

# Mayo Clinic Podcast - Dr. Shanda Blackmon - Esophageal cance...

Tue, 3/30 3:28PM 23:05

## SUMMARY KEYWORDS

esophageal cancer, patients, esophagus, endoscopy, cancer, mayo clinic, treatment, people, shanda, symptoms, lining, called, diagnosed, reflux, evaluated, long, cells, surgery, care, signs

## SPEAKERS

Dr. Halena Gazelka, Narrator, Dr. Shanda Blackmon

- N** Narrator 00:01  
Coming up on Mayo Clinic Q&A:
- D** Dr. Shanda Blackmon 00:03  
When you have a diagnosis like esophageal cancer, it's not a small thing. It's your life that you're dealing with. It's life and death with every decision that you make.
- N** Narrator 00:14  
Esophageal cancer is a treatable disease, but it's rarely curable. While early diagnosis and treatment are key to improving your chances of surviving, advancements in treatments and new technologies are helping patients live longer.
- D** Dr. Shanda Blackmon 00:27  
I think our outcomes are excellent, yet we still strive to improve them so that we can move that needle even further in the right direction.



Dr. Halena Gazelka 00:35

Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena Gazelka. One of our goals of the Mayo Clinic Q&A, is to keep you updated on the current treatments of many diseases, and hopefully you and I learn something as we progress. Well, April is Esophageal Cancer Awareness Month. The esophagus is the long hollow tube that extends from your throat to the stomach. When we eat, the esophagus helps move food from the back of the throat to the stomach where it is digested. Interestingly, more men than women develop esophageal cancer, which usually begins in the cells lining the esophagus. Also, esophageal cancer incidence rates vary according to geographic locations in some cases. Well, here to discuss this with us today, is Dr. Shanda Blackmon. She's a thoracic surgeon at Mayo Clinic and is going to share with us how we diagnose and treat esophageal cancer. Thanks for being here today Dr. Blackmon.



Dr. Shanda Blackmon 01:33

Thank you for inviting me. It's a real honor to be a part of your show.



Dr. Halena Gazelka 01:36

Dr. Blackmon, many of our listeners may have never heard of esophageal cancer. How common is it?



Dr. Shanda Blackmon 01:43

Well, it's very uncommon. It's only about 1% of all cancers within the United States. It's much more common in other countries, especially Asian countries. And it depends on which type of cancer you're looking at. There are about 18,000 patients diagnosed every year in the United States. And there are about 16,000 people dying from esophageal cancer every year in the United States. And it's one of the deadliest cancers that we know of.



Dr. Halena Gazelka 02:10

What causes it?



Dr. Shanda Blackmon 02:12

Well, it can be caused, depending on the different type of cancer by different reasons. If it's adenocarcinoma, it's typically caused by constant reflux and acid washing through

and changing the lining of the cells. If it's squamous cell cancer, it's typically higher up in the esophagus, and that comes from a history of smoking, or history of drinking alcohol, but not always associated with each of those things.

**D** Dr. Halena Gazelka 02:39

So, a little bit you addressed this, but who is at risk for developing esophageal cancer?

**D** Dr. Shanda Blackmon 02:45

That's a great question, and we're trying to solve that question right now. There are many different ways that we look at risk for esophageal cancer. Most of the people that present have advanced disease, which means we're not very great at screening it, and we can't screen the whole population. But we think right now the older you are, men are more likely to get it than women, people with a history of really bad reflux or a history of smoking or drinking. All of those people need to be seeing their doctor regularly and getting evaluated.

**D** Dr. Halena Gazelka 03:18

What are the signs and symptoms? How would someone know if they should suspect that they might have esophageal cancer?

