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Welcome to Yale Cancer Answers with doctors Anees Chagpar and Steven Gore. Yale Cancer Answers features the latest information on cancer care by welcoming oncologists and specialists who are on the forefront of the battle to fight cancer. This week, it is a conversation about cancer prevention with Dr. Beth Jones and Jose DeJesus. Dr. Jones is a Research Scientist and Lecturer in Epidemiology at the Yale School of Public Health where Jose DeJesus is a Community Health Educator. Dr. Chagpar is a Professor of Surgery at the Yale School Medicine.

Beth, maybe we will start with you. Tell us a little bit about what it is that you do and a little bit about cancer prevention because a lot of people out there are very scared about the whole topic of cancer and may or may not be aware that there are many things that you can do to actually prevent the disease.

I am trained as a cancer epidemiologist, but I have always worked on issues of addressing cancer disparity. How cancer plays out differently across different groups. And that work as well as the work of a lot of other scientists and community folks and people who run programs really informs a lot of our activities. Right now, we are currently involved in rolling out programs to inform people about how they can prevent cancer, how they can stay healthy, how they can take care of their families, keep their families healthy as well as the importance of cancer screening exams.

And Jose, you are out there in the community, tell us a little bit more about what you do.

I have an awesome job. I get to talk to folks and give them some great information on getting screened and cancer prevention. We do that in a variety of ways. We do that at health fairs, we also do presentations at local businesses and non-governmental agencies. We also have different types of free screening events out in the community. So, my job is really to take that information out to those pockets in the community where we know there are some disparities or we know that the screening rates are a little bit lower, so we want to impact those rates and bring that information to the folks.

Tell us a little bit more, Beth, about screening and prevention. I mean, if you get screened, does that mean that you won’t get cancer? Tell us the difference between primary and secondary prevention.

Primary prevention or just preventing cancer really are things that people can do to avoid ever being diagnosed with a cancer. And those fit into the categories of healthy lifestyle, sort of certainly the biggest factor that one can do to avoid a cancer diagnosis, not just lung cancer, is to
avoid tobacco and also to exercise regularly, to eat nutritionally, to maintain a healthy way and things like that. And the difference when we are talking about cancer screening and particularly cancer screening exams, these are tests that have been shown when they are conducted in large groups of the population that they actually can prevent mortality from that cancer. The idea here is that we screen people who do not have any symptoms at all for that particular cancer and there are different tests that depends on which cancer site we are targeting, but the point is to find a cancer which is just beginning to grow, it is at an early stage and in that way, it is much more easily treated, the treatment is usually less invasive and then the outcomes are much better.

Jose, tell us a little bit more about some of these cancer screenings that you talk to people about.

Well, first, it is important to know that most of the screenings, they probably start around age 40. I tell folks if you are 40 and over, I want to talk to you. And I think that is a great opportunity when folks turn 40 to start talking to their doctor about what is going to be appropriate for them. But them main cancers that we try to get folks to screen for are for women - breast, men - prostate, and both women and men - colorectal and lung cancer. Those are the big ones in our area that we try to effect and the screening tests now, some of them are a lot simpler than they used to be.

Lets take each of those big four and maybe we will touch on some others as well and talk about the screening that is recommended. Beth, what about for women in terms of screening for breast cancer, there has been a lot of controversy in terms of what is appropriate. What do you tell folks?

Well, we actually follow guidelines which are approved the US Preventive Services Taskforce as well as other professional groups. Generally what we recommend is that somebody not be screened before the age of 40 and to have their first screening exam, a mammography exam, before they turn 50. And the idea is that then they should be talking to their doctor about the time range when they should actually undergo screening, that is for an average-risk woman. So, if their risk is actually a bit higher, they would want to be talking with their physician to know about the best time and then that would also determine whether they had annual screening exams, one every year or they could go every 2 years.

