WEBVTT

 $00:00:00.000 \longrightarrow 00:00:02.766$ Support for Yale Cancer Answers comes

NOTE Confidence: 0.8556965

 $00{:}02.766 {\:{\circ}{\circ}{\circ}}>00{:}05.256$ from AstraZeneca, focused on exploring

NOTE Confidence: 0.8556965

 $00:00:05.256 \longrightarrow 00:00:07.528$ innovative treatment approaches for

NOTE Confidence: 0.8556965

00:00:07.528 --> 00:00:10.368 people living with bladder cancer.

NOTE Confidence: 0.8556965

00:00:10.370 --> 00:00:14.358 Learn more at astrazeneca-us.com.

NOTE Confidence: 0.8556965

 $00:00:14.360 \longrightarrow 00:00:15.728$ Welcome to Yale Cancer

NOTE Confidence: 0.8556965

00:00:15.728 --> 00:00:17.096 Answers with your host

NOTE Confidence: 0.8556965

00:00:17.100 --> 00:00:18.810 Doctor Anees Chagpar.

NOTE Confidence: 0.8556965

00:00:18.810 --> 00:00:20.635 Yale Cancer Answers features the

NOTE Confidence: 0.8556965

 $00:00:20.635 \longrightarrow 00:00:22.875$ latest information on cancer care by

NOTE Confidence: 0.8556965

 $00{:}00{:}22.875 \dashrightarrow 00{:}00{:}24.311$ welcoming on cologists and specialists

NOTE Confidence: 0.8556965

 $00:00:24.311 \longrightarrow 00:00:26.719$ who are on the forefront of the

NOTE Confidence: 0.8556965

00:00:26.719 --> 00:00:28.375 battle to fight cancer. This week,

NOTE Confidence: 0.8556965

 $00:00:28.380 \longrightarrow 00:00:30.384$ it's a conversation about the diagnosis

NOTE Confidence: 0.8556965

00:00:30.384 --> 00:00:32.140 and treatment of bladder cancer,

 $00:00:32.140 \longrightarrow 00:00:33.536$ with doctor John Colberg.

NOTE Confidence: 0.8556965

 $00{:}00{:}33.536 \dashrightarrow 00{:}00{:}35.630$ Doctor Colberg is a professor of

NOTE Confidence: 0.8556965

 $00{:}00{:}35.698 \dashrightarrow 00{:}00{:}37.473$ urology and director of Urologic

NOTE Confidence: 0.8556965

 $00{:}00{:}37.473 \dashrightarrow 00{:}00{:}39.624$ Oncology at the Yale School of

NOTE Confidence: 0.8556965

 $00:00:39.624 \longrightarrow 00:00:41.472$ Medicine where Doctor Chagpar is

NOTE Confidence: 0.8556965

00:00:41.472 --> 00:00:44.280 a professor of surgical oncology.

00:00:44.620 --> 00:00:47.284 Maybe we can start off by talking

NOTE Confidence: 0.8637104

00:00:47.284 --> 00:00:50.088 a little bit more about bladder cancer.

NOTE Confidence: 0.8637104

 $00:00:50.090 \longrightarrow 00:00:52.491$ It certainly isn't one of the most

NOTE Confidence: 0.8637104

 $00:00:52.491 \longrightarrow 00:00:54.540$ common cancers that we think about.

NOTE Confidence: 0.8637104

 $00{:}00{:}54.540 \dashrightarrow 00{:}00{:}57.618$ So tell us a little bit more about it.

NOTE Confidence: 0.8637104

00:00:57.620 --> 00:01:00.350 How common is it? Who gets it, and

NOTE Confidence: 0.8637104

 $00:01:00.350 \longrightarrow 00:01:01.718$ how deadly is it?

00:01:02.999 --> 00:01:05.830 If you look at non skin cancer cancers,

NOTE Confidence: 0.8637104

 $00:01:05.830 \longrightarrow 00:01:08.305$ it's the fifth most common

NOTE Confidence: 0.8637104

 $00:01:08.305 \longrightarrow 00:01:10.285$ cancer that we diagnose.

NOTE Confidence: 0.8637104

 $00:01:10.290 \longrightarrow 00:01:13.727$ It's the fourth most common in males.

 $00:01:13.730 \longrightarrow 00:01:17.174$ About 80,000 cases are diagnosed a year.

NOTE Confidence: 0.8637104

 $00:01:17.180 \longrightarrow 00:01:20.126$ The vast majority are male,

NOTE Confidence: 0.8637104

 $00:01:20.130 \longrightarrow 00:01:24.630$ about 62,000 versus 19,000 for women and

NOTE Confidence: 0.8637104

 $00:01:24.630 \longrightarrow 00:01:29.076$ the average age of diagnosis is 73.

NOTE Confidence: 0.8637104

 $00:01:29.080 \longrightarrow 00:01:32.083$ The chance of a man getting bladder

NOTE Confidence: 0.8637104

 $00:01:32.083 \longrightarrow 00:01:35.185$ cancer is about one out of 27 and

NOTE Confidence: 0.8637104

 $00:01:35.185 \longrightarrow 00:01:37.838$ for women about one out of 80.

NOTE Confidence: 0.8917018

 $00:01:39.670 \longrightarrow 00:01:42.838$ So when you think about it,

NOTE Confidence: 0.8917018

 $00:01:42.840 \longrightarrow 00:01:45.297$ being in the top five,

NOTE Confidence: 0.8917018

00:01:45.300 --> 00:01:47.412 it actually might be more common

NOTE Confidence: 0.8917018

 $00:01:47.412 \longrightarrow 00:01:48.820$ than many people realize.

NOTE Confidence: 0.8917018

 $00:01:48.820 \longrightarrow 00:01:51.636$ So what are the risk factors?

NOTE Confidence: 0.8917018

 $00:01:51.640 \longrightarrow 00:01:53.385$ Are there modifiable things that

NOTE Confidence: 0.8917018

 $00:01:53.385 \longrightarrow 00:01:55.539$ people should be thinking about that

NOTE Confidence: 0.8917018

 $00:01:55.539 \longrightarrow 00:01:57.269$ may predispose to bladder cancer?

00:01:57.270 --> 00:02:00.045 Absolutely, I think the biggest

NOTE Confidence: 0.8917018

 $00{:}02{:}00.045 --> 00{:}02{:}02.265$ one is cigarette smoking.

NOTE Confidence: 0.8917018

 $00:02:02.270 \longrightarrow 00:02:05.638$ A cigarette smoker has a three times greater

NOTE Confidence: 0.8917018

 $00:02:05.638 \longrightarrow 00:02:08.589$ chance of developing bladder cancer.

NOTE Confidence: 0.8917018

 $00:02:08.590 \longrightarrow 00:02:10.530$ There's some environmental and

NOTE Confidence: 0.8917018

 $00{:}02{:}10.530 \dashrightarrow 00{:}02{:}12.955$ workplace exposures that you

NOTE Confidence: 0.8917018

 $00:02:12.960 \longrightarrow 00:02:16.068$ might want to think about which

NOTE Confidence: 0.8917018

 $00:02:16.068 \longrightarrow 00:02:18.650$ includes people who

NOTE Confidence: 0.8917018

 $00:02:18.650 \longrightarrow 00:02:21.710$ work in textiles,

NOTE Confidence: 0.8917018

 $00:02:21.710 \longrightarrow 00:02:26.170$ maybe professions of painters, truck drivers.

NOTE Confidence: 0.8917018

00:02:26.170 --> 00:02:28.160 And on top of that,

NOTE Confidence: 0.8917018

 $00:02:28.160 \longrightarrow 00:02:30.946$ a lot of these people also smoke,

NOTE Confidence: 0.8917018

 $00:02:30.950 \longrightarrow 00:02:33.338$ so they have a much higher risk

NOTE Confidence: 0.8917018

 $00:02:33.338 \longrightarrow 00:02:34.930$ of developing bladder cancer.

NOTE Confidence: 0.8917018

 $00:02:34.930 \longrightarrow 00:02:36.915$ Now there's no predisposing

NOTE Confidence: 0.8917018

00:02:36.915 --> 00:02:38.503 genetic factors perse.

 $00:02:38.510 \longrightarrow 00:02:40.596$ Most of them are related to being

NOTE Confidence: 0.8917018

 $00:02:40.596 \longrightarrow 00:02:42.728$ turned on by cigarette smoking

NOTE Confidence: 0.8917018

 $00{:}02{:}42.728 \dashrightarrow 00{:}02{:}44.480$ or environmental exposures.

