WEBVTT

 $00:00:00.000 \longrightarrow 00:00:02.178$ Funding for Yale Cancer Answers is

NOTE Confidence: 0.922052363636364

 $00{:}00{:}02.178 \dashrightarrow 00{:}00{:}04.240$ provided by Smilow Cancer Hospital.

NOTE Confidence: 0.874204

00:00:06.600 --> 00:00:08.755 Welcome to Yale Cancer Answers

NOTE Confidence: 0.874204

 $00:00:08.755 \longrightarrow 00:00:10.479$ with Doctor Anees Chappar.

NOTE Confidence: 0.874204

 $00:00:10.480 \longrightarrow 00:00:12.315$ Yale Cancer Answers features the

NOTE Confidence: 0.874204

 $00:00:12.315 \longrightarrow 00:00:14.150$ latest information on cancer care

NOTE Confidence: 0.874204

00:00:14.212 --> 00:00:15.660 by welcoming oncologists and

NOTE Confidence: 0.874204

 $00:00:15.660 \longrightarrow 00:00:17.832$ specialists who are on the forefront

NOTE Confidence: 0.874204

 $00:00:17.889 \longrightarrow 00:00:19.557$ of the battle to fight cancer.

NOTE Confidence: 0.874204

 $00{:}00{:}19.560 \dashrightarrow 00{:}00{:}21.310$ This week it's a conversation

NOTE Confidence: 0.874204

 $00:00:21.310 \longrightarrow 00:00:23.060$ about Melanoma and other skin

NOTE Confidence: 0.874204

 $00{:}00{:}23.121 \dashrightarrow 00{:}00{:}25.076$ cancers with doctor Christine Ko.

NOTE Confidence: 0.874204

 $00{:}00{:}25.080 \dashrightarrow 00{:}00{:}27.024$ Doctor Ko is a professor of

NOTE Confidence: 0.874204

 $00:00:27.024 \longrightarrow 00:00:28.703$ dermatology and pathology at the

NOTE Confidence: 0.874204

00:00:28.703 --> 00:00:29.999 Yale School of Medicine.

 $00:00:30.000 \longrightarrow 00:00:31.896$ Where Doctor Chagpar is a

NOTE Confidence: 0.874204

 $00:00:31.896 \longrightarrow 00:00:33.160$ professor of surgical oncology.

NOTE Confidence: 0.937628299565218

 $00:00:34.480 \longrightarrow 00:00:36.321$ So Christine, maybe we can start off

NOTE Confidence: 0.937628299565218

 $00:00:36.321 \longrightarrow 00:00:38.375$ by you telling us a little bit more

NOTE Confidence: 0.937628299565218

 $00:00:38.375 \longrightarrow 00:00:40.160$ about yourself and what it is you do.

NOTE Confidence: 0.946962475

 $00:00:40.840 \longrightarrow 00:00:43.705$ Yes, I'm a dermatologist and

NOTE Confidence: 0.946962475

 $00:00:43.705 \longrightarrow 00:00:45.660$ dermatopathologist, so a lot of people

NOTE Confidence: 0.946962475

 $00:00:45.660 \longrightarrow 00:00:47.240$ might understand what a dermatologist is.

NOTE Confidence: 0.946962475

 $00{:}00{:}47.240 \dashrightarrow 00{:}00{:}49.616$ But just in case, a dermatologist

NOTE Confidence: 0.946962475

 $00:00:49.616 \longrightarrow 00:00:52.344$ is a physician who studies and

NOTE Confidence: 0.946962475

00:00:52.344 --> 00:00:55.071 examines patients skin, hair, and nails.

NOTE Confidence: 0.946962475

00:00:55.071 --> 00:00:57.895 Sort of the outer part of your

NOTE Confidence: 0.946962475

 $00:00:57.895 \longrightarrow 00:01:00.576$ body and your scalp and your nails.

NOTE Confidence: 0.946962475

 $00{:}01{:}00.580 \dashrightarrow 00{:}01{:}02.320$ And a dermatopathologist is

NOTE Confidence: 0.946962475

 $00:01:02.320 \longrightarrow 00:01:04.495$ someone who looks at tissue,

NOTE Confidence: 0.946962475

 $00:01:04.500 \longrightarrow 00:01:06.620$ so the tissue from your

 $00{:}01{:}06.620 --> 00{:}01{:}08.420 \ \mathrm{scalp, \ hair, \ nails,}$

NOTE Confidence: 0.946962475

 $00:01:08.420 \longrightarrow 00:01:10.820$ under the microscope.

NOTE Confidence: 0.946962475

 $00:01:10.820 \longrightarrow 00:01:12.881$ So if you've ever gone to a doctor and

NOTE Confidence: 0.946962475

 $00{:}01{:}12.881 \dashrightarrow 00{:}01{:}14.855$ had a piece of your skin taken off,

NOTE Confidence: 0.946962475

 $00:01:14.860 \longrightarrow 00:01:16.300$ which is called a biopsy,

NOTE Confidence: 0.946962475

00:01:16.300 --> 00:01:17.658 and had that sent to a laboratory,

NOTE Confidence: 0.946962475

00:01:17.660 --> 00:01:19.095 and then you get a report back,

NOTE Confidence: 0.946962475

 $00:01:19.100 \longrightarrow 00:01:21.272$ that report was created by a

NOTE Confidence: 0.946962475

 $00:01:21.272 \longrightarrow 00:01:22.358$ dermatopathologist or sometimes

NOTE Confidence: 0.946962475

 $00:01:22.358 \longrightarrow 00:01:24.212$ a pathologist without specialized

NOTE Confidence: 0.946962475

 $00:01:24.212 \longrightarrow 00:01:25.460$ expertise in the skin.

NOTE Confidence: 0.946962475

 $00:01:25.460 \dashrightarrow 00:01:27.180$ But those are the two main things that I do.

NOTE Confidence: 0.93135236

 $00:01:28.100 \longrightarrow 00:01:29.780$ So you do both.

NOTE Confidence: 0.93135236

 $00{:}01{:}29.780 \dashrightarrow 00{:}01{:}31.880$ You're a dermatologist and a

NOTE Confidence: 0.93135236

 $00:01:31.880 \longrightarrow 00:01:33.098$ dermatopathologist, is that right?

 $00:01:33.100 \longrightarrow 00:01:36.060$ That's fantastic.

NOTE Confidence: 0.93135236

 $00{:}01{:}36.060 \dashrightarrow 00{:}01{:}40.332$ So tell us a bit more about skin cancers.

NOTE Confidence: 0.93135236

00:01:40.332 --> 00:01:43.420 I mean, it seems like you do skin

NOTE Confidence: 0.93135236

 $00:01:43.503 \longrightarrow 00:01:46.737$ cancer all the time and we're now

NOTE Confidence: 0.93135236

 $00:01:46.737 \longrightarrow 00:01:48.704$ celebrating Skin Cancer Awareness Month.

NOTE Confidence: 0.93135236

 $00:01:48.704 \longrightarrow 00:01:51.355$ Talk a little bit about what that

NOTE Confidence: 0.93135236

 $00:01:51.355 \longrightarrow 00:01:53.616$ landscape kind of looks like in terms

NOTE Confidence: 0.93135236

 $00:01:53.616 \longrightarrow 00:01:55.919$ of how common are skin cancers.

NOTE Confidence: 0.93135236

 $00:01:55.920 \longrightarrow 00:01:58.140$ What's the most common type

NOTE Confidence: 0.93135236

 $00:01:58.140 \longrightarrow 00:02:01.114$ of skin cancer we see and how

NOTE Confidence: 0.93135236

 $00:02:01.114 \longrightarrow 00:02:02.999$ is that diagnosed and treated?

NOTE Confidence: 0.939718945454545

00:02:03.910 --> 00:02:06.941 Yes. So skin cancer is really important

NOTE Confidence: 0.939718945454545

00:02:06.941 --> 00:02:09.933 because one in five Americans will have

NOTE Confidence: 0.939718945454545

 $00:02:09.933 \longrightarrow 00:02:13.310$ a skin cancer by the time they're 70.

NOTE Confidence: 0.939718945454545

 $00:02:13.310 \longrightarrow 00:02:17.234$ So that's 20%. And so in a nuclear family

NOTE Confidence: 0.939718945454545

 $00:02:17.234 \longrightarrow 00:02:20.150$ that may typically be that one of those

 $00:02:21.790 \longrightarrow 00:02:23.590$ people will have a skin cancer.

NOTE Confidence: 0.939718945454545

 $00:02:23.590 \longrightarrow 00:02:25.744$ The most common type of skin

NOTE Confidence: 0.939718945454545

 $00{:}02{:}25.744 \dashrightarrow 00{:}02{:}27.990$ cancer is basal cell carcinoma.

NOTE Confidence: 0.939718945454545

 $00:02:27.990 \longrightarrow 00:02:29.950$ And I know that's a lot of words.

NOTE Confidence: 0.939718945454545

 $00{:}02{:}29.950 \dashrightarrow 00{:}02{:}30.706$ 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

 $00:02:32.815 \longrightarrow 00:02:34.567$ we abbreviate it among doctors too.

NOTE Confidence: 0.939718945454545

 $00:02:34.570 \longrightarrow 00:02:38.688$ We just call it B like boy, and 2 C's, BCC.

NOTE Confidence: 0.939718945454545

 $00:02:38.688 \longrightarrow 00:02:40.921$ And so you can call it that

NOTE Confidence: 0.939718945454545

 $00:02:40.921 \longrightarrow 00:02:42.610$ even as a patient, BCC.

NOTE Confidence: 0.939718945454545

 $00:02:42.610 \longrightarrow 00:02:45.298$ 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

 $00:02:47.800 \longrightarrow 00:02:49.825$ especially lighter or

NOTE Confidence: 0.939718945454545

 $00:02:49.825 \longrightarrow 00:02:51.850$ fairer skinned Americans.

NOTE Confidence: 0.939718945454545

 $00:02:51.850 \longrightarrow 00:02:54.030$ And that usually presents,

 $00:02:54.030 \longrightarrow 00:02:56.582$ as we call it, pearly.

NOTE Confidence: 0.939718945454545

 $00:02:56.582 \longrightarrow 00:02:59.930$ It might look a little shiny or

NOTE Confidence: 0.939718945454545

00:02:59.930 --> 00:03:02.324 that kind of oyster like Translucence,

NOTE Confidence: 0.939718945454545

 $00:03:02.330 \longrightarrow 00:03:04.632$ if you think of shellfish with

NOTE Confidence: 0.939718945454545

 $00:03:04.632 \longrightarrow 00:03:07.164$ sort of blood vessels like red

NOTE Confidence: 0.939718945454545

 $00:03:07.164 \longrightarrow 00:03:09.370$ little lines going through it.

NOTE Confidence: 0.939718945454545

00:03:09.370 --> 00:03:11.800 And one thing that I often tell my patients

NOTE Confidence: 0.939718945454545

 $00:03:11.800 \longrightarrow 00:03:14.245$ is that it can bleed relatively easily.

NOTE Confidence: 0.939718945454545

00:03:14.250 --> 00:03:15.470 Like you're just sort of

NOTE Confidence: 0.939718945454545

 $00:03:15.470 \longrightarrow 00:03:16.890$ washing your face or

NOTE Confidence: 0.939718945454545

 $00{:}03{:}16.890 \dashrightarrow 00{:}03{:}18.955$ it gets brushed with your clothing

NOTE Confidence: 0.939718945454545

 $00:03:18.955 \longrightarrow 00:03:20.850$ or something and it

NOTE Confidence: 0.939718945454545

 $00:03:20.850 \longrightarrow 00:03:22.649$ bleeds a tiny bit or sometimes a lot.

NOTE Confidence: 0.939718945454545

 $00:03:22.650 \longrightarrow 00:03:24.904$ So that's the most common skin cancer.

