

Healthline with Yale Cancer Center

Hosts

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WTIC Newstalk 1080

Advances in the Treatment of Colon Cancer

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This is Healthline. A joint venture of WTIC NewsTalk 1080 and Yale Cancer Center. Yale Cancer Center is a resource for cancer programs throughout Connecticut, developing new advances in prevention, screening, diagnosis and treatment. On Healthline you will hear from some of the leading doctors in the country. Healthline is not intended to provide medical advice. Yale Cancer Center urges you to consult with a qualified physician in your community for diagnosis and for answers to your medical questions. And now, our co-hosts Oncologists Ken Miller and Ed Chu.

Miller Good morning and welcome to Healthline. My name is Dr. Ken Miller and I am the Director of the Survivorship Program at the Yale Cancer Center in New Haven. I am here at the WTIC studios with my colleague and co-host, Dr. Ed Chu, who is the Chief Adult Oncologist at the Yale Cancer Center. Good morning Ed.

Chu Good morning Ken. Healthline with the Yale Cancer Center is our way of providing you with the most up to date information on cancer care every Sunday morning at 8:30 a.m. here on this station WTIC NewsTalk 1080. Our Healthline program features some of the nation's leading oncologists and cancer specialists who are in the forefront of the battle to fight cancer right here in our state of Connecticut. Each week, Ken and I are joined by a different expert from the Yale Cancer Center, and together we will discuss the myths about cancer, the latest treatment options available to cancer patients, and advances in clinical research. Our goal is to give you, the listener, help and hope. We will answer your questions and give you the latest information on cancer and cancer treatments. If you would like to submit a question to Healthline, please email us at Healthline@Yale.edu, and we will try to answer your question on air in a future broadcast.

Miller Today, our program focuses on advances in the treatment of colon cancer, and I have to say it is a real pleasure today because not only is Dr. Ed Chu my co-host and the Chief of Oncology at Yale, but he also is an internationally known expert in the treatment of colon cancer. Ed is the Editor-in-Chief of a journal called *Clinical Colorectal Cancer*. He is also the Chairman of the [International Colorectal Congress](#), and together Ed and I will explore the latest in the detection, treatment, and prevention of colon cancer. Ed, I would like to thank you for being here to share your expertise on colon cancer.

Chu Well, Ken, it is my pleasure. Obviously colon cancer is a very important topic, and I think it is especially relevant since the month of March has been designated Colorectal Cancer Awareness month.

Miller Well, you know with that in mind about awareness, let us start right out. What is colon cancer?

Chu Colon cancer is an abnormal growth that takes place in the lower part of the intestine that can involve what is called either the colon or the rectum. In general, colon cancer actually arises from [polyps](#), which are not cancer by themselves, but over time, can in fact develop from a benign growth to true cancer and that process usually takes somewhere between 10 to 12 years to develop.

- Miller This is a long period of time. So, knowing that, how can we detect colon cancer early? Does that make a difference and who should be screened for colon cancer?
- Chu Well, in fact, screening and early detection really is the key, because I think the message that needs to be conveyed to our listening audience is that colon cancer is highly preventable and highly curable when caught at an early stage. The general guideline that has been put forth by the American Cancer Society is that all individuals starting at the age of 50 should be screened, and there are number of screening tests, which include testing the stool for blood, [sigmoidoscopy](#), [colonoscopy](#), and diagnostic imaging tests, but at least in my view, the gold standard for screening and early detection of colon cancer is colonoscopy.
- Miller Let me ask you about some of the myths, in terms of risk of developing colon cancer. One myth that I have heard people say is that women are not at risk of developing colon cancer and really should be more concerned about breast and cervical cancer. Is that true?
- Chu Yes, it is a very important issue. In fact last year, during the month of March, I worked very closely with the [National Women's Health Resource Center](#), which is a national women's group that focuses on women's health awareness and education programs. They put forth a questionnaire, and I think to everyone's surprise found that women had this belief that they were not at increased risk for developing colon cancer compared to their risk for developing breast cancer and cervical cancer. I think that is the farthest thing from the truth. In fact, the incidence of colon cancer is virtually identical between males and females, and just as women go for their mammograms and their Pap smears to screen for breast cancer and cervical cancer and ovarian cancer, it is absolutely critical that all women starting from the age of 50 and on should undergo screening for colon cancer.
- Miller Actually, it is a very important point in terms of screening, I can easily picture women saying, you know, I am having my mammograms, I am going to my gynecologist, but obviously screening for colon cancer is important.
- Chu I think another important issue that came out of this questionnaire was about only half of the women who were at average risk for developing colon cancer felt that they were at increased risk and less than half of the women who were surveyed even had a discussion with their physicians about the need for getting screened for colon cancer. So I think what this also shows is that healthcare professionals need to have an increased awareness that women need to undergo screening for colon cancer.
- Miller Let me ask you about another myth then. That myth would be that if there is no family history of colon cancer then you do not need to worry?