**D** Dr. Shanda Blackmon 03:25

Well, there are a variety of signs and symptoms that can come up with people who have esophageal cancer, and unfortunately, a lot of people won't present with signs or symptoms until it's pretty advanced. But if people start having trouble swallowing, which we call dysphasia, then they need to immediately go get checked out. Other signs and symptoms are patients that might have some sudden unexplained unintentional weight loss, or if they have hoarseness, meaning the voice is changing to some degree, or pain in the chest, sometimes pain when they swallow. Patients who vomit blood or have blood in the stool need to be checked out by a provider. And that might be one of the signs or symptoms of esophageal cancer. Patients can also present with a cough, or enlarged lymph nodes, which are the glands in your throat that might get swollen, or fatigue, or abdominal pain. Some of the signs and symptoms might be quite vague, and so in general, if people aren't feeling well, or if they have a family history, they might want to also be going in and getting checked out.

**D** Dr. Halena Gazelka 04:26  
It always surprises me that so many different disease states have many very similar signs and symptoms. And so, I guess that sort of reiterates the importance of receiving regular care to follow up on these things, because there's so many that could be concerning.

**D** Dr. Shanda Blackmon 04:44  
Yeah, and I think it's just important for people once they get into their 40s and 50s, to appoint a regular doctor and go in and routinely get checked, because some of the signs and symptoms are quite subtle, and you don't want to wait until you have advanced disease.

**D** Dr. Halena Gazelka 04:58  
Now supposing they're providing is suspicious, how do you diagnose esophageal cancer?

**D** Dr. Shanda Blackmon 05:04  
Esophageal cancer is diagnosed with endoscopy. So, if someone has endoscopy and they are diagnosed with something called Barrett's, which means they're high risk for developing cancer, they might need to have the endoscopy performed more routinely, or more often, versus someone who just has signs or symptoms of esophageal cancer, or has a long-standing history of reflux, or is a patient cohort that's at high risk. All of the ways that we develop esophageal cancer can be diagnosed with endoscopy. So, that's our first step in the evaluation. However, some places might not have endoscopy readily available. And so, in those circumstances, we also recommend getting a contrast swallow and that's where you swallow some contrast agent and it shows us the inside for any abnormality like a tumor protruding into the inside of the esophagus.

**D** Dr. Halena Gazelka 06:00  
So, can you explain Shanda, when someone goes to get an endoscopy, what should they expect? What is that like?

**D** Dr. Shanda Blackmon 06:07  
So typically, an endoscopy involves getting consent. You go meet with your doctor to be evaluated to make sure you're healthy enough to be slightly sedated. Some people are completely sedated, others are only slightly sedated. You go under either general

anesthesia, which is when you're completely sedated, or partial anesthesia, which is where they just make you sleepy, and typically they lay you on your side on a stretcher and a long scope goes down into your throat into the swallowing tube that's called the esophagus. And they evaluate the stomach and the esophagus together all the way to right where the small bowel joins the end of the stomach where the valve is called the pylorus. And they look at the lining, they look at the presence or absence of a hernia, they look at the sphincter, which is where the bottom of the esophagus joins the proximal or the top part of the stomach. And they look at the lining for any changes that might be signs or symptoms of reflux or irritation, or inflammation.

**D** Dr. Halena Gazelka 07:11

So, it's essentially a camera on the end of a long hose not unlike colonoscopy, which obviously is examining the bowel from the other end of the body, but a similar idea.

**D** Dr. Shanda Blackmon 07:24

Correct. And another way to evaluate patients for esophageal cancer that's currently under investigation here at Mayo Clinic, and at some other institutions in a different form, is by dropping a sponge down the esophagus, and you pull the sponge through and it brings some of those cells out that can then be evaluated to see if you have cancer. The advantage of using this sponge technique is that you don't have to have sedation or endoscopy, and it collects everything that you need. However, some of those technologies are still relatively new and haven't really been tested on large populations like endoscopy has.

**D** Dr. Halena Gazelka 08:00

Supposing that an individual is diagnosed with esophageal cancer, what are the next steps? What is the treatment like?

