

0:00:00 -> 0:00:02.46 Support for Yale Cancer Answers  
0:00:02.46 -> 0:00:04.92 comes from AstraZeneca, dedicated  
0:00:04.999 -> 0:00:07.344 to advancing options and providing  
0:00:07.344 -> 0:00:10.3 hope for people living with cancer.  
0:00:10.3 -> 0:00:13.94 More information at [astrazeneca-us.com](http://astrazeneca-us.com).  
0:00:13.94 -> 0:00:15.86 Welcome to Yale Cancer Answers with  
0:00:15.86 -> 0:00:18.316 your host doctor Anees Chagpar.  
0:00:18.316 -> 0:00:20.176 Yale Cancer Answers features the  
0:00:20.176 -> 0:00:22.447 latest information on cancer care by  
0:00:22.447 -> 0:00:23.911 welcoming oncologists and specialists  
0:00:23.911 -> 0:00:26.405 who are on the forefront of the  
0:00:26.405 -> 0:00:28.58 battle to fight cancer. This week,  
0:00:28.58 -> 0:00:30.365 it's a conversation about colorectal  
0:00:30.365 -> 0:00:32.15 cancer with Doctor Michael Cecchini.  
0:00:32.15 -> 0:00:34.045 Doctor Cecchini is an assistant  
0:00:34.045 -> 0:00:35.94 professor of medicine and medical  
0:00:36.006 -> 0:00:37.968 oncology at the Yale School of  
0:00:37.968 -> 0:00:40.036 Medicine where Doctor Chagpar is  
0:00:40.036 -> 0:00:41.786 a professor of surgical oncology.  
0:00:43.14 -> 0:00:45.21 So Mike, maybe we can start  
0:00:45.21 -> 0:00:47.952 off by you telling us a little  
0:00:47.952 -> 0:00:49.664 bit about colorectal cancer.  
0:00:49.67 -> 0:00:51.968 A little bit about the epidemiology.  
0:00:51.97 -> 0:00:54.658 Who gets it? How common is it?  
0:00:54.66 -> 0:00:55.972 How lethal is it?  
0:00:55.972 -> 0:00:57.94 And then we'll get into some  
0:00:58.012 -> 0:01:00.364 of the more recent updates with  
0:01:00.364 -> 0:01:02.72 regards to screening of colorectal cancer.  
0:01:02.72 -> 0:01:05.03 I am a gastrointestinal  
0:01:05.03 -> 0:01:07.815 medical oncologist, and I see a variety  
0:01:07.815 -> 0:01:10.319 of GI cancers, colorectal cancers and it is where

0:01:10.319 -> 0:01:13.168 I focus the majority of my research.  
0:01:15.84 -> 0:01:17.031 It's quite common.  
0:01:17.031 -> 0:01:19.413 There are about 150,000 cases diagnosed  
0:01:19.413 -> 0:01:21.551 annually in the United States and  
0:01:21.551 -> 0:01:23.231 more than 50,000 annual deaths.  
0:01:24.756 -> 0:01:28.087 And I do think it needs to be stated  
0:01:28.087 -> 0:01:30.832 that there is also a rise in incidence  
0:01:30.832 -> 0:01:33.597 in adults less than age of 50.  
0:01:33.6 -> 0:01:35.682 Although it is like many cancers,  
0:01:35.682 -> 0:01:37.07 predominantly a cancer of older  
0:01:37.132 -> 0:01:39.147 individuals, for some unclear reason,  
0:01:39.15 -> 0:01:41.12 the incidence is actually rising  
0:01:41.12 -> 0:01:43.589 in adults less than age of 50,  
0:01:44.769 -> 0:01:47.127 while it is going down overall,  
0:01:47.13 -> 0:01:50.315 due to effective screening by  
0:01:50.315 -> 0:01:53.5 colonoscopy for adults over the  
0:01:53.612 -> 0:01:57.464 age of 50.  
0:02:03.23 -> 0:02:05.778 Patients with a personal history or  
0:02:05.778 -> 0:02:08.295 family history of colorectal cancer are at  
0:02:08.295 -> 0:02:11.019 increased risk for developing the disease.  
0:02:11.02 -> 0:02:13.678 Personal history for large polyps etc.,  
0:02:13.68 -> 0:02:15.895 certain polyps with certain characteristics  
0:02:15.895 -> 0:02:18.57 increase the risk for colorectal cancer,  
0:02:18.57 -> 0:02:20.342 but it is mostly sporadic,  
0:02:20.342 -> 0:02:21.228 not familial.  
0:02:21.23 -> 0:02:23.006 There are conditions like  
0:02:23.006 -> 0:02:24.338 inflammatory bowel disease,  
0:02:24.34 -> 0:02:27.112 prior radiation and then in rare  
0:02:27.112 -> 0:02:29.435 circumstances inherited syndromes such as  
0:02:29.435 -> 0:02:31.889 Lynch syndrome and something called FAP.  
0:02:31.89 -> 0:02:33.222 Familial adenomatous polyposis syndrome.

0:02:34.11 -> 0:02:35.882 And other polyp syndromes.  
0:02:35.882 -> 0:02:37.654 So when thinking about  
0:02:37.66 -> 0:02:39.945 the fact that the majority  
0:02:39.945 -> 0:02:41.773 of these are sporadic,  
0:02:41.78 -> 0:02:44.174 are there any risk factors  
0:02:44.174 -> 0:02:47.177 that people who don't have a family  
0:02:47.177 -> 0:02:49.835 history should really be cognizant of?  
0:02:49.84 -> 0:02:51.955 So I'm thinking here about  
0:02:51.955 -> 0:02:53.647 things like you know,  
0:02:53.65 -> 0:02:56.618 people often ask about smoking or alcohol,  
0:02:56.62 -> 0:02:59.364 or smoked meats or other  
0:02:59.364 -> 0:03:02.129 things that might increase their risk.  
0:03:02.13 -> 0:03:02.98 So there  
0:03:02.98 -> 0:03:04.676 isn't this clear association  
0:03:04.676 -> 0:03:05.948 with some carcinogen,  
0:03:05.95 -> 0:03:07.634 some cancer predisposing factor,  
0:03:07.634 -> 0:03:11.04 like there is with lung cancer and smoking,  
0:03:11.04 -> 0:03:12.596 for example.  
0:03:12.596 -> 0:03:16.809 I'd say that the data is a bit mixed on  
0:03:16.809 -> 0:03:19.491 how important certain risk factors are.  
0:03:19.5 -> 0:03:21.016 Certainly things like obesity,  
0:03:21.016 -> 0:03:23.29 diabetes and red or processed meats  
0:03:23.353 -> 0:03:25.248 increase risk and  
0:03:25.25 -> 0:03:28.306 they may affect the rate to some degree,  
0:03:28.31 -> 0:03:31.165 but the data again isn't  
0:03:31.165 -> 0:03:32.878 always consistent.  
0:03:32.88 -> 0:03:34.95 The smoked meats issue is  
0:03:34.95 -> 0:03:37.16 more thought to be related to  
0:03:37.16 -> 0:03:39.06 gastric cancer or certainly seems  
0:03:39.06 -> 0:03:41.607 to play a bit more of a role.  
0:03:41.61 -> 0:03:43.35 Race also plays a role.