- Chu And that is a myth, because the number one risk factor for developing colon cancer is age. It is important for our listeners to understand that more than 90% of all colon cancers are diagnosed after the age of 50. While there are number of risk factors and family history and genetics is but one of them, age, by far and away, is the number one risk factor, and again, age greater than 50 increases the risk for anyone to develop colon cancer.
- Miller For individuals who under 50, which I used to be up until about a week ago, but for people that are under 50 if they have certain symptoms or certain problems, might they have colon cancer, and what would be a reason for someone to go to their doctor and say, Jeez, I am concerned and here are my problems?
- Chu I think the issue you are addressing here is what are the typical symptoms that one should be aware of? I think the typical symptoms associated with colon cancer include a change in bowel habits, a change in the size or consistency of their stools, a change in the color, so clearly any hint of blood is a bad sign, a darkening black color of the stool also can be quite worrisome, abdominal pain, cramps, certainly something to be concerned about, decreased appetite, weight loss, fatigue, generalized weakness are also symptoms that one need to be concerned about. I think the other key point for our listeners to be aware of is that in many cases, patients with colon cancer are completely asymptomatic and that again just emphasizes the point that if you are over 50, you need to be screened regardless of whether or not you have symptoms or not.
- Miller Let us say someone has a colonoscopy at age 50 and again what should the guidelines be for re-screening? How many years between colonoscopies?
- Chu The typical recommendation for an individual at average risk, which is probably the vast majority of individuals here in the state of Connecticut, is that if they have had a colonoscopy at the age of 50 and it was completely normal, then there probably is no need for another colonoscopy for at least another 5 to 10 years, and the reason for that is because as I mentioned at the beginning of this program, it generally takes somewhere between 10 to 12 years for a polyp to become a true cancer. Now if a polyp has been identified at the time of that initial colonoscopy, the general recommendation is to have a repeat followup colonoscopy within 3 years.
- Miller Okay. We are going to take a break and just a minute for what's called a medical minute, but we would like to remind our listening audience to please email us your questions at Healthline@Yale.edu. We are going to take a short break and then we are going to come back and talk more with Dr. Ed Chu, who is my co-host and one of the leading experts in the treatment of colorectal colon cancer.

Medical Minute

It is estimated that over 2 million men in the U.S. are currently living with prostate cancer. One in six American men will develop prostate cancer in the course of his lifetime. Yet major advances in

the detection and treatment of prostate cancer have dramatically decreased the number of men who die from the disease. New treatment options now provide hope for all men diagnosed with prostate cancer. Screening for prostate cancer can be performed quickly and easily in a physician's office using two simple tests, a physical exam and a blood test. With screening, early detection, and a healthy lifestyle prostate cancer can be defeated. Clinical trials are currently underway at Yale Cancer Center, Connecticut's only federally designated comprehensive cancer center to test innovative new treatments for prostate cancer. Patients enrolled in these trials are given access to experimental medicines, which have not yet been approved by The Food and Drug Administration. This has been a medical minute brought to you as a public service by Yale Cancer Center. For more information, visit our website at YaleCancerCenter.org.