NOTE Confidence: 0.939718945454545

 $00:03:24.910 \longrightarrow 00:03:27.066$ The one cancer that of the

NOTE Confidence: 0.939718945454545

 $00:03:27.066 \longrightarrow 00:03:29.703$ skin that a lot of people are

 $00:03:29.703 \longrightarrow 00:03:31.748$ more familiar with is Melanoma.

NOTE Confidence: 0.939718945454545

 $00:03:31.750 \longrightarrow 00:03:33.712$ And I think that's because of

NOTE Confidence: 0.939718945454545

00:03:33.712 --> 00:03:35.710 really good skin cancer campaigns.

NOTE Confidence: 0.939718945454545

00:03:35.710 --> 00:03:37.894 And people know that it's often a dark

NOTE Confidence: 0.939718945454545

 $00:03:37.894 \longrightarrow 00:03:40.040$ spot and it might be changing or it

NOTE Confidence: 0.939718945454545

 $00:03:40.040 \longrightarrow 00:03:42.228$ might be a little irregular in shape.

NOTE Confidence: 0.939718945454545

 $00:03:42.230 \longrightarrow 00:03:44.990$ And that also I think people are aware

NOTE Confidence: 0.939718945454545

 $00{:}03{:}44.990 \dashrightarrow 00{:}03{:}47.227$ of because it can really affect

NOTE Confidence: 0.939718945454545

 $00:03:47.230 \longrightarrow 00:03:48.502$ even younger individuals,

NOTE Confidence: 0.939718945454545

00:03:48.502 --> 00:03:51.310 in their 20s and above.

NOTE Confidence: 0.939718945454545

 $00:03:51.310 \longrightarrow 00:03:53.396$ So it can affect all ages and

NOTE Confidence: 0.939718945454545

 $00:03:53.396 \longrightarrow 00:03:54.910$ it can be deadly.

NOTE Confidence: 0.939718945454545

 $00{:}03{:}54.910 \dashrightarrow 00{:}03{:}56.630$ So I think for good reason

NOTE Confidence: 0.939718945454545

 $00{:}03{:}56.630 \dashrightarrow 00{:}03{:}57.985$ there have been awareness campaigns

NOTE Confidence: 0.939718945454545

 $00:03:57.985 \longrightarrow 00:03:59.725$ and people are becoming more and

 $00:03:59.725 \longrightarrow 00:04:01.148$ more familiar with Melanoma.

NOTE Confidence: 0.935608884615385

 $00{:}04{:}01.830 \dashrightarrow 00{:}04{:}04.518$ And so let's talk a little bit

NOTE Confidence: 0.935608884615385

 $00:04:04.518 \longrightarrow 00:04:06.990$ about each of those in turn,

NOTE Confidence: 0.935608884615385

 $00:04:06.990 \longrightarrow 00:04:09.138$ maybe starting with Melanoma

NOTE Confidence: 0.935608884615385

 $00:04:09.138 \longrightarrow 00:04:11.823$ since that's the most deadly.

NOTE Confidence: 0.935608884615385

 $00:04:11.830 \longrightarrow 00:04:13.762$ Tell us a bit more about

NOTE Confidence: 0.935608884615385

00:04:13.762 --> 00:04:15.740 what are the risk factors

NOTE Confidence: 0.935608884615385

00:04:15.740 --> 00:04:17.411 for developing Melanoma,

NOTE Confidence: 0.935608884615385

 $00:04:17.411 \longrightarrow 00:04:20.196$ is there a screening protocol

NOTE Confidence: 0.935608884615385

 $00:04:20.196 \longrightarrow 00:04:22.580$ that people should follow,

NOTE Confidence: 0.935608884615385

 $00:04:22.580 \longrightarrow 00:04:25.219$ who should follow it and so on?

NOTE Confidence: 0.9402536

 $00:04:26.100 \longrightarrow 00:04:28.416$ Yes. So Melanoma is one of

NOTE Confidence: 0.9402536

 $00:04:28.416 \longrightarrow 00:04:30.700$ the most deadly skin cancers.

NOTE Confidence: 0.9402536

 $00:04:30.700 \longrightarrow 00:04:32.541$ There are others that are much more

NOTE Confidence: 0.9402536

00:04:32.541 --> 00:04:34.139 rare like Merkel cell carcinoma,

NOTE Confidence: 0.9402536

 $00:04:34.140 \longrightarrow 00:04:35.976$ so I won't talk about those.

00:04:35.980 --> 00:04:39.898 But Melanoma skin cancer screening programs,

NOTE Confidence: 0.9402536

 $00{:}04{:}39.900 \dashrightarrow 00{:}04{:}43.380$ the general recommendation is for

NOTE Confidence: 0.9402536

 $00:04:43.380 \longrightarrow 00:04:45.552$ each individual person to look at

NOTE Confidence: 0.9402536

 $00:04:45.552 \longrightarrow 00:04:48.337$ your skin to do a self skin exam,

NOTE Confidence: 0.9402536

 $00:04:48.340 \longrightarrow 00:04:50.993$ just like women and men are told

NOTE Confidence: 0.9402536

 $00:04:50.993 \longrightarrow 00:04:53.898$ to do breast exams on themselves.

NOTE Confidence: 0.9402536

00:04:53.900 --> 00:04:56.339 And so a skin exam actually I tell my patients,

NOTE Confidence: 0.9402536

 $00:04:56.340 \longrightarrow 00:04:59.616$ is relatively easy once you get used to it.

NOTE Confidence: 0.9402536

 $00:04:59.620 \longrightarrow 00:05:01.652$ And all you really have to do is

NOTE Confidence: 0.9402536

 $00{:}05{:}01.652 \dashrightarrow 00{:}05{:}03.198$ ideally have a full length mirror

NOTE Confidence: 0.9402536

 $00:05:03.198 \longrightarrow 00:05:05.465$ but a waist up one

NOTE Confidence: 0.9402536

00:05:05.465 --> 00:05:07.208 will do if that's all you have.

NOTE Confidence: 0.9402536

00:05:07.210 --> 00:05:10.130 And when you come out of the shower or bath,

NOTE Confidence: 0.9402536

00:05:10.130 --> 00:05:11.746 maybe choose the 1st of the month or

NOTE Confidence: 0.9402536

 $00:05:11.746 \longrightarrow 00:05:13.325$ the last of the month or

 $00:05:13.330 \longrightarrow 00:05:16.090$ the 15th or whatever day works for you.

NOTE Confidence: 0.9402536

 $00:05:16.090 \longrightarrow 00:05:17.610$ And ideally, once a month,

NOTE Confidence: 0.9402536

00:05:17.610 --> 00:05:20.865 just look at your skin, all of it,

NOTE Confidence: 0.9402536

 $00:05:20.865 \longrightarrow 00:05:22.165$ including the genital area.

NOTE Confidence: 0.9402536

 $00:05:22.170 \longrightarrow 00:05:23.370$ It's a little harder for women,

NOTE Confidence: 0.9402536

00:05:23.370 --> 00:05:25.658 but we can take a mirror and look

NOTE Confidence: 0.9402536

00:05:25.658 --> 00:05:28.087 at the genital area as well and

NOTE Confidence: 0.9402536

 $00:05:28.090 \longrightarrow 00:05:31.168$ get used to what spots you really have.

NOTE Confidence: 0.9402536

 $00{:}05{:}31.170 \dashrightarrow 00{:}05{:}32.450$ Some people have very few,

NOTE Confidence: 0.9402536

 $00:05:32.450 \longrightarrow 00:05:33.962$ Some people have a lot and just

NOTE Confidence: 0.9402536

 $00{:}05{:}33.962 \dashrightarrow 00{:}05{:}35.648$ get used to it and anything that

NOTE Confidence: 0.9402536

00:05:35.648 --> 00:05:37.124 looks a little weird to you,

NOTE Confidence: 0.9402536

 $00:05:37.130 \longrightarrow 00:05:38.650$ ask your doctor about it.

NOTE Confidence: 0.9402536

 $00:05:38.650 \longrightarrow 00:05:40.170$ So that's a big component.

NOTE Confidence: 0.9402536

 $00:05:40.170 \longrightarrow 00:05:41.990$ I think I advocate that

NOTE Confidence: 0.9402536

 $00{:}05{:}41.990 \dashrightarrow 00{:}05{:}43.810$ people do self skin exams.

 $00:05:43.810 \longrightarrow 00:05:46.294$ The other thing you can do is you can

NOTE Confidence: 0.9402536

 $00:05:46.294 \longrightarrow 00:05:49.095$ go to your doctor or your dermatologist

NOTE Confidence: 0.9402536

 $00:05:49.095 \longrightarrow 00:05:51.773$ and have the physician do a skin

NOTE Confidence: 0.9402536

00:05:51.773 --> 00:05:54.048 exam in which ideally they would look

NOTE Confidence: 0.9402536

00:05:54.050 --> 00:05:57.298 at every single part of your body.

NOTE Confidence: 0.9402536

 $00:05:57.300 \longrightarrow 00:05:59.617$ So I will examine under the hair,

NOTE Confidence: 0.9402536

 $00:05:59.620 \longrightarrow 00:06:00.780$ you know, between the hairs.

NOTE Confidence: 0.9402536

00:06:00.780 --> 00:06:01.940 If I can do it,

NOTE Confidence: 0.9402536

 $00:06:01.940 \longrightarrow 00:06:03.820$ I will tell people to

NOTE Confidence: 0.9402536

 $00{:}06{:}03.820 \dashrightarrow 00{:}06{:}05.487$ enlist the hairdresser's help if

NOTE Confidence: 0.9402536

00:06:05.487 --> 00:06:07.620 they go to a hairdresser or Barber.

NOTE Confidence: 0.9402536

 $00:06:07.620 \longrightarrow 00:06:09.228$ For people that have a good

NOTE Confidence: 0.9402536

00:06:09.228 --> 00:06:10.300 healthy amount of hair,

NOTE Confidence: 0.9402536

 $00:06:10.300 \longrightarrow 00:06:11.854$ it can be hard to look in

NOTE Confidence: 0.9402536

 $00:06:11.854 \longrightarrow 00:06:13.139$ between all of that hair,

 $00:06:13.140 \longrightarrow 00:06:14.700$ and it's easier when it's wet.

NOTE Confidence: 0.9402536

00:06:14.700 --> 00:06:16.572 So I'll ask people if they do go to

NOTE Confidence: 0.9402536

00:06:16.572 --> 00:06:18.577 a Barber or hairdresser

NOTE Confidence: 0.9402536

00:06:18.580 --> 00:06:20.414 if they ever notice anything,

NOTE Confidence: 0.9402536

 $00:06:20.420 \longrightarrow 00:06:21.656$ ask them to take a photo,

NOTE Confidence: 0.9402536

 $00:06:21.660 \longrightarrow 00:06:23.620$ kind of have a general sense of where it is,

NOTE Confidence: 0.9402536

 $00:06:23.620 \longrightarrow 00:06:25.933$ and they can even upload that photo to me

 $00:06:26.856 \longrightarrow 00:06:30.062$ in an electronic medical record.

NOTE Confidence: 0.9402536

 $00:06:30.070 \longrightarrow 00:06:32.149$ And so then ideally the physician

NOTE Confidence: 0.9402536

 $00:06:32.149 \longrightarrow 00:06:34.827$ will look under the hair,

NOTE Confidence: 0.9402536

 $00:06:34.830 \longrightarrow 00:06:36.747$ in between the hair, the rest of the body,

NOTE Confidence: 0.9402536

 $00:06:36.750 \longrightarrow 00:06:38.450$ the general nails,

NOTE Confidence: 0.9402536

 $00:06:38.450 \longrightarrow 00:06:40.150$ bottoms of the feet,

NOTE Confidence: 0.9402536

 $00:06:40.150 \longrightarrow 00:06:43.066$ so the socks and shoes come off as well.