0:03:43.35 -> 0:03:45.145 African Americans have the highest  
0:03:45.145 -> 0:03:46.94 colorectal cancer rates in the  
0:03:46.997 -> 0:03:48.321 United States and mortality  
0:03:48.321 -> 0:03:49.976 is also higher compared to  
0:03:49.98 -> 0:03:50.853 other ethnic groups.  
0:03:50.853 -> 0:03:53.408 So do we know why we see some  
0:03:53.408 -> 0:03:55.216 of these epidemiologic trends?  
0:03:55.22 -> 0:03:57.314 Why is it that more African  
0:03:57.314 -> 0:03:58.71 Americans get colorectal cancer?  
0:03:58.71 -> 0:04:01.09 Why is it that we're now seeing  
0:04:01.09 -> 0:04:03 more colorectal cancer occurring in  
0:04:03 -> 0:04:05.184 adults younger than the age of 50?  
0:04:05.19 -> 0:04:06.795 What are the factors in  
0:04:06.795 -> 0:04:07.758 these particular populations  
0:04:07.758 -> 0:04:08.95 that's increasing their risk?  
0:04:08.95 -> 0:04:09.57 The short  
0:04:09.57 -> 0:04:11.448 answer would be we don't know,  
0:04:11.45 -> 0:04:13.604 and where there's a tremendous  
0:04:13.604 -> 0:04:15.954 effort in trying to understand some of  
0:04:15.954 -> 0:04:18.568 the risk factor and some of  
0:04:18.568 -> 0:04:20.556 the reasons for the increased risk in  
0:04:20.556 -> 0:04:23.9 the groups that you just articulated.  
0:04:23.9 -> 0:04:25.52 Interesting and to get back  
0:04:25.52 -> 0:04:27.14 to the younger age group.  
0:04:27.14 -> 0:04:29.436 It's not just that the incidence  
0:04:29.436 -> 0:04:31.35 has been static in that group,  
0:04:31.35 -> 0:04:33.078 it's increasing and so we do  
0:04:33.078 -> 0:04:35.239 think that it has some lifestyle factors,  
0:04:35.24 -> 0:04:36.86 perhaps diet is a factor that is  
0:04:36.86 -> 0:04:38.156 playing a role here,  
0:04:38.16 -> 0:04:39.78 but we really don't know,

0:04:39.78 -> 0:04:41.646 and there's a tremendous area of  
0:04:43.986 -> 0:04:45.706 research to try and understand why these incidences  
0:04:45.706 -> 0:04:47.548 are increasing in the young adults.  
0:04:47.55 -> 0:04:48.85 But we don't know.  
0:04:49.68 -> 0:04:52.298 And so as we see more incidence  
0:04:52.298 -> 0:04:55.293 in younger people, one of the  
0:04:55.293 -> 0:04:58.1 questions that might come up is,  
0:04:58.1 -> 0:04:59.24 you know historically,  
0:04:59.24 -> 0:05:01.9 and I know that the screening guidelines  
0:05:01.967 -> 0:05:03.747 have recently changed to include  
0:05:03.747 -> 0:05:06.099 younger people in terms of routine  
0:05:06.099 -> 0:05:08.127 screening for asymptomatic people.  
0:05:08.13 -> 0:05:10.914 But when we think about the fact that  
0:05:10.914 -> 0:05:13.737 over the last several several years,  
0:05:13.74 -> 0:05:15.745 we're starting to see more  
0:05:15.745 -> 0:05:17.75 colon cancer in younger people,  
0:05:17.75 -> 0:05:20.816 how is it that they present because  
0:05:20.82 -> 0:05:23.298 they wouldn't have presented on a  
0:05:23.298 -> 0:05:24.537 routine asymptomatic colonoscopy,  
0:05:24.54 -> 0:05:26.608 presumably because historically the  
0:05:26.608 -> 0:05:28.676 guidelines had recommended starting  
0:05:28.676 -> 0:05:30.728 colorectal screening at the age of 50.  
0:05:30.73 -> 0:05:34.447 So how are we picking up these cancers in  
0:05:34.45 -> 0:05:35.605 younger people?  
0:05:35.605 -> 0:05:37.53 Unfortunately, it's the last thing  
0:05:37.53 -> 0:05:39.409 on many caregivers minds,  
0:05:39.41 -> 0:05:41.82 medical professionals minds that  
0:05:41.82 -> 0:05:44.629 somebody symptoms would be related to  
0:05:44.629 -> 0:05:47.245 colon cancer if they are a younger adult.  
0:05:47.25 -> 0:05:49.77 But the majority of patients, about  
0:05:49.77 -> 0:05:52.299 3/4 of patients ,will have some

0:05:52.3 -> 0:05:54.496 nonspecific change in their bowel habits.  
0:05:57.614 -> 0:05:59.27 Half will have bleeding.  
0:05:59.27 -> 0:06:01.105 There's a palpable rectal mass  
0:06:01.105 -> 0:06:02.94 in about 1/4 of patients,  
0:06:02.94 -> 0:06:05.1 and iron deficiency, or anemia isn't actually  
0:06:05.1 -> 0:06:07.349 a sensitive as you might think.  
0:06:07.35 -> 0:06:10.242 It's fewer than 20% of patients,  
0:06:10.242 -> 0:06:11.972 especially young adults that  
0:06:11.972 -> 0:06:14.318 would present with iron deficiency anemia.  
0:06:14.32 -> 0:06:15.076 So unfortunately,  
0:06:15.076 -> 0:06:17.344 I have numerous patients in my  
0:06:17.344 -> 0:06:19.658 practice that had some lower GI  
0:06:19.658 -> 0:06:21.518 bleeding that was attributed to  
0:06:21.518 -> 0:06:23.12 hemorrhoids and incidence wise.  
0:06:28.56 -> 0:06:29.58 Individuals should also  
0:06:29.58 -> 0:06:30.94 listen to their bodies,  
0:06:30.94 -> 0:06:32.64 and if something's not right,  
0:06:32.64 -> 0:06:34 change in bowel habits,  
0:06:34 -> 0:06:34.34 bleeding,  
0:06:34.34 -> 0:06:35.36 they should take  
0:06:35.36 -> 0:06:36.38 those very seriously,  
0:06:36.38 -> 0:06:37.74 even if they're younger.  
0:06:37.74 -> 0:06:39.44 Is it the case that,  
0:06:39.44 -> 0:06:41.095 as we've seen this increasing  
0:06:41.095 -> 0:06:42.75 incidence in younger people because  
0:06:42.806 -> 0:06:44.536 they are presenting with symptoms?  
0:06:44.54 -> 0:06:46.048 Presumably because screening was  
0:06:46.048 -> 0:06:47.556 not recommended for  
0:06:47.556 -> 0:06:49.64 people who were younger than age 50?  
0:06:49.64 -> 0:06:51.47 Is it the case that these  
0:06:51.47 -> 0:06:53.196 younger people that we were

