Funding for Yale Cancer Answers is provided by Smilow Cancer Hospital.

Welcome to Yale Cancer Answers with 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 Melanoma and other skin cancers with doctor Christine Ko. Doctor Ko is a professor of dermatology and pathology at the Yale School of Medicine.
Where Doctor Chagpar is a professor of surgical oncology.

So Christine, maybe we can start off by you telling us a little bit more about yourself and what it is you do. Yes, I’m a dermatologist and dermatopathologist, so a lot of people might understand what a dermatologist is. But just in case, a dermatologist examines patients skin, hair, and nails. And a dermatopathologist is someone who looks at tissue, so the tissue from your body and your scalp and your nails.
sculpt, hair, nails, under the microscope. So if you’ve ever gone to a doctor and had a piece of your skin taken off, which is called a biopsy, and had that sent to a laboratory, and then you get a report back, that report was created by a dermatopathologist or sometimes a pathologist without specialized expertise in the skin. But those are the two main things that I do. So you do both.

You’re a dermatologist and a dermatopathologist, is that right?
That’s fantastic.

So tell us a bit more about skin cancers. I mean, it seems like you do skin cancer all the time and we’re now celebrating Skin Cancer Awareness Month. Talk a little bit about what that landscape kind of looks like in terms of how common are skin cancers. What’s the most common type of skin cancer we see and how is that diagnosed and treated? Yes. So skin cancer is really important because one in five Americans will have a skin cancer by the time they’re 70. So that’s 20%. And so in a nuclear family that may typically be that one of those
NOTE Confidence: 0.939718945454545
00:02:21.790 --> 00:02:23.590 people will have a skin cancer.
NOTE Confidence: 0.939718945454545
00:02:23.590 --> 00:02:25.744 The most common type of skin
NOTE Confidence: 0.939718945454545
00:02:25.744 --> 00:02:27.990 cancer is basal cell carcinoma.
NOTE Confidence: 0.939718945454545
00:02:27.990 --> 00:02:29.950 And I know that’s a lot of words.
NOTE Confidence: 0.939718945454545
00:02:29.950 --> 00:02:30.706 It’s 3 words.
NOTE Confidence: 0.939718945454545
00:02:30.706 --> 00:02:32.815 But I abbreviate it to my patients and
NOTE Confidence: 0.939718945454545
00:02:32.815 --> 00:02:34.567 we abbreviate it among doctors too.
NOTE Confidence: 0.939718945454545
00:02:34.570 --> 00:02:38.688 We just call it B like boy, and 2 C’s, BCC.
NOTE Confidence: 0.939718945454545
00:02:38.688 --> 00:02:40.921 And so you can call it that
NOTE Confidence: 0.939718945454545
00:02:40.921 --> 00:02:42.610 even as a patient, BCC.
NOTE Confidence: 0.939718945454545
00:02:42.610 --> 00:02:45.298 And so that’s BCC is the most
NOTE Confidence: 0.939718945454545
00:02:45.298 --> 00:02:47.800 common skin cancer for Americans,
NOTE Confidence: 0.939718945454545
00:02:47.800 --> 00:02:49.825 especially lighter or
NOTE Confidence: 0.939718945454545
00:02:49.825 --> 00:02:51.850 fairer skinned Americans.
NOTE Confidence: 0.939718945454545
00:02:51.850 --> 00:02:54.030 And that usually presents,
NOTE Confidence: 0.939718945454545
as we call it, pearly.

It might look a little shiny or that kind of oyster like Translucence,

if you think of shellfish with sort of blood vessels like red

And one thing that I often tell my patients is that it can bleed relatively easily.

Like you’re just sort of washing your face or it gets brushed with your clothing

or something and it bleeds a tiny bit or sometimes a lot.

So that’s the most common skin cancer.

The one cancer that of the skin that a lot of people are
more familiar with is Melanoma. And I think that’s because of really good skin cancer campaigns. And people know that it’s often a dark spot and it might be changing or it might be a little irregular in shape. And that also I think people are aware of because it can really affect even younger individuals,

in their 20s and above. So it can affect all ages and it can be deadly. So I think for good reason there have been awareness campaigns and people are becoming more and
more familiar with Melanoma.

