Funding for Yale Cancer Answers is provided by Smilow Cancer Hospital. Welcome to Yale Cancer Answers with your host doctor Anees Chagpar. 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’s a conversation about improving HPV vaccine rates among youths with doctor Sangini Sheth. Doctor Sheth is an associate professor of obstetrics, gynecology and reproductive sciences at the Yale School of Medicine where Doctor Chagpar is a professor of surgical oncology. Maybe we can start off by telling us a little bit more about yourself and what you do. Absolutely, I’m a general obstetrician gynecologist, but my clinical work and my research work really focuses on cervical cancer prevention, I take care of women who have abnormal cervical cancer screening, so abnormal pap smear results and do the additional evaluation that’s needed to make sure that
they stay healthy and also spend a lot of time thinking about how we can improve HPV immunization. So that’s a lot to kind of unpack, but let’s start with understanding a little bit more about cervical cancer. So how common is cervical cancer in and who gets it? In the United States, we see about 13,000 cases of cervical cancer diagnosed every year, and about 4000 women die from cervical cancer. Here in the US each year in terms of who gets it. You know anyone that has a cervix can get cervical cancer the most common ages of diagnosis are women in their 30s, forties, 50s. Fortunately, we can diagnose pre cancer of the cervix and that is what allows us to try to help prevent cancer from progressing to cancer. So that brings us to the next question and. The other aspect of cervical cancer care that you mentioned that you spend a lot of time and energy on which is cervical cancer prevention. Now you had talked about two separate issues here and I want to kind of dive into each so one is HPV vaccination and the other is cervical
cancer screening with PAP tests. So tell us a little bit more about how each of those two things. Works and what the difference is in terms of how they prevent cancer. Absolutely. Well, we can start with HPV vaccination, which we think of as being primary prevention. It’s the 1st. First element we have to use to prevent infection from developing in the 1st place with a virus called human papilloma virus, that’s the HPV. That’s a very common virus, and so by being vaccinated and especially vaccinated early in adolescence, we’re talking about ages 9-10, eleven. Ideally, we can prevent the infections from happening in the 1st place and the reason we want to prevent the infection is because virtually all cervical cancer is caused by infection from the HPV virus. When that infection stays around for a long time and and isn’t cleared by the body. So the vaccine at a young age really is our first go to for prevention. So let’s just hit that point home a little bit. So what you’re basically
telling us is that nearly. All cervical cancers are caused by an infection of a virus and we have safe, effective vaccines that prevent you from getting infected and therefore prevent you from getting cervical cancer.

Exactly, and I want to emphasize the safe and effective aspects of the HPV vaccine, which we have had available in some form or another in the United States for over 15 years now, so we have. Millions of doses worth of experience of giving the vaccine, and in doing so safely and in exactly it will prevent the infection from the varying virus that can cause cervical cancer.

So a couple more questions on that. First, is it covered by insurance or is it free? Are there any cost issues that are potential barriers to getting the HPV vaccine? The vaccine is covered by insurance. For anyone that it is recommended for, which is any 192. Through age 45 it should be covered by insurance and many places have programs available to give it up to uninsured individuals as well. And so you know the other question
that people may have is you know, particularly in light of a lot that we’re learning about vaccines and viruses. Given the current pandemic is. You know, does this vaccine actually prevent you from getting infected? Or does it just make the cervical cancer not something that is as lethal? So when we think about the COVID vaccine, many of us, no friends or family who have been fully vaccinated but can still get infected and still test positive. But we know that the disease is not as bad in those people, whereas with the HPV vaccine, is my understanding correct that if you’re actually vaccinated, you won’t? Get cervical cancer, at least not the HPV induced cervical cancer, right? So the current vaccine we have available protects against 9 strains of HPV. Seven of those strains are known to cause cervical and other cancers, and two of those strains are known to cause genital warts and so by the vaccine protects from infection of those nine strains. It wouldn’t protect against infection from other types of HPV, and if somebody already has one strain of HPV at the time that they get the vaccine,
it wouldn’t protect them from what they already had, but it is different in that it protects from infection and because of that we see rates of genital warts going down and we see rates of the pre cancer of the cervix that I mentioned going down. And we’re starting to see rates of cervical cancer going down as well. And the other point that I think you made and that I just want to amplify is that if you get the vaccine and you’re already infected, it won’t help you against what you’re already infected against. And that’s why it’s so important to get vaccinated early when people are thinking about vaccination during childhood. eleven years old, one of the good reasons to get vaccinated early is that, Yep, exactly it is. Our immune system responds better when we’re younger. We’re going to be protected against more of the strains when we’re younger, and then a little added benefit is that if we start the vaccine prior to the age of 15. It is only two doses as
opposed to three doses. If it is started later. You know sangini, I have to ask you about the elephant in the room, which is the concern that some people have. That vaccinating children leads to autism. Can you put that kind of myth to bed absolutely? So the published studies that raise those questions turned out to be falsified. They were never accurate to begin with and certainly for HPV there is no data. To bear that out for this vaccine, or for any other vaccine. OK, so for anybody out there who is concerned about autism in children getting vaccines. Just to reiterate, there is no evidence for that. And when you think about the benefit that these vaccines have in terms of preventing your children from getting not just cervical cancer but sangini, am I right that it also protects against oral pharyngeal cancers? A whole myriad of different cancers that are all related to HPV, exactly. we say 6 cancers total that can all be caused by HPV. That this vaccine can help prevent
and so for everybody who has always been praying for something that will prevent cancer, here you have it and such a good reason to get your children vaccinated. But let me ask you this sangini ’cause I know that people are going to ask. When you say the vast majority of cancers are caused by HPV, are there some that aren’t? So is it possible that even if you are vaccinated, you could still get cervical cancer but not from HPV? And if So what are the risk factors aside from HPV that cause cervical cancer and how frequent is that there are very rare types of cervical cancers that are not caused by HPV. Again, I want to stress the rare one, especially when it comes to cervical cancer. There. And we’re seeing less and less of this, but there used to be exposure to a chemical called desd that increase the risk of cervical cancer and so. Children of women who are exposed to that. Our would be at increased risk of a non HP form of cancer for example, but that chemical stopped being used along time ago and so we
see less and less of that.