0:06:53.196 -> 0:06:54.928 seeing colorectal cancers in  
0:06:54.93 -> 0:06:56.205 were actually presenting  
0:06:56.205 -> 0:06:57.905 with a higher stage,  
0:06:57.91 -> 0:06:59.61 and what implications does  
0:06:59.61 -> 0:07:01.31 that have for prognosis?  
0:07:01.99 -> 0:07:04.426 Yeah, that's completely correct.  
0:07:04.43 -> 0:07:06.887 Unfortunately, when you have a disease  
0:07:06.887 -> 0:07:08.959 that is presenting because symptoms  
0:07:08.959 -> 0:07:11.349 develop instead of asymptomatic screening,  
0:07:11.35 -> 0:07:13.39 generally this stage is higher,  
0:07:13.39 -> 0:07:15.185 so these younger adults generally  
0:07:15.185 -> 0:07:17.498 are diagnosed at a more advanced  
0:07:17.498 -> 0:07:19.738 stage and sometimes have even  
0:07:19.738 -> 0:07:21.53 more aggressive biology overall.  
0:07:21.53 -> 0:07:25.184 So again, the stage is going to be higher.  
0:07:25.19 -> 0:07:27.075 The younger adult population tends  
0:07:27.075 -> 0:07:29.927 to do better than the older adult  
0:07:29.927 -> 0:07:32.603 population for when you're matching them  
0:07:32.61 -> 0:07:35.298 by stage, because they can probably  
0:07:35.298 -> 0:07:37.866 withstand treatment better but they  
0:07:37.866 -> 0:07:40.337 are diagnosed at a more advanced stage  
0:07:40.337 -> 0:07:43.446 then the patients that are  
0:07:43.446 -> 0:07:45.66 diagnosed by asymptomatic screening and  
0:07:45.66 -> 0:07:48.453 so now the American Cancer Society has  
0:07:48.453 -> 0:07:51.508 come out and said that they recommend  
0:07:51.508 -> 0:07:54.5 starting screening at the age of 45.  
0:07:54.5 -> 0:07:57.026 Can you tell us more about  
0:07:57.026 -> 0:07:58.289 their recommendations?  
0:07:59.41 -> 0:08:00.871 Absolutely.  
0:08:00.871 -> 0:08:03.306 The American College of Gastroenterology  
0:08:03.306 -> 0:08:05.177 initially recommended

0:08:05.177 -> 0:08:07.257 dropping the screening age to  
0:08:07.257 -> 0:08:09.598 45 for adults at average risk,  
0:08:09.6 -> 0:08:12.042 but the most widely followed  
0:08:12.042 -> 0:08:14.241 guidelines are actually the US  
0:08:14.241 -> 0:08:16.237 preventative Task Force guidelines,  
0:08:16.24 -> 0:08:18.455 which the majority of primary  
0:08:18.455 -> 0:08:19.784 care physicians follow,  
0:08:19.79 -> 0:08:22.18 and they did change their  
0:08:22.18 -> 0:08:25.581 recommendation about a year or two ago  
0:08:25.581 -> 0:08:28.347 to propose a Grade B recommendation  
0:08:28.347 -> 0:08:30.977 for adults over the age of 45.  
0:08:30.98 -> 0:08:33.796 But they still kept the greater  
0:08:33.796 -> 0:08:36.066 recommendation for adults over the age of 50.  
0:08:36.07 -> 0:08:37.58 But just yesterday this was  
0:08:37.58 -> 0:08:39.57 updated and now for all adults,  
0:08:39.57 -> 0:08:41.28 they've listed a strong recommendation  
0:08:41.28 -> 0:08:43.379 for adults over the age of 45,  
0:08:43.38 -> 0:08:45.972 so I think now going forward that's really  
0:08:45.972 -> 0:08:48.79 going to be the age we start screening  
0:08:48.79 -> 0:08:50.698 almost all asymptomatic adults.  
0:08:56.53 -> 0:08:58.28 Colonoscopy is a very powerful screening procedure,  
0:08:58.28 -> 0:09:00.5 not only because they can diagnose  
0:09:00.5 -> 0:09:02.962 a cancer that's there and then we  
0:09:02.962 -> 0:09:04.786 can deal with surgery  
0:09:04.786 -> 0:09:06.679 or chemo as necessary,  
0:09:06.68 -> 0:09:08.78 but they also remove  
0:09:08.78 -> 0:09:09.48 premalignant conditions.  
0:09:09.48 -> 0:09:11.712 So they are helping prevent  
0:09:11.712 -> 0:09:13.2 the development of colorectal  
0:09:13.262 -> 0:09:14.727 cancer even down the road.  
0:09:15.35 -> 0:09:17.632 And there are



0:09:17.632 -> 0:09:19.655 so many screening tests now  
0:09:19.655 -> 0:09:21.611 are recommended or that at  
0:09:21.611 -> 0:09:23.7 least individuals could consider.  
0:09:23.7 -> 0:09:25.515 So colonoscopy is often thought  
0:09:25.515 -> 0:09:27.33 of as the gold standard,  
0:09:27.33 -> 0:09:29.412 but some of these other tests  
0:09:29.412 -> 0:09:31.689 seem to be really quite easy.  
0:09:31.69 -> 0:09:33.895 Tell us a little bit about the  
0:09:33.895 -> 0:09:35.765 different tests and the advantages  
0:09:35.765 -> 0:09:37.485 and disadvantages of each.  
0:09:37.49 -> 0:09:39.704 What do you recommend for patients  
0:09:39.704 -> 0:09:42.574 who come to you and say,  
0:09:42.574 -> 0:09:44.746 I heard about the updated guidelines,  
0:09:44.75 -> 0:09:47.526 I'm now 45. What test should I have?  
0:09:48.78 -> 0:09:50.957 I can comment a little bit there.  
0:09:50.96 -> 0:09:52.51 It's not exactly my area.  
0:09:52.51 -> 0:09:52.806 Unfortunately,  
0:09:52.806 -> 0:09:54.878 the majority of patients I see have  
0:09:54.878 -> 0:09:56.559 already been diagnosed with cancer,  
0:09:56.56 -> 0:09:57.49 but absolutely colonoscopy is  
0:09:57.49 -> 0:09:58.73 still the gold standard,  
0:09:58.73 -> 0:10:00.949 so that would be my kind of  
0:10:00.949 -> 0:10:02.256 blanket recommendation. For those  
0:10:02.256 -> 0:10:04.014 that aren't ready to do that,  
0:10:04.02 -> 0:10:06.197 but are interested in doing some screening,  
0:10:08.25 -> 0:10:10.56 there are test for fecal occult blood,  
0:10:10.56 -> 0:10:12.354 so for small amounts of undetectable  
0:10:12.354 -> 0:10:14.497 blood and  
0:10:14.497 -> 0:10:16.261 that's an imperfect way to  
0:10:16.261 -> 0:10:18.563 assess whether or not there's a  
0:10:18.563 -> 0:10:20.123 cancerous or precancerous condition.

0:10:20.13 -> 0:10:21.78 Again, the colonoscopy offers the  
0:10:21.78 -> 0:10:23.43 power to remove precancerous lesions,  
0:10:23.43 -> 0:10:25.05 which probably are not doing  
0:10:25.05 -> 0:10:27.06 much at that point in time,  
0:10:27.06 -> 0:10:29.42 but maybe missed by a test  
0:10:29.42 -> 0:10:31.169 we're trying to detect small  
0:10:31.169 -> 0:10:33.329 amounts of blood in the stool.  
0:10:33.33 -> 0:10:35.794 There are also tests that actually try  
0:10:35.794 -> 0:10:38.4 to detect DNA in in the stool, and  
0:10:38.4 -> 0:10:41.55 that may be a more sensitive way,  
0:10:41.55 -> 0:10:43.884 but also we're not removing anything  
0:10:43.884 -> 0:10:45.815 premalignant with that we have  
0:10:45.815 -> 0:10:47.957 yet to develop a blood based test  
0:10:47.96 -> 0:10:49.735 that's diagnosing cancer before  
0:10:49.735 -> 0:10:52.23 it develops, or at an early stage.  
0:10:52.23 -> 0:10:54.01 So there are companies that  
0:10:54.01 -> 0:10:55.434 are working on that,  
0:10:55.44 -> 0:10:57.925 but we have a ways to go,  
0:10:57.93 -> 0:11:00.499 but most of these patients are seen  
0:11:00.499 -> 0:11:03.188 by my colleagues in Gastroenterology  
0:11:03.188 -> 0:11:05.703 for their screening discussions and  
0:11:07.84 -> 0:11:10.163 they are able to give some more eloquent answers  
0:11:10.163 -> 0:11:10.997 on that  
0:11:11 -> 0:11:12.89 than I am.  
0:11:12.89 -> 0:11:15.224 Mike, the other question, and this might  
0:11:15.224 -> 0:11:17.429 be a tough question as well,  
0:11:17.43 -> 0:11:20.069 is why the magic number of 45?  
0:11:20.07 -> 0:11:22.716 I mean, if we're seeing patients with  
0:11:22.716 -> 0:11:25.334 younger colon cancers, why is it 45?  
0:11:25.334 -> 0:11:28.361 Why not 40 or 42 or 38?  
0:11:28.361 -> 0:11:30.467 How do people come up with