And so let’s talk a little bit about each of those in turn, since that’s the most deadly.

Tell us a bit more about what are the risk factors for developing Melanoma,

is there a screening protocol that people should follow,

who should follow it and so on?

Yes. So Melanoma is one of the most deadly skin cancers. There are others that are much more rare like Merkel cell carcinoma, so I won’t talk about those.
But Melanoma skin cancer screening programs, the general recommendation is for each individual person to look at your skin to do a self skin exam, just like women and men are told to do breast exams on themselves. And so a skin exam actually I tell my patients, is relatively easy once you get used to it. And all you really have to do is ideally have a full length mirror but a waist up one will do if that’s all you have. And when you come out of the shower or bath, maybe choose the 1st of the month or the last of the month or
the 15th or whatever day works for you.

And ideally, once a month,

just look at your skin, all of it,

including the genital area.

It’s a little harder for women,

but we can take a mirror and look

at the genital area as well and

get used to what spots you really have.

Some people have very few,

Some people have a lot and just

get used to it and anything that

looks a little weird to you,

ask your doctor about it.

So that’s a big component.

I think I advocate that

people do self skin exams.
The other thing you can do is you can go to your doctor or your dermatologist and have the physician do a skin exam in which ideally they would look at every single part of your body. So I will examine under the hair, if I can do it, I will tell people to enlist the hairdresser’s help if they go to a hairdresser or barber. For people that have a good healthy amount of hair, it can be hard to look in between all of that hair.
and it’s easier when it’s wet.

So I’ll ask people if they do go to a Barber or hairdresser if they ever notice anything, ask them to take a photo, kind of have a general sense of where it is, and they can even upload that photo to me in an electronic medical record. And so then ideally the physician will look under the hair, in between the hair, the rest of the body, the general nails, bottoms of the feet, so the socks and shoes come off as well.

Thank you for that really thorough description because I think that well many of us may have heard,
We should look at our skin. We don’t really think about some of those other areas. Taking a mirror and looking at the genital area is something that a lot of people may not think about, especially because so much of us think about skin cancers and Melanoma as being related to sun exposure. So in that area, if you haven’t gone skinny dipping for a while, it generally isn’t exposed to sunlight, but is it still at risk for Melanoma? Yes, absolutely. I’m glad that you made that comment.
because often my patients and friends, family who talk to me about skin and skin cancer and how and when they should be looking at their own skin, they often say, but I don’t go to nude beaches or I don’t go skinny dipping. And absolutely it’s a myth and that misconception comes from partial truth, which is often the case. Ultraviolet light, sunlight, is a major contributor to skin cancer and that’s a major reason why fairer skin or lighter skin, especially skin types that
burn and virtually don’t tan,
they burn and then they go
back to the fair skin that they
had before the burn and they
don’t really become significantly
darker or tan in any way.
That’s the highest risk skin type
for skin cancer because there’s
essentially no melanin pigment.
Melanin is the
Pigment in the skin that
creates color that can create a tan and
with virtually no protection from melanin
you are at highest risk for skin
cancer compared to skin that’s has
more melanin in it, but ultraviolet light is not the only risk factor and another risk is for example human papilloma virus and I think that can make sense. The way I often translate it to patients is you know that cervical cancer or a lot of people understand that and they know about vaccination of younger kids and even up to age 45 against HPV virus to prevent cervical cancer as well as other especially genital cancers and oral cancers that are related to HPV virus. But it’s same for the skin. And so that genital area or the
sort of near genital area, a risk factor is human papilloma virus. And so that can be a reason why you may have never gone to a nude beach, but you can have skin cancer in that area as well. So does HPV vaccine protect you against skin cancers in that area? Yes, I think it can. And so one thing for example is that transplant patients who are immunosuppressed because, you know, to help them not reject the transplanted organ,
they are at higher risk of skin cancer
as well as other cancers due to that
suppression of the immune system that’s appropriate to keep the transplanted organ doing well.

But especially patients with sort of darker, higher skin types, they have higher risk of skin cancer in those sort of more sun protected areas and it is thought to be because of human papilloma virus.