And how long do you tell them to keep screening? Forever and ever amen or is there an endpoint at which you would say “you know what, at this point you really don’t need to have a mammogram anymore.”

Again, I think that is between a woman and her physician. I think a general guideline is generally at least until age 74, but after that it really depends on the woman’s risk, her individual risk as well as her health status and her priorities. And I think the importance of that shared decision making or informed decision making for all of the cancers that we talk about cannot be overstated, it is really critical that while we give recommendations to
the general public, and certainly Jose and our team are out in the community offering recommendations, we always stress the importance of talking to one’s physician.

Great. Jose, the second one that you mentioned in that kind of big four was prostate cancer. What do you tell men in terms of prostate cancer, especially when there are all kinds of stuff about prostate cancers often being indolent, what are the current recommendations that you talk to them about for screening for prostate cancer?

Well, again we always stress that you want to have that conversation with your physician and with all other cancer screenings, your family history is very important in making those decisions. But I try to tell the guys at 40, you should start having that conversation with your doctor. The current screening guidelines I believe for an average-risk male is to start at 50 with the PSA and a DRE, the digital rectal exam, and the PSA is a blood test. But if you are African-American or if you are from the African diaspora and you have family history of cancer, you might want to talk to your doctor and might want to start at age 40 or 45. So, again, that is a conversation that you are having with your urologist, with your primary care physician to find out exactly when and for how long you should test for prostate. And again, there is the stigma of the DRE that a lot of guys, especially tough guys think, my God, it is going to be uncomfortable, and I tell folks that 5 seconds of being uncomfortable can save your life.

And we could make that same comment about women in mammography and lot of women are actually fearful that mammograms are going to be painful and sometimes they are not the most comfortable thing at times, but it is again a very short-lived discomfort and the payoff is certainly well worth it.

I think traditionally, particularly here in Connecticut, colonoscopy was the standard of care and a colonoscopy is an exam where it requires anaesthesia and generally it is started around age 50 and if there were no serious findings, it only has to be repeated in about 10 years. There are huge advantages to that. But more recently and sort of collectively across the United States, we realized that a lot of folks just are not getting colonoscopy. Sometimes, someone cannot have anestheisa or it is just not the right exam for them. So, very recently at a national level, we are also now promoting and here in Connecticut we promote both either colonoscopy or annual tests, the test for fecal occult blood. It is a blood test, actually Jose can even speak to those better than I can because he is giving the instructions out in the community, but this is a test that can be done in your home, very simple, it is a mailed
packet into a lab. The one disadvantage there is that it really does need to be
done annually to have the same impact as a colonoscopy. So, the thinking here
is that there is not one test that is necessarily better than the other, but for
those people who would not be tested, we certainly now have this other option.

It is a home stool test and I think for folks that are
fearful of the prep, that is the biggest drawback to the community when they
really do not know how colonoscopy works and the prep work too, and they
hear stories from their neighbors or their family members, so I think for folks
that is the biggest barrier to get a colonoscopy, so this is just another option
that you should be talking to your physician with, they call them FIT kits, and
see if it is an appropriate test for you. The disadvantage again as Beth said is
that you have to do it every year, and again having that consistency in some
pockets of our population can become problematic, where as the gold standard
which is the colonoscopy, you have got to remember the doc is already there
and if there is something there that he needs to biopsy or something like that,
he can do that right there in real time and you can get better information on
what is going on. So, not to say that one is better than the other but they are
just different, but if they are applied at the right intervals and obviously having
that dialogue with your doctor, then both should be fine.

And Jose the last of those big four that mentioned was
lung cancer. Tell us a little bit more about lung cancer screening.

Lung cancer screening involves, I would not say a rigorous
equation to find out if you are appropriate or not, and by that, I mean the pack-
year history that us folks out in the community always struggle with how to
make sure that the pack-year history is appropriate for folks to be screened,
and again that conversation also you should be having with your physician, but
it is a very simple low-dose chest x-ray.