 $00:06:46.030 \longrightarrow 00:06:49.494$ Thank you for that really

NOTE Confidence: 0.936899133333333

 $00:06:49.494 \longrightarrow 00:06:51.554$ thorough description because I think

NOTE Confidence: 0.936899133333333

00:06:51.554 --> 00:06:54.226 that well many of us may have heard,

 $00:06:54.230 \longrightarrow 00:06:57.155$ yeah, we should look at our skin.

NOTE Confidence: 0.936899133333333

 $00:06:57.160 \longrightarrow 00:06:58.800$ We don't really think about

NOTE Confidence: 0.936899133333333

 $00:06:58.800 \longrightarrow 00:07:00.440$ some of those other areas.

NOTE Confidence: 0.936899133333333

00:07:00.440 --> 00:07:02.840 Taking a mirror and looking

NOTE Confidence: 0.936899133333333

 $00:07:02.840 \longrightarrow 00:07:05.112$ at the genital area is something that

NOTE Confidence: 0.936899133333333

00:07:05.112 --> 00:07:07.799 a lot of people may not think about,

NOTE Confidence: 0.936899133333333

 $00:07:07.800 \longrightarrow 00:07:10.518$ especially because so much of us

NOTE Confidence: 0.936899133333333

 $00{:}07{:}10.518 {\:\dashrightarrow\:} 00{:}07{:}13.332$ think about skin cancers and Melanoma

NOTE Confidence: 0.936899133333333

 $00{:}07{:}13.332 \dashrightarrow 00{:}07{:}16.074$ as being related to sun exposure.

NOTE Confidence: 0.936899133333333

 $00:07:16.080 \longrightarrow 00:07:19.132$ So in that area, if you haven't

NOTE Confidence: 0.936899133333333

00:07:19.132 --> 00:07:21.558 gone skinny dipping for a while,

NOTE Confidence: 0.936899133333333

 $00:07:21.560 \longrightarrow 00:07:24.080$ it generally isn't exposed to sunlight,

NOTE Confidence: 0.936899133333333

 $00:07:24.080 \longrightarrow 00:07:26.320$ but is it still at risk for Melanoma?

NOTE Confidence: 0.947441742857143

 $00:07:26.960 \longrightarrow 00:07:27.820$ Yes, absolutely.

NOTE Confidence: 0.947441742857143

 $00:07:27.820 \longrightarrow 00:07:30.830$ I'm glad that you made that comment

 $00:07:30.830 \longrightarrow 00:07:33.508$ because often my patients and

NOTE Confidence: 0.947441742857143

00:07:33.508 --> 00:07:35.512 friends, family who talk to me

NOTE Confidence: 0.947441742857143

00:07:35.512 --> 00:07:37.406 about skin and skin cancer and

NOTE Confidence: 0.947441742857143

 $00:07:37.406 \longrightarrow 00:07:39.534$ how and when they should

NOTE Confidence: 0.947441742857143

 $00:07:39.534 \longrightarrow 00:07:41.478$ be looking at their own skin,

NOTE Confidence: 0.947441742857143

 $00:07:41.480 \longrightarrow 00:07:42.638$ they often say,

NOTE Confidence: 0.947441742857143

00:07:42.640 --> 00:07:44.859 but I don't go to nude beaches

NOTE Confidence: 0.947441742857143

00:07:44.859 --> 00:07:47.280 or I don't go skinny dipping.

NOTE Confidence: 0.947441742857143

 $00{:}07{:}47.280 \dashrightarrow 00{:}07{:}50.832$ And absolutely it's a myth and

NOTE Confidence: 0.947441742857143

00:07:50.832 --> 00:07:53.678 that misconception comes from partial truth,

NOTE Confidence: 0.947441742857143

 $00:07:53.680 \longrightarrow 00:07:56.296$ which is often the case.

NOTE Confidence: 0.947441742857143

00:07:56.300 --> 00:07:57.214 Ultraviolet light,

NOTE Confidence: 0.947441742857143

00:07:57.214 --> 00:07:59.956 sunlight, is a major contributor to

NOTE Confidence: 0.947441742857143

 $00:07:59.956 \longrightarrow 00:08:02.766$ skin cancer and that's a major reason

NOTE Confidence: 0.947441742857143

 $00:08:02.766 \longrightarrow 00:08:05.020$ why fairer skin or lighter skin,

NOTE Confidence: 0.947441742857143

 $00{:}08{:}05.020 \dashrightarrow 00{:}08{:}07.116$ especially skin types that

00:08:07.116 --> 00:08:09.736 burn and virtually don't tan,

NOTE Confidence: 0.947441742857143

 $00:08:10.254 \longrightarrow 00:08:12.053$ they burn and then they go

NOTE Confidence: 0.947441742857143

 $00:08:12.053 \longrightarrow 00:08:13.917$ back to the fair skin that they

NOTE Confidence: 0.947441742857143

 $00:08:13.917 \longrightarrow 00:08:15.811$ had before the burn and they

NOTE Confidence: 0.947441742857143

 $00:08:15.811 \longrightarrow 00:08:17.415$ don't really become significantly

NOTE Confidence: 0.947441742857143

 $00:08:17.420 \longrightarrow 00:08:19.100$ darker or tan in any way.

NOTE Confidence: 0.947441742857143

00:08:19.100 --> 00:08:21.140 That's the highest risk skin type

NOTE Confidence: 0.947441742857143

 $00:08:21.140 \longrightarrow 00:08:23.034$ for skin cancer because there's

NOTE Confidence: 0.947441742857143

00:08:23.034 --> 00:08:24.898 essentially no melanin pigment.

NOTE Confidence: 0.947441742857143

 $00:08:24.900 \longrightarrow 00:08:25.863$ Melanin is the

NOTE Confidence: 0.947441742857143

 $00:08:25.863 \longrightarrow 00:08:28.110$ Pigment in the skin that

NOTE Confidence: 0.947441742857143

 $00{:}08{:}28.182 \dashrightarrow 00{:}08{:}30.958$ creates color that can create a tan and

NOTE Confidence: 0.947441742857143

 $00{:}08{:}30.958 \dashrightarrow 00{:}08{:}33.458$ with virtually no protection from melanin

NOTE Confidence: 0.947441742857143

 $00{:}08{:}33.460 \dashrightarrow 00{:}08{:}35.966$ you are at highest risk for skin

NOTE Confidence: 0.947441742857143

00:08:35.966 --> 00:08:38.135 cancer compared to skin that's has

 $00:08:38.135 \longrightarrow 00:08:40.922$ more melanin in it, but ultraviolet

NOTE Confidence: 0.947441742857143

 $00:08:40.922 \longrightarrow 00:08:44.240$ light is not the

NOTE Confidence: 0.947441742857143

00:08:44.337 --> 00:08:47.235 only risk factor and another risk

NOTE Confidence: 0.947441742857143

 $00:08:47.235 \longrightarrow 00:08:50.250$ factor is for example human papilloma

NOTE Confidence: 0.947441742857143 00:08:50.250 --> 00:08:53.595 virus and NOTE Confidence: 0.947441742857143

 $00{:}08{:}53.595 \dashrightarrow 00{:}08{:}55.845$ I think that can make sense.

NOTE Confidence: 0.947441742857143

 $00:08:55.850 \longrightarrow 00:08:57.722$ The way I often translate it to patients is

 $00:08:58.004 \longrightarrow 00:08:59.922$ you know that cervical cancer or a

NOTE Confidence: 0.947441742857143

 $00:08:59.922 \longrightarrow 00:09:02.042$ lot of people understand that and

NOTE Confidence: 0.947441742857143

 $00:09:02.042 \longrightarrow 00:09:03.922$ they know about vaccination of

 $00:09:04.480 \longrightarrow 00:09:06.680$ younger kids and even up to age 45

NOTE Confidence: 0.947441742857143

 $00{:}09{:}06.751 \mathrel{--}{>} 00{:}09{:}08.893$ against HPV virus to prevent

NOTE Confidence: 0.947441742857143

 $00:09:08.893 \longrightarrow 00:09:11.150$ cervical cancer as well as other

NOTE Confidence: 0.947441742857143

 $00:09:11.150 \longrightarrow 00:09:13.060$ especially genital cancers and oral

NOTE Confidence: 0.947441742857143

 $00:09:13.060 \longrightarrow 00:09:15.202$ cancers that are related to HPV virus.

NOTE Confidence: 0.947441742857143

 $00:09:15.202 \longrightarrow 00:09:16.690$ But it's same for the skin.

NOTE Confidence: 0.947441742857143

 $00:09:16.690 \longrightarrow 00:09:18.552$ And so that genital area or the

00:09:18.552 --> 00:09:20.455 sort of near genital area,

NOTE Confidence: 0.947441742857143

00:09:20.455 --> 00:09:23.185 a risk factor is human papilloma

NOTE Confidence: 0.947441742857143 00:09:23.185 --> 00:09:24.838 virus. NOTE Confidence: 0.947441742857143

 $00:09:24.840 \longrightarrow 00:09:26.730$ And so that can be a reason why you

NOTE Confidence: 0.947441742857143

00:09:26.730 --> 00:09:28.718 may have never gone to a nude beach,

NOTE Confidence: 0.947441742857143

 $00:09:28.720 \longrightarrow 00:09:30.448$ but you can have skin cancer

NOTE Confidence: 0.947441742857143

 $00:09:30.448 \longrightarrow 00:09:32.000$ in that area as well.

NOTE Confidence: 0.938150621666667

 $00{:}09{:}33.520 \dashrightarrow 00{:}09{:}36.316$ So does HPV vaccine protect you

NOTE Confidence: 0.938150621666667

 $00:09:36.316 \longrightarrow 00:09:39.120$ against skin cancers in that area?

NOTE Confidence: 0.928177628

 $00:09:40.040 \longrightarrow 00:09:41.480$ Yes, I think it can.

NOTE Confidence: 0.928177628

 $00:09:41.480 \longrightarrow 00:09:45.320$ And so one thing for example is that

NOTE Confidence: 0.928177628

 $00{:}09{:}45.320 \dashrightarrow 00{:}09{:}47.400$ transplant patients who are

NOTE Confidence: 0.928177628

 $00{:}09{:}47.400 \dashrightarrow 00{:}09{:}48.440$ immunosuppressed because,

NOTE Confidence: 0.928177628

 $00:09:48.440 \longrightarrow 00:09:50.600$ you know, to help them not

NOTE Confidence: 0.928177628

00:09:50.600 --> 00:09:52.040 reject the transplanted organ,

00:09:52.040 --> 00:09:54.136 they are at higher risk of skin cancer

NOTE Confidence: 0.928177628

 $00{:}09{:}54.136 \dashrightarrow 00{:}09{:}56.574$ as well as other cancers due to that

NOTE Confidence: 0.928177628

 $00:09:56.574 \longrightarrow 00:09:58.591$ suppression of the immune system that's

NOTE Confidence: 0.928177628

 $00:09:58.591 \longrightarrow 00:10:01.162$ appropriate to keep the

NOTE Confidence: 0.928177628

00:10:01.162 --> 00:10:03.406 transplanted organ doing well.

NOTE Confidence: 0.928177628

 $00:10:03.410 \dashrightarrow 00:10:07.288$ But especially patients with sort of darker,

NOTE Confidence: 0.928177628

00:10:07.290 --> 00:10:08.295 higher skin types,

NOTE Confidence: 0.928177628

 $00:10:08.295 \longrightarrow 00:10:10.640$ they have higher risk of skin cancer

NOTE Confidence: 0.928177628

 $00{:}10{:}10.701 \dashrightarrow 00{:}10{:}12.745$ in those sort of more sun protected

NOTE Confidence: 0.928177628

 $00:10:12.745 \longrightarrow 00:10:15.037$ areas and it is thought to be

NOTE Confidence: 0.928177628

 $00{:}10{:}15.037 \dashrightarrow 00{:}10{:}16.727$ because of human papilloma virus.