And there are efforts to see if vaccination against HPV can reduce skin cancers in that population.

HPV induced skin cancers should be
prevented as well from the HPV vaccine.

Interesting. So you mentioned that people with darker skin with more melanin are more likely to get these HPV type skin cancers.

Do we see other differences based on race or skin color in terms of how skin cancers present?

Yes, that’s a great question. I’m not sure that they’re more susceptible to HPV induced cancers if they have darker skin or you know higher type skin.

But just that since they have fewer skin cancers in sun exposed areas, that is an important...
place to check for higher and darker skin types including mine.

So but what I would say is, that there are major differences and so another major difference is that higher or darker skin types and I say higher because we kind of have a Fitzpatrick skin color scale which kind of gives you a number for the skin color, the skin type that you have and lightest or fairest is close to 0 and then the higher skin type is 6 it goes up to six is darker skin,
the darkest that has the most melanin in it. And it's also based on how your skin reacts to sunlight. 

So if you basically burn and hardly ever tan, you're a one. And if you essentially never burn, but you do get a little darker from the sun that's a six and in the middle 3-4, it's like you generally tan but you can burn. And so that's the scale that I'm talking about and why I'll say higher skin types.
And so if you have higher skin types, we’ll think like 4-5 and six, you tend to get Melanoma for example under your nails more so than if you have lower skin types or on the bottoms of the feet or on the palms or you know for example in that genital area as we talked about.

So I really emphasize to my patients with higher skin types to definitely look in those areas as well. And so I think that sort of myth or misconception that it’s sun exposed areas may also contribute exposed areas may also contribute to the statistics that we know that patients with
higher skin types often have their skin cancers not often, but maybe can have for sure their skin cancers detected later than fair skin types. And I think it might be because of that myth or misconception that people don’t think you can have a skin cancer under your nail or on the bottom of your feet, or the genital perigenital area. Yeah, I was going to ask you that question in terms of the fact that we simply don’t
think to check in those areas. So that may contribute to these being picked up later. We are going to continue this very interesting conversation right after we take a short break for a medical minute. Please stay tuned to learn more about the care of patients with Melanoma and other skin cancers in honor of Melanoma and skin cancer awareness Month with my guest Doctor Christine Ko. Funding for Yale Cancer Answers comes from Smilow Cancer Hospital.
NOTE Confidence: 0.902940025
00:14:10.990 --> 00:14:13.162 treat, and care for patients with
NOTE Confidence: 0.902940025
00:14:13.162 --> 00:14:15.190 Melanoma and other skin cancers.
NOTE Confidence: 0.902940025
00:14:15.190 --> 00:14:19.270 Smilowcancerhospital.org.
NOTE Confidence: 0.902940025
00:14:19.270 --> 00:14:21.075 It’s estimated that over 240,000
NOTE Confidence: 0.902940025
00:14:21.075 --> 00:14:23.843 men in the US will be diagnosed
NOTE Confidence: 0.902940025
00:14:23.843 --> 00:14:26.068 with prostate cancer this year,
NOTE Confidence: 0.902940025
00:14:26.070 --> 00:14:28.608 with over 3000 new cases being
NOTE Confidence: 0.902940025
00:14:28.608 --> 00:14:30.300 identified here in Connecticut.
NOTE Confidence: 0.902940025
00:14:30.300 --> 00:14:32.292 One in eight American men will
NOTE Confidence: 0.902940025
00:14:32.292 --> 00:14:33.620 develop prostate cancer in
NOTE Confidence: 0.902940025
00:14:33.684 --> 00:14:35.259 the course of his lifetime.
NOTE Confidence: 0.902940025
00:14:35.260 --> 00:14:37.312 Major advances in the detection and
NOTE Confidence: 0.902940025
00:14:37.312 --> 00:14:39.049 treatment of prostate cancer have
NOTE Confidence: 0.902940025
00:14:39.049 --> 00:14:40.289 dramatically decreased the number
NOTE Confidence: 0.902940025
00:14:40.289 --> 00:14:42.540 of men who die from the disease.
NOTE Confidence: 0.902940025

25
Screening can be performed quickly and easily in a physician’s office using two simple tests, a physical exam and a blood test.

