

Yale CANCER  
CENTER

answers

WNPR Connecticut Public Radio



*Hosts*

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Colon Cancer Awareness 2011

**Guest Experts:**

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Howard Hochster, MD,  
and Ellen Matloff, MS**

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*Welcome to Yale Cancer Center Answers with doctors Francine Foss and Lynn Wilson. I am Bruce Barber. Dr. Foss is a Professor of Medical Oncology and Dermatology, specializing in the treatment of lymphomas. Dr. Wilson is a Professor of Therapeutic Radiology and an expert in the use of radiation to treat lung cancers and cutaneous lymphomas. If you would like to join the conversation, you can contact the doctors directly. The address is [canceranswers@yale.edu](mailto:canceranswers@yale.edu) and the phone number is 1-888-234-4YCC. This week, in honor of Colorectal Cancer Awareness Month, guest-host Ellen Matloff, a Research Scientist in the Department of Genetics, will speak with doctors Harry Aslanian and Howard Hochster. Dr. Aslanian is Associate Professor of Digestive Diseases and Dr. Hochster is Associate Cancer Center Director and Professor of Medicine at Yale School of Medicine. Here is Ellen Matloff.*

- Matloff        Let's start off with a very basic question. What are the symptoms of colon cancer that all of our listeners should be aware of?
- Aslanian        Frequently, there may be no symptoms, but the symptoms that we look out for are anemia, signs of blood in the stool, and stool discoloration, it may be dark or bright red. If there is a change in bowel habits, or if someone has much less frequent bowel movements, or develops a new onset of constipation, abdominal pain, or weight loss, these are the main symptoms that concern us.
- Matloff        Harry, let us be really frank here, does this mean that when people have a bowel movement, they should actually look at the bowel movement and see if there is any discoloration? I think most people do not think to do that.
- Aslanian        Yeah, and I have perhaps a swayed viewpoint as a gastroenterologist, but it is useful to examine the bowel movement briefly, and see if there is any blood in the stool.
- Hochster        I just want to reiterate the fact that most of the time people do not have symptoms. As an oncologist, most often I see people who had no symptoms, and the only thing that made them go for the colonoscopy is they went to their doctor for a regular physical and they did some blood work and found that they were a little bit anemic, and their red blood cell count goes down because people can be losing blood in the stool.
- Matloff        Let's talk about anemia. What are some of the symptoms of anemia? If someone is anemic, how might they be feeling?
- Hochster        Speaking on behalf of all hematologists everywhere, for moderate anemia, most people feel nothing, and that is the other point that I wanted to make, is that colon cancer is usually not symptomatic; people need to go for screening colonoscopy. That is why we call it screening colonoscopy, because you do not know when you are going to get a colon cancer.
- Matloff        For people getting a screening colonoscopy, and for people in the general population listening to this, perhaps they have no colon cancer in their family, they are feeling fine, they have not had any

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of the symptoms you have discussed, no weight loss, no blood in their stool, so when should the average person get a colonoscopy?

Hochster Colonoscopy is recommended for all individuals at age 50, and if you happen to have a family history, then you would look to have the colonoscopy about 10 years before the youngest individual developed colon cancer.

Matloff Let me jump in there since I love to talk about family history as the geneticist in the room. In terms of what we are looking for, for risk factors in genetics, if you have a family history, particularly if anyone was diagnosed with colon cancer before the age of 50, but also multiple family members who have had colorectal cancer, or family members with uterine and ovarian cancer and skin findings called sebaceous adenomas or carcinomas, all of these cancers can be part of a syndrome that increases the risk for colon cancer. Additionally, if anyone in your family has had many, many colon polyps, I am going to say more than 20 colon polyps, and certainly if anyone has had hundreds or thousands of colon polyps, a condition we call polyposis, then there may be a different form of colon cancer in your family that would require earlier screening. So, please be sure to see a genetic counselor.

Hochster Ellen, how frequent are those conditions in the general population? Should people be worried that that is something they are likely to have?

Matloff These are rare conditions in the general population, but we know that about 10% of all people who have colorectal cancer have a hereditary form of the disease, so they are not unheard of.

Hochster Right!