**D** Dr. Shanda Blackmon 08:06

The treatment for esophageal cancer depends on your stage. So, if you present with very early stage esophageal cancer and even on the continuum, if you have something that's like pre-cancer, much like you're getting your skin evaluated and a dermatologist might burn or zap the skin to prevent it from turning into a cancer, we can now do that on the inside of your esophagus. So, some of our gastroenterologists are specially trained to go into your esophagus and diagnose Barrett's and something called dysplasia. Barrett's is nothing more than the lining of the esophagus is starting to look like the lining of the

stomach. And then dysplasia is nothing more than the cells are starting to look abnormal. And they're starting to look abnormal like they might be heading towards cancer, but they're not quite invasive cancer. And what that means is the endoscopist can go in and burn the inside layer with a balloon that blows up and uses an energy called radio frequency ablation. And that very specific shallow burn, sloughs the lining so that newer healthier lining can grow. And sometimes we think that can result in regression of those cells, which means improvement to prevent the cancer from forming. And that's the earliest type of treatment. The next part is if you have a cancer that's inside the top part of the wall or the mucosa. If you have an early esophageal cancer that's detected, and it's at the most superficial layer of the esophagus, some of our very skilled dedicated endoscopists can go in and merely scoop it out from the inside and prevent you from having to have chemotherapy or radiation therapy or surgery. However, as the cancer is advanced a little bit more, and it's gone very well into the wall, or even into the lymph nodes sometimes you have to get chemotherapy, with or without radiation therapy, and then you're given a four to six-week period of recovery and then you have to have surgery. Fortunately, we've got all new types and treatments. Like chemotherapy, we have new types of immunotherapy, or monoclonal antibodies, and all new types of treatment that might have better success rates. With regard to radiation, we've got proton beam therapy which might be a little bit more exact and have a little bit less collateral damage than the traditional type of radiation that we used to give. And with surgery, we now have minimally invasive surgery, which is a lot less invasive, quicker recovery, lower rate of post thoracotomy pain syndrome, and a lot better quality of life after surgery. So, it depends on the depth and the stage of the tumor, and that tells you what type of treatment you'll be able to get.

D

Dr. Halena Gazelka 11:05

That's all very very interesting. Tell me a little bit about how survival rates are changing with these new types of therapies that you're discussing.

D

Dr. Shanda Blackmon 11:14

Wow. Well in the 1970's, the survival rate was about 5% all comers. Nowadays we've made quite a bit of progress. When I talk to my patients at Mayo Clinic, I often try to encourage them not to go look at survival curves, because what we're looking at historically doesn't look very good compared to how things look today. We've made a lot of progress with chemotherapy, radiation therapy, and in minimally invasive surgery techniques, however we still have a long way to go. So, if you look at a patient who has any type of esophageal cancer, typically those patients are going to have about a 20% survival rate, all comers. However, if you look at the cancer that's only in the esophagus, meaning it hasn't spread

outside the esophagus, those patients have about a 47% chance of being alive at five years. If you look at patients who already have a cancer that spread to the lymph nodes or spread to the area around the esophagus, those patients have about a 25% chance, or a one in four chance of being alive at five years. And then if it's gone outside of the esophagus to distant organs like the liver, or lymph nodes in the pelvis, or lymph nodes really far away from the tumor, or the bone, or the brain, in those cases only about 5% of those patients are expected to be alive at five years. However, I do try to encourage patients not to look at those survival curves, because now with immunotherapy, things are looking better.



Dr. Halena Gazelka 12:49

That's good news, and it sounds like this just reinforces what we said earlier, that it's really important if there are any signs and symptoms that someone go in and be checked, because the earlier the better and those are quite significant differences.