Actually a CAT scan.

And it is pretty much painless and you get the results fairly quickly.

Yeah. But you have to have been a smoker in order to be
screened for lung cancer is that right?

Yes, that is correct. I do not know if they are other
environmental issues, but by and large the standard is that you have to be
either a current or prior smoker.

And then, there are some variations on that, which is, Jose
alluded to, sometimes difficult even for physicians to have the time to document
this information in the medical record, but it is incredibly important that it is
documented so when we say a 30-pack-year history, that would be smoking 1
pack a day for 30 years, but you can also achieve that if you have smoked 2
packs a day for 15 years. And the other thing is even for people who are former
smokers, if it has been less than 15 years since they stopped smoking and they
were smoking a lot at that time, they are still eligible for screening.

Well this is all really great information. We are going to
take a short break for a medical minute, but please stay tuned to learn more
about cancer prevention with my guests Dr. Beth Jones and Jose DeJesus.

This is a medical minute about survivorship. Completing
treatment for cancer is a very exciting milestone, but cancer and its treatment
can be a life-changing experience. For cancer survivors, the return to normal ac-
tivities and relationships can be difficult and some survivors face long-term side
effects resulting from their treatment, including heart problems, osteoporosis,
fertility issues and an increased risk of second cancer. Resources are available
to help keep cancer survivors well and focused on healthy living. More infor-
mation is available at YaleCancerCenter.org. You are listening to Connecticut
Public Radio.

Welcome back to Yale Cancer Answers. This is Dr. Anees
Chagpar and I am joined tonight by my guest Dr. Beth Jones and Jose DeJesus.
We are talking about cancer prevention, and right before the break, Beth talked
to us a little bit about differences between primary prevention, which is doing
different things that keep you healthy and prevent you from getting a cancer
diagnosis in the first place, not smoking, maintaining a healthy body weight,
exercising, eating nutritionally, drinking alcohol in moderation or abstaining,
all of those things can reduce your risk of ever getting cancer to begin with.
But then, we really started talking about secondary prevention or screening
tests helping us to find those cancers really early and prevent cancer related
death. We talked about breast cancer, prostate cancer, colon cancer and lung
cancer, and Jose I thought we might get into a few of the other cancers that we
did not mention before the break. Things like cervical cancer. What do you tell
cruek in terms of screening for cervical cancer?

We have a program that offers that to the women here in
the Greater New Haven area as also in the state of Connecticut, and we tell folks
again that is a conversation that you have to start having with your physician
as to when to start screening. I believe the screening test is a Pap test and it
is a very simple test and that is the kind of conversation that you just start
having with your physician at what age Beth?

I believe 18 or 21. When a woman is sexually active I think
that is when we really should probably be talking about it with our physicians.

Yeah, a gynecologist or primary care physician.

And Beth, talking about cervical cancer, while a Pap
test is great in terms of screening, we actually do have primary prevention for
cervical cancer right?

It is amazing. We have the HPV vaccine. We now know
that nearly all cervical cancers are associated with HPV, human papillomavirus.
And this is sexually transmitted and there is a vaccine and as you may recall, this was initially rolled out sort of targeting younger girls primarily. I think we recommend beginning around age 9 and that is a conversation again between parents and their pediatricians, but when girls are fairly young, we were promoting vaccine; however, there is now data also showing that we should be rolling that out for young boys too and I think that is a real opportunity here in terms of Connecticut, we have fairly high HPV vaccinations, at least the first one. There is a series of three, original vaccine as well as two boosters, but I think our opportunity here here is to really make sure that young men, young boys are also vaccinated.

And why is that? Because if HPV prevents cervical cancer, they do not have a cervix, what is it prevent in boys?