Matloff One of the things I would like to say today, as part of Colon Cancer Awareness Month, is take your family history. I cannot tell you how many people will come in and say they have no family history of cancer, and then when they call their parents or their grandparents, they learn that they do have a family history of cancer, and they are not aware that a history of uterine and ovarian cancer may increase their risk of colon cancer, or vice versa. It is really good to know your family history and to document it. I would like to go back to colonoscopy for a moment. I know a lot of people who say, "I am not going to have that procedure, it sounds invasive, it sounds painful and scary, I am not going to do it." What are your words of wisdom for those people listening?

Aslanian Just to reiterate what Howard was saying earlier that most colon cancers develop sporadically, meaning there is no family history, definitely do not delay your colonoscopy at age 50 if you have no family history. There are some different options for screening for colon cancer. The simplest is to check for an invisible amount of blood in the stool with a Hemoccult blood test, and there is a shorter version of a colonoscopy that was used in the past and we do not favor as much because we really want to inspect the whole colon, called the sigmoidoscopy that looks just at the lower third

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of the colon. Perhaps, in the near future, we will have a version of what we call virtual colonography via CAT scan. There are still things to be worked out there and it is really not ready for primetime yet with a number of different concerns including radiation exposure and its overall ability to find polyps. Colonoscopy really is the preferred test at the current time. What is always so striking to us is that most people are very pleasantly surprised when they finish the test, and most people find the preparation for the procedure to be worse than the actual procedure and are pleasantly surprised at how comfortable and safe the procedure is. The preparation is a little bit onerous; it involves basically taking clear liquids for one day before the procedure, and then drinking a liquid that sort of flushes out the colon the evening before.

Matloff That tastes really bad, right? That is what everyone talks about.

Aslanian It is challenging. It is kind of a salty liquid, but it can be taken sometimes with flavorings or things like Sprite or different liquids that improve the flavor, and most people really do quite well with it. The procedure itself is not uncomfortable, you are given sedation through an IV, and most people are asleep or do not remember most or all of the test. The most common experience that people have is that they are surprised at how smoothly it goes.

Hochster I am not a gastroenterologist, I am a medical oncologist, and when I had my colonoscopy, as you said, the clean-out is a little bit onerous, but I did not feel anything, I went to sleep, woke up, and went back to work two hours later.

Matloff So you did not feel like it was a big deal?

Hochster No, it is very simple. The thing about the colonoscopy, you mentioned polyps before, and a polyp is a step towards cancer. It is when the lining cells of the colon start to develop some of the changes that lead to irregular growth. It is not yet cancer, it is not what we call malignant, but it would be what we consider premalignant, and certain kinds of adenomas will eventually turn into cancer, and that is the reason that we tell people to get colonoscopy, not only do we see if you have polyps, but they can be removed at a stage that prevents you from ever getting cancer. It is a diagnostic and preventative test so that you will never have to deal with colon cancer if you have a polyp removed early.

Matloff You brought up a really good point, Howard, that the colonoscopy is not just surveillance, like a mammogram to see if there is a cancer present, but if there is a polyp found during a colonoscopy, it can be removed during the same procedure, correct?

Hochster Yes.