00:02:45.670 --> 00:02:47.455 tI hink with the cigarette smoking

NOTE Confidence: 0.840632500000001

 $00:02:47.455 \longrightarrow 00:02:50.365$ and I'd like to come back to

NOTE Confidence: 0.840632500000001

 $00:02:50.365 \longrightarrow 00:02:52.465$ that in terms of cumulative risk

NOTE Confidence: 0.840632500000001

00:02:52.465 --> 00:02:54.853 and whether quitting smoking

NOTE Confidence: 0.840632500000001

 $00:02:54.853 \longrightarrow 00:02:57.253$ actually reduces your risk, but

NOTE Confidence: 0.840632500000001

00:02:57.253 --> 00:02:59.418 in terms of workplace exposures,

NOTE Confidence: 0.840632500000001

 $00:02:59.420 \longrightarrow 00:03:01.748$ oftentimes if you're a

NOTE Confidence: 0.840632500000001

 $00{:}03{:}01.748 --> 00{:}03{:}03.890$ painter or a truck driver,

NOTE Confidence: 0.840632500000001

 $00:03:03.890 \longrightarrow 00:03:05.920$ that's your livelihood.

NOTE Confidence: 0.840632500000001

 $00:03:05.920 \longrightarrow 00:03:08.008$ Are there things that people are

NOTE Confidence: 0.840632500000001

 $00:03:08.008 \longrightarrow 00:03:10.728$ doing to reduce some of the exposures

NOTE Confidence: 0.840632500000001

 $00:03:10.728 \longrightarrow 00:03:13.248$ that people get to various chemicals

NOTE Confidence: 0.840632500000001

 $00:03:13.248 \longrightarrow 00:03:15.248$ associated with these occupations?

 $00:03:15.250 \longrightarrow 00:03:16.582$ So, for example,

NOTE Confidence: 0.840632500000001

 $00:03:16.582 \longrightarrow 00:03:19.246$ are there governmental bans

NOTE Confidence: 0.840632500000001

 $00:03:19.246 \longrightarrow 00:03:22.598$ on some of these chemicals that may be

NOTE Confidence: 0.840632500000001

 $00:03:22.598 \longrightarrow 00:03:25.398$ found in paints and dyes and so on?

 $00:03:29.586 \longrightarrow 00:03:31.704$ There's a fairly delayed response to

NOTE Confidence: 0.8379483

 $00{:}03{:}31.704 \to 00{:}03{:}33.957$ getting the cancer after this exposure,

NOTE Confidence: 0.8379483

 $00:03:33.960 \longrightarrow 00:03:37.000$ so a lot of these men and women we see

NOTE Confidence: 0.8379483

 $00:03:37.083 \longrightarrow 00:03:40.107$ have been exposed 20 or 30 years ago or

NOTE Confidence: 0.8379483

 $00{:}03{:}40.107 \dashrightarrow 00{:}03{:}43.550$ 40 years ago when there weren't a lot

NOTE Confidence: 0.8379483

 $00:03:43.550 \longrightarrow 00:03:46.302$ of restrictions and new laws in place

NOTE Confidence: 0.8379483

 $00:03:46.302 \longrightarrow 00:03:48.480$ to prevent from limiting their exposure.

NOTE Confidence: 0.8379483

 $00:03:48.480 \longrightarrow 00:03:51.382$ But some of them,

NOTE Confidence: 0.8379483

 $00{:}03{:}51.382 \dashrightarrow 00{:}03{:}53.909$ truck drivers are exposed to diesel fuel

NOTE Confidence: 0.8379483

 $00:03:53.909 \longrightarrow 00:03:56.923$ or people work in the dry cleaning business

NOTE Confidence: 0.8379483

 $00:03:56.923 \longrightarrow 00:04:00.215$ are exposed

NOTE Confidence: 0.8379483

 $00:04:00.220 \longrightarrow 00:04:03.080$ so I think that we are

 $00:04:03.152 \longrightarrow 00:04:06.344$ more aware of the exposures now and

NOTE Confidence: 0.8379483

 $00:04:06.344 \longrightarrow 00:04:08.549$ certainly with cigarette smoking

NOTE Confidence: 0.8379483

 $00:04:08.550 \longrightarrow 00:04:10.716$ it's pretty easy to say,

NOTE Confidence: 0.87964946

 $00:04:10.720 \longrightarrow 00:04:11.917$ stop smoking.

NOTE Confidence: 0.87964946

00:04:11.917 --> 00:04:14.311 And sadly though there

NOTE Confidence: 0.87964946

 $00{:}04{:}14.311 \dashrightarrow 00{:}04{:}16.604$ really is no legal restrictions on

NOTE Confidence: 0.87964946

 $00:04:16.604 \longrightarrow 00:04:19.421$ smoking and so it really is up to

NOTE Confidence: 0.87964946

 $00{:}04{:}19.421 \dashrightarrow 00{:}04{:}21.577$ people to take control of their own

NOTE Confidence: 0.87964946

 $00:04:21.580 \longrightarrow 00:04:23.445$ health with regards to cigarette

NOTE Confidence: 0.87964946

 $00:04:23.445 \longrightarrow 00:04:25.711$ smoking though one of the questions

NOTE Confidence: 0.87964946

00:04:25.711 --> 00:04:28.049 that often comes up is

NOTE Confidence: 0.87964946

 $00:04:28.049 \longrightarrow 00:04:30.305$ people who have engaged in smoking

NOTE Confidence: 0.87964946

 $00{:}04{:}30.305 \dashrightarrow 00{:}04{:}32.200$ often find it very difficult

NOTE Confidence: 0.87964946

 $00:04:32.200 \longrightarrow 00:04:35.728$ to quit and so they say,

NOTE Confidence: 0.87964946

 $00:04:35.730 \longrightarrow 00:04:37.690$ if I've already been smoking

 $00:04:37.690 \longrightarrow 00:04:39.258$ for 10, 15, 20 years,

NOTE Confidence: 0.87964946

 $00:04:39.260 \longrightarrow 00:04:41.997$ the damage is already done,

NOTE Confidence: 0.87964946

 $00:04:42.000 \longrightarrow 00:04:44.415$ so why bother quitting smoking?

NOTE Confidence: 0.87964946

00:04:44.415 --> 00:04:47.488 Is the risk of bladder cancer cumulative?

NOTE Confidence: 0.87964946

 $00:04:47.490 \longrightarrow 00:04:48.639$ In other words,

NOTE Confidence: 0.87964946

 $00:04:48.639 \longrightarrow 00:04:51.800$ you keep adding to that risk

NOTE Confidence: 0.87964946

00:04:51.800 --> 00:04:55.328 the more you smoke and after a certain point,

NOTE Confidence: 0.87964946

00:04:55.330 --> 00:04:58.858 if you say quit for five or ten years,

NOTE Confidence: 0.87964946

 $00{:}04{:}58.860 \dashrightarrow 00{:}05{:}00.820$ your risk goes back down.

NOTE Confidence: 0.87964946

 $00:05:00.820 \longrightarrow 00:05:03.220$ Or is it that

NOTE Confidence: 0.87964946

 $00{:}05{:}03.220 \dashrightarrow 00{:}05{:}04.824$ cigarette smoking causes damage

NOTE Confidence: 0.87964946

 $00:05:04.824 \longrightarrow 00:05:06.829$ that once it's done is done,

NOTE Confidence: 0.87964946

00:05:06.830 --> 00:05:10.439 and even if you quit smoking at that point,

NOTE Confidence: 0.87964946

00:05:10.440 --> 00:05:12.445 you're still at risk of

NOTE Confidence: 0.87964946

 $00:05:12.445 \longrightarrow 00:05:13.648$ developing bladder cancer.

NOTE Confidence: 0.87964946

 $00:05:13.650 \longrightarrow 00:05:15.650$ I don't think we know

 $00{:}05{:}15.650 --> 00{:}05{:}17.660$ that for certain, but

NOTE Confidence: 0.8668983

00:05:17.660 --> 00:05:20.060 certainly patients who stop smoking,

NOTE Confidence: 0.8668983

 $00:05:20.060 \longrightarrow 00:05:22.466$ I think the recurrence of the

NOTE Confidence: 0.8668983

 $00:05:22.466 \longrightarrow 00:05:24.070$ bladder cancer goes down.