And so let me ask you this question.

If everybody in the entire world was to get vaccinated against HPV.

Would we essentially be putting you out of a job?

Yeah, that’s that,

and that would be perfectly fine with me.

But but yes, you know,

we’re actually in a very exciting time.

Right now. I’m globally.

The world is focused on the elimination of cervical cancer and the fact that we can even have that conversation is exciting.

And the reason we can have that conversation is because of a combination of having the this vaccine as well as the screening that you’ve mentioned already.

yeah. I mean to even talk about eradication of cancer, is is just it?

It really is exciting and and really jubilant. Let me ask you this,

if you’ve been vaccinated against HPV,

do you still need to get Pap smears?

Do you still need to get screened? Yes,

right now the screening still is a really important component.

Partly it’s because the vaccine right now protects against nine strains.
As I said, seven of which cause cervical cancer that doesn’t cover every strain. Although it covers about 85 to 90% of what can cause cervical cancer. But overtime, if we have very very high rates of vaccination, then one day we may see exactly how we need to screen and who needs to get screen changed. But for right now you’re recommending screening for everybody. Is that right? Regardless of vaccination history.

So please stay tuned. Funding for Yale Cancer answers comes from Smilow Cancer Hospital. Where a wide spectrum of advanced strategies for the diagnosis and treatment of gynecological cancers
Breast cancer is one of the most common cancers in women in Connecticut alone, approximately 3500 women will be diagnosed with breast cancer this year, but there is hope, thanks to earlier detection, noninvasive treatments and the development of novel therapies to fight breast cancer. Women should schedule a baseline mammogram beginning at age 40 or earlier if they have risk factors associated with the disease. With screening early detection and a healthy lifestyle, breast cancer can be defeated. Clinical trials are currently underway at federally designated comprehensive cancer centers such as Yale Cancer Center and Smilow Cancer Hospital to make innovative new treatments available to patients. Digital breast Tomosynthesis or 3D mammography is also transforming breast cancer screening by significantly reducing unnecessary procedures while picking up more cancers. More information is available at yalecancercenter.org.
Welcome back to Yale Cancer Answers. This is doctor Anees Chagpar and I’m joined tonight by my guest Doctor Sangini Sheth. We’re talking about cervical cancer and especially prevention now. Right before the break we talked a lot about what you called primary prevention and that was HPV vaccination and the potential that vaccination could actually eradicate cervical cancer and maybe a whole bunch of other cancers as well. Which is completely exciting, but you did mention something else which is screening or secondary prevention. Can you tell us a little bit more about that? Absolutely, and this is probably what most people are very familiar with, which is screening with a Pap test which we have been using since the 1950s. As really the mainstay of cervical cancer prevention and the need for screening hasn’t gone away, and it remains very important. What’s changed about screening is that now we’re relying more on HPV testing. As the only form of screening or
So tell us a little bit more about that.

So many of us are familiar with Pap smears, so let’s break it down a little bit.

We should start cervical cancer screening for people at age 21.

So anyone with a cervix needs to start screening at age 21.