0:11:30.467 -> 0:11:33.206 these numbers as to at what age  
0:11:33.206 -> 0:11:34.818 people should start screening?  
0:11:35.83 -> 0:11:37.325 That's a great question and  
0:11:37.325 -> 0:11:38.82 somebody asked the same question just last night.  
0:11:45.1 -> 0:11:47.172 And I feel  
0:11:47.172 -> 0:11:48.989 that same sentiment as well.  
0:11:50.78 -> 0:11:53.5 I think that this is a first step and we  
0:11:53.572 -> 0:11:56.156 may be recommending 40 in a few years,  
0:11:56.16 -> 0:11:58.221 but we'll have to see how the data and  
0:11:58.221 -> 0:12:00.546 the number needed to treat the  
0:12:00.546 -> 0:12:02.592 number of colonoscopies done to really  
0:12:02.592 -> 0:12:04.494 prevent one colorectal cancer holds up  
0:12:04.494 -> 0:12:07.46 over time at these younger age groups.  
0:12:07.46 -> 0:12:08.63 There's also  
0:12:08.63 -> 0:12:10.173 as you know,  
0:12:10.173 -> 0:12:12.411 I think different opinions on  
0:12:12.411 -> 0:12:15.26 the age of of mammography as well.  
0:12:15.26 -> 0:12:16.066 But again,  
0:12:16.066 -> 0:12:19.29 getting back to the time it takes  
0:12:19.383 -> 0:12:22.407 for colorectal cancer to develop in  
0:12:22.407 -> 0:12:26.027 general somewhere on the order of a decade,  
0:12:26.03 -> 0:12:28.214 I think by lowering the age to 40  
0:12:28.214 -> 0:12:30.099 we're really capturing that group.  
0:12:30.1 -> 0:12:32.431 If we were to lower the age of 40  
0:12:32.431 -> 0:12:34.099 we're really capturing that group  
0:12:34.099 -> 0:12:36.842 in the 45 to 50 range versus right  
0:12:36.842 -> 0:12:39.173 now with this age of 45.  
0:12:39.18 -> 0:12:41.046 Or probably  
0:12:41.05 -> 0:12:42.274 we're helping prevent higher  
0:12:42.274 -> 0:12:44.5 incidence in that 50 to 45 range.  
0:12:44.5 -> 0:12:46.663 But as we started out the discussion

0:12:46.663 -> 0:12:49.103 really less than 50 is still seeing  
0:12:49.103 -> 0:12:51.38 an increased incidence of colon cancer.  
0:12:51.38 -> 0:12:53.837 So I think this is a moving target and  
0:12:53.837 -> 0:12:56.518 we will benefit over time  
0:12:56.52 -> 0:12:58.34 lowering the age,  
0:12:58.34 -> 0:12:59.924 and I certainly, unfortunately,  
0:12:59.924 -> 0:13:02.3 see patients in my practice below the  
0:13:02.364 -> 0:13:04.158 age of 40 and 30 sometimes.  
0:13:05.26 -> 0:13:07.731 Certainly it's going to be a  
0:13:07.731 -> 0:13:09.988 moving target that we will follow,  
0:13:09.99 -> 0:13:12.678 but for right now we're going to take  
0:13:12.678 -> 0:13:15.446 a short break for a medical minute.  
0:13:15.45 -> 0:13:17.27 Please stay tuned to learn  
0:13:17.27 -> 0:13:19.09 more about the treatment of  
0:13:19.09 -> 0:13:21.268 colorectal cancer with my guest doctor  
0:13:21.27 -> 0:13:23.09 Michael Cecchini.  
0:13:23.09 -> 0:13:25.16 Support for Yale Cancer Answers comes from As-  
trazeneca,  
0:13:25.16 -> 0:13:26.816 working to eliminate  
0:13:26.816 -> 0:13:28.55 cancer as a cause of death.  
0:13:28.55 -> 0:13:31.85 Learn more at [astrazeneca-u.com](http://astrazeneca-u.com).  
0:13:31.85 -> 0:13:35.098 This is a medical minute about lung cancer.  
0:13:35.1 -> 0:13:37.648 More than 85% of lung cancer diagnosis  
0:13:37.648 -> 0:13:40.576 are related to smoking and quitting even  
0:13:40.576 -> 0:13:43.216 after decades of use can significantly  
0:13:43.289 -> 0:13:45.683 reduce your risk of developing lung  
0:13:45.683 -> 0:13:47.661 cancer for lung cancer patients.  
0:13:47.661 -> 0:13:49.566 Clinical trials are currently underway  
0:13:49.566 -> 0:13:51.74 to test innovative new treatments.  
0:13:51.74 -> 0:13:54.746 Advances are being made by utilizing  
0:13:54.746 -> 0:13:56.75 targeted therapies and immunotherapy.

0:13:56.826 -> 0:13:58.884 The battle two trial aims to learn  
0:13:58.884 -> 0:14:01.47 if a drug or combination of drugs  
0:14:01.47 -> 0:14:03.918 based on personal biomarkers can help  
0:14:03.92 -> 0:14:06.846 to control non small cell lung cancer.  
0:14:06.85 -> 0:14:09.65 More information is available  
0:14:09.65 -> 0:14:10.77 at [yalecancercenter.org](http://yalecancercenter.org).  
0:14:10.77 -> 0:14:15.45 You're listening to Connecticut public radio.  
0:14:15.45 -> 0:14:15.83 Welcome  
0:14:15.83 -> 0:14:17.72 back to Yale Cancer Answers.  
0:14:17.72 -> 0:14:19.988 This is doctor Anees Chagpar  
0:14:19.988 -> 0:14:22.365 and I'm joined tonight by my  
0:14:22.365 -> 0:14:24.137 guest doctor Michael Cecchini.  
0:14:24.14 -> 0:14:26.015 We're talking about the treatment  
0:14:26.015 -> 0:14:28.263 of colorectal cancer and Mike right  
0:14:28.263 -> 0:14:30.426 before the break we were talking about  
0:14:30.426 -> 0:14:32.84 the new updated screening guidelines,  
0:14:32.84 -> 0:14:34.348 which now are recommending  
0:14:34.348 -> 0:14:35.856 screening for colorectal cancer  
0:14:35.86 -> 0:14:38.506 going back to the age of 45.  
0:14:38.51 -> 0:14:40.4 One last question with regards  
0:14:40.4 -> 0:14:42.29 to screening, before the break,  
0:14:42.29 -> 0:14:44.175 you had mentioned that there  
0:14:44.175 -> 0:14:45.683 are certain racial groups,  
0:14:45.69 -> 0:14:48.67 for example, African Americans  
0:14:48.67 -> 0:14:52.086 that tend to be diagnosed at a higher frequency,  
0:14:52.09 -> 0:14:54.658 tend to have a worse prognosis  
0:14:54.658 -> 0:14:56.37 than their Caucasian counterparts.  
0:14:56.37 -> 0:14:58.83 So are the screening guidelines any  
0:14:58.83 -> 0:15:00.47 different for African Americans  
0:15:00.531 -> 0:15:01.509 versus Caucasian  
0:15:01.51 -> 0:15:03.222 patients?