Well, in boys it actually can prevent cancer, penile cancer, cancer of the penis as well as anal cancer and the other certainly maybe adolescent boys are not thinking of it just then, but as they grow up, they will want to be protecting their partners as well. So, it is certainly as an epidemiologist, we see this is as key to controlling HPV infection rates and ultimately these other cancers. The other thing I would say is that we have actually, in Connecticut, we have been promoting HPV vaccines, there are a lot of programs that have been promoting this for some time and our vaccination rates are higher than they are in some places, and we now have only 125 cervical cancer cases per year, and I think that is a real measure of our success.

Yeah. The other thing in men is that HPV vaccine can reduce head and neck cancers. So, Jose, in terms of head and neck cancer, aside from primary prevention, what do we do in terms of secondary prevention, are there certain people who are particularly at risk of head and neck cancers and how should they get screened?

Like we have said before - chewing tobacco, smoking tobacco products that really accelerates your risk, also limiting your alcohol consumption would also lower that risk, but I think there are also occupational hazards to some folks that are in construction, guys that are welders and stuff like that, there are some occupational hazards to head and neck cancers also.

And so, what do you recommend for people who are at risk of head and neck cancers, people who may chew tobacco, who may chew betel nut, various cultures have certain products that predispose to head and neck cancers, is it possible for them to get screened, like with an inspection of their head and neck, their mouth, their oropharynx and so on, what do you recommend for that?

There are free head and neck cancer screenings throughout the whole country. There are the head and cancer lines that promote free screenings and it is really a catchy term, it is a 5-minute checkup from the neck up, and literally you have either an ENT or oral surgeon or a dentist do it and I tell folks, it is a good opportunity every 6 months when you go see your dentist.
to make sure they are checking for those things. And basically, it is a visual inspection of the nose, the mouth, the ears, the glands. They feel the glands around your neck, they look at your skin, so a lot of the folks that have been targeted for follow-up with these free head and neck screenings were folks that had some kind of basal or something on their nose, on their ears or something like that that they did not know that they had cancer and it was able to be picked up and taken care of at an early stage. So, again, it is a visual screening that can be done by any ENT, dentists, oral surgeon, those kind of people.

Alright. You mentioned skin cancers, and Beth, while we talk about basal cancers and squamous cancers, being relatively common, one of the most feared skin cancers is melanoma. Is there a way to prevent melanoma, the #1 in terms of primary prevention and #2, what about screening for melanoma in terms of secondary prevention?

So, in terms of avoiding melanoma, some of it actually is family history, but what we know about melanomas, is that an awful lot of it is driven by sun exposure. So, it is generally recommended that one protect themselves and avoid sun in the middle of the day when it is hottest and then when they are out in the sun to cover up as much as possible, and it is important to the people to cover their heads because especially if you have lighter colored hair and not much hair on top, one is certainly exposed to the sun in that way. In terms of screening, so, as with head and neck cancer, skin cancer screening is not one of the officially recommended screening exams, and yet there have been a lot of studies that have shown that visual inspection is effective in picking up those cancers. And I think many people do advocate skin cancer screening, and again it is another visual inspection, it is not invasive, to do it effectively or to have an effective exam, one needs to disrobe to let the inspector look at your body from top to bottom and they often go through your hair to look for lesions that you may not be able to see. Some people have advocated having a partner, not of all of us can see our backs, and so having someone else just keep an eye on things and we do offer those kinds of exams in Connecticut and it is good to take advantage of them.

Just to go back to primary prevention, Jose, there has been a lot of talk about tanning and melanoma, can you talk to us a little bit about that. I mean do we have to avoid tanning beds in order to reduce our risk of melanoma?

Most definitely. I think any dermatologist, we work with a good dermatology team here and that is the recommendation, to avoid tanning beds because it increases again the rays that will ultimately if you are going to have that type of cancer, will ultimately effect that. So, like Beth said, you want to limit your exposure to sun and artificial sunlight and protect yourself and limit your exposure.