Clinical trials are currently underway at federally designated Comprehensive Cancer centers such as Yale Cancer Center and Smilow Cancer Hospital, where doctors are also using the Artemis machine, which enables targeted biopsies to be performed.

More information is available at yalecancercenter.org.

You’re listening to Connecticut Public Radio. Welcome.
NOTE Confidence: 0.94629164
00:15:13.570 --> 00:15:15.330 back to Yale Cancer Answers.
NOTE Confidence: 0.94629164
00:15:15.330 --> 00:15:17.010 This is Doctor Anees Chagpar,
NOTE Confidence: 0.94629164
00:15:17.010 --> 00:15:19.285 and I’m joined tonight by my guest,
NOTE Confidence: 0.94629164
00:15:19.290 --> 00:15:20.484 Doctor Christine Ko.
NOTE Confidence: 0.94629164
00:15:20.484 --> 00:15:23.698 We’re talking about the care of patients with
NOTE Confidence: 0.94629164
00:15:23.698 --> 00:15:26.578 Melanoma and other skin cancers in honor of
NOTE Confidence: 0.94629164
00:15:26.578 --> 00:15:29.026 Melanoma and Skin Cancer Awareness Month.
NOTE Confidence: 0.94629164
00:15:29.030 --> 00:15:34.302 Now, right before the break, Christine,
NOTE Confidence: 0.94629164
00:15:34.302 --> 00:15:36.390 you were mentioning that some people,
NOTE Confidence: 0.94629164
00:15:36.390 --> 00:15:38.210 particularly those who
NOTE Confidence: 0.94629164
00:15:38.210 --> 00:15:42.670 have higher skin types,
NOTE Confidence: 0.94629164
00:15:42.670 --> 00:15:44.986 that is to say darker skin with more melanin,
NOTE Confidence: 0.94629164
00:15:44.990 --> 00:15:48.470 but may have proportionately more in
NOTE Confidence: 0.94629164
00:15:48.470 --> 00:15:51.250 places that people often don’t look.
NOTE Confidence: 0.94629164
So under the nails,
the bottom of the feet,
the genital areas.
Non skin exposed areas that
still can get skin cancers.
And so really important for people to
look because one of the very important
points that I think you made right
as we were going to break was that
these can be found at a later stage.
And so the question that
then leads into is
can you talk a little bit more
about the treatment algorithms
for treating Melanoma?
Stage is something that we’ll use to
refer to how advanced a cancer is. And really the goal of I think physicians, dermatologists, anyone who deals with cancer is to detect it as early as possible and so that you have early stage cancer, people might be more familiar with breast cancer. But same thing applies to Melanoma or other cancers. And stage one cancer or even to stage zero is the best to have rather than stage 4 which means that you have cancer that has spread and so Melanoma
00:17:04.475 --> 00:17:07.480 can definitely be stage 4, stage 3,
NOTE Confidence: 0.91826305
00:17:07.480 --> 00:17:09.820 these higher stages that suggest that
NOTE Confidence: 0.91826305
00:17:09.820 --> 00:17:12.548 you’re going to have a worse prognosis
NOTE Confidence: 0.91826305
00:17:12.548 --> 00:17:14.428 meaning that cancer really
NOTE Confidence: 0.91826305
00:17:14.503 --> 00:17:16.946 might affect the course of your life.
NOTE Confidence: 0.91826305
00:17:16.950 --> 00:17:20.412 And so ideally when we catch skin cancer
NOTE Confidence: 0.91826305
00:17:20.412 --> 00:17:22.267 including Melanoma at stage zero,
NOTE Confidence: 0.91826305
00:17:22.270 --> 00:17:24.190 stage 1 or even stage two,
NOTE Confidence: 0.91826305
00:17:24.190 --> 00:17:26.750 we can cure the patient.
NOTE Confidence: 0.91826305
00:17:26.750 --> 00:17:30.870 Usually the best way is just to cut it out.
NOTE Confidence: 0.91826305
00:17:30.870 --> 00:17:33.784 And so it sort of
NOTE Confidence: 0.91826305
00:17:33.784 --> 00:17:35.663 comes down to math, right?
NOTE Confidence: 0.91826305
00:17:35.663 --> 00:17:38.628 If you imagine something smaller,
NOTE Confidence: 0.91826305
00:17:38.630 --> 00:17:40.166 it’s much easier to cut it
NOTE Confidence: 0.91826305
00:17:40.166 --> 00:17:41.589 out no matter where it is,
NOTE Confidence: 0.91826305
00:17:41.590 --> 00:17:43.907 even if it’s in a sensitive area.
Like the genital area and the bigger it is, the harder it is to cut that larger thing out. So excision or cutting something out is the main way we treat things and it works often very well and many, many people have a cure. And so I’ll often tell people that, for example BCC, the basal cell carcinoma that we mentioned in the first part, that often is cured very easily, relatively easily compared to other skin cancers with a simple excision. And people do very well. And so it’s the best cancer to
have is what I’ll tell patients