NOTE Confidence: 0.928177628

 $00:10:16.730 \longrightarrow 00:10:19.586$ And there are efforts to see if

NOTE Confidence: 0.928177628

 $00{:}10{:}19.586 \rightarrow 00{:}10{:}21.805$ vaccination against HPV can reduce

NOTE Confidence: 0.928177628

 $00{:}10{:}21.805 \dashrightarrow 00{:}10{:}24.085$ skin cancers in that population.

NOTE Confidence: 0.928177628

00:10:24.090 --> 00:10:26.568 So yes, you're absolutely right that

NOTE Confidence: 0.928177628

 $00{:}10{:}26.570 \dashrightarrow 00{:}10{:}29.156$ HPV induced skin cancers should be

 $00{:}10{:}29.156 \dashrightarrow 00{:}10{:}32.168$ prevented as well from the HPV vaccine.

NOTE Confidence: 0.954342466

 $00{:}10{:}33.040 \dashrightarrow 00{:}10{:}35.792$ Interesting. So you mentioned

NOTE Confidence: 0.954342466

 $00:10:35.792 \longrightarrow 00:10:40.135$ that people with darker skin with

NOTE Confidence: 0.954342466

00:10:40.135 --> 00:10:43.968 more melanin are more likely to

NOTE Confidence: 0.954342466

 $00{:}10{:}43.968 \dashrightarrow 00{:}10{:}48.760$ get these HPV type skin cancers.

NOTE Confidence: 0.954342466

00:10:48.760 --> 00:10:51.730 Do we see other differences based

NOTE Confidence: 0.954342466

00:10:51.730 --> 00:10:56.010 on race or or skin color in terms

NOTE Confidence: 0.954342466

 $00:10:56.010 \longrightarrow 00:10:58.835$ of how skin cancers present?

NOTE Confidence: 0.946291558

 $00:10:59.600 \longrightarrow 00:11:01.600$ Yes, that's a great question.

NOTE Confidence: 0.946291558

 $00:11:01.600 \longrightarrow 00:11:04.820$ I'm not sure that they're more susceptible

NOTE Confidence: 0.946291558

 $00:11:04.820 \longrightarrow 00:11:07.212$ to HPV induced cancers if they have

NOTE Confidence: 0.946291558

 $00:11:07.212 \longrightarrow 00:11:09.957$ darker skin or you know higher type skin.

NOTE Confidence: 0.946291558

 $00:11:09.960 \longrightarrow 00:11:13.530$ But just that since they have fewer

NOTE Confidence: 0.946291558

00:11:13.530 --> 00:11:16.960 skin cancers in sun exposed areas,

NOTE Confidence: 0.946291558

 $00:11:16.960 \longrightarrow 00:11:19.252$ that is an important

 $00:11:19.252 \longrightarrow 00:11:21.420$ place to check for higher and

NOTE Confidence: 0.946291558

 $00:11:21.420 \longrightarrow 00:11:23.462$ darker skin types including mine.

NOTE Confidence: 0.946291558

 $00:11:23.462 \longrightarrow 00:11:27.039$ So but what I would say is,

NOTE Confidence: 0.946291558

 $00:11:27.040 \longrightarrow 00:11:30.208$ that there are major differences

NOTE Confidence: 0.946291558

 $00:11:30.208 \longrightarrow 00:11:33.553$ and so another major difference is

NOTE Confidence: 0.946291558

00:11:33.553 --> 00:11:36.238 that higher or darker skin types and

NOTE Confidence: 0.946291558

00:11:36.238 --> 00:11:39.448 I say higher because we kind of have a

NOTE Confidence: 0.946291558

00:11:39.448 --> 00:11:41.726 Fitzpatrick skin color scale which kind

NOTE Confidence: 0.946291558

 $00{:}11{:}41.726 \to 00{:}11{:}45.960$ of gives you a number for the skin color,

NOTE Confidence: 0.946291558

 $00:11:45.960 \longrightarrow 00:11:48.850$ the skin type that you have and

NOTE Confidence: 0.946291558

00:11:48.921 --> 00:11:51.553 lightest or fairest is close to 0

NOTE Confidence: 0.946291558

 $00{:}11{:}51.560 --> 00{:}11{:}52.535$ Melanin and pigment.

NOTE Confidence: 0.946291558

 $00{:}11{:}52.535 \dashrightarrow 00{:}11{:}54.810$ That color that makes brown in the

NOTE Confidence: 0.946291558

 $00:11:54.877 \longrightarrow 00:11:56.717$ skin or tan in the skin is A1.

NOTE Confidence: 0.946291558

 $00:11:56.720 \longrightarrow 00:11:59.058$ And then the higher skin type is

NOTE Confidence: 0.946291558

00:11:59.058 --> 00:12:02.036 6 it goes up to six is darker skin,

 $00:12:02.040 \dashrightarrow 00:12:04.794$ the darkest that has the most melanin in it.

NOTE Confidence: 0.946291558

 $00:12:04.800 \longrightarrow 00:12:06.893$ And it's also based on how your

NOTE Confidence: 0.946291558

 $00:12:06.893 \longrightarrow 00:12:08.440$ skin reacts to sunlight.

NOTE Confidence: 0.946291558

 $00:12:08.440 \longrightarrow 00:12:10.561$ So if you basically burn and hardly

NOTE Confidence: 0.946291558

00:12:10.561 --> 00:12:12.839 really tan at all don't get darker,

NOTE Confidence: 0.946291558

 $00:12:12.840 \longrightarrow 00:12:14.144$ you're a one.

NOTE Confidence: 0.946291558

00:12:14.144 --> 00:12:15.774 And if you essentially never,

NOTE Confidence: 0.946291558

 $00:12:15.780 \longrightarrow 00:12:16.512$ never ever burn,

NOTE Confidence: 0.946291558

00:12:16.512 --> 00:12:18.728 but you do get a little darker from the

NOTE Confidence: 0.946291558

 $00:12:18.728 \longrightarrow 00:12:20.780$ sun that's a six and in the middle 3-4,

NOTE Confidence: 0.946291558

 $00:12:20.780 \longrightarrow 00:12:22.460$ it's like you generally tan

NOTE Confidence: 0.946291558

 $00:12:22.460 \longrightarrow 00:12:23.500$ but you can burn.

NOTE Confidence: 0.946291558

 $00:12:23.500 \longrightarrow 00:12:25.060$ And so that's the scale

NOTE Confidence: 0.946291558

00:12:25.116 --> 00:12:26.772 that I'm talking about and why

NOTE Confidence: 0.946291558

 $00:12:26.772 \longrightarrow 00:12:28.260$ I'll say higher skin types.

 $00:12:28.260 \longrightarrow 00:12:31.122$ And so if you have higher skin types

NOTE Confidence: 0.946291558

 $00:12:31.122 \longrightarrow 00:12:35.339$ we'll think like 4-5 and six,

NOTE Confidence: 0.946291558

00:12:35.340 --> 00:12:38.665 you tend to get Melanoma for example

NOTE Confidence: 0.946291558

00:12:38.670 --> 00:12:40.812 under your nails more so than if

NOTE Confidence: 0.946291558

 $00:12:40.812 \longrightarrow 00:12:43.204$ you have lower skin types or on the

NOTE Confidence: 0.946291558

 $00:12:43.204 \longrightarrow 00:12:45.538$ bottoms of the feet or on the palms

NOTE Confidence: 0.946291558

 $00:12:45.538 \longrightarrow 00:12:47.547$ or you know for example in that

NOTE Confidence: 0.946291558

 $00{:}12{:}47.550 \dashrightarrow 00{:}12{:}49.746$ genital area as we talked about.

NOTE Confidence: 0.946291558

 $00:12:49.750 \longrightarrow 00:12:52.284$ So I really emphasize to my patients

NOTE Confidence: 0.946291558

 $00:12:52.284 \longrightarrow 00:12:54.648$ with higher skin types to definitely

NOTE Confidence: 0.946291558

 $00{:}12{:}54.648 \dashrightarrow 00{:}12{:}57.469$ definitely look in those areas as well.

NOTE Confidence: 0.946291558

00:12:57.470 --> 00:13:00.726 And so I think that sort of myth

NOTE Confidence: 0.946291558

 $00{:}13{:}00.726 \dashrightarrow 00{:}13{:}03.117$ or misconception that it's sun

NOTE Confidence: 0.946291558

00:13:03.117 --> 00:13:05.607 exposed areas may also contribute

NOTE Confidence: 0.946291558

00:13:05.610 --> 00:13:07.410 to the statistics that we know

NOTE Confidence: 0.946291558

 $00:13:07.410 \longrightarrow 00:13:09.424$ that are true that patients with

 $00:13:09.424 \longrightarrow 00:13:11.668$ higher skin types often have their

NOTE Confidence: 0.946291558

 $00:13:11.668 \longrightarrow 00:13:13.089$ skin cancers not often,

NOTE Confidence: 0.946291558

00:13:13.090 --> 00:13:16.450 but maybe can have for sure their skin

NOTE Confidence: 0.946291558

 $00:13:16.450 \longrightarrow 00:13:19.610$ cancers detected later than fair skin types.

NOTE Confidence: 0.946291558

 $00{:}13{:}19.610 \dashrightarrow 00{:}13{:}21.290$ And I think it might be because

NOTE Confidence: 0.946291558

 $00:13:21.290 \longrightarrow 00:13:22.967$ of that myth or misconception that

NOTE Confidence: 0.946291558

00:13:22.967 --> 00:13:24.767 people don't think you can have

NOTE Confidence: 0.946291558

00:13:24.767 --> 00:13:26.660 a skin cancer under your nail or

NOTE Confidence: 0.946291558

 $00:13:26.660 \longrightarrow 00:13:28.258$ on the bottom of your feet,

NOTE Confidence: 0.946291558

00:13:28.258 --> 00:13:29.394 which generally isn't being

NOTE Confidence: 0.946291558

 $00:13:29.394 \longrightarrow 00:13:30.930$ exposed to the sun either,

NOTE Confidence: 0.946291558

 $00{:}13{:}30.930 \dashrightarrow 00{:}13{:}33.010$ or the genital perigenital area.

NOTE Confidence: 0.937544339615384

 $00{:}13{:}33.580 \dashrightarrow 00{:}13{:}35.412$ Yeah, I was going to ask you that

NOTE Confidence: 0.937544339615384

 $00:13:35.412 \longrightarrow 00:13:36.881$ question in terms of

NOTE Confidence: 0.937544339615384

 $00:13:36.881 \longrightarrow 00:13:38.315$ the fact that we simply don't

 $00:13:38.371 \longrightarrow 00:13:39.895$ think to check in those areas.

NOTE Confidence: 0.937544339615384

 $00:13:39.900 \longrightarrow 00:13:41.820$ So that may contribute to

NOTE Confidence: 0.937544339615384

 $00:13:41.820 \longrightarrow 00:13:43.740$ these being picked up later.

NOTE Confidence: 0.937544339615384

 $00:13:43.740 \longrightarrow 00:13:46.456$ We are going to continue this very

NOTE Confidence: 0.937544339615384

 $00:13:46.456 \longrightarrow 00:13:48.275$ interesting conversation right after we

NOTE Confidence: 0.937544339615384

 $00:13:48.275 \longrightarrow 00:13:50.619$ take a short break for a medical minute.

NOTE Confidence: 0.937544339615384

 $00{:}13{:}50.620 \dashrightarrow 00{:}13{:}52.552$ Please stay tuned to learn more about

NOTE Confidence: 0.937544339615384

 $00:13:52.552 \longrightarrow 00:13:54.400$ the care of patients with Melanoma

NOTE Confidence: 0.937544339615384

 $00:13:54.400 \longrightarrow 00:13:56.647$ and other skin cancers in honor of

NOTE Confidence: 0.937544339615384

 $00:13:56.704 \longrightarrow 00:13:58.762$ Melanoma and skin cancer awareness Month

NOTE Confidence: 0.937544339615384

 $00{:}13{:}58.762 \dashrightarrow 00{:}14{:}00.940$ with my guest Doctor Christine Ko.