Beth, what do we tell people about sunscreen. Is it effective, is it not effective, is there a certain SPF that we should be looking at? Should
we wear it only in the summer, do we need to wear it in the winter, do we need to reapply? I mean there are all of these questions in terms of sunscreen and reducing your risk of melanoma.

0:24:05 –> 0:25:15 Well, sunscreen certainly does protect people from sun exposure, but it has to be applied liberally. I think most of the data show that most individuals do not apply it often enough and thick enough. The sunscreens that seem to be really protective, kind of work almost in a mechanical way, they have probably some zinc oxide in them, but I think the other message that is really important for us to communicate is that, sometimes cancers are very slow growing, but the exposures that ultimately may lead to a cancer as an adult can happen very early in life, so it is really important for parents, families to take care of their youngest kids, make sure they are completely covered up in the sun. Really, children do not need any sun exposure and certainly for teenagers particularly those who go to tanning salons and things like that, that can be quite dangerous and in fact, in Connecticut, there was a law in which anyone under the age of 18 is not supposed to be receiving tanning in tanning beds.

0:25:15 –> 0:25:43.6 You know, now that you are mentioning teenagers, it brings up the concept of the other teenage epidemic that people talk about which is vaping. We talked about quitting cigarette smoking as being a primary preventative for many cancers, not just lung cancer, but what are the data, Jose, on vaping? What do you tell people out in the community who say, but it is not a cigarette?

0:25:43.6 –> 0:26:44.9 But again, it is a tobacco product. Most of these products that we are seeing on the news, they are either tobacco or THC or CBD products that we are seeing. And the fact is that there are not enough studies out there to find a definitive answer, but as we have seen in recent months, cases of young folks with this horrible lung disease caused directly by vaping. So, I think in a very short order, we are going to see more studies and we are going to see more hard science to find out the causation, but there definitely are risk factors if you are vaping, and the flavors and the compounds, they do not know what you are inhaling, so I tell folks it is not a smart move to do any kind of vaping. The science is not out there yet, so you know I think most young folks they are treating their bodies as being guinea pigs for these companies to find out what is going on because they do not in fact know what is in their own products.

0:26:44.9 –> 0:27:59.3 Just to build on Jose’s comment, I would say that while we do know from even different types of cigarettes that, as I said, cancer takes a long time, so we do not know whether or not vaping is going to result in lung cancers or other types of cancers, but it certainly would seem that bringing anything foreign and breathing it deeply into one’s lungs, it certainly might set the stage for a cancer down the way, and thinking as an epidemiologist, one of the things that is of concern is what we may be seeing in this lung disease which is being manifested in fairly young people is just the tip of the iceberg, I mean we do not know what the ultimate effects are, so just to echo, I think most public health practitioners would recommend that we really be careful about vaping.
I know there was some confusion because it was thought as a possible means for people who were trying to quit smoking, and I think the jury is still out on that, but again it is the difference between doing something in moderation and with a goal of quitting eventually versus starting a new habit and that is what we have been really concerned about in young people.

Yeah, and so, it certainly makes sense to reduce your risk factors as much as possible. The other thing is that there are some risk factors that we cannot do anything about, like our family history. So, what do you tell people in terms of that, Jose, when they are in the community, just in our last minute here if they tell you that they have got a family history of cancer, what advice do you give to them?

Well, definitely speak to your physician, but also there are genetic tests now. There is genetic screening that can isolate and find out what exactly are your risk factors in different cancers and you might be able to tailor your lifestyle in order to try to avoid these and also increase your screening to be vigilant, so lord forbid if it does happen, we can catch it early at stage I, stage II and then your options for treatment are sometimes infinite.

Jose DeJesus is a Community Health Educator and Dr. Beth Jones is a Research Scientist at the Yale School of Public Health. If you have questions, the address is canceranswers@yale.edu and past editions of the program are available in audio and written form at YaleCancerCenter.org. We hope you will join us next week to learn more about the fight against cancer here on Connecticut Public Radio.