0:15:03.222 -> 0:15:04.078 There are slightly different recommendations  
0:15:12.98 -> 0:15:14.936 Just as of yesterday the  
0:15:14.936 -> 0:15:16.57 US preventive taskforce has  
0:15:16.57 -> 0:15:18.453 changed it 45 and above for all  
0:15:18.453 -> 0:15:20.394 adults and so I think there  
0:15:20.394 -> 0:15:22.012 were some high risk groups  
0:15:22.012 -> 0:15:23.372 including African Americans that were  
0:15:23.372 -> 0:15:24.95 recommended 45 and above previously.  
0:15:24.95 -> 0:15:27.35 But now it's just everybody 45.  
0:15:27.73 -> 0:15:29.65 One wonders whether they will,  
0:15:29.65 -> 0:15:32.184 as we were talking about before the  
0:15:32.184 -> 0:15:35.008 break and edging even earlier,  
0:15:35.01 -> 0:15:37.509 whether they would make that now  
0:15:37.509 -> 0:15:40.757 a new age for higher risk groups.  
0:15:40.76 -> 0:15:43.032 But I want to switch gears now and  
0:15:43.032 -> 0:15:45.648 talk a little bit about what happens  
0:15:45.648 -> 0:15:48.222 to patients after they have been  
0:15:48.222 -> 0:15:50.33 diagnosed with colorectal cancer.  
0:15:50.33 -> 0:15:52.604 So somebody goes and they get  
0:15:52.604 -> 0:15:54.54 their colonoscopy and you know,  
0:15:54.54 -> 0:15:56.754 we talked about colonoscopy being a  
0:15:56.754 -> 0:15:58.86 great modality that can actually  
0:15:58.86 -> 0:16:01.326 find premalignant lesions and remove them.  
0:16:01.33 -> 0:16:03.225 But let's suppose on colonoscopy  
0:16:03.225 -> 0:16:05.655 a patient is found to actually  
0:16:05.655 -> 0:16:07.507 have an invasive cancer.  
0:16:07.51 -> 0:16:09.96 Tell us a little bit more about  
0:16:09.96 -> 0:16:11.984 how the treatment really works  
0:16:11.984 -> 0:16:14.234 in terms of managing patients  
0:16:14.234 -> 0:16:16.16 with colorectal cancer.  
0:16:16.16 -> 0:16:18.22 Absolutely so it's a very

0:16:18.22 -> 0:16:19.044 multidisciplinary effort,  
0:16:19.05 -> 0:16:20.678 meaning there's numerous care  
0:16:20.678 -> 0:16:22.713 providers that are involved in  
0:16:22.713 -> 0:16:24.408 navigating somebody through a  
0:16:24.408 -> 0:16:26.044 diagnosis of colorectal cancer.  
0:16:26.05 -> 0:16:28.516 There's myself as a medical oncologist,  
0:16:28.52 -> 0:16:30.58 there are our surgical colleagues.  
0:16:30.58 -> 0:16:33.26 There's our pathologists, radiologists,  
0:16:33.26 -> 0:16:35.27 our radiation oncologists.  
0:16:35.27 -> 0:16:36.94 Our nutritionists, social workers,  
0:16:36.94 -> 0:16:38.3 everybody really involved here,  
0:16:38.3 -> 0:16:40.34 so the first step to really  
0:16:40.406 -> 0:16:42.278 know how we're going to treat  
0:16:42.278 -> 0:16:43.93 somebody's cancer is the stage.  
0:16:43.93 -> 0:16:45.928 So that's not unique to colorectal  
0:16:45.928 -> 0:16:47.92 cancer, it is very common in cancer.  
0:16:47.92 -> 0:16:50.496 The stage will help dictate  
0:16:50.496 -> 0:16:53.518 what the care is going to be.  
0:16:53.518 -> 0:16:56.37 Stage 1,2,3 and four is how we stage  
0:16:56.37 -> 0:16:58.576 the cancer and I could probably spend  
0:16:58.576 -> 0:17:00.574 hours talking about all of this.  
0:17:00.58 -> 0:17:03.037 But stage one is basically a small  
0:17:03.037 -> 0:17:04.481 cancer that's barely invaded  
0:17:04.481 -> 0:17:06.395 into the wall of the colon.  
0:17:06.4 -> 0:17:09.127 If we think of the colon as a tube,  
0:17:09.13 -> 0:17:10.006 it's barely in.  
0:17:10.006 -> 0:17:12.759 It starts on the inner part of that tube.  
0:17:12.76 -> 0:17:14.578 It's barely invaded through the wall,  
0:17:16.7 -> 0:17:19.427 and a tumor like that is just excised by surgery.  
0:17:19.43 -> 0:17:21.638 They may never even see me as a  
0:17:21.638 -> 0:17:22.907 medical oncologist because surgery

0:17:22.907 -> 0:17:25.189 is curative in the majority of cases.  
0:17:25.19 -> 0:17:27.255 A stage two cancer has gone a  
0:17:27.255 -> 0:17:29.128 little bit further into that wall,  
0:17:29.13 -> 0:17:30.936 but hasn't spread to any lymph nodes.  
0:17:30.94 -> 0:17:32.962 Those patients will see a medical  
0:17:32.962 -> 0:17:34.915 oncologist and it  
0:17:34.915 -> 0:17:36.547 will be discussed whether or not  
0:17:36.55 -> 0:17:38.77 they get chemotherapy after surgery to  
0:17:38.77 -> 0:17:40.645 increase their cure rate and eradicate small  
0:17:40.645 -> 0:17:42.315 amounts of possible residual disease  
0:17:42.315 -> 0:17:44.278 based on risk factors.  
0:17:44.28 -> 0:17:45.955 Stage three cancer means it's gone  
0:17:45.955 -> 0:17:47.295 to the lymph nodes,  
0:17:47.3 -> 0:17:49.908 so it's behaving a bit  
0:17:49.908 -> 0:17:51.33 more aggressively so a patient  
0:17:51.33 -> 0:17:53.346 with an invasive mass, a colonoscopy is done.  
0:17:53.35 -> 0:17:54.646 A surgery is done,  
0:17:54.646 -> 0:17:56.266 lymph nodes are removed at  
0:17:56.266 -> 0:17:57.72 the time of surgery  
0:17:57.72 -> 0:17:59.628 in addition to the tumor if  
0:17:59.628 -> 0:18:01.75 there's cancer in the lymph nodes.  
0:18:01.75 -> 0:18:03.766 So if it's a stage three cancer,  
0:18:03.77 -> 0:18:05.594 all of those patients are going  
0:18:05.594 -> 0:18:07.57 to see a medical oncologist.  
0:18:07.57 -> 0:18:08.581 And almost universally,  
0:18:08.581 -> 0:18:10.603 as long as they're healthy afterwards,  
0:18:10.61 -> 0:18:12.602 will get chemotherapy to hopefully increase  
0:18:12.602 -> 0:18:15.01 their care.  
0:18:15.01 -> 0:18:16.358 Like with many other cancers,  
0:18:16.358 -> 0:18:18.043 stage 4 means it's spread more distantly,  
0:18:18.05 -> 0:18:20.325 so cancer that started in the colon