if you have to have one.

Melanoma often can also be cured with excision.

Other ways especially for higher stages is newer modalities,

there’s been an explosion, a really wonderful explosion in cancer treatment for all cancers, but also including Melanoma.

And we used to not have great treatments for advanced stage Melanoma,

stage 3 or stage 4.

But increasingly we have new
treatments including something called BRAF inhibitor treatment, also MECH inhibitor treatment. And they all have fancy names but the important thing to remember is that increasingly with help of researchers and scientists and physicians who dedicate their time to research as well in laboratories that there are molecular alterations, there’s alterations on that inside cell level that are detected. And so for Melanoma, an example is a BRAF mutation. BRAF is a particular gene in our genetic code that can
be changed in skin cancer,

in Melanoma and a drug targets that particular BRAF mutation.

And so we have these advances that can do wonders even with stage 4 with metastatic Melanoma. And so I would just say work carefully and closely with your oncologist and you’ll see that oftentimes there can be really great treatments.

So you know, when you talk about these fancy drugs that are inhibitors of various mutations, it certainly sounds a lot like
the precision medicine that we've talked about on this show previously for other cancers. Can you tell us a little bit more about how common these mutations are in Melanoma because it's still the perception of many that Melanoma is the most deadly skin cancer. But if the majority of these have a targetable mutation and if those drugs that are inhibitors of those targetable mutations are very effective, one can imagine that it might not actually be as deadly as some think. Absolutely. And that’s why I said
there's this wonderful explosion of new treatments because we are seeing that.

When I started out, and even probably for a good half of my career as a dermatologist, if someone was diagnosed with advanced Melanoma, that was pretty much a fatal diagnosis. A really difficult conversation to have with that patient about what was sort of in store in terms of that cancer.

There were treatments, say like interferon alpha. But they didn't work well and in the vast majority of patients.
So now what we’re seeing is with that personalized medicine, absolutely your cancer, your Melanoma can be sequenced and even just stained. So now for that BRAF gene for example, we have an immunohistochemical stain which just means that your pathologist or dramatopathologist can stain the tissue with a particular antibody and just see if the tissue lights up a different color showing that antibody, that protein, is stained. And so then that would suggest that personalized treatment with a
BRAF inhibitor would work versus if your tissue doesn’t stain, it wouldn’t work. So we can get more and more precise and personalized for the best treatment. Really stunning curves in science journals that will show survival curves and they’re called waterfall plots. It’s kind of a pretty fancy term, but it really shows that survival has really changed with newer medicines like that. And I just want to again emphasize though that early detection is still better because what happens with some of these medicines,
for example, BRAF inhibitor medicine it’s tricky and it’s growing fast because it’s out of control, right?
That’s what cancer is, uncontrolled growth and it can bypass, it can start to bypass around that treatment. So the earlier we can detect it, the fewer cells of cancer that there are, there’s less chance of that kind of resistance to treatment developing. Most melanomas have these mutations such that they are targetable or such that they need to be treated with more generalized therapies like
chemotherapy or immunotherapy, yes.

So I would say the majority, maybe 60% plus of melanomas can have a targetable BRAF mutation.