NOTE Confidence: 0.902940025

 $00{:}14{:}01.670 \dashrightarrow 00{:}14{:}03.650$ Funding for Yale Cancer Answers

NOTE Confidence: 0.902940025

00:14:03.650 --> 00:14:05.630 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.902940025

00:14:05.630 --> 00:14:07.474 where their Melanoma program

NOTE Confidence: 0.902940025

 $00:14:07.474 \longrightarrow 00:14:09.318$ brings together an extensive

NOTE Confidence: 0.902940025

 $00:14:09.318 \longrightarrow 00:14:10.990$ multidisciplinary team to diagnose,

00:14:10.990 --> 00:14:13.162 treat, and care for patients with

NOTE Confidence: 0.902940025

 $00{:}14{:}13.162 \dashrightarrow 00{:}14{:}15.190$ Melanoma and other skin cancers.

NOTE Confidence: 0.902940025

00:14:15.190 --> 00:14:19.270 Smilowcancerhospital.org.

NOTE Confidence: 0.902940025

 $00:14:19.270 \longrightarrow 00:14:21.075$ It's estimated that over 240,000

NOTE Confidence: 0.902940025

 $00:14:21.075 \longrightarrow 00:14:23.843$ 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

 $00:14:26.070 \longrightarrow 00:14:28.608$ 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

 $00{:}14{:}30.300 \dashrightarrow 00{:}14{:}32.292$ One in eight American men will

NOTE Confidence: 0.902940025

 $00:14:32.292 \longrightarrow 00:14:33.620$ develop prostate cancer in

NOTE Confidence: 0.902940025

 $00:14:33.684 \longrightarrow 00:14:35.259$ the course of his lifetime.

NOTE Confidence: 0.902940025

 $00:14:35.260 \longrightarrow 00:14:37.312$ Major advances in the detection and

NOTE Confidence: 0.902940025

 $00{:}14{:}37.312 \dashrightarrow 00{:}14{:}39.049$ treatment of prostate cancer have

NOTE Confidence: 0.902940025

 $00:14:39.049 \longrightarrow 00:14:40.289$ dramatically decreased the number

NOTE Confidence: 0.902940025

 $00:14:40.289 \longrightarrow 00:14:42.540$ of men who die from the disease.

00:14:42.540 --> 00:14:44.380 Screening can be performed quickly

NOTE Confidence: 0.902940025

 $00{:}14{:}44.380 \dashrightarrow 00{:}14{:}46.220$ and easily in a physician's

NOTE Confidence: 0.902940025

 $00:14:46.279 \longrightarrow 00:14:48.059$ office using two simple tests,

NOTE Confidence: 0.902940025

 $00:14:48.060 \longrightarrow 00:14:50.496$ a physical exam and a blood test.

NOTE Confidence: 0.902940025

00:14:50.500 --> 00:14:52.880 Clinical trials are currently underway

NOTE Confidence: 0.902940025

 $00:14:52.880 \longrightarrow 00:14:54.784$ at federally designated Comprehensive

NOTE Confidence: 0.902940025

 $00:14:54.784 \longrightarrow 00:14:57.114$ Cancer centers such as Yale Cancer

NOTE Confidence: 0.902940025

 $00{:}14{:}57.114 \dashrightarrow 00{:}14{:}59.289$ Center and Smilow Cancer Hospital

NOTE Confidence: 0.902940025

 $00{:}14{:}59.290 \mathrel{--}{>} 00{:}15{:}01.140$ where doctors are also using

NOTE Confidence: 0.902940025

00:15:01.140 --> 00:15:02.250 the Artemis machine,

NOTE Confidence: 0.902940025

 $00:15:02.250 \longrightarrow 00:15:04.190$ which enables targeted biopsies

NOTE Confidence: 0.902940025

 $00:15:04.190 \longrightarrow 00:15:05.645$ to be performed.

NOTE Confidence: 0.902940025

 $00{:}15{:}05.650 \dashrightarrow 00{:}15{:}07.890$ More information is available

NOTE Confidence: 0.902940025

 $00{:}15{:}07.890 \dashrightarrow 00{:}15{:}09.124$ at yale cancercenter.org.

NOTE Confidence: 0.902940025

00:15:09.124 --> 00:15:13.168 You're listening to Connecticut Public Radio.

NOTE Confidence: 0.902940025

00:15:13.170 --> 00:15:13.570 Welcome

 $00:15:13.570 \longrightarrow 00:15:15.330$ back to Yale Cancer Answers.

NOTE Confidence: 0.94629164

 $00{:}15{:}15.330 \dashrightarrow 00{:}15{:}17.010$ 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

 $00:15:19.290 \longrightarrow 00:15:20.484$ Doctor Christine Ko.

NOTE Confidence: 0.94629164

 $00:15:20.484 \longrightarrow 00:15:23.698$ We're talking about the care of patients with

NOTE Confidence: 0.94629164

 $00:15:23.698 \longrightarrow 00:15:26.578$ 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

 $00{:}15{:}29.030 \dashrightarrow 00{:}15{:}30.670$ Now, right before the break, Christine,

NOTE Confidence: 0.94629164

00:15:30.670 --> 00:15:34.302 you were mentioning that some people,

NOTE Confidence: 0.94629164

00:15:34.302 --> 00:15:36.390 particularly those who

NOTE Confidence: 0.94629164

 $00:15:36.390 \longrightarrow 00:15:38.210$ have higher skin types,

NOTE Confidence: 0.94629164

 $00:15:38.210 \longrightarrow 00:15:42.670$ that is to say darker skin with more melanin,

NOTE Confidence: 0.94629164

 $00{:}15{:}42.670 \dashrightarrow 00{:}15{:}44.986$ tend to get fewer skin cancers,

NOTE Confidence: 0.94629164

 $00:15:44.990 \longrightarrow 00:15:48.470$ but may have proportionately more in

NOTE Confidence: 0.94629164

 $00:15:48.470 \longrightarrow 00:15:51.250$ places that people often don't look.

 $00:15:51.250 \longrightarrow 00:15:52.870$ So under the nails,

NOTE Confidence: 0.94629164

00:15:52.870 --> 00:15:54.310 the bottom of the feet,

NOTE Confidence: 0.94629164

 $00:15:54.310 \longrightarrow 00:15:55.801$ the genital areas.

NOTE Confidence: 0.94629164

00:15:55.801 --> 00:15:58.286 Non skin exposed areas that

NOTE Confidence: 0.94629164

00:15:58.286 --> 00:16:00.880 still can get skin cancers.

NOTE Confidence: 0.94629164

 $00:16:00.880 \longrightarrow 00:16:03.491$ And so really important for people to

NOTE Confidence: 0.94629164

 $00:16:03.491 \longrightarrow 00:16:06.071$ look because one of the very important

NOTE Confidence: 0.94629164

00:16:06.071 --> 00:16:08.534 points that I think you made right

NOTE Confidence: 0.94629164

 $00:16:08.534 \longrightarrow 00:16:11.078$ as we were going to break was that

NOTE Confidence: 0.94629164

 $00:16:11.078 \longrightarrow 00:16:15.635$ these can be found at a later stage.

NOTE Confidence: 0.94629164

 $00:16:15.640 \longrightarrow 00:16:17.910$ And so the question that

NOTE Confidence: 0.94629164

 $00:16:17.910 \longrightarrow 00:16:20.180$ then leads into is

NOTE Confidence: 0.94629164

00:16:20.180 --> 00:16:22.455 can you talk a little bit more

NOTE Confidence: 0.94629164

 $00:16:22.455 \longrightarrow 00:16:24.018$ about the treatment algorithms

NOTE Confidence: 0.94629164

 $00:16:24.018 \longrightarrow 00:16:25.578$ for treating Melanoma?

NOTE Confidence: 0.91826305

00:16:25.660 --> 00:16:28.180 Stage is something that we'll use to

 $00:16:28.180 \longrightarrow 00:16:31.059$ refer to how advanced a cancer is.

NOTE Confidence: 0.91826305

 $00{:}16{:}31.060 \dashrightarrow 00{:}16{:}35.260$ And really the goal of I think

NOTE Confidence: 0.91826305

00:16:35.260 --> 00:16:36.228 physicians, dermatologists,

NOTE Confidence: 0.91826305

 $00:16:36.228 \longrightarrow 00:16:39.616$ anyone who deals with cancer is to

NOTE Confidence: 0.91826305

00:16:39.616 --> 00:16:42.018 detect it as early as possible and

NOTE Confidence: 0.91826305

 $00:16:42.018 \longrightarrow 00:16:44.659$ so that you have early stage cancer,

NOTE Confidence: 0.91826305

 $00:16:44.660 \longrightarrow 00:16:46.604$ people might be more

NOTE Confidence: 0.91826305

 $00:16:46.604 \longrightarrow 00:16:47.900$ familiar with breast cancer.

NOTE Confidence: 0.91826305

 $00:16:47.900 \longrightarrow 00:16:49.868$ But same thing applies to

NOTE Confidence: 0.91826305

00:16:49.868 --> 00:16:51.180 Melanoma or other cancers.

NOTE Confidence: 0.91826305

 $00:16:51.180 \longrightarrow 00:16:53.889$ And stage one cancer or even

NOTE Confidence: 0.91826305

 $00:16:53.889 \longrightarrow 00:16:56.697$ to stage zero

NOTE Confidence: 0.91826305

00:16:56.697 --> 00:16:59.492 is the best to have rather than

NOTE Confidence: 0.91826305

 $00:16:59.492 \longrightarrow 00:17:01.752$ stage 4 which means that you have

NOTE Confidence: 0.91826305

 $00:17:01.752 \longrightarrow 00:17:04.475$ cancer that has spread and so Melanoma

 $00:17:04.475 \longrightarrow 00:17:07.480$ can definitely be stage 4, stage 3,

NOTE Confidence: 0.91826305

 $00{:}17{:}07.480 \dashrightarrow 00{:}17{:}09.820$ these higher stages that suggest that

NOTE Confidence: 0.91826305

 $00:17:09.820 \longrightarrow 00:17:12.548$ you're going to have a worse prognosis

NOTE Confidence: 0.91826305

 $00:17:12.548 \longrightarrow 00:17:14.428$ meaning that cancer really

NOTE Confidence: 0.91826305

 $00:17:14.503 \longrightarrow 00:17:16.946$ might affect the course of your life.

NOTE Confidence: 0.91826305

 $00{:}17{:}16.950 \dashrightarrow 00{:}17{:}20.412$ And so ideally when we catch skin cancer

NOTE Confidence: 0.91826305

 $00:17:20.412 \longrightarrow 00:17:22.267$ including Melanoma at stage zero,

NOTE Confidence: 0.91826305

 $00:17:22.270 \longrightarrow 00:17:24.190$ stage 1 or even stage two,

NOTE Confidence: 0.91826305

 $00:17:24.190 \longrightarrow 00:17:26.750$ we can cure the patient.

NOTE Confidence: 0.91826305

 $00:17:26.750 \longrightarrow 00:17:30.870$ Usually the best way is just to cut it out.

NOTE Confidence: 0.91826305

 $00:17:30.870 \longrightarrow 00:17:33.784$ And so it sort of

NOTE Confidence: 0.91826305

 $00:17:33.784 \longrightarrow 00:17:35.663$ 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

 $00:17:38.630 \longrightarrow 00:17:40.166$ it's much easier to cut it

NOTE Confidence: 0.91826305

 $00:17:40.166 \longrightarrow 00:17:41.589$ out no matter where it is,

NOTE Confidence: 0.91826305

 $00:17:41.590 \longrightarrow 00:17:43.907$ even if it's in a sensitive area.

00:17:43.910 --> 00:17:47.186 Like the genital area and the bigger it is,

 $00:17:47.734 \longrightarrow 00:17:49.366$ the harder it is to cut

NOTE Confidence: 0.91826305

 $00:17:49.366 \longrightarrow 00:17:50.590$ that larger thing out.