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- Matloff      What are the current recommendations, Harry? If someone has a colonoscopy at 50 and they have no risk factors, and that colonoscopy comes back clean, nothing is found, when do they need to have the next colonoscopy?
- Aslanian     For that individual they would repeat the colonoscopy in 10 years. If there are polyps found, then they are analyzed under the microscope, and based on the histology of the polyp and the size and number of the polyps, we would typically repeat the procedure in roughly three to five years.
- Matloff      I want to step back a moment, you talked briefly about new technology in the future that we may have, and people hear about this all the time, could you ever swallow a capsule that could look inside your colon and pass it out the other end? Is this going to happen? What is on the horizon?
- Aslanian     That is additional technology that is being developed. We currently use the capsule pill to look at the small bowel, so in between the stomach and the colon, or the large bowel, there is 30 feet or so of small intestine. The pill camera gives us a picture of that as it floats through the small bowel, and it is being developed for the colon. It is improving, but the challenge is that the colon is typically collapsed, so without inflating the colon or manipulating the scope or washing certain areas, we cannot see behind the many folds in the colon, and that is one of the challenges of why a regular CAT scan often cannot find polyps or even small colon cancers, because the bowel is collapsed and even large things can be hidden. As Howard pointed out, an additional important factor is even if our imaging improves, say with virtual colonoscopy, the prevention of colon cancer comes by removing the polyps. If a polyp is found, then someone would have to then have a colonoscopy to actually remove the polyp, and that is where they get into prevention.
- Hochster     Honestly, the worst part of it is getting cleaned out, and no matter what test you do, if your colon is not cleaned out, if they do not remove all the stool, no technology, be it the CT colonography or a capsule, or whatever, can see unless you are clean. If there is other stuff sticking to the wall, then you cannot tell if it is a polyp or if it is stool.
- Matloff      What would both of you say to the person who is listening who says, I am really a pretty healthy person, I have no family history and I am going to wait to develop symptoms before going to have such an invasive test?
- Hochster     I would say, I see people like you every single day with colon cancer. That is what I would say to that person, and an ounce of prevention is worth many pounds of cure in this case.
- Matloff      Same thoughts, Harry?
- Aslanian     Yeah, I agree. This is really a unique entity where we can get a visual representation and a polyp of the early forms of cancer and have a chance to see them and remove them. This was also, as you guys know, a very important disease in our understanding of how cancer develops in its

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earliest stages, because we can see the visual representation of the early stages of cancer.

Matloff This is really a classic disease where prevention, as you mentioned, is the way to go. Go in, have your colonoscopy at age 50, do not put it off, and you sure will be glad if you can prevent colon cancer.

Hochster I want to also mention that for African Americans, the incidence of colon cancer starts to go up a little bit earlier, so the recommendation is to start at about age 40 or 45, but for African Americans, they should consider it and speak with their physician even a little earlier than age 50.

Matloff Interesting. We are going to take a short break for a medical minute. Please stay tuned to learn more information about colorectal cancer with doctors Aslanian and Hochster.

#### *Medical Minute*

*Breast cancer is the most common cancer in women. In Connecticut alone, approximately 3,000 women will be diagnosed with breast cancer this year and nearly 200,000 nation-wide, but there is new hope for these women. Earlier detection, noninvasive treatments, and novel therapies provide more options for patients to fight breast cancer. In 2011, more women are learning to live with this disease than ever before. Women should schedule a baseline mammogram beginning at age 40, or earlier if they have risk factors associated with the disease. With screening, early detection and a healthy lifestyle, breast cancer can be defeated. Clinical trials are currently underway at federally designated comprehensive cancer centers, such as Yale Cancer Center, to make innovative, new treatments available to patients. A potential breakthrough in treating chemotherapy-resistant breast cancer is now being studied at Yale combining BSI-10, a PARP inhibitor, and the chemotherapy drug, irinotecan. This has been a medical minute, brought to you as a public service by the Yale Cancer Center. More information is available at [yalecancercenter.org](http://yalecancercenter.org). You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.*

Matloff Welcome back to Yale Cancer Center Answers. This is Ellen Matloff and I am joined by my guests this evening, doctors Harry Aslanian and Howard Hochster, and we are discussing colorectal cancer. We were talking a few moments ago about colonoscopy, and that everyone should have a colonoscopy by the age of 50. Let us talk about when someone should have a colonoscopy before the age of 50.

Hochster People who have symptoms should report them to their doctor. If they see blood in their stool or they have some change in their bowel habits or there are changes that worry them, they should really see a doctor. I mean, colon cancer is rare in most conditions under the age of 50, in people who have the family history that you discussed, then it is much more common under the age of 50,

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but still there is a small incidence under age 50, and I think we have all seen patients who have no family history and are under 50, and sometimes I have even heard from my patients that their doctors really did not think much of it because they were under 50. So, it can happen under 50 and symptoms, especially blood in the stool, should be a reason to go to the physician, that should not be ignored.

Matloff You are reminding me, Howard, of one of my favorite patients named Christina, who has been a guest on Cancer Bytes before. At 24 years of age, she was having pain and she actually had a little mass that she could feel in her abdomen, and she was experiencing weight loss. She was diagnosed with everything from an anxiety disorder to anorexia as she lost weight. No one thought she could possibly have colon cancer at age 24, and she did. She had a family history of uterine and ovarian cancer, and no one made the connection that, in fact, she might have colon cancer. So it is really good to pay attention to symptoms and you may need to be persistent. If people are saying you are too young to have cancer and your symptoms are persistent, you might need to talk to someone else as well.