Dr. Shanda Blackmon 13:02

Correct. Yeah huge differences in when you get diagnosed. And so, if you have a history of reflux for five years, I encourage you to go in see your doctor, schedule an endoscopy and get evaluated so that you know if you have Barrett's and you can go on a surveillance program. Most of the patients that know that they have Barrett's and they're under surveillance can get the cancer detected a lot earlier and get treatment on board and avoid sometimes even having to have surgery. Shanda, this is a scary thing for patients and often just seeking care seems overwhelming. How would patients know if they are getting the best care that they could be getting for their diagnosis, and should they seek a second opinion? So, I always encourage people to get a second opinion, and I think the main reason is because when you have a diagnosis like esophageal cancer, it's not a small thing. It's your life that you're dealing with, it's life and death with every decision that you make. And so, I encourage people to get second opinions. I encourage people to advocate for themselves and ask their doctor serious hard questions like, what is my stage of tumor. And don't let somebody lay out a treatment plan until they've done all the appropriate testing, to make sure that you understand what your stage is. And one of the other biggest areas that I think people don't understand, is the difference between going to what we call a high-volume expert center that takes care of patients, versus a low volume place that might only see one or two esophageal cancer patients a year. There are a lot of studies out there that show that if you go to a high-volume center it's not just the surgeon, or the radiation oncologist, or the medical oncologist, it's the actual experience of the center, and the volume that the providers see. But you can have a three times higher chance of dying, if you go to one of those low volume centers. However, the unique thing

about Mayo, which I love, is that we always work with local care centers to help people get the treatments that they can get close to home. If it's appropriate and if we can do it, we try to keep patients at home and only have them come here for things that we offer unique from what they could get at home.

**D** Dr. Halena Gazelka 15:32

I'm so glad that you mentioned that, because I was going to mention that too, how impressed I have been with our surgeons, with our oncologists, with our care teams, that it isn't a matter that you come to Mayo and you're a Mayo patient forever. We want to allow people to have the same treatments closer to home, where they're comfortable, and where they have their support system.

**D** Dr. Shanda Blackmon 15:53

Yeah, one of my special areas of research, and one of my favorite topics is surviving after esophageal cancer. And after running an esophageal cancer support group for eight years, we developed the upper digestive disease app, which is a remote patient monitoring app that follows patients after esophageal cancer. The main goal of that project is to let people go home and be monitored in the convenience of their home, not having to constantly come back, and not having to stay in touch with us and do expensive follow-up visits, but to let them just remotely stay in touch with us. And then only if they really need us do they need to plug back in.

**D** Dr. Halena Gazelka 16:32

Wow, that's just amazing. That's another bit of virtual care that we're hearing about now. I love that.

**D** Dr. Shanda Blackmon 16:40

Yeah, it's nice. I like being able to stay in touch with my patients and know who's doing well, and know who's not doing well, and have the confidence of knowing that I'm staying in touch with more people. Obviously, everyone has limited time. But the most important thing for us is to be there when our patients need us.

**D** Dr. Halena Gazelka 16:58

And how comforting for patients to know that they're being monitored and that they're close, even though they're far away.



D Dr. Shanda Blackmon 17:04  
Right? Yeah.

D Dr. Halena Gazelka 17:04  
Great concept. Shanda, does Mayo Clinic have any clinical trials that are ongoing for patients with esophageal cancer?

D Dr. Shanda Blackmon 17:12  
It does actually. Dr. Harry Yoon, was one of the leaders in the country for the Pembrolizumab trial that looked at treating patients with a novel immune therapy before they got esophagectomy. He's completed that trial. But now we're looking at that same treatment after patients have had surgery, if they have advanced disease, or metastatic disease. We also are still trialing different forms of the app for following patients after surgery. And we have other forms of immunotherapy that we can enroll patients into. Another area that's really exciting is we're looking at what's called circulating DNA, or cell free DNA. And we're looking at that in the bloodstream as an indicator of whether or not the patient has systemic cancer, specifically esophageal cancer. And we're collecting tissue on that as well. We have a lot of clinical trials that Mayo Clinic offers patients with the soft gel cancer and on Clinicaltrials.gov, all of those can be discovered.