0:18:20.325 -> 0:18:22.444 spread to the liver, the lung,  
0:18:22.444 -> 0:18:24.129 the lining of the abdomen,  
0:18:24.13 -> 0:18:25.82 which we call the peritoneum,  
0:18:25.82 -> 0:18:28.524 would make a cancer stage four.  
0:18:28.53 -> 0:18:30.558 One of those spots would make  
0:18:30.558 -> 0:18:31.91 a cancer stage four,  
0:18:31.91 -> 0:18:34.943 and there still may be a role for surgery.  
0:18:36.98 -> 0:18:38.356 But chemotherapy is generally.  
0:18:38.356 -> 0:18:39.732 Generally, where we will start,  
0:18:39.732 -> 0:18:42.51 we think of it as a systemic disease  
0:18:42.51 -> 0:18:43.782 throughout the body,  
0:18:43.782 -> 0:18:45.69 and chemotherapy works throughout the body.  
0:18:45.69 -> 0:18:47.598 When it's working in those stage  
0:18:47.598 -> 0:18:49.412 four cancers, though, there's  
0:18:49.412 -> 0:18:52.244 a lot that we need to know to  
0:18:52.244 -> 0:18:54.272 personalize the therapy for the cancers.  
0:18:54.28 -> 0:18:56.503 We do a lot of tests in the lab  
0:18:56.503 -> 0:18:58.727 and to characterize the cancer,  
0:18:58.73 -> 0:19:00.956 is it mismatch, repair, deficient or not?  
0:19:00.96 -> 0:19:02.555 Are there mutations in genes  
0:19:02.555 -> 0:19:04.46 called RAFS or not?  
0:19:04.46 -> 0:19:07.313 And they tell us how we tweak the chemo,  
0:19:07.32 -> 0:19:09.07 or maybe even offer immunotherapy  
0:19:09.07 -> 0:19:11.446 to the patients, and then again,  
0:19:11.45 -> 0:19:13.808 we will sometimes consider surgery to  
0:19:13.808 -> 0:19:16.219 remove distant metastases in select cases,  
0:19:16.22 -> 0:19:18.266 and that's why it's so important  
0:19:18.266 -> 0:19:20.979 to have a multi disciplinary team.  
0:19:20.98 -> 0:19:23.116 So a true team involved in  
0:19:23.116 -> 0:19:25.35 the care of these patients,  
0:19:25.35 -> 0:19:28.045 even with stage four disease and all

0:19:28.045 -> 0:19:30.882 of these cases are reviewed at our  
0:19:30.882 -> 0:19:33.282 tumor board with that whole team,  
0:19:33.29 -> 0:19:36.069 I articulate how best  
0:19:36.07 -> 0:19:38.055 to approach somebody's care in  
0:19:38.055 -> 0:19:40.04 terms of these molecular genetics.  
0:19:40.04 -> 0:19:42.02 The RAF mutations,  
0:19:42.02 -> 0:19:43.127 the mismatch repair  
0:19:43.127 -> 0:19:45.341 mutations you mentioned those in terms  
0:19:45.341 -> 0:19:47.98 of tweaking chemotherapy for stage four,  
0:19:47.98 -> 0:19:50.314 are those also used in  
0:19:50.314 -> 0:19:51.87 kind of tailoring therapy  
0:19:51.87 -> 0:19:54.98 for people with earlier stage disease?  
0:19:54.98 -> 0:19:56.925 If I could only know a couple  
0:19:56.925 -> 0:19:58.481 things about the molecular  
0:19:58.481 -> 0:20:00.038 characteristics of somebody's tumor,  
0:20:00.04 -> 0:20:02.756 it would be the mismatch repair status,  
0:20:02.76 -> 0:20:05.286 which is also sometimes called the  
0:20:05.286 -> 0:20:06.97 microsatellite status or their  
0:20:07.042 -> 0:20:09.372 RAF status.  
0:20:09.372 -> 0:20:10.924 So in localized disease,  
0:20:10.93 -> 0:20:13.919 the mismatch repair status is very important.  
0:20:13.92 -> 0:20:16.2 The RAF and the RAF status  
0:20:16.2 -> 0:20:17.72 is not so important,  
0:20:17.72 -> 0:20:20.247 so we often only send the latter  
0:20:20.247 -> 0:20:21.9 component for metastatic disease.  
0:20:21.9 -> 0:20:24.18 But for localized cancer mismatch repair,  
0:20:24.18 -> 0:20:25.684 deficient, or microsatellite instability  
0:20:25.684 -> 0:20:27.564 high cancers generally have  
0:20:27.564 -> 0:20:29.498 a more favorable prognosis,  
0:20:29.5 -> 0:20:31.39 and sometimes we will take that  
0:20:31.39 -> 0:20:33.44 information and say you don't even

0:20:33.44 -> 0:20:34.904 need chemotherapy after surgery  
0:20:34.904 -> 0:20:37.324 because of this  
0:20:37.324 -> 0:20:39.554 finding of mismatch repair deficiency  
0:20:39.554 -> 0:20:40.892 or microsatellite instability  
0:20:40.9 -> 0:20:43.684 and it's less likely to come back  
0:20:43.684 -> 0:20:46.329 and therefore you don't need chemotherapy.  
0:20:46.33 -> 0:20:48.106 There's a lot of other factors  
0:20:48.106 -> 0:20:49.71 that come into play there,  
0:20:49.71 -> 0:20:51.717 so I don't want to say that all mismatch  
0:20:51.717 -> 0:20:53.7 repair division microsatellite instability  
0:20:53.7 -> 0:20:54.928 high tumors don't need  
0:20:54.928 -> 0:20:55.849 chemotherapy after surgery,  
0:20:55.85 -> 0:20:57.38 but it's generally thought to  
0:20:57.38 -> 0:20:58.604 be a good prognosis.  
0:20:58.61 -> 0:21:00.446 And we know from metastatic disease,  
0:21:00.45 -> 0:21:01.985 those tumors are much more  
0:21:01.985 -> 0:21:02.906 sensitive to immunotherapy.  
0:21:02.91 -> 0:21:04.542 Some of the most sensitive cancers  
0:21:04.542 -> 0:21:06.589 that there are in fact to immunotherapy,  
0:21:06.59 -> 0:21:08.16 and it's being investigated whether  
0:21:08.16 -> 0:21:10.07 or not immunotherapy is going to  
0:21:10.07 -> 0:21:11.81 increase cure rates in that population.  
0:21:11.81 -> 0:21:13.652 And we have some of those  
0:21:13.652 -> 0:21:14.88 clinical trials going on.  
0:21:15.19 -> 0:21:17.026 That brings me to the next question,  
0:21:17.03 -> 0:21:19.38 which is about clinical trials.  
0:21:19.38 -> 0:21:21.405 Colorectal cancer has been around  
0:21:21.405 -> 0:21:24.187 for a long time and is one of  
0:21:24.19 -> 0:21:26.801 the leading cancers  
0:21:26.801 -> 0:21:28.669 affecting both men and women,  
0:21:28.67 -> 0:21:30.824 and so presumably there are some