Studies showed relatively early on that treatment with a BRAF inhibitor alone resistance would often develop within less than a year’s time in patients.

So now immunotherapy and adding on other medicines on top of a BRAF inhibitor is commonly used and is very effective and can prevent that kind of resistance from forming, absolutely.

And so how many of these patients
who have a BRAF mutation who are treated with targeted therapies then relapse and I mean do we see you mentioned that if they relapse, they generally relapse within a year but do many of them never relapse, I mean is this truly curative treatment? Yeah, there are definitely success stories where there’s a cure. Some patients do need to stay on that immunotherapy that inhibitor, but it can keep the cancer in check basically. So yes, there are cures, close to being cures or sort of control of the disease,
Yes, and they’re stunning. Other patients may not have as good a response rate and I would say it is still to me also part of personalized medicine entails that your response becomes what it is for you. So there are statistics, but good careful follow up and follow up of any scans if you have them. That kind of periodic monitoring is probably at least right now still always important. And when you mention that some patients need to take immunotherapy.
to kind of keep this cancer under control
given orally and how long do patients need to be on those therapies?
Yes, immunotherapy.
There are things like PD1 inhibitors which are used for other cancers as well.
So people may be familiar with them in other cancer contexts.
And they’re generally infusions, yes.
So you would still go and it would be infused through your vein.
Getting back to where we started this conversation, you know,
we talked to at the top of the show about the spectrum of cancers and you mentioned that the majority of cancers are actually basal cell cancers. And many of us may not talk a lot about basal cell cancers because they generally have a really good prognosis. Is that right? Yes. Basal cell cancer especially when detected early, it’s less than you know say a centimeter, it’s highly curable with excision. Then they don’t require any further treatment? Generally not.
And so how can you kind of guide our audience when we're doing those very thorough skin exams once a month that you had mentioned in the first half of the show, what should we be looking for in terms of a basal cell versus a squamous cell versus a Melanoma? And when should we really be going to our doctor and saying, hey, look at this because, many of us will have little spots, maybe a freckle or two. And we really don’t want to bother our doctor if we don’t think it’s
00:27:24.441 --> 00:27:26.116 anything to be concerned about.

00:27:26.120 --> 00:27:28.040 But at the same time,

00:27:28.040 --> 00:27:30.968 we want to be sure that we’re detecting

00:27:30.968 --> 00:27:33.438 anything that might be a cancer early.

00:27:33.440 --> 00:27:35.195 So can you kind of give us some tips?

00:27:36.080 --> 00:27:38.212 It’s interesting because Melanoma,

00:27:38.212 --> 00:27:41.573 which people are more aware, most aware of,

00:27:41.573 --> 00:27:43.899 it seems like when I talk to my patients

00:27:43.900 --> 00:27:45.258 it’s great that they’re aware of that,

00:27:45.260 --> 00:27:48.764 but in the sense that Melanoma often

00:27:48.764 --> 00:27:52.152 looks very different than other skin cancers,

00:27:52.152 --> 00:27:53.814 especially BCC, basal cell carcinoma,

00:27:53.814 --> 00:27:55.482 which is the most common as

00:27:55.482 --> 00:27:56.780 we’ve been talking about.

00:27:56.780 --> 00:27:58.420 And so basal cell carcinoma,
what you want to look for that pink to sort of translucent to sometimes dark, it can sometimes be Gray or black, especially in patients with higher skin types. That 4-5 or six Fitzpatrick scale, it can be Gray. So not everything that’s dark and irregular is Melanoma. Sometimes it is BCC basal cell carcinoma. So a general rule of thumb that I’ll tell patients is let me know about, let your dermatologist know your physician know about anything that looks weird to you.
Doctor Christine Ko is a professor of dermatology and pathology at the Yale School of Medicine. If you have questions, the address is Cancer Answers at Yale dot Edu, and past editions of the program are available in audio and written form at yalecancercenter.org. We hope you’ll join us next week to learn more about the fight against cancer here on Connecticut Public Radio. Funding for Yale Cancer Answers is provided by Smilow Cancer Hospital.