NOTE Confidence: 0.91826305

 $00:17:50.590 \longrightarrow 00:17:52.756$ So excision or cutting something out

NOTE Confidence: 0.91826305

 $00:17:52.756 \longrightarrow 00:17:55.607$ is the main way we treat things and

NOTE Confidence: 0.91826305

00:17:55.607 --> 00:17:58.030 it works often very well and many,

NOTE Confidence: 0.91826305

 $00:17:58.030 \longrightarrow 00:17:59.430$ many people have a cure.

NOTE Confidence: 0.91826305

00:17:59.430 --> 00:18:01.264 And so I'll often tell people that,

NOTE Confidence: 0.91826305

00:18:01.270 --> 00:18:02.341 for example BCC,

NOTE Confidence: 0.91826305

 $00:18:02.341 \longrightarrow 00:18:04.126$ the basal cell carcinoma that

NOTE Confidence: 0.91826305

 $00{:}18{:}04.126 \dashrightarrow 00{:}18{:}05.989$ we mentioned in the first part,

NOTE Confidence: 0.91826305

 $00:18:05.990 \longrightarrow 00:18:08.426$ that often is cured very easily,

NOTE Confidence: 0.91826305

 $00:18:08.430 \longrightarrow 00:18:10.530$ relatively easily compared to other

NOTE Confidence: 0.91826305

 $00{:}18{:}10.530 \dashrightarrow 00{:}18{:}13.310$ skin cancers with a simple excision.

NOTE Confidence: 0.91826305

00:18:13.310 --> 00:18:14.470 And people do very well.

NOTE Confidence: 0.91826305

 $00:18:14.470 \longrightarrow 00:18:16.297$ And so it's the best cancer to

 $00:18:16.297 \longrightarrow 00:18:18.010$ have is what I'll tell patients

NOTE Confidence: 0.91826305

 $00:18:18.010 \longrightarrow 00:18:19.750$ if you have to have one.

NOTE Confidence: 0.91826305

 $00:18:19.750 \longrightarrow 00:18:21.650$ Melanoma often can also be

NOTE Confidence: 0.91826305

00:18:21.650 --> 00:18:22.790 cured with excision.

NOTE Confidence: 0.91826305

 $00:18:22.790 \longrightarrow 00:18:24.914$ Other ways especially for

NOTE Confidence: 0.91826305

 $00:18:24.914 \longrightarrow 00:18:27.542$ higher stages is

NOTE Confidence: 0.91826305

 $00:18:27.542 \longrightarrow 00:18:28.574$ newer modalities,

NOTE Confidence: 0.91826305

 $00:18:28.574 \longrightarrow 00:18:30.638$ there's been an explosion,

NOTE Confidence: 0.91826305

 $00:18:30.640 \longrightarrow 00:18:32.760$ a really wonderful explosion in

NOTE Confidence: 0.91826305

00:18:32.760 --> 00:18:34.880 cancer treatment for all cancers,

NOTE Confidence: 0.91826305

 $00{:}18{:}34.880 \dashrightarrow 00{:}18{:}36.236$ but also including Melanoma.

NOTE Confidence: 0.91826305

 $00:18:36.236 \longrightarrow 00:18:38.830$ And we used to not have great

NOTE Confidence: 0.91826305

00:18:38.830 --> 00:18:41.275 treatments for advanced stage Melanoma,

NOTE Confidence: 0.91826305

 $00{:}18{:}41.280 --> 00{:}18{:}43.160$ stage 3 or stage 4.

NOTE Confidence: 0.91826305

 $00:18:43.160 \longrightarrow 00:18:45.660$ But increasingly we have new

 $00:18:45.660 \longrightarrow 00:18:47.160$ treatments including something

NOTE Confidence: 0.91826305

00:18:47.160 --> 00:18:49.999 called BRAF inhibitor treatment,

NOTE Confidence: 0.91826305

 $00:18:50.000 \longrightarrow 00:18:51.552$ also MECH inhibitor treatment.

NOTE Confidence: 0.91826305

 $00:18:51.552 \longrightarrow 00:18:53.880$ And they all have fancy names

 $00:18:55.440 \longrightarrow 00:18:58.140$ but the important thing to remember

NOTE Confidence: 0.91826305

 $00:18:58.140 \longrightarrow 00:19:01.024$ is that increasingly with help of

NOTE Confidence: 0.91826305

 $00:19:01.024 \longrightarrow 00:19:03.008$ researchers and scientists and

NOTE Confidence: 0.91826305

 $00:19:03.008 \longrightarrow 00:19:05.241$ physicians who dedicate their time

NOTE Confidence: 0.91826305

 $00{:}19{:}05.241 \dashrightarrow 00{:}19{:}08.044$ to research as well in laboratories

NOTE Confidence: 0.91826305

 $00:19:08.044 \longrightarrow 00:19:11.154$ that there are molecular alterations,

NOTE Confidence: 0.91826305

 $00{:}19{:}11.160 \dashrightarrow 00{:}19{:}13.500$ there's alterations on that inside

NOTE Confidence: 0.91826305

 $00:19:13.500 \longrightarrow 00:19:15.840$ cell level that are detected.

NOTE Confidence: 0.91826305

 $00:19:15.840 \longrightarrow 00:19:17.080$ And so for Melanoma,

NOTE Confidence: 0.91826305

 $00{:}19{:}17.080 \dashrightarrow 00{:}19{:}19.680$ an example is a BRAF mutation,

NOTE Confidence: 0.91826305

00:19:19.680 --> 00:19:22.176 BRAF is a particular gene

NOTE Confidence: 0.91826305

 $00:19:22.180 \longrightarrow 00:19:24.022$ in our genetic code that can

00:19:24.022 --> 00:19:25.780 be changed in skin cancer,

NOTE Confidence: 0.91826305

00:19:25.780 --> 00:19:28.270 in Melanoma and a drug

NOTE Confidence: 0.91826305

 $00:19:28.270 \longrightarrow 00:19:30.454$ targets that

NOTE Confidence: 0.91826305

00:19:30.454 --> 00:19:32.258 particular BRAF mutation.

NOTE Confidence: 0.91826305

 $00:19:32.260 \longrightarrow 00:19:34.294$ And so we have these advances

NOTE Confidence: 0.91826305

 $00:19:34.294 \longrightarrow 00:19:36.572$ that can do wonders even with

NOTE Confidence: 0.91826305

 $00{:}19{:}36.572 \dashrightarrow 00{:}19{:}38.697$ stage 4 with metastatic Melanoma.

NOTE Confidence: 0.91826305

00:19:38.700 --> 00:19:41.759 And so I would just say work

NOTE Confidence: 0.91826305

 $00:19:41.759 \longrightarrow 00:19:43.070$ carefully and closely

NOTE Confidence: 0.943847612857143

 $00:19:43.163 \longrightarrow 00:19:45.347$ with your oncologist and

NOTE Confidence: 0.943847612857143

 $00{:}19{:}45.350 \dashrightarrow 00{:}19{:}46.770$ you'll see that of tentimes there

NOTE Confidence: 0.943847612857143

 $00:19:46.770 \longrightarrow 00:19:48.190$ can be really great treatments.

NOTE Confidence: 0.90073830375

 $00:19:48.310 \longrightarrow 00:19:50.590$ So you know, when you talk about these

NOTE Confidence: 0.90073830375

 $00:19:50.590 \longrightarrow 00:19:53.790$ fancy drugs that are

NOTE Confidence: 0.90073830375

00:19:53.790 --> 00:19:56.350 inhibitors of various mutations,

NOTE Confidence: 0.90073830375

 $00:19:56.350 \longrightarrow 00:19:58.912$ it certainly sounds a lot like

 $00:19:58.912 \longrightarrow 00:20:00.620$ the precision medicine that

NOTE Confidence: 0.90073830375

 $00{:}20{:}00.696 \dashrightarrow 00{:}20{:}03.390$ we've talked about on this show

NOTE Confidence: 0.90073830375

 $00{:}20{:}03.390 \dashrightarrow 00{:}20{:}05.186$ previously for other cancers.

NOTE Confidence: 0.90073830375

00:20:05.190 --> 00:20:07.646 Can you tell us a little bit more

NOTE Confidence: 0.90073830375

 $00:20:07.646 \longrightarrow 00:20:10.072$ about how common these mutations are

NOTE Confidence: 0.90073830375

 $00:20:10.072 \longrightarrow 00:20:12.682$ in Melanoma because it's still the

NOTE Confidence: 0.90073830375

00:20:12.759 --> 00:20:15.327 perception of many that Melanoma is

NOTE Confidence: 0.90073830375

 $00:20:15.330 \longrightarrow 00:20:18.490$ the most deadly skin cancer.

NOTE Confidence: 0.90073830375

 $00{:}20{:}18.490 \dashrightarrow 00{:}20{:}21.724$ But if the majority of these have

NOTE Confidence: 0.90073830375

 $00:20:21.730 \longrightarrow 00:20:26.080$ a targetable mutation and if those

NOTE Confidence: 0.90073830375

 $00:20:26.080 \longrightarrow 00:20:28.930$ drugs that are inhibitors of those

NOTE Confidence: 0.90073830375

00:20:28.930 --> 00:20:31.050 targetable mutations are very effective,

NOTE Confidence: 0.90073830375

 $00{:}20{:}31.050 \dashrightarrow 00{:}20{:}33.080$ one can imagine that it might not

NOTE Confidence: 0.90073830375

 $00:20:33.080 \longrightarrow 00:20:35.290$ actually be as deadly as some think.

NOTE Confidence: 0.930566833846154

 $00:20:36.330 \longrightarrow 00:20:38.796$ Absolutely. And that's why I said

 $00:20:38.796 \longrightarrow 00:20:41.216$ there's this wonderful explosion of new

NOTE Confidence: 0.930566833846154

 $00:20:41.216 \longrightarrow 00:20:44.430$ treatments because we are seeing that.

NOTE Confidence: 0.930566833846154

 $00:20:44.430 \longrightarrow 00:20:46.350$ When I started out,

NOTE Confidence: 0.930566833846154

 $00:20:46.350 \longrightarrow 00:20:48.261$ and even probably for a good half

NOTE Confidence: 0.930566833846154

00:20:48.261 --> 00:20:50.270 of my career as a dermatologist,

NOTE Confidence: 0.930566833846154

 $00:20:50.270 \longrightarrow 00:20:53.054$ if someone was diagnosed

NOTE Confidence: 0.930566833846154

 $00:20:53.054 \longrightarrow 00:20:54.690$ with advanced Melanoma,

NOTE Confidence: 0.930566833846154

00:20:54.690 --> 00:20:57.510 Stage 4 Melanoma that had spread,

NOTE Confidence: 0.930566833846154

 $00:20:57.510 \longrightarrow 00:21:01.184$ that was pretty much a fatal diagnosis.

NOTE Confidence: 0.930566833846154

 $00:21:01.184 \longrightarrow 00:21:04.166$ A really difficult conversation to have

NOTE Confidence: 0.930566833846154

 $00:21:04.166 \longrightarrow 00:21:07.053$ with that patient about what was sort

NOTE Confidence: 0.930566833846154

 $00:21:07.053 \longrightarrow 00:21:10.070$ of in store in terms of that cancer.

NOTE Confidence: 0.930566833846154

 $00:21:10.070 \longrightarrow 00:21:11.483$ There were treatments,

NOTE Confidence: 0.930566833846154

 $00:21:11.483 \longrightarrow 00:21:13.367$ say like interferon alpha.

NOTE Confidence: 0.930566833846154

 $00:21:13.370 \longrightarrow 00:21:16.770$ But they didn't work that well and in

NOTE Confidence: 0.930566833846154

 $00:21:16.770 \longrightarrow 00:21:19.045$ the vast majority of patients.