NOTE Confidence: 0.8668983

 $00{:}05{:}24.070 \dashrightarrow 00{:}05{:}26.506$ So I think that even though it

NOTE Confidence: 0.8668983

 $00:05:26.506 \longrightarrow 00:05:28.554$ may not completely absolve them

NOTE Confidence: 0.8668983

00:05:28.554 --> 00:05:30.884 from getting more bladder cancer,

NOTE Confidence: 0.8668983

 $00:05:30.890 \longrightarrow 00:05:32.890$ it certainly will help them.

NOTE Confidence: 0.8956487

 $00:05:34.500 \longrightarrow 00:05:36.957$ And so the other thing that's interesting

NOTE Confidence: 0.8956487

 $00:05:36.957 \longrightarrow 00:05:40.066$ is that you mentioned that there was this

NOTE Confidence: 0.8956487

 $00:05:40.070 \longrightarrow 00:05:42.290$ gender difference in terms

NOTE Confidence: 0.8956487

 $00:05:42.290 \longrightarrow 00:05:44.513$ of bladder cancer, with more men

NOTE Confidence: 0.8956487

 $00{:}05{:}44.513 \dashrightarrow 00{:}05{:}46.368$ getting bladder cancer than women,

NOTE Confidence: 0.8956487

 $00:05:46.370 \longrightarrow 00:05:48.225$ I wonder whether that's related

NOTE Confidence: 0.8956487

 $00:05:48.225 \longrightarrow 00:05:49.709$ to differences in smoking.

 $00:05:49.710 \longrightarrow 00:05:52.041$ And now that we are beginning to

NOTE Confidence: 0.8956487

 $00{:}05{:}52.041 \dashrightarrow 00{:}05{:}54.528$ see more and more women smoking,

NOTE Confidence: 0.8956487

 $00:05:54.530 \longrightarrow 00:05:55.878$ whether they've seen anything

NOTE Confidence: 0.8956487

 $00:05:55.878 \longrightarrow 00:05:58.393$ change in terms of the risk of

NOTE Confidence: 0.8956487

 $00:05:58.393 \longrightarrow 00:06:00.097$ women developing bladder cancers.

NOTE Confidence: 0.8787095

00:06:01.070 --> 00:06:02.918 I think that's a reasonable supposition.

NOTE Confidence: 0.8787095

 $00{:}06{:}02.920 \dashrightarrow 00{:}06{:}06.000$ We don't see that yet, but I think that

NOTE Confidence: 0.8787095

00:06:06.000 --> 00:06:08.640 like other types of cancer that may take

NOTE Confidence: 0.8787095

 $00{:}06{:}08.640 \dashrightarrow 00{:}06{:}10.616$ several years to kind of catch up.

NOTE Confidence: 0.8544121

 $00:06:11.780 \longrightarrow 00:06:14.804$ The other question we've seen in

NOTE Confidence: 0.8544121

 $00{:}06{:}14.804 \dashrightarrow 00{:}06{:}18.015$ other cancers is there a synergistic

NOTE Confidence: 0.8544121

 $00:06:18.015 \longrightarrow 00:06:20.215$ effect between alcohol and

NOTE Confidence: 0.8544121

 $00:06:20.215 \longrightarrow 00:06:23.700$ smoking in terms of cancer risks.

NOTE Confidence: 0.8544121

 $00:06:23.700 \longrightarrow 00:06:26.812$ Do we see that in bladder cancer too

NOTE Confidence: 0.8544121

 $00:06:26.812 \longrightarrow 00:06:31.109$ or is it really the environmental and

NOTE Confidence: 0.8544121

 $00:06:31.109 \longrightarrow 00:06:34.534$ occupational exposures instead of alcohol?

 $00:06:34.540 \longrightarrow 00:06:36.708$ I don't think we've

NOTE Confidence: 0.8544121

00:06:36.710 --> 00:06:40.504 seen that with alcohol and bladder cancer. 00:06:43.886 --> 00:06:47.460 Is the risk higher with people who have an

NOTE Confidence: 0.8681989555

 $00:06:47.460 \longrightarrow 00:06:50.090$ occupational risk like

NOTE Confidence: 0.8681989555

 $00:06:50.090 \longrightarrow 00:06:52.634$ being exposed to various chemicals in

NOTE Confidence: 0.8681989555

 $00:06:52.634 \longrightarrow 00:06:55.628$ the workplace if they are also smokers,

NOTE Confidence: 0.8681989555

 $00:06:55.630 \longrightarrow 00:06:57.760$ is that just additive,

NOTE Confidence: 0.8681989555

 $00:06:57.760 \longrightarrow 00:06:59.740$ but a synergistic risk?

NOTE Confidence: 0.8681989555

 $00{:}06{:}59.740 \dashrightarrow 00{:}07{:}05.018$ Or is it

NOTE Confidence: 0.8681989555

 $00:07:05.020 \longrightarrow 00:07:06.360$ an additive risk?

NOTE Confidence: 0.7951145

 $00{:}07{:}06.360 \dashrightarrow 00{:}07{:}08.358$ I don't think we know for certain,

NOTE Confidence: 0.7951145

 $00{:}07{:}08.360 \dashrightarrow 00{:}07{:}10.030$ but I think that an ecdotally

NOTE Confidence: 0.7951145

 $00:07:10.030 \longrightarrow 00:07:11.366$ it's synergy.

NOTE Confidence: 0.7951145

 $00:07:11.370 \longrightarrow 00:07:13.368$ So typically the worst

NOTE Confidence: 0.7951145

 $00:07:13.370 \longrightarrow 00:07:15.514$ cancers we see tend to be

NOTE Confidence: 0.7951145

 $00{:}07{:}15.514 \dashrightarrow 00{:}07{:}17.372$ in people who have environmental

 $00:07:17.372 \longrightarrow 00:07:20.960$ exposures and they smoke.

NOTE Confidence: 0.8869073

 $00:07:20.960 \longrightarrow 00:07:24.496$ And so do we ever see bladder cancer

NOTE Confidence: 0.8869073

00:07:24.496 --> 00:07:28.080 in people who don't have one of those

NOTE Confidence: 0.8869073

 $00:07:28.080 \longrightarrow 00:07:30.310$ two risk factors?

NOTE Confidence: 0.8551573

 $00:07:31.330 \longrightarrow 00:07:33.190$ Yes, absolutely.

NOTE Confidence: 0.8551573

 $00:07:33.190 \longrightarrow 00:07:35.510$ Are these risk different than others in terms

NOTE Confidence: 0.8551573

 $00:07:35.510 \longrightarrow 00:07:37.465$ of how they look biologically?

NOTE Confidence: 0.8551573

 $00:07:37.470 \longrightarrow 00:07:40.930$ How they behave, and so on.

NOTE Confidence: 0.8551573

00:07:40.930 --> 00:07:43.618 I don't think we know that for certain,

NOTE Confidence: 0.8551573

 $00:07:43.620 \longrightarrow 00:07:46.308$ but again, not everybody

NOTE Confidence: 0.8551573

 $00{:}07{:}46.308 \dashrightarrow 00{:}07{:}48.228$ that smokes gets bladder cancer.

NOTE Confidence: 0.8766133

 $00:07:48.910 \longrightarrow 00:07:50.546$ And some people

NOTE Confidence: 0.8766133

00:07:50.546 --> 00:07:53.000 get bladder cancer, who

NOTE Confidence: 0.8766133

 $00:07:53.000 \longrightarrow 00:07:54.272$ don't smoke.

NOTE Confidence: 0.8766133

 $00:07:54.272 \longrightarrow 00:07:56.816$ But I guess the definitive message is

00:07:56.816 --> 00:07:59.780 if you smoke you are at greater

NOTE Confidence: 0.8766133

 $00{:}07{:}59.780 \longrightarrow 00{:}08{:}01.872$ risk of getting bladder cancer

NOTE Confidence: 0.8766133

00:08:01.872 --> 00:08:04.888 and so doing what you can to quit

NOTE Confidence: 0.8766133

 $00:08:04.888 \longrightarrow 00:08:07.390$ smoking may help you either to

NOTE Confidence: 0.8766133

 $00:08:07.390 \longrightarrow 00:08:09.510$ avoid getting bladder cancer to

NOTE Confidence: 0.8766133

 $00{:}08{:}09.596 \dashrightarrow 00{:}08{:}12.291$ begin with and reducing your risk

NOTE Confidence: 0.8766133

 $00:08:12.291 \longrightarrow 00:08:14.270$ of getting a recurrence.