Hochster I agree completely. It is a good point.

Matloff Let's talk about the treatment options for people diagnosed with colon cancer. If someone is diagnosed with colon cancer, is this a death sentence in the year 2011?

Hochster No, not at all. Most people with colon cancer are still cured today, and most of the time surgery is curative for this for the early stages, stage I and II. Surgery is the main treatment and often nothing else is needed in addition to surgery and almost all those people are cured. In addition to the prevention part of colon cancer, if you have a colon cancer that is starting to grow, it can be caught at a much earlier stage.

Matloff Speaking of surgery, surgery is often used together with chemotherapy for the treatment of colon cancer, and now at times chemotherapy is given before the surgery. Can you speak to that, about why that happens and when it happens?

Hochster Sure, I just want to talk about surgery for one second first. Probably more than half the time, in the early-stage, stage I and II, surgery is going to be all you need, certainly, for stage I, stage II, mostly surgery alone. Surgery today is done by laparoscopy. People in the old days thought that if they knew anybody who had colon cancer, they have this very big incision and there is a long recovery. Today, they use scopes and very small incisions that are virtually invisible, usually one around the level of the belly button and a couple of others, and patients go home much more quickly. It is not as painful and it is not as invasive. It is not as burdensome for the patient as the previous kind of surgery we are talking about. Most of the time, you can get a laparoscopy to remove the colon cancer. The second thing that many people have a misconception about is that if you have colon

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cancer, you need a bag and you need some kind of colostomy.

Matloff Forever, right?

Hochster And that happens very, very rarely. There are once-in-a-while conditions, but usually those are more advanced situations where the tumor has grown so large that it has made a hole in the wall of the colon.

Matloff So, most of the time when people have colon cancer and they have surgery, they do not need to have a permanent colostomy or a bag on the outside?

Hochster That is very unusual today.

Matloff That is very, very good news! How has chemotherapy advanced? Do you find that people undergoing chemotherapy for colon cancer are the way we picture them in the movies 20 years ago? Are they lying in bed? Are they tired? Are they throwing up?

Hochster Like almost everything in life, the movies make everything more dramatic, but actually with chemotherapy today, we have newer drugs and we have more tolerable drugs. We have drugs that are more effective and less toxic. So, most of the time when we are talking about the need for chemotherapy, it is going to be a limited time frame, about six months, and the side effects are pretty limited, and most people can do all their normal activities. Most people continue to work during that period if they are working. The drugs that we happen to use for colon cancer do not cause hair loss. So, in general people look pretty good and they can be very active, almost to 100% of their normal activity. You also asked about doing chemotherapy first, so we are doing more chemotherapy first when we know people need chemotherapy, more advanced stages, stage III stage IV rectal cancer when it is really low-down and we need to shrink things a little bit before surgery. We give chemotherapy and sometimes radiation first. If the chemotherapy has already spread a little bit, we might give chemotherapy and then do more surgery afterwards. So, chemotherapy has gotten effective to the point where most people do have shrinkage of their primary tumor or metastatic tumors. With our chemotherapy today, we are kind of reversing the order of things a little bit when we know people will need chemotherapy, then we can start with that and maybe hold surgery off till later.

Matloff Howard, I have a question for you. Our Cancer Center Director, Dr. Tom Lynch, is always talking about personalized medicine and personalized treatment. Can you talk about any personalized or targeted therapies for colorectal cancer?

Hochster We are working on that every day at Yale Cancer Center and we are trying to make even bigger

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steps forward, but in the realm of biologic therapies, targeted therapies, there are actually three antibodies that are approved for the treatment of colon cancer today. One of them blocks blood vessel growth, it is an anti-angiogenesis-type antibody, and two of them block a molecule that stimulates cell growth. It is an antibody that is directed against epidermal growth factor receptor EGFR. So, there are two antibodies that are approved for colon cancer that do that. We use them with chemotherapy for people who have colon cancer that has spread and it has really helped people a lot. In terms of deciding, specifically for those two anti-EGF antibodies, we do have a personalized test for that. We look for a specific molecule called Ras or K-ras, and if that is in its normal form, then we know those antibodies work, but if that Ras molecule has changed and has a mutation, then we know not to even bother using those drugs because they would not be helpful.