Miller Welcome back to Healthline. This is Dr. Ken Miller, and I am in the WTIC studios with my co-host Dr. Ed Chu who is talking with us today about some of the latest advances in the treatment of colon cancer. We have an email from Tanya who lives in Westbrook, and she says,

My doctor has recommended that I get a virtual colonoscopy.

Can you explain what that is?

Chu Yes, there has been a lot of development with respect to trying to identify new techniques for colon cancer screening. [Virtual colonoscopy](#) is a very sophisticated imaging approach, which really uses CT scanning and very sophisticated computer software. We have that available here at the Yale Cancer Center for our patients. It is noninvasive, it does not require sedation, and one of the advantages is that after the procedure is done, patients can actually go back to work. I must also say, it remains experimental. The concern about virtual colonoscopy is that it can miss small lesions and even if it were to pick up any suspicious-looking lesion on this CT scan image, the patient still has to undergo the more invasive colonoscopy. At present, the American Cancer Society does not recommend virtual colonoscopy as part of the standard of care for colon cancer screening.

Miller I see, so the standard right now would still be a regular colonoscopy.

Chu In my view, the gold standard is colonoscopy.

Miller Okay, thank you. I would like to move on to hearing some your thoughts in terms of the treatment of patients and people who have early stage colon cancer. How is this disease treated?

Chu Typically early stage colon cancer, when caught at a very early stage is highly curable. If we can catch colon cancer at its early stage, where surgery is performed to remove the tumor, there is about a 90% chance of cure. Now the important point also I think to emphasize is that when treatment of patients with early stage colon cancer is really a multidisciplinary approach, and we

take that approach here at the Yale Cancer Center and as part of this approach, we have the medical oncologist work closely with surgeons and the radiation oncologists, the pathologists, and the radiologists to really kind of give a comprehensive approach to patients.

- Miller What does that translate in terms of, does that team physically get together? Do they meet in the same room and how does that benefit the patient?
- Chu Not necessarily will we see the patient together at the same time, but the hope is that we will see the patient perhaps in the very same day in the same clinic area. The care is really well-coordinated and then generally at the end of the day, all of the respective parties will get together, discuss the case, and then come up with the treatment plan.
- Miller If someone has early stage colon cancer what would be indications for use of chemotherapy after that?
- Chu Yes, we have had significant advances in the form of [adjuvant chemotherapy](#), which is giving chemotherapy or cancer drugs after surgical removal of the colon cancer and the reason for that is even though surgery has been performed, there are cancer cells that have kind of gotten their way into the bloodstream and that increases the risk either for the cancer coming back at the original site or perhaps recurring at some distant site, either within the lungs or liver or some other organs. What we have now found over the last few years is that giving adjuvant chemotherapy can significantly reduce the risk of recurrence not only at the local site but throughout the body.
- Miller Has the chance of cure gone up for people with colon cancer?
- Chu Yes, it has increased pretty dramatically. I think the other nice thing is that just within the last year or so a new oral chemotherapy drug was approved for treating patients in the adjuvant setting, and what's really nice about this oral pill, which is called [Xeloda](#), is that it allows patients to be able to take these pills in the comfort of their home. They don't have to come in to the clinic or the hospital to receive intravenous treatments. They don't have to be hooked up to intravenous catheters or pumps, and they can maintain their normal activities of daily living, which is very, very important. I think what we are finding is that we were trying to maintain the efficacy while at the same time trying to maintain quality of life.
- Miller It sounds like there have been a number of new drugs that have been developed for the treatment of people with advanced colon cancer. Are those finding their way in to the earlier setting where we are trying to prevent recurrence?
- Chu Well, in fact, one of the newest drug [oxaliplatin](#), also known as Eloxatin, which was approved for the treatment of advanced disease is now being widely used in the adjuvant setting and is now being tested in combination with some of the newer biologic targeted therapies, which I think we

will be talking about in a little bit,. These types of treatment regimens are now being investigated in clinical trials, and some of those clinical trials will be offered here at the Yale Cancer Center.