NOTE Confidence: 0.8766133

 $00:08:14.270 \longrightarrow 00:08:17.910$ So let's talk a little bit about bladder

NOTE Confidence: 0.8766133

 $00{:}08{:}17.910 \dashrightarrow 00{:}08{:}21.668$ cancer in terms of how it presents.

NOTE Confidence: 0.8766133

 $00:08:21.670 \longrightarrow 00:08:23.780$ How do people actually

NOTE Confidence: 0.8766133

 $00:08:23.780 \longrightarrow 00:08:25.046$ develop bladder cancer?

NOTE Confidence: 0.8766133

 $00:08:25.050 \longrightarrow 00:08:26.746$ What symptoms does that

NOTE Confidence: 0.8766133

00:08:26.746 --> 00:08:28.018 present with, typically?

NOTE Confidence: 0.8418908

 $00:08:28.020 \longrightarrow 00:08:30.690$ Do people with bladder cancer

NOTE Confidence: 0.8418908

 $00:08:30.690 \longrightarrow 00:08:33.767$ present with blood in the urine?

NOTE Confidence: 0.8418908

 $00{:}08{:}38.580 \dashrightarrow 00{:}08{:}40.512$ Or is it found when he look under

 $00:08:40.512 \longrightarrow 00:08:42.166$ the microscope?

 $00:08:47.480 \longrightarrow 00:08:49.040$ So two questions there.

NOTE Confidence: 0.86200565

 $00:08:49.040 \longrightarrow 00:08:50.304$ The first question is,

NOTE Confidence: 0.86200565

 $00:08:50.304 \longrightarrow 00:08:51.884$ sometimes when people

NOTE Confidence: 0.86200565

00:08:51.884 --> 00:08:53.407 find blood in their urine,

NOTE Confidence: 0.86200565

 $00:08:53.410 \longrightarrow 00:08:56.364$ they assume that that's something like

NOTE Confidence: 0.86200565

 $00:08:56.364 \longrightarrow 00:08:59.329$ a kidney stone or something like that.

NOTE Confidence: 0.86200565

 $00:08:59.330 \longrightarrow 00:09:00.845$ How do you differentiate that

NOTE Confidence: 0.86200565

 $00{:}09{:}00.845 \dashrightarrow 00{:}09{:}03.063$ from a bladder cancer and how do

NOTE Confidence: 0.86200565

00:09:03.063 --> 00:09:04.663 you actually find microscopic

NOTE Confidence: 0.86200565

 $00:09:04.663 \dashrightarrow 00:09:06.620$ material that you can't really see?

NOTE Confidence: 0.86200565

 $00:09:06.620 \longrightarrow 00:09:08.534$ Is that something that would then

NOTE Confidence: 0.86200565

 $00:09:08.534 \longrightarrow 00:09:10.430$ cause people to present very late?

NOTE Confidence: 0.86200565

 $00:09:10.430 \longrightarrow 00:09:12.960$ How is that picked up?

NOTE Confidence: 0.87472963

00:09:12.960 --> 00:09:18.756 I think that if you have symptoms,

NOTE Confidence: 0.87472963

00:09:18.756 --> 00:09:25.580 maybe even infection or pain with urination,

 $00{:}09{:}25.580 \dashrightarrow 00{:}09{:}27.925$ pattern changes, some people will

NOTE Confidence: 0.87472963

 $00{:}09{:}27.925 \dashrightarrow 00{:}09{:}31.533$ look at your analysis and see if

NOTE Confidence: 0.87472963

 $00:09:31.533 \longrightarrow 00:09:33.300$ there's microscopic hematuria

NOTE Confidence: 0.87472963

00:09:33.300 --> 00:09:37.010 and that's one way that we find a lot of

NOTE Confidence: 0.87472963

 $00:09:37.111 \longrightarrow 00:09:40.828$ people just present with blood and

NOTE Confidence: 0.87472963

 $00:09:40.830 \longrightarrow 00:09:42.920$ that's how they initially present,

NOTE Confidence: 0.8825627

 $00:09:42.920 \longrightarrow 00:09:46.248$ and so in either of those two circumstances,

NOTE Confidence: 0.8825627

 $00:09:46.250 \longrightarrow 00:09:49.162$ either you have symptoms of an infection

NOTE Confidence: 0.8825627

00:09:49.162 --> 00:09:52.508 or pain, or frequency of going,

NOTE Confidence: 0.8825627

 $00:09:52.510 \longrightarrow 00:09:56.267$ or you actually see blood in your urine, you

NOTE Confidence: 0.8825627

 $00:09:56.267 \longrightarrow 00:10:00.110$ go to your family doctor and they do a

NOTE Confidence: 0.8825627

 $00:10:00.110 \longrightarrow 00:10:02.110$ test and they find blood in your urine.

NOTE Confidence: 0.8825627

 $00:10:02.110 \longrightarrow 00:10:03.860$ What's the next step?

NOTE Confidence: 0.8363638

 $00:10:03.860 \longrightarrow 00:10:05.065$ The first thing you want

NOTE Confidence: 0.8363638

 $00:10:05.065 \longrightarrow 00:10:06.610$ to look at is

 $00:10:06.610 \longrightarrow 00:10:09.778$ do they have symptoms of an infection?

NOTE Confidence: 0.8363638

 $00:10:09.780 \longrightarrow 00:10:11.910$ So if they have symptoms of infection,

NOTE Confidence: 0.8363638

 $00:10:11.910 \longrightarrow 00:10:14.750$ they need to treat the infection and the blood

NOTE Confidence: 0.8363638

00:10:14.750 --> 00:10:17.270 should go away, if it doesn't go

NOTE Confidence: 0.8363638

 $00:10:17.270 \longrightarrow 00:10:19.849$ away or the symptoms don't

NOTE Confidence: 0.8363638

 $00:10:19.849 \longrightarrow 00:10:22.194$ get better after treating infection

NOTE Confidence: 0.8363638

 $00{:}10{:}22.194 --> 00{:}10{:}24.600$ then you need what we call the

NOTE Confidence: 0.8363638

 $00:10:24.600 \longrightarrow 00:10:27.250$ work up of the blood in the urine

NOTE Confidence: 0.8363638

 $00{:}10{:}27.250 \dashrightarrow 00{:}10{:}29.518$ and that work up usually entails

NOTE Confidence: 0.8363638

00:10:29.518 --> 00:10:32.926 some type of an X Ray study like a CT

NOTE Confidence: 0.8363638

 $00{:}10{:}32.926 \rightarrow 00{:}10{:}35.702$ scan or an MRI because you can bleed

NOTE Confidence: 0.8363638

00:10:35.702 --> 00:10:38.180 from any part of the urinary tract,

NOTE Confidence: 0.8363638

00:10:38.180 --> 00:10:40.998 the lining of the kidneys, the kidney itself,

 $00:10:44.040 \longrightarrow 00:10:45.000$ the bladder itself,

NOTE Confidence: 0.8363638

 $00:10:45.000 \longrightarrow 00:10:47.376$ so you want to image or

NOTE Confidence: 0.8363638

 $00:10:47.376 \longrightarrow 00:10:49.722$ look at the kidneys

 $00:10:49.722 \longrightarrow 00:10:52.388$ with the CT scan

NOTE Confidence: 0.8363638

 $00:10:52.390 \longrightarrow 00:10:55.027$ and then

NOTE Confidence: 0.8363638

00:10:55.027 --> 00:10:57.837 you also want to look into the bladder,

NOTE Confidence: 0.8363638

 $00:10:57.840 \longrightarrow 00:10:59.886$ and that's usually an office procedure

NOTE Confidence: 0.8363638

 $00:10:59.886 \longrightarrow 00:11:01.877$ where you take a small telescope

NOTE Confidence: 0.8363638

 $00:11:01.877 \longrightarrow 00:11:04.506$ with the light at the end of it and

NOTE Confidence: 0.8363638

 $00{:}11{:}04.506 \dashrightarrow 00{:}11{:}06.809$ actually look into the bladder and can

NOTE Confidence: 0.8363638

 $00:11:06.809 \longrightarrow 00:11:08.758$ visualize the lining of the bladder.

NOTE Confidence: 0.91712534

 $00:11:10.320 \longrightarrow 00:11:14.092$ And so if you do that,

NOTE Confidence: 0.91712534

 $00:11:14.092 \longrightarrow 00:11:17.284$ people often ask what does

NOTE Confidence: 0.91712534

 $00{:}11{:}17.284 --> 00{:}11{:}20.299$ cancer look like? Will you see

NOTE Confidence: 0.8236216

 $00:11:20.300 \longrightarrow 00:11:22.586$ in the bladder the tumor growth?