Matloff Basically, in summary, when someone has colon cancer, we can take a piece of their tumor and test it, and if certain mutations are present, we treat them one way; if the mutations are not present, we treat them a different way.

Hochster Exactly, that is stated perfectly.

Matloff Harry, I would like to ask you, what are the exciting things in your area of cancer surveillance? What is the newest, the latest, the greatest, and what is in the pipeline?

Aslanian We talked about some of the technological developments in screening as far as the capsule and perhaps, CT scanning. There has also been a lot of interest in testing the stool for some of those mutations that indicate the presence of a polyp or colon cancer, and there has been progress in that area, but so far, colonoscopy in its ability to remove polyps, still comes out as the strong winner as the best test we have at this time, and there has also been a lot of interest in how can we make colonoscopy itself a better test. Now we have wide-angle instruments, and the ability to wash the colon as we are examining it.

Matloff But that does not get you out of the prep, does it Harry?

Aslanian No, it just kind of touches up the prep a bit. And we have high-definition instruments, just like on your flat-screen TV at home, and certain digital modifications to improve our detection of subtle changes in the colon, including finding these flatter polyps. Polyps can grow sort of like a mushroom, which we are more familiar with, and we have all been training ourselves and improving use of the technology to find these flat or sessile polyps and remove those as well.

Matloff It sounds to me, in summary for our listeners, that everyone needs a colonoscopy at age 50. If you have a family history of colon cancer, uterine cancer, ovarian cancer, or sebaceous adenoma or carcinoma, speak to your physician about whether or not you need to see a genetic counselor, you may need a colonoscopy at a younger age. If you are symptomatic, if you have blood in your

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stool, and by the way this is not necessarily bright-red blood, some people have plum-colored stools or stools that are a different color, if they have had a change in bowel habits, they have chronic diarrhea or chronic constipation, they are tired, they have unexplained weight loss, these are all things to talk to your doctor about. In honor of Colon Cancer Awareness Month, this would be a great time, if you have had this on your calendar, you are 51 or 52 and you keep putting it off till tomorrow, and you are listening right now, make this the time that you contact your doctor and schedule your colonoscopy. What else have we missed? What would you guys like to touch on for our listeners at home?

Hochster We have made a lot of progress in the treatment of the most advanced stages of colon cancer for people where it has spread. Sometimes we can avoid surgery with the use of drugs, and sometimes by using drugs first and then taking out some of those spread tumors, we can actually cure people with stage IV colon cancer. Even today, stage IV colon cancer is not necessarily an incurable situation, and with all these drugs we have now for chemotherapy drugs, and these three biologic targeted therapies, people are living many years with colon cancer. We see people all the time that are doing great five years after diagnosis. We hope that there will be more things coming along in the next year that it is going to turn this into a chronic condition that people can live with. That is what we are trying to do.

Matloff Wow! Wouldn't that be great?

Hochster Yeah!

Matloff Harry?

Aslanian Just to enforce what you said, this is a great opportunity for prevention, for everyone over age 50. Go ahead and schedule that, you will be pleasantly surprised.

Matloff For those people listening at home who are thinking, I am too busy, you have to take a day off for the prep and a day off for the procedure, but one of the things that we always find and we see this all too often in my clinic, is that having cancer is much more time-consuming and much more scary and painful and inconvenient than having your screening colonoscopy. I cannot tell you how many patients I have, and these are patients from families where there is often a family history, who say, how I wish I had scheduled that colonoscopy instead of waiting to have colon cancer.

*Ellen Matloff is a Research Scientist in the Department of Genetics. Dr. Harry Aslanian is Associate Professor of Digestive Diseases and Dr. Howard Hochster is Associate Cancer Center Director and Professor of Medicine at Yale School of Medicine. If you have questions or would like to share your comments, visit [yalecancercenter.org](http://yalecancercenter.org), where you can also subscribe to our podcasts and find written transcripts of past programs. I am Bruce Barber and you are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.*