Miller We would like to remind our listening audience please email us your questions at Healthline@Yale.edu. We are going to take a short break to listen to a survivor story and then we will be back with Dr. Ed Chu.

Survivor Story

A few years ago the diagnosis of cancer was a death sentence for many patients, but today, thanks to advances in clinical research, we are turning the corner in the battle against cancer. There are over 10 million cancer survivors now living in the US. They are the true heroes in the war against cancer. Here is the story of a hero from Guilford.

My name is Cathy. I am a cancer survivor and I am the mother of three girls. I was diagnosed with breast cancer at age 40. I had had my baseline mammogram at 36, but with no family history of breast cancer I was told to return when I was 40 for another mammogram. I got the diagnosis that no one prepares you for - cancer, but I was lucky. I was referred to the Yale Cancer Center where I met Dr. Lannin. I underwent a double mastectomy in the summer of 2004. I still take tamoxifen daily but have been cancer-free ever since. If there is one message that I want to convey to all women is to get a regular mammogram. I am a perfect example of how early detection is part of the cure.

This survivor story has been brought to you by Yale Cancer Center.

Miller Welcome back to Healthline. This is Dr. Ken Miller, and I am in the WTIC studios with my co-host Dr. Ed Chu who is an internationally known expert in the development of novel therapies for the treatment of people with colon cancer. Ed, we have some emails that I would like to share with you. This is an email from Julie who lives Bristol. She says,

I was diagnosed in 2004 with stage II colon cancer, which was removed with surgery, and I did not require additional treatment. Are there things that I should be watchful for in case the disease returns?

Chu Well, I think obviously one should be mindful of some of the symptoms that we talked about earlier. Again, any change in bowel habits, any abdominal pain cramps, change in appetite, weight loss, generalized fatigue and weakness. It is also important, even after surgical resection of the tumor and adjuvant therapy, that patients with early stage colon cancer need to be very closely watched, and really what we recommend is within the first 3 or 4 years after the initial treatment, these patients should be seen by their medical oncologist at least every 3 or 4 months. Very careful history, careful physical examination, complete blood tests, and I have to say I also like to do imaging tests, CT scans of the chest and abdomen, to make sure that we are not missing

anything, because again, I think one of the concerns about colon cancer is that even once it has spread it can be asymptomatic.

Miller Another email, this is from Tom who lives in Middletown. He says,

I was recently diagnosed with colon cancer, and he is writing here that his doctor has recommended that he receive chemotherapy and in a sense his question is, what is the state-of-the-art, what is the best type of chemotherapy for someone like myself who has had the lymph nodes involved with the cancer.

Chu Well, I think a lot really depends on the specifics of this case. We do know that if there are more than four lymph nodes that are involved, that then places that patient at much higher risk for the colon cancer coming back, and in that setting, we actually would like to be much more aggressive with respect to the type of chemotherapy that we will offer that patient. I think the other point to consider is his staging workup, which should include CT scans of the chest and abdomen, perhaps even do a [PET scan](#) to make sure that in fact the cancer has not already spread beyond the confines of the local colon.

Miller With that in mind, because, I mean, unfortunately that sometimes does happen and people are found to have either recurrent colon cancer or colon cancer that has spread elsewhere. If the cancer has, for example, come back in the liver with a single spot or two spots what would you offer someone like that?

Chu Well, I think the general standard of care is to give combination chemotherapy, and one of the great advances that has taken place in colon cancer is that in fact we now have a number of treatment options that are available to patients with colon cancer. So for about 40 years, we only had one drug and that drug was called [5-fluorouracil](#). However, within the last 5 to 6 years, three new cancer drugs have been approved for treatment of colon cancer. One of these new agents is this oral pill called [Xeloda](#), one drug called [Eloxatin](#), and another drug called [Camptosar](#), and in February 2004, two novel targeted therapies, antibodies, were approved by the FDA, one is called [Avastin](#) and one is called [Erbbitux](#).