NOTE Confidence: 0.8236216

00:11:24.500 --> 00:11:26.410 You'll actually see it emanating

NOTE Confidence: 0.8236216

 $00:11:26.410 \longrightarrow 00:11:27.938$ from the bladder wall.

NOTE Confidence: 0.8236216

 $00:11:27.940 \longrightarrow 00:11:30.988$ It may look a little like cauliflower

NOTE Confidence: 0.8236216

 $00:11:30.990 \longrightarrow 00:11:33.282$ or papillary

 $00:11:33.282 \longrightarrow 00:11:34.810$ growth in the bladder,

NOTE Confidence: 0.8236216

 $00:11:34.810 \longrightarrow 00:11:36.964$ or it could be something as subtle

NOTE Confidence: 0.8236216

 $00:11:36.964 \longrightarrow 00:11:39.400$ as a redness in the bladder,

NOTE Confidence: 0.8236216

 $00:11:39.400 \longrightarrow 00:11:43.220$ or could be a solid mass in the bladder.

NOTE Confidence: 0.8236216

 $00:11:43.220 \longrightarrow 00:11:47.448$ So all those are related to

NOTE Confidence: 0.8236216

 $00:11:47.450 \longrightarrow 00:11:50.271$ what that looks like under the

NOTE Confidence: 0.8236216

00:11:50.271 --> 00:11:52.568 microscope once you take that out,

NOTE Confidence: 0.8236216

00:11:52.570 --> 00:11:54.146 because lower grade tumors

NOTE Confidence: 0.8236216

00:11:54.146 --> 00:11:56.116 tend to be more papillary,

NOTE Confidence: 0.8236216

 $00:11:56.120 \longrightarrow 00:11:58.490$ meaning they're not as aggressive in

NOTE Confidence: 0.8236216

 $00{:}11{:}58.490 \dashrightarrow 00{:}12{:}00.450$ higher grade tumors tend to be more solid.

NOTE Confidence: 0.8236216

 $00:12:01.635 \longrightarrow 00:12:02.820$ So how do

NOTE Confidence: 0.8408894

00:12:02.820 --> 00:12:05.106 you exactly take out this cancer

NOTE Confidence: 0.8408894

 $00:12:05.106 \longrightarrow 00:12:07.913$ in order to find out under the

NOTE Confidence: 0.8408894

 $00:12:07.913 \longrightarrow 00:12:09.908$ microscope what it looks like?

 $00:12:09.910 \longrightarrow 00:12:12.668$ That sounds like a biopsy to me.

NOTE Confidence: 0.8408894

 $00:12:12.670 \longrightarrow 00:12:16.210$ So how exactly is that done?

NOTE Confidence: 0.8408894

 $00{:}12{:}16.210 \dashrightarrow 00{:}12{:}19.945$ We usually schedule the person

NOTE Confidence: 0.8408894

 $00:12:19.950 \longrightarrow 00:12:23.358$ in the operating room

NOTE Confidence: 0.8408894

 $00:12:23.358 \longrightarrow 00:12:26.629$ with the anesthesia so that you

NOTE Confidence: 0.8257768

 $00{:}12{:}28.770 \dashrightarrow 00{:}12{:}30.960$ go in with a telescope, a little

NOTE Confidence: 0.8257768

 $00:12:30.960 \longrightarrow 00:12:32.900$ bigger telescope and

NOTE Confidence: 0.8257768

 $00:12:32.900 \longrightarrow 00:12:35.325$ through that telescope we're able

NOTE Confidence: 0.8257768

 $00:12:35.325 \longrightarrow 00:12:37.966$ to trim or cut the tissue out.

NOTE Confidence: 0.8257768

00:12:37.970 --> 00:12:39.764 Usually we could remove

NOTE Confidence: 0.8257768

 $00:12:39.764 \longrightarrow 00:12:42.708$ all the tumor itself,

NOTE Confidence: 0.8257768

 $00:12:42.708 \longrightarrow 00:12:45.330$ and then we take that tissue

NOTE Confidence: 0.8257768

 $00:12:45.330 \longrightarrow 00:12:46.814$ to pathology so they

NOTE Confidence: 0.8257768

 $00:12:46.814 \longrightarrow 00:12:49.040$ can analyze it.

NOTE Confidence: 0.86669844

00:12:49.040 --> 00:12:50.900 It sounds like that's a little operation,

NOTE Confidence: 0.86669844

 $00:12:50.900 \longrightarrow 00:12:52.755$ not a big operation because

00:12:52.755 --> 00:12:54.610 you're still using a telescope.

NOTE Confidence: 0.86669844

00:12:54.610 --> 00:12:56.434 It doesn't sound like this is

NOTE Confidence: 0.86669844

 $00:12:56.434 \longrightarrow 00:12:59.089$ a big cut in the abdomen and

NOTE Confidence: 0.86669844

 $00:12:59.089 \longrightarrow 00:13:00.909$ you're removing the bladder.

NOTE Confidence: 0.86669844

 $00:13:00.910 \longrightarrow 00:13:02.770$ It sounds minimally

NOTE Confidence: 0.86669844

 $00:13:02.770 \longrightarrow 00:13:04.250$ invasive. Is that right?

 $00:13:06.850 \longrightarrow 00:13:09.070$ Yes, often times it's done as an outpatient.

NOTE Confidence: 0.86669844

 $00:13:09.070 \longrightarrow 00:13:10.790$ Occasionally the patient will require

NOTE Confidence: 0.86669844

 $00{:}13{:}10.790 \dashrightarrow 00{:}13{:}13.160$ a tube in the bladder overnight,

NOTE Confidence: 0.86669844

00:13:13.160 --> 00:13:16.246 or for a couple days, depending on how

NOTE Confidence: 0.86669844

 $00:13:16.246 \longrightarrow 00:13:19.754$ much you have to do, but the real

NOTE Confidence: 0.86669844

 $00{:}13{:}19.754 \dashrightarrow 00{:}13{:}22.898$ risks of the procedure is bleeding,

NOTE Confidence: 0.86669844

00:13:22.900 --> 00:13:25.390 because obviously you're cutting tissue,

NOTE Confidence: 0.86669844

 $00:13:25.390 \longrightarrow 00:13:28.330$ but you're able to also

NOTE Confidence: 0.86669844

 $00:13:28.330 \longrightarrow 00:13:30.682$ cauterize the area. Rarely

NOTE Confidence: 0.86669844

 $00{:}13{:}30.690 \dashrightarrow 00{:}13{:}33.203$ opening the bladder can

 $00:13:33.203 \longrightarrow 00:13:35.850$ perforate the bladder,

NOTE Confidence: 0.86669844

 $00:13:35.850 \longrightarrow 00:13:37.840$ but those are very uncommon.

NOTE Confidence: 0.8967927

00:13:38.720 --> 00:13:41.088 Well, we're going to pick up right after

NOTE Confidence: 0.8967927

 $00:13:41.088 \longrightarrow 00:13:43.755$ we take a short break for a medical

NOTE Confidence: 0.8967927

 $00:13:43.755 \longrightarrow 00:13:45.869$ minute learning more about what happens

NOTE Confidence: 0.8967927

 $00:13:45.869 \longrightarrow 00:13:48.017$ after the diagnosis of bladder cancer

NOTE Confidence: 0.8967927

00:13:48.017 --> 00:13:50.080 with my guest doctor John Colberg.

NOTE Confidence: 0.8575317

 $00{:}13{:}50.660 \dashrightarrow 00{:}13{:}53.552$ Support for Yale Cancer Answers comes

NOTE Confidence: 0.8575317

00:13:53.552 --> 00:13:56.083 from AstraZeneca, providing important

NOTE Confidence: 0.8575317

 $00:13:56.083 \longrightarrow 00:13:58.187$ treatment options for patients

NOTE Confidence: 0.8575317

 $00:13:58.187 \longrightarrow 00:14:01.270$ living with different types of lung,

NOTE Confidence: 0.8575317

00:14:01.270 --> 00:14:02.782 bladder, ovarian, breast,

NOTE Confidence: 0.8575317

 $00:14:02.782 \longrightarrow 00:14:04.798$ pancreatic and blood cancers.

NOTE Confidence: 0.8575317

 $00:14:04.800 \longrightarrow 00:14:08.448$ More information at astrazeneca-us.com.