That screening, at least until the age of 25, should be in the form of a pap smear.

Starting at age 25, there are some options for how to do this screening.

We can stay with the Pap smear and we or we can start adding in HPV testing.

The reason that HPV testing makes sense is because as we talked about earlier, that virus is what we know causes almost all cervical cancer and by testing for the presence or absence of the virus we can start to identify who is at risk there is some.

Some newer recommendations that we’re not really starting to see broadly in clinical practice, but we will probably start to incorporate more and more often and that is a role for doing only HPV testing down the road.
The purpose of the Pap smear is to find pre-cervical cancer cells that we can potentially eliminate before they actually progress into invasive cervical cancer. Is that right exactly? And so if you were just to get tested with for HPV, you know that you're at risk. But how does that help you to find those pre-cervical cancer cells? By knowing who is positive for HPV and then having a little bit more information about which type of HPV, there's hundreds of types out there, but we're really focused on a handful that cause most cervical cancer. It helps guide us to who needs further evaluation in the same way that an abnormal Pap test would tell us, and more and more science is telling us that the HPV test alone may be as good if not better than the Pap test. So tell us a little bit more about that HPV test. Is that a blood test? Is that a cervical kind of swab test like a PAP except testing for HPV? How exactly does that happen? Yeah, so from a patient’s perspective,
what they would experience when they go to the doctor is not that different. When if they were getting only a path, it still involves a gynecology exam with a speculum, and the specimen is collected at the cervix, and then HPV testing is done on that, which also allows for. If in certain conditions, if a pop. Task then needs to be performed later on. It can be done on that same collection. The patient doesn’t need to go back for another exam. So basically what you’re saying is that either way you’re going to have a gynecological exam and kind of a specimen that’s taken from the cervix, which is either stained to see whether there’s precancerous cells there, or more frequently now. It sounds like gets tested. For HPV and so. If that test is positive for HPV, what’s the next step? This is where a conversation with the physician becomes really important. In some cases, the recommendation may be needing to do a repeat sooner, so maybe a year later instead of a few years later.
But in other situations, the next step is going to be the recommendation for a procedure called Kolpa Skippy, which is a Big fancy word to mean looking at the cervix in the office with a microscope to get a better look at the cervix and take some very small biopsies. Again in the office.

And if you had an abnormal pap smear, would that be the next step as well? Exactly the next steps. The options of next steps don’t really change either.

It would have been following up with another test sooner, meaning about a year or so. The latter it is done in the office. It doesn’t require taking the day off.

Is this something that you need to kind of stay off work from? Is it really painful or is this really too bad and you can get back to living your life.

Is this something that you need to kind of stay off work from? Is it really painful or is this really too bad and you can get back to living your life.