0:21:30.824 -> 0:21:33.087 pretty standard regimens in terms of  
0:21:33.087 -> 0:21:35.373 chemotherapy that we offer these patients.  
0:21:35.38 -> 0:21:37.964 So tell us a little bit about when  
0:21:37.964 -> 0:21:40.6 you offer people a standard regimen,  
0:21:40.6 -> 0:21:42.838 and when you offer them a  
0:21:42.84 -> 0:21:44.935 clinical trial?  
0:21:44.935 -> 0:21:47.819 Clinical trials play a tremendous role in the manage-  
ment  
0:21:47.819 -> 0:21:50.367 of a disease like colorectal cancer.  
0:21:50.37 -> 0:21:52.69 And are really how we move the field  
0:21:52.69 -> 0:21:55.126 forward and we've doubled and tripled the  
0:21:55.126 -> 0:21:57.361 survival rate especially for metastatic  
0:21:57.361 -> 0:21:59.599 disease over the last few decades.  
0:21:59.6 -> 0:22:01.26 And that's because clinical trials  
0:22:01.26 -> 0:22:03.662 brought new agents and drugs and  
0:22:03.662 -> 0:22:06.063 treatment approaches into the fold and the  
0:22:06.063 -> 0:22:08.147 treatments we have for metastatic disease,  
0:22:08.15 -> 0:22:10.112 we use some of them again  
0:22:10.112 -> 0:22:11.92 after surgery we use drugs, and  
0:22:11.92 -> 0:22:14.736 we like our acronyms or abbreviations so we  
0:22:14.736 -> 0:22:18.065 we have a regimen we call folfox which is 5FU,  
0:22:18.07 -> 0:22:19.86 and oxaliplatin and a  
0:22:19.86 -> 0:22:20.934 vitamin called leucovorin.  
0:22:20.94 -> 0:22:23.39 It's really two chemo drugs together and we have  
0:22:23.39 -> 0:22:25.499 another chemo regimen called FOLFIRI.  
0:22:27.772 -> 0:22:30.197 so again two chemo drugs together just a  
0:22:30.197 -> 0:22:32.87 second one instead of the oxaliplatin,  
0:22:32.87 -> 0:22:35.678 and that's really the backbone of our care,  
0:22:35.68 -> 0:22:38.179 and we can usually control a metastatic  
0:22:38.179 -> 0:22:40.315 colorectal cancer patient for years  
0:22:40.315 -> 0:22:41.995 with those two regimens together,

0:22:42 -> 0:22:44.552 but at some point we run out of  
0:22:44.552 -> 0:22:46.21 mileage with those agents,  
0:22:46.21 -> 0:22:46.912 resistance develops,  
0:22:46.912 -> 0:22:48.667 tolerability becomes an issue,  
0:22:48.67 -> 0:22:50.122 something that necessitates us  
0:22:50.122 -> 0:22:51.937 moving on from those regimens.  
0:22:51.94 -> 0:22:53.998 And we really don't have great  
0:22:53.998 -> 0:22:55.027 agents after that,  
0:22:55.03 -> 0:22:57.424 so I'm often thinking about clinical trials,  
0:22:57.43 -> 0:22:59.145 novel clinical trials after those  
0:22:59.145 -> 0:23:00.517 regimens have stopped working,  
0:23:00.52 -> 0:23:03.18 but I am often thinking about clinical  
0:23:03.18 -> 0:23:05.656 trials even initially where those  
0:23:07.052 -> 0:23:09.43 agents will be added on,  
0:23:09.43 -> 0:23:10.79 or different treatment approaches  
0:23:10.79 -> 0:23:13.21 will be added onto those chemo drugs,  
0:23:13.21 -> 0:23:15.256 so they are good chemo backbones.  
0:23:15.26 -> 0:23:17.661 We can do better and we are  
0:23:17.661 -> 0:23:18.69 investigating numerous ways,  
0:23:18.69 -> 0:23:20.748 adding an immunotherapy, new targeted drugs,  
0:23:20.75 -> 0:23:22.988 new chemo drugs to those regimens.  
0:23:22.99 -> 0:23:24.75 But we're also investigating  
0:23:24.75 -> 0:23:26.395 completely new regimens in the  
0:23:26.395 -> 0:23:28.62 3rd and the 4th line setting.  
0:23:28.62 -> 0:23:30.582 There are third and fourth line  
0:23:30.582 -> 0:23:31.89 drugs available for patients  
0:23:31.946 -> 0:23:33.2 with colorectal cancer,  
0:23:33.2 -> 0:23:35.657 and there's a drug called task 102.  
0:23:38.13 -> 0:23:40.65 But the effect of those is marginal  
0:23:40.65 -> 0:23:42.349 compared to those  
0:23:42.35 -> 0:23:44.456 other therapies that I mentioned.

0:23:44.46 -> 0:23:46.91 It sounds like clinical  
0:23:46.91 -> 0:23:49.04 trials have two kind of roles.  
0:23:49.04 -> 0:23:51.574 One is after our standard tried and  
0:23:51.574 -> 0:23:53.46 true regiment have failed and  
0:23:53.46 -> 0:23:55.602 And we're looking for the best thing that might  
0:23:57.836 -> 0:24:00.05 help and move us further afield.  
0:24:00.05 -> 0:24:02.409 And the other is in investigating novel  
0:24:02.409 -> 0:24:04.287 therapies and straight out of the box.  
0:24:04.29 -> 0:24:05.199 Is that right?  
0:24:05.199 -> 0:24:06.108 Yeah, that's  
0:24:06.11 -> 0:24:06.714 definitely right.  
0:24:08.23 -> 0:24:10.054 These treatments like folfox and folfiri  
0:24:10.054 -> 0:24:12.169 have doubled and tripled the survival rate.  
0:24:12.17 -> 0:24:14.586 But we can still do better than that.  
0:24:14.59 -> 0:24:16.718 But they are the standard of care,  
0:24:16.72 -> 0:24:18.526 and since they are so effective,  
0:24:18.53 -> 0:24:20.717 we add on to those and we should add  
0:24:20.717 -> 0:24:23.55 on to those so that patients get the  
0:24:23.55 -> 0:24:25.199 best treatment available to them.  
0:24:25.2 -> 0:24:26.892 When we've moved on to our  
0:24:26.892 -> 0:24:28.839 third and our first fourth line,  
0:24:28.84 -> 0:24:30.868 treatments is task one or two  
0:24:32.59 -> 0:24:33.619 and start chemo pills.  
0:24:33.619 -> 0:24:35.677 There is not a great alternative.  
0:24:35.68 -> 0:24:37.515 They are not tolerated super  
0:24:37.515 -> 0:24:39.738 well and their time  
0:24:39.738 -> 0:24:41.308 with Disease Control is not  
0:24:41.308 -> 0:24:43.57 not as good as we would like,  
0:24:43.57 -> 0:24:45.901 so that is a time that we try a  
0:24:45.901 -> 0:24:48.029 more novel approach generally.  
0:24:49.18 -> 0:24:52.492 So tell us a little bit more about