Miller I want to ask you more about that, I mean, the traditional idea of chemotherapy I think a lot of people are familiar with, but these other therapies that you have mentioned, the Avastin and Erbitux, what is the principle behind them? How do they work and how are they changing things for people with colon cancer?

Chu Well, these two antibodies are called targeted therapies. The reason for that is that they are targeting specific pathways that are felt to be critically important for the growth of cancer cells. Avastin is an antibody that targets the vascular endothelial growth factor, a growth factor that has been found to be critically important for new blood vessel formation. This is a process which is

called [angiogenesis](#). Erbitux is an antibody that targets the epidermal growth factor receptor, which is a receptor that sits on the cells of virtually all colon tumors, and once that receptor is activated, it sets up a cascade within the tumor cells that turns on cancer cell growth and proliferation. What it also does is, it sets up a scenario where tumor cells become resistant to both chemotherapy and radiation therapy. What has been quite fascinating is that Erbitux can enhance the effects of chemotherapy, radiation therapy, and even Avastin also appears to function in the same manner. Here at the Yale Cancer Center, my colleagues in the GI Disease Unit are developing some novel regimens, which combine either Avastin or Erbitux in combination with traditional cancer drugs.

Miller What are some of the clinical trials that you have been working on here at the Yale Cancer Center with your colleagues?

Chu I think one of the most exciting new trials that, I am the National PI of a study that actually combines this oral drug called Xeloda along with one of the newer agents called Eloxatin. It is a regimen called the XELOX regimen, and we are combining this regimen with the anti-angiogenesis molecule, Avastin, and what we are trying to do is actually look at two different schedules of how we can administer these drugs in the hopes of maintaining or improving our ability to actually kill the tumor cells but also in the hope of trying to maintain quality of life and reduce toxicity.

Miller Along those lines, in terms of side effects, so one of our listeners wrote in to us, and he said, *I have developed acne as a result of taking Erbitux. My doctor says that's a good sign. Can you explain this?*

Chu Yes. What is really quite fascinating is that one of the main side effects of Erbitux and all the other agents that target the epidermal growth factor receptor pathway is an acneiform-like skin rash, and what has been really interesting is that there is a very, very good correlation between the intensity of the skin rash and the clinical outcome. So the worse the skin rash, the better the patient does. What I would say to this patient is that there is actually a good chance that because he is experiencing the skin rash, that he may be responding to the treatment.

Miller Actually it is an interesting thought, having a skin rash is a good thing in this case.

Chu That's right.

Miller Okay.

Chu And I think the good thing is that there are topical ointments and topical antibiotics that I think can actually easily address the skin rash.