The latter it is done in the office. It doesn’t require taking the day off from work beyond the time of the exam. There’s not a recovery period.
It’s much more like a blood test. Than than some then some larger invasive test. OK, so you go in for your regular gynecological exam. Your doctor does either a pap smear or more likely an HPV test if it comes back positive, you have a colposcopy you go in. They take a few samples. How long does it take to get those results back? About 10 days OK and what are they looking for? Are they looking for precancerous cells? Exactly? They’re looking for precancerous cells. We tend to grade pre cancer in at three different levels, a level 1, the level 2 or Level 3. Anything beyond a Level 3 is means invasive cervical cancer, and then depending on the level, what what might be recommended? Next varies. So tell us more about that. So for a level one often referred in medical terms as CIN one or low grade dysplasia. The risk of future cervical cancer is still very low,
and so we’re going to observe.
Follow that. Observe that with.
Repeat testing and one year.
When we get to level 2,
the risk of cervical cancer
in the future long term,
if left untreated, starts to increase,
but the chances of it resolving or going away is also there,
and so that’s where there’s a
we factor in a patient’s age.
What they may be thinking in terms of future fertility and childbearing,
and make a recommendation.
Accordingly,
as to whether we recommend treatment with something called a LEAP procedure,
which we can talk about in a second or following very closely,
meaning every six months with a repeat colonoscopy for up to two years to see if it does in fact resolve,
or if there’s signs that it’s starting to worsen,
then say, you know we should just move forward with treatment and then by the time it gets to that Level 3 or a CIN 3.
We say we just need to proceed with treatment without leep procedure.
So tell us more about this leep
procedure. In some offices, the LEEP procedure can also be done in the office, it can be very well tolerated with just some local anesthetic like lidocaine, similar to what someone might receive for a dental procedure, or it can be done in the operating room as the same day surgery, and it involves is removing a small portion of the cervix where the abnormal cells are to get rid of those cells. And then that’s it. Then you’re done. And then you’ve reduced your risk back down to baseline. So then we still do surveillance, meaning we follow patients every 6 to 12 months with PAP tests to make sure they’ve truly reduced their risk. The risk never goes completely to baseline, but it drops a lot, and the longer somebody goes with having normal or negative testing, it will likely they are to have the issue come back. So you know the next question is really something I think. As I mentioned before the break, a lot of people have gotten a
Lot of information and some misinformation from the experience that we’ve had during the pandemic and one of the things that we’ve recognized during the pandemic is not only the importance of vaccines, but also the fact that there are treatments available that may treat. That there’s some viral illness called COVID, and so I guess one of the questions that people might be wondering is if HPV causes cervical cancer aside from the HPV vaccine that we’ve talked about, that is so effective. Are there kind of entry retrovirals or monoclonal antibodies or something against HPV that are effective in the treatment of cervical cancer? That’s a great question. Unfortunately, right now the answer is that there’s no other medical treatments for to get rid of HPV infection there is. That’s an area that’s gets being studied a lot, but we don’t have anything available to us right now which only further underscores. Why the vaccine and the screening. The things we do have available are really important.
0:27:03.543 –> 0:27:05.61 is you know smoking is.
0:27:05.61 –> 0:27:07.488 The risk factor for cervical cancer
0:27:07.488 –> 0:27:09.99 as we know it is for many other
0:27:09.99 –> 0:27:11.59 cancers and health conditions,
0:27:11.59 –> 0:27:15.246 and so that is something that people can.
0:27:15.25 –> 0:27:17.362 Focus on to reduce their risk
0:27:17.362 –> 0:27:19.46 even more is not smoking.
0:27:20.96 –> 0:27:23.914 And it sounds like you know if
0:27:23.914 –> 0:27:27.1 if you were to get vaccinated.
0:27:27.1 –> 0:27:30.159 You reduce your risk of developing this.
0:27:30.16 –> 0:27:32.92 You still need to get these HPV tests
0:27:32.92 –> 0:27:36.224 and so do you still get them every three
0:27:36.224 –> 0:27:39.38 years as you would otherwise. Once
0:27:39.39 –> 0:27:42.168 someone is age 30 or older,
0:27:42.17 –> 0:27:44.998 if they have a negative HPV test,
0:27:45 –> 0:27:46.825 those screening can be spaced
0:27:46.825 –> 0:27:48.65 out to every five years.
0:27:48.65 –> 0:27:50.426 That’s one of the other beauties
0:27:50.426 –> 0:27:52.354 of HPV testing is ’cause it’s
0:27:52.354 –> 0:27:54.049 testing for the risk factor,
0:27:54.05 –> 0:27:57.59 and so a negative test space is you out more.
0:27:58.37 –> 0:28:00.596 So the last question I have for
0:28:00.596 –> 0:28:03.802 you is when do people stop getting
0:28:03.802 –> 0:28:05.69 screened for cervical cancer?
0:28:05.69 –> 0:28:07.238 Is there an upper age limit?
0:28:07.71 –> 0:28:10.178 If someone has had
0:28:10.178 –> 0:28:12.029 adequate negative testing,
0:28:12.03 –> 0:28:15.032 we can stop starting at age 65.
0:28:15.032 –> 0:28:19.666 Sometimes it’s hard to have that information,
0:28:19.67 –> 0:28:22.239 and so often we can’t stop somebody
0:28:22.239 –> 0:28:25.168 at that age and the other situation
0:28:25.168 –> 0:28:27.79 would be if someone had surgical
0:28:30.9 –> 0:28:33.252 Dr Sangini Sheth is an associate
0:28:33.252 –> 0:28:34.428 professor of obstetrics,
0:28:34.43 –> 0:28:36.142 gynecology and reproductive sciences
0:28:36.142 –> 0:28:38.71 at the Yale School of Medicine.
0:28:38.71 –> 0:28:40.798 If you have questions,
0:28:40.798 –> 0:28:42.824 the address is canceranswers@yale.edu
0:28:42.824 –> 0:28:46.002 and past editions of the program are
0:28:46.002 –> 0:28:48.549 available in audio and written format.
0:28:48.55 –> 0:28:48.874 Gailcancercenter.org,
0:28:48.874 –> 0:28:51.466 we hope you’ll join us next week to
0:28:51.466 –> 0:28:53.441 learn more about the fight against
0:28:53.441 –> 0:28:55.394 cancer here on Connecticut Public radio
0:28:55.394 –> 0:28:57.212 funding for Yale Cancer Answers is
0:28:57.212 –> 0:29:00 provided by Smilow Cancer Hospital.