NOTE Confidence: 0.8575317

 $00:14:08.450 \longrightarrow 00:14:10.535$ This is a medical minute

 $00:14:10.535 \longrightarrow 00:14:11.786$ about smoking cessation.

NOTE Confidence: 0.8575317

00:14:11.790 --> 00:14:13.880 There are many obstacles to

NOTE Confidence: 0.8575317

 $00:14:13.880 \longrightarrow 00:14:15.552$ face when quitting smoking,

NOTE Confidence: 0.8575317

 $00:14:15.560 \longrightarrow 00:14:18.479$ as smoking involves the potent drug nicotine.

NOTE Confidence: 0.8575317

00:14:18.480 --> 00:14:21.406 But it's a very important lifestyle change,

NOTE Confidence: 0.8575317

 $00:14:21.410 \longrightarrow 00:14:22.664$ especially for patients

NOTE Confidence: 0.8575317

 $00:14:22.664 \longrightarrow 00:14:23.918$ undergoing cancer treatment.

NOTE Confidence: 0.8575317

 $00:14:23.920 \longrightarrow 00:14:26.170$ Quitting smoking has been shown to

NOTE Confidence: 0.8575317

 $00{:}14{:}26.170 \to 00{:}14{:}28.211$ positively impact response to treatments

NOTE Confidence: 0.8575317

 $00:14:28.211 \longrightarrow 00:14:30.586$ decrease the likelihood that patients

NOTE Confidence: 0.8575317

 $00{:}14{:}30.586 {\:{\circ}{\circ}{\circ}}>00{:}14{:}32.486$ will develop second malignancies

NOTE Confidence: 0.8575317

 $00:14:32.550 \longrightarrow 00:14:34.370$ and increase rates of survival.

NOTE Confidence: 0.8575317

 $00{:}14{:}34{.}370 \dashrightarrow 00{:}14{:}36{.}010$ To bacco treatment programs are

NOTE Confidence: 0.8575317

 $00:14:36.010 \longrightarrow 00:14:38.060$ currently being offered at federally

NOTE Confidence: 0.8575317

 $00:14:38.060 \longrightarrow 00:14:40.049$ designated comprehensive cancer centers.

NOTE Confidence: 0.8575317

 $00:14:40.050 \longrightarrow 00:14:41.780$ And operate on the principles

 $00{:}14{:}41.780 \dashrightarrow 00{:}14{:}44.185$ of the US Public Health Service

NOTE Confidence: 0.8575317

 $00{:}14{:}44.185 \dashrightarrow 00{:}14{:}45.997$ clinical practice guidelines.

NOTE Confidence: 0.8575317

 $00:14:46.000 \longrightarrow 00:14:47.692$ All treatment components are

NOTE Confidence: 0.8575317

 $00{:}14{:}47.692 \dashrightarrow 00{:}14{:}49.807$ evidence based and therefore all

NOTE Confidence: 0.8575317

00:14:49.807 --> 00:14:51.834 patients are treated with FDA

NOTE Confidence: 0.8575317

 $00:14:51.834 \longrightarrow 00:14:53.378$ approved first line medications

NOTE Confidence: 0.8575317

 $00:14:53.378 \longrightarrow 00:14:56.030$ for smoking cessation as well as

NOTE Confidence: 0.8575317

 $00{:}14{:}56.030 \dashrightarrow 00{:}14{:}57.842$ smoking cessation counseling that

NOTE Confidence: 0.8575317

 $00{:}14{:}57.842 \dashrightarrow 00{:}14{:}59.636$ stresses appropriate coping skills.

NOTE Confidence: 0.8575317

 $00{:}14{:}59.636 \dashrightarrow 00{:}15{:}01.851$ More information is available at

NOTE Confidence: 0.8575317

00:15:01.851 --> 00:15:03.180 yale cancercenter.org you're listening

NOTE Confidence: 0.8575317

 $00{:}15{:}03.239 \dashrightarrow 00{:}15{:}04.699$ to Connecticut public radio.

NOTE Confidence: 0.8689771

 $00{:}15{:}05.700 \dashrightarrow 00{:}15{:}07.896$ Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.8689771

00:15:07.900 --> 00:15:09.892 This is doctor Anees Chagpar

NOTE Confidence: 0.8689771

 $00:15:09.892 \longrightarrow 00:15:12.099$ and I'm joined tonight by

00:15:12.099 --> 00:15:14.114 my guest doctor John Colberg.

NOTE Confidence: 0.8689771

 $00:15:14.120 \longrightarrow 00:15:16.070$ We're talking about the diagnosis

NOTE Confidence: 0.8689771

 $00:15:16.070 \longrightarrow 00:15:18.386$ and treatment of bladder cancer and

NOTE Confidence: 0.8689771

 $00:15:18.386 \longrightarrow 00:15:20.528$ right before the break you

NOTE Confidence: 0.8689771

 $00:15:20.528 \longrightarrow 00:15:22.760$ were telling us about this minimally

NOTE Confidence: 0.8689771

00:15:22.760 --> 00:15:24.320 invasive endoscopic biopsy that's

NOTE Confidence: 0.8689771

 $00:15:24.320 \longrightarrow 00:15:25.988$ done to diagnose bladder cancers.

NOTE Confidence: 0.8689771

 $00:15:25.988 \longrightarrow 00:15:28.946$ So I want to pick it up there when

NOTE Confidence: 0.8689771

 $00{:}15{:}28.946 {\:{\circ}{\circ}{\circ}}>00{:}15{:}31.001$ people have this outpatient procedure

NOTE Confidence: 0.8689771

 $00:15:31.001 \longrightarrow 00:15:32.780$ to diagnose bladder cancers.

NOTE Confidence: 0.8689771

 $00{:}15{:}32.780 \mathrel{--}{>} 00{:}15{:}34.976$ How long does it actually take

NOTE Confidence: 0.8689771

 $00:15:34.976 \longrightarrow 00:15:36.440$ to get that diagnosis back?

NOTE Confidence: 0.8751063

 $00:15:36.440 \longrightarrow 00:15:39.728$ Usually it takes about three to five days.

NOTE Confidence: 0.8751063

 $00:15:39.730 \longrightarrow 00:15:42.650$ It all depends on how complicated or

NOTE Confidence: 0.8751063

 $00:15:42.650 \longrightarrow 00:15:45.002$ if there's some differences in what

NOTE Confidence: 0.8751063

 $00:15:45.002 \longrightarrow 00:15:47.308$ exactly the pathology is or if the pathologist

 $00{:}15{:}47.308 {\:\dashrightarrow\:} 00{:}15{:}49.988$ may need to do some special stains or

NOTE Confidence: 0.8751063

 $00{:}15{:}50.055 \dashrightarrow 00{:}15{:}52.179$ special studies to really nail down

NOTE Confidence: 0.8751063

 $00:15:52.179 \longrightarrow 00:15:55.420$ exactly what type of tumor it is.

NOTE Confidence: 0.8759819

00:15:55.420 --> 00:15:57.975 That brings me to my next question,

NOTE Confidence: 0.8759819

 $00:15:57.980 \longrightarrow 00:15:59.800$ which is, are there different

NOTE Confidence: 0.8759819

 $00:15:59.800 \longrightarrow 00:16:01.256$ types of bladder cancer?

NOTE Confidence: 0.8759819

 $00:16:01.260 \longrightarrow 00:16:03.450$ Or is this a homogeneous disease?

NOTE Confidence: 0.8759819

 $00:16:03.450 \longrightarrow 00:16:04.910$ It sounds like

NOTE Confidence: 0.8759819

 $00:16:04.910 \longrightarrow 00:16:06.005$ there's different types.

NOTE Confidence: 0.8759819

 $00:16:06.010 \longrightarrow 00:16:08.200$ Can you tell us a little

NOTE Confidence: 0.8759819

 $00:16:08.200 \longrightarrow 00:16:09.660$ bit more about that?

NOTE Confidence: 0.83846825

 $00:16:09.960 \longrightarrow 00:16:11.808$ Sure, there's basically three

NOTE Confidence: 0.83846825

 $00{:}16{:}11.808 \dashrightarrow 00{:}16{:}14.118$ different types of bladder cancer.

NOTE Confidence: 0.83846825

 $00:16:14.120 \longrightarrow 00:16:16.430$ There are two very uncommon

NOTE Confidence: 0.83846825

 $00:16:16.430 \longrightarrow 00:16:18.278$ rare types of cancers.