D Dr. Halena Gazelka 18:18  
Oh, that's wonderful. So that's a lot of clinical trials with patients involved. What are there, this sounds like a really, really bad type of cancer. There's the survival rates although they are improving are not as good as for some other cancers. Are there other types of research like bench research that doesn't involve patients going on regarding the esophageal cancer?

D Dr. Shanda Blackmon 18:40  
There are actually, and I'm helping with a little bit of that. We have the regenerative medicine group that's looking at regenerating esophagus. We have Dr. Prasad Iyer and Dr. Ken Wang, who are gastroenterologists that are looking at lesser resections for patients so that they don't have to have an esophagectomy. We have all kinds of novel trials that are out there for patients. And typically, almost all of our gastroenterologists that they meet with when they first come in, can help them to weigh the risks and the benefits of each of those trials and see which ones might be great for them.

- D** Dr. Halena Gazelka 19:14  
Shanda, it's so important to us at Mayo Clinic to be certain that all patients are receiving equivalent care. I'm wondering, are there any disparities related to the development or the treatment of esophageal cancer that we should be aware of?
- D** Dr. Shanda Blackmon 19:28  
There are. Specifically, socio-economic level and African-American patients are linked with poorer outcomes. We're diving deeper into those two areas to try to find out is this because they don't have access to care? Is this because they have a different type of cancer phenotype? Or is this the difference because they have maybe not as many resources when they go for that treatment? What we want to find out is how do we give those specific patient populations the best care possible. And we have a lot of research projects that we're doing right now to try to get that patient population the care that they need.
- D** Dr. Halena Gazelka 20:09  
That's wonderful. Do you have any last words for our listeners today before we go?
- D** Dr. Shanda Blackmon 20:14  
Thanks for this opportunity. I just want patients with esophageal cancer to know that we are here for you. We have a support group. We have a wonderful team that's specifically targeted towards taking care of patients with esophageal cancer. We have a multi-disciplinary esophageal tumor board that meets weekly to discuss these complicated cases and make sure that we're giving our patients every opportunity to get the best care in the world. I think our outcomes are excellent, and yet we still strive to improve them so that we can move that needle even further in the right direction. We're always here for our patients, and I hope that they reach out to us, even if they just need a video visit, or a second opinion, or anything that we can do to help them feel comfortable as they go through this journey.
- D** Dr. Halena Gazelka 21:02  
Well thanks so much for sharing. I think I probably speak for both of us when I say that we wanted to bring a message of hope to patients today. And that's one of the very important parts of treating patients at the Mayo Clinic, is bringing hope.

**D** Dr. Shanda Blackmon 21:15  
Yes, that's one of my favorite parts of my practice is I do a lot of complex esophageal reconstruction, and there's nothing better than meeting with a patient face to face who might have gone to another institution and heard that they don't really have a lot of options, and then as you start to visit with the patient, you have this little smile that comes across your face and you start to realize, I think I'm going to be able to help this patient. Maybe they came here for absolutely the right reason, and we have something novel that's just going to help them. And I love having that, you know, knowledge, and being in a facility that has the ability to offer so many different options to so many patients in the right way.

**D** Dr. Halena Gazelka 21:54  
And having the whole team here present and available at all times. It's just amazing isn't it?

**D** Dr. Shanda Blackmon 22:00  
Yeah, I feel like such a better doctor having this huge team around me that's so capable, it's great.

**D** Dr. Halena Gazelka 22:07  
Thank you so much for being here today Shanda.

**D** Dr. Shanda Blackmon 22:09  
Thank you. Have a wonderful day.

**D** Dr. Halena Gazelka 22:12  
Thank you. April is esophageal cancer awareness month. Dr. Shanda Blackmon, a thoracic surgeon at Mayo Clinic, has been sharing with us today about esophageal cancer, its diagnosis, and its treatment. I hope that you'll learned something today. I know that I did. We wish each of you a very wonderful day.

**N** Narrator 22:30  
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