- Miller And I want to ask you about something else right now. I know you have a lot of expertise, which has to do with Chinese herbs and how they may actually have an impact both in terms of the effectiveness of chemotherapy and in terms of side effects.
- Chu Yes. I think one of the other interesting studies that we have already conducted here at the Yale Cancer Center is combining traditional western chemotherapy, in this case Camptosar, with a Chinese herbal medicine. And this [Chinese herbal medicine](#) was called PHY906 and what we found was that this herb could in fact reduce the incidence of nausea, vomiting, diarrhea, and abdominal cramps associated with chemotherapy. Why this is really quite fascinating is this herb has been used for over 2000 years in the Orient to treat everyday diarrhea, nausea, vomiting, and abdominal cramps. Our next followup study, which actually will be headed by my colleagues, Dr. Saif and Dr. Lee in our GI unit here at the Yale Cancer Center, will be looking at this herb again in combination with Camptosar but now also adding this very novel therapy that we talked about earlier, Erbitux, and so we are planning on, and hopefully within the next couple of months, this study will be up and available for patients who have failed frontline, first line chemotherapy treatment.
- Miller You are talking about some of these new targeted therapies, do you ever combine the two targeted therapies. You talked about Avastin and Erbitux and do you picture a day that perhaps we will be able to do away with chemotherapy?
- Chu Well, it is a very interesting question and in fact studies that have been done by my good friends and colleagues Dr. Leonard Saltz and Dr. Paulo Hoff at MD Anderson and Memorial Sloan-Kettering, have looked at combining Avastin and Erbitux and what is really quite fascinating is even in patients who are very heavily treated, the combination of two targeted therapies, two antibody therapies, in fact can cause shrinkage of the tumor and allow patients to live longer. Again, my colleagues here at Yale, are trying to combine either Avastin or Erbitux with some other novel targeted therapies that target some really critically important signaling processes, and I think we and others are quite hopeful that perhaps these strategies may be more effective and less toxic because they're targeting pathways that are specific for the colon cancer tumors and not normal tissue.
- Miller So colon cancer needs certain things to promote its growth and in a sense you are interfering with those.
- Chu That is right. I think that is a very, very good way to put. When I was a medical student growing up, we were taught about the concept of the magic bullet. I think one of the problems with traditional anticancer drugs is that they not only hit the cancer cells, they also hit normal cells. And so the whole concept of targeted therapy is to hit only the colon cancer cells and not the normal cells.

- Miller You know, a lot of this is at the cutting edge and so my question to you is how can a person who is listening in or their family access some of these clinical trials?
- Chu Well, if anyone is interested in seeing what kind of clinical trials are available here at the Yale Cancer Center, I would suggest that they go to our website www.YaleCancerCenter.org, and while there, they will see what we have available not only for treating patients with colorectal cancer but really for the treatment of all cancers.
- Miller There has been a lot of discussion about changing colon cancer from being an acute illness and one with a poor prognosis to more of a chronic disease. Is that something that you have seen?
- Chu Yes, I think that is one of the very gratifying aspects of being involved in this field for quite some time. I can tell you when I first started as a fellow in this disease, in patients who had advanced metastatic disease, which is colon cancer spread widely to different organs, the median survivals were only in the 8 to 10 month range. We are now approaching median survivals 24, 26, maybe even up to 30 months, and in fact, there are some subsets of patients with advanced disease that can in fact be cured. Without question, we have seen tremendous advances in patients with advanced metastatic disease.
- Miller Well, in a couple of minutes, we are going to close, I want to encourage our listening audience if you would like to learn more to look at our website, it is www.YaleCancerCenter.org, for more information, and I wanted to ask you as we close, what are the two or three most important points that we want people to know who are listening in?
- Chu I think there are three main messages that I think people need to be aware of. First, colon cancer is highly preventable, and the key here is screening, and the gold standard for screening is colonoscopy, and again the most important risk factor is age, and age being greater than 50. Second, colon cancer is highly curable, and again the key here is early detection and again the best way to diagnose colon cancer at an early stage is through the use of colonoscopy. When caught at an early stage, colon cancer can be cured in up to 90% of patients. Finally, significant treatment advances have been made for patients with more advanced forms of colon cancer, and we really are now making this a chronic disease. Patients with advanced colon cancer can certainly benefit from cutting edge therapies and clinical trials, many of which are available here the Yale Cancer Center.
- Miller Ed, I want to thank you for sharing your knowledge about colon cancer with us today on Healthline. I look forward to hosting this show again with you next week as we welcome another guest expert, and remember tune in to WTIC NewsTalk 1080 every Sunday morning at 8:30 a.m. for Healthline with the Yale Cancer Center. Our next program will focus on treatment advances for melanoma with special guest Dr. David Leffell, who is the Professor of Dermatology and Dr.

Mario Sznol, Associate Professor of Medical Oncology at the Yale Cancer Center. Until then, this is Dr. Ken Miller

Chu And Dr. Ed Chu from the Yale Cancer Center, wishing you a safe and healthy week.