 $00:21:19.050 \longrightarrow 00:21:21.426$ So now what we're seeing is

NOTE Confidence: 0.930566833846154

00:21:21.426 --> 00:21:23.010 with that personalized medicine,

NOTE Confidence: 0.930566833846154

 $00:21:23.010 \longrightarrow 00:21:24.540$ absolutely your cancer,

NOTE Confidence: 0.930566833846154

00:21:24.540 --> 00:21:27.090 your Melanoma can be sequenced

NOTE Confidence: 0.930566833846154

 $00:21:27.090 \longrightarrow 00:21:29.250$ and even just stained.

NOTE Confidence: 0.930566833846154

 $00:21:29.250 \longrightarrow 00:21:32.202$ So now for that BRAF gene for example,

NOTE Confidence: 0.930566833846154

 $00:21:32.210 \longrightarrow 00:21:34.302$ we have an immunohistochemical

NOTE Confidence: 0.930566833846154

 $00:21:34.302 \longrightarrow 00:21:37.440$ stain which just means that your

NOTE Confidence: 0.930566833846154

 $00{:}21{:}37.531 \dashrightarrow 00{:}21{:}40.687$ pathologist or dramatopathologist can

NOTE Confidence: 0.930566833846154

 $00{:}21{:}40.690 \dashrightarrow 00{:}21{:}42.844$ stain the tissue with a particular

NOTE Confidence: 0.930566833846154

00:21:42.844 --> 00:21:45.385 antibody and just see if the tissue

NOTE Confidence: 0.930566833846154

 $00:21:45.385 \longrightarrow 00:21:47.807$ lights up a different color showing that

NOTE Confidence: 0.930566833846154

 $00{:}21{:}47.876 \longrightarrow 00{:}21{:}50.246$ the antibody, that protein, is stained.

NOTE Confidence: 0.930566833846154

 $00:21:50.250 \longrightarrow 00:21:52.910$ And so then that would suggest that

NOTE Confidence: 0.930566833846154

 $00:21:52.910 \longrightarrow 00:21:54.982$ that personalized treatment with a

 $00:21:54.982 \longrightarrow 00:21:57.005$ BRAF inhibitor would work versus if your

NOTE Confidence: 0.930566833846154

00:21:57.074 --> 00:21:59.489 tissue doesn't stain,

NOTE Confidence: 0.930566833846154

00:21:59.490 --> 00:22:00.345 it wouldn't work.

NOTE Confidence: 0.930566833846154

 $00:22:00.345 \longrightarrow 00:22:03.155$ So we can get more and more precise and

NOTE Confidence: 0.930566833846154

 $00:22:03.155 \longrightarrow 00:22:05.399$ personalized for the best treatment

NOTE Confidence: 0.930566833846154

 $00{:}22{:}05.399 \dashrightarrow 00{:}22{:}08.430$ to use on patients and so there are these

NOTE Confidence: 0.930566833846154

 $00:22:08.430 \longrightarrow 00:22:10.460$ really stunning curves in science

NOTE Confidence: 0.930566833846154

 $00:22:10.460 \longrightarrow 00:22:12.992$ journals that will show survival curves

NOTE Confidence: 0.930566833846154

 $00:22:12.992 \longrightarrow 00:22:15.147$ and they're called waterfall plots.

NOTE Confidence: 0.930566833846154

 $00:22:15.150 \longrightarrow 00:22:17.334$ It's kind of a pretty fancy

NOTE Confidence: 0.930566833846154

 $00:22:17.334 \longrightarrow 00:22:18.790$ kind of picturesque term,

NOTE Confidence: 0.930566833846154

 $00{:}22{:}18.790 \dashrightarrow 00{:}22{:}21.758$ but it really shows that survival has really

NOTE Confidence: 0.930566833846154

 $00:22:21.758 \longrightarrow 00:22:24.270$ changed with newer medicines like that.

NOTE Confidence: 0.930566833846154

00:22:24.270 --> 00:22:26.846 And I just want to again emphasize though

NOTE Confidence: 0.930566833846154

 $00:22:26.846 \longrightarrow 00:22:29.454$ that early detection is still better because

NOTE Confidence: 0.930566833846154

 $00:22:29.454 \longrightarrow 00:22:32.150$ what happens with some of these medicines,

 $00:22:32.150 \longrightarrow 00:22:33.034$ for example,

NOTE Confidence: 0.930566833846154

00:22:33.034 --> 00:22:35.244 that BRAF inhibitor medicine

00:22:36.738 --> 00:22:38.970 it's tricky and it's growing fast

NOTE Confidence: 0.930566833846154

00:22:39.040 --> 00:22:41.178 because it's out of control, right?

NOTE Confidence: 0.930566833846154

 $00:22:41.178 \longrightarrow 00:22:42.010$ That's what cancer is,

NOTE Confidence: 0.930566833846154

00:22:42.010 --> 00:22:44.926 uncontrolled growth and it can bypass,

NOTE Confidence: 0.930566833846154

 $00:22:44.930 \longrightarrow 00:22:48.250$ it can start to bypass around that treatment.

NOTE Confidence: 0.930566833846154

 $00:22:48.250 \longrightarrow 00:22:50.007$ So the earlier we can detect it,

NOTE Confidence: 0.930566833846154

 $00:22:50.010 \longrightarrow 00:22:52.930$ the fewer cells of cancer that there are,

NOTE Confidence: 0.930566833846154

 $00:22:52.930 \longrightarrow 00:22:55.499$ there's less chance of that kind of

NOTE Confidence: 0.930566833846154

 $00:22:55.499 \longrightarrow 00:22:57.290$ resistance to treatment developing.

 $00:23:03.010 \longrightarrow 00:23:06.105$ Most melanomas have these mutations

NOTE Confidence: 0.929193264285714

00:23:06.105 --> 00:23:09.490 such that they are targetable or

NOTE Confidence: 0.929193264285714

 $00{:}23{:}09.490 \dashrightarrow 00{:}23{:}12.255$ are many of them without a target

NOTE Confidence: 0.929193264285714

 $00{:}23{:}12.255 \dashrightarrow 00{:}23{:}15.766$ such that they need to be treated

NOTE Confidence: 0.929193264285714

 $00:23:15.766 \longrightarrow 00:23:18.566$ with more generalized the rapies like

 $00:23:18.566 \longrightarrow 00:23:21.090$ chemotherapy or immunotherapy, yes.

NOTE Confidence: 0.936899063333334

00:23:21.450 --> 00:23:23.406 So I would say the majority,

NOTE Confidence: 0.936899063333334

 $00:23:23.410 \longrightarrow 00:23:26.608$ maybe 60% plus of melanomas can

NOTE Confidence: 0.936899063333334

 $00:23:26.608 \longrightarrow 00:23:30.210$ have a targetable BRAF mutation.

 $00:23:33.024 \longrightarrow 00:23:35.096$ Studies showed

NOTE Confidence: 0.936899063333334

 $00:23:35.096 \longrightarrow 00:23:37.466$ relatively early on that treatment with

NOTE Confidence: 0.936899063333334

 $00:23:37.466 \longrightarrow 00:23:40.105$ a BRAF inhibitor alone resistance

NOTE Confidence: 0.936899063333334

00:23:40.105 --> 00:23:42.763 would often develop within sort of

NOTE Confidence: 0.936899063333334

 $00{:}23{:}42.770 \dashrightarrow 00{:}23{:}44.688$ less than a year's time in patients.

NOTE Confidence: 0.936899063333334

 $00:23:44.690 \longrightarrow 00:23:48.254$ So now immunotherapy and

NOTE Confidence: 0.936899063333334

 $00:23:48.254 \longrightarrow 00:23:51.877$ adding on other medicines on top of a

NOTE Confidence: 0.936899063333334

 $00:23:51.877 \longrightarrow 00:23:54.745$ BRAF inhibitor is commonly used and

NOTE Confidence: 0.936899063333334

 $00{:}23{:}54.745 \dashrightarrow 00{:}23{:}57.780$ is very effective and can prevent

NOTE Confidence: 0.936899063333334

 $00{:}23{:}57.780 \dashrightarrow 00{:}23{:}59.665$ that kind of resistance from

NOTE Confidence: 0.936899063333334

 $00:23:59.665 \longrightarrow 00:24:00.419$ forming, absolutely.

NOTE Confidence: 0.938815911428571

00:24:01.300 --> 00:24:04.338 And so how many of these patients

 $00:24:04.340 \longrightarrow 00:24:08.036$ who have a BRAF mutation who are

NOTE Confidence: 0.938815911428571

 $00:24:08.036 \longrightarrow 00:24:12.660$ treated with targeted the rapies then

NOTE Confidence: 0.938815911428571

00:24:12.660 --> 00:24:16.357 relapse and I mean do we see

NOTE Confidence: 0.938815911428571

00:24:16.357 --> 00:24:18.018 you mentioned that if they relapse,

NOTE Confidence: 0.938815911428571

 $00:24:18.020 \longrightarrow 00:24:20.624$ they generally relapse within a year

NOTE Confidence: 0.938815911428571

00:24:20.624 --> 00:24:23.776 but do many of them never relapse,

NOTE Confidence: 0.938815911428571

00:24:23.780 --> 00:24:26.419 I mean is this truly curative treatment?

NOTE Confidence: 0.95232968

 $00:24:27.410 \longrightarrow 00:24:30.010$ Yeah, there are definitely success

NOTE Confidence: 0.95232968

 $00:24:30.010 \longrightarrow 00:24:32.610$ stories where there's a cure.

NOTE Confidence: 0.95232968

 $00:24:32.610 \longrightarrow 00:24:35.106$ Some patients do need to stay

NOTE Confidence: 0.95232968

 $00{:}24{:}35.106 \dashrightarrow 00{:}24{:}37.728$ on that immunother apy that inhibitor,

NOTE Confidence: 0.95232968

 $00:24:37.730 \longrightarrow 00:24:40.298$ but it can keep

NOTE Confidence: 0.95232968

 $00:24:40.298 \longrightarrow 00:24:43.490$ the cancer in check basically.

NOTE Confidence: 0.95232968

 $00:24:43.490 \longrightarrow 00:24:45.530$ So yes, there are cures,

NOTE Confidence: 0.95232968

 $00:24:45.530 \longrightarrow 00:24:47.630$ close to being cures or sort

NOTE Confidence: 0.95232968

 $00:24:47.630 \longrightarrow 00:24:49.629$ of control of the disease,

 $00:24:49.629 \longrightarrow 00:24:51.658$ yes and they're stunning.

NOTE Confidence: 0.95232968

 $00{:}24{:}51.658 \operatorname{{\text--}}{>} 00{:}24{:}53.478$ Other patients may not have

NOTE Confidence: 0.95232968

 $00:24:53.478 \longrightarrow 00:24:55.840$ as good a response rate and

NOTE Confidence: 0.95232968

 $00:24:55.840 \longrightarrow 00:24:59.040$ I would say it is still to me

NOTE Confidence: 0.95232968

 $00{:}24{:}59.040 \dashrightarrow 00{:}25{:}01.040$ also part of personalized medicine

NOTE Confidence: 0.95232968

 $00:25:01.040 \longrightarrow 00:25:02.790$ entails that your response

NOTE Confidence: 0.95232968

 $00:25:02.790 \longrightarrow 00:25:05.640$ becomes what it is for you.

NOTE Confidence: 0.95232968

 $00:25:05.640 \longrightarrow 00:25:07.036$ So there are statistics,

NOTE Confidence: 0.95232968

 $00:25:07.036 \longrightarrow 00:25:09.699$ but good careful follow up and

NOTE Confidence: 0.95232968

 $00{:}25{:}09.699 \dashrightarrow 00{:}25{:}12.080$ follow up of any scans if you have them.

NOTE Confidence: 0.95232968

 $00:25:12.080 \longrightarrow 00:25:14.580$ That kind of periodic monitoring

NOTE Confidence: 0.95232968

 $00:25:14.580 \longrightarrow 00:25:17.073$ is probably at least right

NOTE Confidence: 0.95232968

 $00{:}25{:}17.073 \dashrightarrow 00{:}25{:}18.397$ now still always important.