 $00:16:18.280 \longrightarrow 00:16:20.450$ They're called squamous cell cancers that

NOTE Confidence: 0.83846825

 $00{:}16{:}20.450 \dashrightarrow 00{:}16{:}23.194$ typically occur in men or women

NOTE Confidence: 0.83846825

 $00{:}16{:}23.194 \dashrightarrow 00{:}16{:}25.210$ who have chronic inflammation.

NOTE Confidence: 0.83846825

00:16:25.210 --> 00:16:28.311 Infections may be in a tube in the

NOTE Confidence: 0.83846825

 $00:16:28.311 \longrightarrow 00:16:31.209$ bladder for long periods of time.

NOTE Confidence: 0.83846825

 $00:16:31.210 \longrightarrow 00:16:33.865$ The second type is called

NOTE Confidence: 0.83846825

 $00:16:33.865 \longrightarrow 00:16:35.989$ adenocarcinoma.

NOTE Confidence: 0.83846825

 $00:16:35.990 \longrightarrow 00:16:37.762$ Again, very uncommon.

NOTE Confidence: 0.83846825

 $00:16:37.762 \longrightarrow 00:16:41.670$ They usually occur in the top of the bladder.

NOTE Confidence: 0.83846825

 $00{:}16{:}41.670 \dashrightarrow 00{:}16{:}44.050$ A little structure that connects

NOTE Confidence: 0.83846825

 $00:16:44.050 \longrightarrow 00:16:47.150$ the belly button.

NOTE Confidence: 0.83846825

 $00:16:47.150 \longrightarrow 00:16:49.730$ The vast majority of bladder cancers

NOTE Confidence: 0.83846825

 $00{:}16{:}49.730 \dashrightarrow 00{:}16{:}52.839$ are what we call urothelial cancers

NOTE Confidence: 0.83846825

 $00:16:52.839 \longrightarrow 00:16:55.439$ or transitional cell cancers.

NOTE Confidence: 0.83846825

 $00:16:55.440 \longrightarrow 00:16:56.864$ And it's really important that

NOTE Confidence: 0.83846825

 $00:16:56.864 \longrightarrow 00:16:59.000$ the pathologist tells you three things.

 $00:16:59.000 \longrightarrow 00:17:01.443$ What type of tumor it is, what

NOTE Confidence: 0.83846825

 $00:17:01.443 \longrightarrow 00:17:03.269$ grade the tumor is,

NOTE Confidence: 0.83846825

 $00:17:03.270 \longrightarrow 00:17:05.050$ meaning what it looks like under the

NOTE Confidence: 0.83846825

 $00:17:05.050 \longrightarrow 00:17:07.186$ microscope, is a high grade

NOTE Confidence: 0.83846825

 $00:17:07.190 \longrightarrow 00:17:08.970$ or is it low grade?

NOTE Confidence: 0.83846825

 $00:17:08.970 \longrightarrow 00:17:11.245$ And thirdly he will tell you what

NOTE Confidence: 0.83846825

 $00:17:11.245 \longrightarrow 00:17:13.600$ we call the depth of invasion.

NOTE Confidence: 0.83846825

 $00:17:13.600 \longrightarrow 00:17:13.955$ Meaning,

NOTE Confidence: 0.83846825

 $00:17:13.955 \longrightarrow 00:17:16.795$ how deep does it penetrate the bladder wall?

NOTE Confidence: 0.83846825

 $00:17:16.800 \longrightarrow 00:17:18.665$ or is it superficial, meaning

NOTE Confidence: 0.83846825

00:17:18.665 --> 00:17:20.898 just involving the top layer or

NOTE Confidence: 0.83846825

 $00:17:20.898 \longrightarrow 00:17:22.728$ the layer right behind the top

NOTE Confidence: 0.83846825

 $00{:}17{:}22.728 \dashrightarrow 00{:}17{:}24.630$ layer called the lamina propria

NOTE Confidence: 0.83846825

 $00:17:24.630 \longrightarrow 00:17:27.060$ or is it into the muscle?

NOTE Confidence: 0.83846825

00:17:27.060 --> 00:17:29.566 Because depending on what the grade is,

00:17:29.570 --> 00:17:30.266 high grade,

NOTE Confidence: 0.83846825

 $00:17:30.266 \longrightarrow 00:17:32.354$ low grade and depending on the

NOTE Confidence: 0.83846825

 $00:17:32.354 \longrightarrow 00:17:34.233$ depth of invasion that will

NOTE Confidence: 0.83846825

00:17:34.233 --> 00:17:36.447 dictate or tell us exactly what

NOTE Confidence: 0.83846825

 $00:17:36.447 \longrightarrow 00:17:38.867$ the next steps will be.

NOTE Confidence: 0.7837661

 $00:17:40.160 \longrightarrow 00:17:42.716$ Tell us more about that.

 $00:17:44.420 \longrightarrow 00:17:46.120$ What does the algorithm look

NOTE Confidence: 0.7837661

00:17:46.120 --> 00:17:48.155 like?

NOTE Confidence: 0.7837661

00:17:48.155 --> 00:17:50.810 If someone has what we call low grade,

NOTE Confidence: 0.7837661

00:17:50.810 --> 00:17:52.088 superficial bladder cancer, and

NOTE Confidence: 0.84545594

00:17:54.250 --> 00:17:55.201 it's small,

NOTE Confidence: 0.84545594

 $00:17:55.201 \longrightarrow 00:17:57.900$ meaning less than two or three centimeters,

NOTE Confidence: 0.84545594

00:17:57.900 --> 00:17:59.560 most people will just

NOTE Confidence: 0.84545594

00:17:59.560 --> 00:18:01.220 follow those patients,

NOTE Confidence: 0.84545594

 $00:18:01.220 \longrightarrow 00:18:02.880$ meaning they will put him

NOTE Confidence: 0.84545594

 $00:18:02.880 \longrightarrow 00:18:04.208$ on a surveillance protocol,

00:18:04.210 --> 00:18:06.196 meaning they'll come back to the

NOTE Confidence: 0.84545594

 $00{:}18{:}06.196 \dashrightarrow 00{:}18{:}08.230$ office every three to six months

NOTE Confidence: 0.84545594

 $00:18:08.230 \longrightarrow 00:18:09.850$ and look into the bladder,

NOTE Confidence: 0.84545594

 $00:18:09.850 \longrightarrow 00:18:11.842$ because what we know about bladder

NOTE Confidence: 0.84545594

 $00:18:11.842 \longrightarrow 00:18:13.834$ cancer is that

NOTE Confidence: 0.84545594

 $00:18:13.834 \longrightarrow 00:18:15.494$ the recurrence rates are quite high,

NOTE Confidence: 0.84545594

 $00:18:15.500 \longrightarrow 00:18:17.887$ so that you want to make sure

NOTE Confidence: 0.84545594

 $00:18:17.887 \longrightarrow 00:18:19.924$ that you follow these men and

NOTE Confidence: 0.84545594

 $00{:}18{:}19.924 --> 00{:}18{:}22.519$ women so you can pick up if it

NOTE Confidence: 0.84545594

00:18:22.519 --> 00:18:24.906 does come back at an early stage.

NOTE Confidence: 0.84545594

00:18:24.910 --> 00:18:26.800 So it doesn't progress into a

NOTE Confidence: 0.84545594

00:18:26.800 --> 00:18:28.570 higher grade tumor or muscle

NOTE Confidence: 0.84545594

 $00:18:28.570 \longrightarrow 00:18:30.160$ invasive tumor, so let

NOTE Confidence: 0.86896193

 $00{:}18{:}30.160 \dashrightarrow 00{:}18{:}32.960$ me just stop you there for one second.

NOTE Confidence: 0.86896193

 $00:18:32.960 \longrightarrow 00:18:35.804$ So if they did a biopsy and they've just

NOTE Confidence: 0.86896193

 $00:18:35.804 \longrightarrow 00:18:38.359$ taken a piece of this cancer before they

00:18:38.359 --> 00:18:41.359 put you on this regimen of surveillance,

NOTE Confidence: 0.86896193

 $00:18:41.360 \longrightarrow 00:18:43.304$ do they actually need to go

NOTE Confidence: 0.86896193

 $00:18:43.304 \longrightarrow 00:18:45.560$ and take out the whole tumor?

