cancer's genome," says Daniel Spratt, M.D., assistant professor of radiation oncology at the University of Michigan Medical School.

For a study published in JAMA Oncology, Spratt and colleagues looked at tumor samples and found racial and ethnic representation lacking.

Of 5,729 total samples, 660 were African-American, 173 were Asian and 149 were Hispanic: 4,389 were from white patients.

Researchers analyzed these numbers and determined there were not enough samples from any minority group to identify a mutation that would occur in 5 percent of patients. On the other hand, there were enough samples in nearly every tumor type to detect a mutation occurring in 5 percent of white patients.

"If you're using this data to identify new mutations and develop new drugs targeting those mutations, then we need to know what mutations are present in patients of different races. Otherwise, we may be unintentionally widening disparities," Spratt says.

It's a complicated picture because all cancers have some mutations in their DNA. But that background noise is not necessarily what fuels a cancer. Without enough samples, researchers can't pick out the dangerous mutations from the background noise.

The study authors suggest more collaborative efforts including industry, government and academia are necessary to collect larger numbers of tumor samples from diverse racial and ethnic groups. As precision medicine becomes increasingly important in cancer treatment, identifying mutations will allow researchers to target and adjust clinical trials.

For information about clinical trials at U-M, call the Cancer AnswerLine at 800-865-1125

FOOD AS MEDICINE: Turmeric/Curcumin Against Cancer



pharmacist? Email us at

ThriveMagazine@

med.umich.edu.

Many foods and spices are known to have health benefits, which is why you often hear the expression food as medicine. Patients often ask me about using turmeric, also called curcumin, for its anti-inflammatory and anti-cancer benefits. Turmeric is a spice commonly used in Indian food. It's also known as curcumin since this is the yellow-colored active component of turmeric. It is used in America to make our mustard yellow.

Besides a tasty spice that adds zing to foods, turmeric is often used for its benefits against Crohn's disease, rheumatoid arthritis, diarrhea, acid reflux and many more conditions, including Alzheimer's disease and cancer. Turmeric can be used orally or topically in doses ranging from 375 mg to 4,000 mg once daily.

There are many ways in which turmeric is thought to work, but in cancer some studies suggest that it may kill cancer cells and stop tumors from forming the blood vessels they need to grow. The spice has some potential side effects in cancer patients:

- increased bleeding from affecting platelets
- low blood glucose in patients taking diabetes medications
- skin reactions such as rashes
- constipation

These side effects and interactions aside, turmeric is generally well tolerated. However, at this point in time there is not enough evidence that turmeric works or should be used to fight cancer. Turmeric can also interact with medications such as sulfasalazine and fluoxetine. If you are considering using turmeric/curcumin as a supplement, please discuss it with your cancer team first to make sure you are not at risk for side effects or drug interactions.

Some ways to add turmeric into your healthy diet:

- Use the spice to make curry dishes or other recipes
- Take turmeric extract in tablets or capsules, available at health food stores
- Drink turmeric tea, using 1 teaspoon ground turmeric in 4 cups of water. Boil and strain into a cup and flavor with honey or lemon.

Just a Phone Call Away

Art Therapy

877-907-0859

Cancer AnswerLine

800-865-1125

Clinical Trials

800-865-1125

Education Clinic

877-907-0859

Fertility Counseling

877-907-0859

Financial Counseling

734-647-5120

Guided Imagery

877-326-9155

Make a Donation

734-764-6777

Music Therapy

877-907-0859

Nutrition Services

877-907-0859

Patient Education Resource Center

734-647-8626

Pharmacy

734-647-8911

Practical Assistance Center

877-907-0859

PsychOncology

877-907-0859

Social Work

800-888-9825

Smoking Cessation Counseling

734-998-6222

Symptom Management and Supportive Care

877-907-0859



THRIVE ONLINE

mCancer.org/thrive

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

- Links to our stop-smoking resources
- Information on clinical trials looking for participants
- A video featuring patient Christian Rasmussen and another art project
- More info on MSHOP and preparing for surgery
- Details on how to sign up for art therapy workshops and the Cancer Center's Voices Art Gallery
- Resources available to cancer survivors: support groups and more