NOTE Confidence: 0.914172468181818

00:25:19.520 --> 00:25:21.866 And when you mention that some

NOTE Confidence: 0.914172468181818

 $00:25:21.866 \longrightarrow 00:25:24.570$ patients need to take immunotherapy

 $00:25:24.570 \longrightarrow 00:25:27.426$ to kind of keep this cancer under control

NOTE Confidence: 0.914172468181818

 $00{:}25{:}27.426 \dashrightarrow 00{:}25{:}30.308$ is that given orally and how long do

NOTE Confidence: 0.914172468181818

 $00:25:30.308 \longrightarrow 00:25:33.168$ patients need to be on those therapies?

NOTE Confidence: 0.950317

 $00:25:34.450 \longrightarrow 00:25:35.302$ Yes, immunotherapy.

NOTE Confidence: 0.950317

 $00:25:35.302 \longrightarrow 00:25:37.890$ There are things like PD1 inhibitors

NOTE Confidence: 0.950317

 $00:25:37.890 \longrightarrow 00:25:41.410$ which are used for other cancers as well.

NOTE Confidence: 0.950317

00:25:41.410 --> 00:25:43.804 So people may be familiar with them

NOTE Confidence: 0.950317

 $00:25:43.804 \longrightarrow 00:25:46.476$ in other in the context of other

NOTE Confidence: 0.950317

 $00{:}25{:}46.476 \dashrightarrow 00{:}25{:}48.834$ cancers like colon cancer or lung

NOTE Confidence: 0.950317

00:25:48.907 --> 00:25:51.087 cancer or other organ systems.

NOTE Confidence: 0.950317

 $00:25:51.090 \longrightarrow 00:25:53.410$ And they're generally infusions, yes.

NOTE Confidence: 0.950317

 $00:25:53.410 \longrightarrow 00:25:56.570$ So you would still go

NOTE Confidence: 0.950317

00:25:59.314 --> 00:26:02.243 get an IV put in and it would be

NOTE Confidence: 0.950317

 $00:26:02.250 \longrightarrow 00:26:04.368$ infused through your vein.

NOTE Confidence: 0.950317

 $00:26:05.090 \longrightarrow 00:26:08.180$ Getting back to where we started

NOTE Confidence: 0.950317

 $00:26:08.180 \longrightarrow 00:26:09.800$ this conversation, you know,

 $00:26:09.800 \longrightarrow 00:26:12.653$ we talked to at the top of the show

NOTE Confidence: 0.950317

 $00{:}26{:}12.653 \to 00{:}26{:}15.593$ about the spectrum of cancers and you

NOTE Confidence: 0.950317

00:26:15.593 --> 00:26:18.342 mentioned that the majority of cancers

NOTE Confidence: 0.950317

 $00:26:18.342 \longrightarrow 00:26:20.632$ are actually basal cell cancers.

NOTE Confidence: 0.950317

 $00:26:20.640 \longrightarrow 00:26:23.241$ And many of us may not talk a lot

NOTE Confidence: 0.950317

00:26:23.241 --> 00:26:25.834 about basal cell cancers because they

NOTE Confidence: 0.950317

00:26:25.834 --> 00:26:28.880 generally have a really good prognosis.

NOTE Confidence: 0.950317

 $00:26:28.880 \longrightarrow 00:26:29.519$ Is that right?

NOTE Confidence: 0.9553487

 $00:26:30.600 \longrightarrow 00:26:33.300$ Yes. Basal cell cancer especially

NOTE Confidence: 0.9553487

 $00:26:33.300 \longrightarrow 00:26:35.660$ when detected early, it's less

NOTE Confidence: 0.9553487

 $00{:}26{:}35.660 \dashrightarrow 00{:}26{:}37.880$ than you know say a centimeter,

NOTE Confidence: 0.9553487

 $00:26:37.880 \longrightarrow 00:26:41.360$ it's highly curable with excision.

NOTE Confidence: 0.949198844444445

00:26:41.360 --> 00:26:43.760 Then they don't require

NOTE Confidence: 0.94919884444445

 $00:26:43.760 \longrightarrow 00:26:44.960$ any further treatment?

NOTE Confidence: 0.94919884444445

 $00:26:44.960 \longrightarrow 00:26:48.260$ Generally not.

 $00:26:48.260 \longrightarrow 00:26:51.096$ And so how can yoy

NOTE Confidence: 0.94919884444445

00:26:51.096 --> 00:26:53.322 kind of guide our audience

NOTE Confidence: 0.94919884444445

00:26:53.322 --> 00:26:55.434 when we're doing those very thorough

NOTE Confidence: 0.94919884444445

 $00:26:55.434 \longrightarrow 00:26:57.730$ skin exams once a month that you had

NOTE Confidence: 0.94919884444445

00:26:57.797 --> 00:27:00.093 mentioned in the first half of the show,

NOTE Confidence: 0.94919884444445

 $00:27:00.100 \longrightarrow 00:27:02.991$ what should we be looking for in

NOTE Confidence: 0.94919884444445

 $00:27:02.991 \longrightarrow 00:27:06.559$ terms of a basal cell versus a

NOTE Confidence: 0.949198844444445

00:27:06.559 --> 00:27:09.339 squamous cell versus a Melanoma?

NOTE Confidence: 0.949198844444445

 $00:27:09.340 \longrightarrow 00:27:10.972$ And when should we really be

NOTE Confidence: 0.94919884444445

00:27:10.972 --> 00:27:12.739 going to our doctor and saying,

NOTE Confidence: 0.9491988444444445

 $00{:}27{:}12.740 \dashrightarrow 00{:}27{:}14.560$ hey, look at this because,

NOTE Confidence: 0.949198844444445

00:27:14.560 --> 00:27:17.038 many of us will have little spots,

NOTE Confidence: 0.94919884444445

00:27:17.040 --> 00:27:18.225 moles, you know,

NOTE Confidence: 0.949198844444445

 $00:27:18.225 \longrightarrow 00:27:20.200$ maybe a freckle or two.

NOTE Confidence: 0.949198844444445

00:27:20.200 --> 00:27:22.188 And we really don't want to bother

NOTE Confidence: 0.94919884444445

 $00{:}27{:}22.188 \dashrightarrow 00{:}27{:}24.441$ our doctor if we don't think it's

 $00:27:24.441 \longrightarrow 00:27:26.116$ anything to be concerned about.

NOTE Confidence: 0.949198844444445

 $00:27:26.120 \longrightarrow 00:27:28.040$ But at the same time,

NOTE Confidence: 0.94919884444445

 $00:27:28.040 \longrightarrow 00:27:30.968$ we want to be sure that we're detecting

NOTE Confidence: 0.949198844444445

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

NOTE Confidence: 0.949198844444445

 $00:27:33.440 \longrightarrow 00:27:35.195$ So can you kind of give us some tips?

NOTE Confidence: 0.941765391111111

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

NOTE Confidence: 0.941765391111111

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

NOTE Confidence: 0.941765391111111

 $00:27:41.573 \longrightarrow 00:27:43.899$ it seems like when I talk to my patients

NOTE Confidence: 0.941765391111111

 $00{:}27{:}43.900 \dashrightarrow 00{:}27{:}45.258$ it's great that they're aware of that,

NOTE Confidence: 0.941765391111111

 $00{:}27{:}45.260 \dashrightarrow 00{:}27{:}48.764$ but in the sense that Melanoma often

NOTE Confidence: 0.9417653911111111

 $00:27:48.764 \longrightarrow 00:27:52.152$ looks very different than other skin cancers,

NOTE Confidence: 0.941765391111111

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

NOTE Confidence: 0.9417653911111111

 $00{:}27{:}53.814 \dashrightarrow 00{:}27{:}55.482$ which is the most common as

NOTE Confidence: 0.941765391111111

 $00:27:55.482 \longrightarrow 00:27:56.780$ we've been talking about.

NOTE Confidence: 0.941765391111111

 $00:27:56.780 \longrightarrow 00:27:58.420$ And so basal cell carcinoma,

00:27:58.420 --> 00:28:02.340 what you want to look for that

NOTE Confidence: 0.941765391111111

 $00:28:02.340 \longrightarrow 00:28:04.690$ pink to sort of translucent

NOTE Confidence: 0.941765391111111

 $00:28:04.690 \longrightarrow 00:28:06.100$ to sometimes dark,

NOTE Confidence: 0.941765391111111

00:28:06.100 --> 00:28:08.417 it can sometimes be Gray or black,

NOTE Confidence: 0.941765391111111

 $00:28:08.420 \longrightarrow 00:28:09.653$ especially in patients

NOTE Confidence: 0.941765391111111

 $00:28:09.653 \longrightarrow 00:28:11.297$ with higher skin types.

NOTE Confidence: 0.941765391111111

 $00:28:11.300 \longrightarrow 00:28:14.780$ That 4-5 or six Fitzpatrick scale,

NOTE Confidence: 0.941765391111111

 $00:28:14.780 \longrightarrow 00:28:15.836$ it can be Gray.

NOTE Confidence: 0.9417653911111111

 $00{:}28{:}15.836 \dashrightarrow 00{:}28{:}17.156$ So not everything that's dark

NOTE Confidence: 0.941765391111111

 $00:28:17.156 \longrightarrow 00:28:18.659$ and irregular is Melanoma.

NOTE Confidence: 0.941765391111111

 $00:28:18.660 \longrightarrow 00:28:22.055$ Sometimes it is BCC basal cell carcinoma.

NOTE Confidence: 0.941765391111111

 $00:28:22.060 \longrightarrow 00:28:24.484$ So a general rule of thumb

NOTE Confidence: 0.941765391111111

 $00:28:24.484 \longrightarrow 00:28:26.430$ that I'll tell patients is

NOTE Confidence: 0.9417653911111111

 $00:28:26.430 \longrightarrow 00:28:28.936$ let me know about, let your dermatologist

NOTE Confidence: 0.941765391111111

00:28:28.936 --> 00:28:30.736 know your physician know about

NOTE Confidence: 0.941765391111111

 $00:28:30.736 \longrightarrow 00:28:32.710$ anything that looks weird to you.

 $00:28:33.470 \longrightarrow 00:28:35.804$ Doctor Christine Ko is a professor

NOTE Confidence: 0.9163579

 $00:28:35.804 \longrightarrow 00:28:37.750$ of dermatology and pathology at

NOTE Confidence: 0.9163579

 $00:28:37.750 \longrightarrow 00:28:39.345$ the Yale School of Medicine.

NOTE Confidence: 0.9163579

 $00:28:39.350 \longrightarrow 00:28:41.450$ If you have questions, the address

NOTE Confidence: 0.9163579

00:28:41.450 --> 00:28:43.749 is Cancer Answers at Yale dot Edu,

NOTE Confidence: 0.9163579

 $00{:}28{:}43.750 \dashrightarrow 00{:}28{:}46.036$ and past editions of the program

NOTE Confidence: 0.9163579

 $00:28:46.036 \longrightarrow 00:28:48.291$ are available in audio and written

NOTE Confidence: 0.9163579

 $00{:}28{:}48.291 \dashrightarrow 00{:}28{:}49.253$ form at yale cancercenter.org.

NOTE Confidence: 0.9163579

00:28:49.253 --> 00:28:51.677 We hope you'll join us next week to

NOTE Confidence: 0.9163579

 $00:28:51.677 \longrightarrow 00:28:53.520$ learn more about the fight against

NOTE Confidence: 0.9163579

 $00:28:53.520 \longrightarrow 00:28:55.350$ cancer here on Connecticut Public Radio.

NOTE Confidence: 0.9163579

 $00:28:55.350 \longrightarrow 00:28:57.732$ Funding for Yale Cancer Answers is

NOTE Confidence: 0.9163579

 $00{:}28{:}57.732 \dashrightarrow 00{:}29{:}00.000$ provided by Smilow Cancer Hospital.