0:24:52.492 -> 0:24:54.972 your research and some of the  
0:24:54.972 -> 0:24:56.624 things that you're particularly  
0:24:56.63 -> 0:24:59.115 excited about in this field.  
0:24:59.115 -> 0:25:01.605 I guess maybe I'll start by  
0:25:01.605 -> 0:25:04.135 talking about some of the things  
0:25:04.135 -> 0:25:06.15 I'm excited about more broadly,  
0:25:06.15 -> 0:25:09.21 and one area that I think has garnered a lot  
0:25:09.282 -> 0:25:12.396 of attention lately for colorectal cancer  
0:25:12.396 -> 0:25:15.26 is something called circulating tumor DNA,  
0:25:15.26 -> 0:25:17.36 where we can detect minimal  
0:25:17.36 -> 0:25:19.46 amounts of circulating tumor DNA  
0:25:19.46 -> 0:25:22.088 in the bloodstream after a surgery.  
0:25:22.09 -> 0:25:26.474 So, for example, patients with stage two  
0:25:26.474 -> 0:25:29.578 colorectal cancer that happens to have  
0:25:29.58 -> 0:25:31.638 a blood test done that  
0:25:31.638 -> 0:25:33.67 circulating tumor DNA is detected.  
0:25:33.67 -> 0:25:37.366 Now we know that that patient is probably  
0:25:37.366 -> 0:25:41.335 going to relapse if we don't do anything  
0:25:41.34 -> 0:25:41.922 besides observation,  
0:25:41.922 -> 0:25:44.25 so we can use a tool like that  
0:25:44.313 -> 0:25:45.798 to decide who's high risk,  
0:25:45.8 -> 0:25:47.426 who's low risk and that gives  
0:25:47.426 -> 0:25:48.51 us opportunities to intensify  
0:25:48.557 -> 0:25:49.658 and deintensify treatment.  
0:25:49.66 -> 0:25:51.292 So trying to increase cure rates  
0:25:51.292 -> 0:25:53.275 for those that are high risk but  
0:25:53.275 -> 0:25:54.665 also knowing when somebody is  
0:25:54.665 -> 0:25:56.935 going to do well and maybe avoid  
0:25:56.935 -> 0:25:58.263 circumstances of over treatment.  
0:25:58.27 -> 0:26:00.349 So that's something as a field  
0:26:00.35 -> 0:26:01.534 I think we're learning

0:26:01.534 -> 0:26:03.014 how to use these tests.  
0:26:03.02 -> 0:26:05.029 We know they correlate really well with  
0:26:05.029 -> 0:26:07.504 whether or not the cancer is going to come  
0:26:07.504 -> 0:26:09.559 back when you're only doing observation,  
0:26:09.56 -> 0:26:11.653 but we don't know how well it  
0:26:11.653 -> 0:26:13.27 predicts for benefit from chemo  
0:26:13.27 -> 0:26:16.028 and most our studies are ongoing.  
0:26:16.03 -> 0:26:18.328 We have some of those studies  
0:26:18.328 -> 0:26:20.36 ongoing here at Yale.  
0:26:20.36 -> 0:26:22.67 I also have  
0:26:22.67 -> 0:26:24.54 a busy clinical practice and  
0:26:24.54 -> 0:26:26.41 research program studying more novel  
0:26:26.474 -> 0:26:28.258 therapies in colorectal cancer.  
0:26:28.26 -> 0:26:30.702 So we have different types of  
0:26:30.702 -> 0:26:33.039 trials we develop here at Yale.  
0:26:33.04 -> 0:26:35.931 We have trials where we call them  
0:26:35.931 -> 0:26:38.229 industry sponsored trials where we  
0:26:38.23 -> 0:26:40.606 have worked with a company who's  
0:26:40.606 -> 0:26:43.053 developed a drug and opened their  
0:26:43.053 -> 0:26:45.405 trial that they came up with  
0:26:46.634 -> 0:26:49.8 maybe with some input than us from us,  
0:26:49.8 -> 0:26:53.456 but we've had a little bit less  
0:26:53.456 -> 0:26:56.108 involvement, perhaps in a trial like that,  
0:26:56.11 -> 0:26:57.494 and designing the trial,  
0:26:57.494 -> 0:27:00.036 and in analyzing the data so those  
0:27:00.036 -> 0:27:01.604 are industry sponsored  
0:27:01.604 -> 0:27:03.564 trials that we have here.  
0:27:03.57 -> 0:27:06.506 But we also have a robust program of  
0:27:06.506 -> 0:27:08.049 investigator initiated trials here,  
0:27:08.05 -> 0:27:10.898 and I have a couple open and one  
0:27:10.898 -> 0:27:12.9 specifically in that third line,



0:27:12.9 -> 0:27:14.76 colorectal cancer Group, for example.  
0:27:14.76 -> 0:27:17.28 This is a trial where we've come  
0:27:17.28 -> 0:27:18.86 up with the idea,  
0:27:18.86 -> 0:27:21.737 and maybe we've written a grant or  
0:27:21.737 -> 0:27:24.389 we've partnered with a drug company to  
0:27:24.39 -> 0:27:27.25 tell them in a way that we think that  
0:27:27.325 -> 0:27:30.259 we could look at a new subtype of cancer,  
0:27:30.26 -> 0:27:33.536 or a new way to look at  
0:27:33.536 -> 0:27:36.296 their drug to leverage that and  
0:27:36.3 -> 0:27:38 for patients with that disease,  
0:27:38 -> 0:27:40.303 so I have an investigator initiated trial  
0:27:40.303 -> 0:27:42.386 for colorectal cancer that is received  
0:27:42.386 -> 0:27:44.116 two different types of chemotherapy,  
0:27:44.12 -> 0:27:46.84 where we look for a marker called MGMT.  
0:27:46.84 -> 0:27:48.88 So we basically meet a patient,  
0:27:49.879 -> 0:27:51.877 if they are potential candidate we will  
0:27:51.877 -> 0:27:53.98 test their tumor for this marker,  
0:27:53.98 -> 0:27:56.002 and if they have this marker  
0:27:56.002 -> 0:27:58.4 which ends up being about 40% of  
0:27:58.4 -> 0:28:00.44 patients if they have this marker,  
0:28:00.44 -> 0:28:02.384 we will then offer them enrollment  
0:28:02.384 -> 0:28:03.68 in a clinical trial.  
0:28:07.994 -> 0:28:10.49 So we basically identify this subgroup  
0:28:10.544 -> 0:28:12.704 of colorectal cancer and then we had this  
0:28:12.704 -> 0:28:14.806 trial that we came up with here at Yale.  
0:28:14.81 -> 0:28:16.658 And we're also studying the  
0:28:16.658 -> 0:28:18.889 outcome of patients with this to make  
0:28:18.889 -> 0:28:20.767 sure that we're actually helping people,  
0:28:20.77 -> 0:28:22.996 but also studying the science to develop  
0:28:22.996 -> 0:28:24.859 the next generation of trials which,  
0:28:24.86 -> 0:28:27.204 in my opinion will be leveraging the immune

0:28:27.204 -> 0:28:29.74 system to make it work for the majority  
0:28:29.74 -> 0:28:31.45 of patients with colorectal cancer  
0:28:31.45 -> 0:28:33.97 as my colleagues in lung cancer and Melanoma  
0:28:33.97 -> 0:28:36.157 have been doing for the last decade.  
0:28:36.61 -> 0:28:38.89 Doctor Michael Cecchini is an assistant  
0:28:38.89 -> 0:28:40.828 professor of medicine and medical  
0:28:40.828 -> 0:28:43.285 oncology at the Yale School of Medicine.  
0:28:43.29 -> 0:28:44.778 If you have questions,  
0:28:44.778 -> 0:28:46.266 the address is canceranswers@yale.edu  
0:28:46.266 -> 0:28:48.321 and past editions of the program  
0:28:48.321 -> 0:28:50.199 are available in audio and written  
0:28:50.254 -> 0:28:51.82 form at yalecancercenter.org.  
0:28:51.82 -> 0:28:54.556 We hope you'll join us next week to  
0:28:54.556 -> 0:28:57.214 learn more about the fight against  
0:28:57.214 -> 0:29:00.064 cancer here on Connecticut Public Radio.