NOTE Confidence: 0.86896193

 $00:18:45.560 \longrightarrow 00:18:48.192$ Or is this something that they can just

NOTE Confidence: 0.86896193

 $00{:}18{:}48.192 \dashrightarrow 00{:}18{:}50.810$ watch like a prostate cancer, for example,

NOTE Confidence: 0.86896193

 $00:18:50.810 \longrightarrow 00:18:52.910$ because it tends to be indolent.

NOTE Confidence: 0.86896193

 $00:18:52.910 \longrightarrow 00:18:55.070$ So typically when you go in

NOTE Confidence: 0.86896193

 $00:18:55.070 \longrightarrow 00:18:57.345$ to take the tumor out,

NOTE Confidence: 0.86896193

 $00:18:59.300 \longrightarrow 00:19:00.596$ you actually resect the

NOTE Confidence: 0.86896193

 $00:19:00.596 \longrightarrow 00:19:02.216$ whole tumor if you can.

NOTE Confidence: 0.86896193

 $00{:}19{:}02.220 \dashrightarrow 00{:}19{:}05.190$ So usually for low grade tumors

NOTE Confidence: 0.86896193

 $00:19:05.190 \longrightarrow 00:19:07.451$ you have muscle in the specimen

NOTE Confidence: 0.86896193

 $00{:}19{:}07.451 \dashrightarrow 00{:}19{:}09.500$ and if there's no muscle involved

NOTE Confidence: 0.86896193

 $00:19:09.500 \longrightarrow 00:19:11.648$ then you're basically done.

NOTE Confidence: 0.86896193

00:19:11.650 --> 00:19:14.170 You don't have to go back again.

 $00:19:14.170 \longrightarrow 00:19:16.318$ Now there's some caveats of that.

NOTE Confidence: 0.86896193

 $00:19:16.320 \longrightarrow 00:19:18.462$ If it's a higher grade tumor and

NOTE Confidence: 0.86896193

00:19:18.462 --> 00:19:20.629 you don't have muscle involved,

NOTE Confidence: 0.86896193

 $00:19:20.630 \longrightarrow 00:19:23.270$ you will go back and re stage or

NOTE Confidence: 0.86896193

 $00:19:23.270 \longrightarrow 00:19:25.786$ re reset that tumor did to make

NOTE Confidence: 0.86896193

 $00:19:25.786 \longrightarrow 00:19:28.529$ sure that it's not on the muscle.

NOTE Confidence: 0.86896193

 $00:19:28.530 \longrightarrow 00:19:31.070$ So for higher grade tumors

NOTE Confidence: 0.86896193

 $00:19:31.070 \longrightarrow 00:19:33.610$ with no involvement of muscle,

NOTE Confidence: 0.86896193

 $00{:}19{:}33.610 \dashrightarrow 00{:}19{:}36.312$ you may want to consider what we

NOTE Confidence: 0.86896193

 $00:19:36.312 \longrightarrow 00:19:37.991$ call intravesical or treatment

NOTE Confidence: 0.86896193

 $00:19:37.991 \longrightarrow 00:19:40.655$ in the bladder with certain

NOTE Confidence: 0.86896193

 $00:19:40.655 \longrightarrow 00:19:42.870$ different types of medication.

NOTE Confidence: 0.86896193

00:19:42.870 --> 00:19:44.634 Usually it's installed over

NOTE Confidence: 0.86896193

 $00:19:44.634 \longrightarrow 00:19:47.280$ once a week for six weeks.

NOTE Confidence: 0.86896193

 $00:19:47.280 \longrightarrow 00:19:49.044$ The medication we typically

NOTE Confidence: 0.86896193

 $00:19:49.044 \longrightarrow 00:19:50.808$ use is something called BCG.

 $00:19:50.810 \longrightarrow 00:19:53.576$ It's a mycobacterium that

NOTE Confidence: 0.86896193

 $00:19:53.576 \longrightarrow 00:19:56.099$ causes tuberculosis and what it does,

NOTE Confidence: 0.86896193

00:19:56.100 --> 00:20:00.177 it sets up an immune response of your own

NOTE Confidence: 0.86896193

 $00:20:00.180 \longrightarrow 00:20:03.246$ to cut down on the

NOTE Confidence: 0.86896193

 $00:20:03.246 \longrightarrow 00:20:05.280$ recurrence of the tumor.

NOTE Confidence: 0.86896193

 $00:20:05.280 \longrightarrow 00:20:08.216$ If it is high grade and muscle invasive

NOTE Confidence: 0.86896193

 $00:20:08.216 \longrightarrow 00:20:10.890$ then that changes the whole scenario

NOTE Confidence: 0.86896193

 $00{:}20{:}10.890 \longrightarrow 00{:}20{:}13.680$ as far as your treatment algorithm.

NOTE Confidence: 0.8737979

 $00:20:14.440 \longrightarrow 00:20:16.896$ I'm going to get to what

NOTE Confidence: 0.8737979

 $00:20:16.896 \longrightarrow 00:20:19.837$ we do if it's invaded the muscle,

NOTE Confidence: 0.8737979

00:20:19.840 --> 00:20:21.970 but the whole concept of installation

NOTE Confidence: 0.8737979

 $00{:}20{:}21.970 --> 00{:}20{:}24.893$ of BCG and the fact that it's a

NOTE Confidence: 0.8737979

 $00{:}20{:}24.893 \rightarrow 00{:}20{:}26.678$ mycobacterium kind of like TB,

NOTE Confidence: 0.8737979

 $00:20:26.680 \longrightarrow 00:20:29.650$ brings up a lot of questions that I think our

NOTE Confidence: 0.8737979

 $00:20:29.726 \longrightarrow 00:20:32.438$ listeners might be asking themselves.

00:20:32.440 --> 00:20:34.960 So, for example, if you get this,

NOTE Confidence: 0.8737979

 $00{:}20{:}34.960 \dashrightarrow 00{:}20{:}37.992$ does that put you at risk of actually

NOTE Confidence: 0.8737979

00:20:37.992 --> 00:20:39.998 getting tuberculosis number one, and #2

NOTE Confidence: 0.8737979

00:20:40.000 --> 00:20:42.880 if you've already had TB in the past,

NOTE Confidence: 0.8737979

 $00:20:42.880 \longrightarrow 00:20:45.202$ does that reduce your risk of

NOTE Confidence: 0.8737979

00:20:45.202 --> 00:20:46.750 getting bladder cancer if

NOTE Confidence: 0.8737979

 $00:20:46.750 \longrightarrow 00:20:48.950$ the chemical that we use,

NOTE Confidence: 0.8737979

 $00:20:48.950 \longrightarrow 00:20:51.590$ or the medication that we use

NOTE Confidence: 0.8737979

 $00{:}20{:}51.590 \dashrightarrow 00{:}20{:}53.350$ is actually a mycobacterium.

NOTE Confidence: 0.8737979

00:20:53.350 --> 00:20:54.670 You know, people

NOTE Confidence: 0.8326042

 $00:20:54.670 \longrightarrow 00:20:56.870$ looked at that because there's

NOTE Confidence: 0.8326042

 $00:20:56.870 \longrightarrow 00:20:59.544$ several countries outside the US

NOTE Confidence: 0.8326042

00:20:59.544 --> 00:21:02.286 that actually vaccinate

NOTE Confidence: 0.8326042

 $00:21:02.286 \longrightarrow 00:21:05.785$ people for TB so it doesn't appear to be

NOTE Confidence: 0.8326042

 $00:21:05.785 \longrightarrow 00:21:09.189$ a prevent you from getting bladder cancer.

NOTE Confidence: 0.8326042

00:21:09.190 --> 00:21:12.220 There is a small risk

 $00:21:12.220 \longrightarrow 00:21:15.127$ that you can get what we call BCGiosis

NOTE Confidence: 0.8326042

 $00{:}21{:}15.127 \dashrightarrow 00{:}21{:}17.999$ or systemic BCG from the treatment.

NOTE Confidence: 0.8326042

 $00:21:18.000 \longrightarrow 00:21:20.070$ It's very, very rare and it's

NOTE Confidence: 0.8326042

 $00:21:20.070 \longrightarrow 00:21:21.450$ usually associated with the

NOTE Confidence: 0.8326042

00:21:21.513 --> 00:21:23.389 installation of the medication,

NOTE Confidence: 0.8326042

 $00:21:23.390 \longrightarrow 00:21:25.844$ meaning that when you put the

NOTE Confidence: 0.8326042

00:21:25.844 --> 00:21:29.156 medication in you have to put it

NOTE Confidence: 0.8326042

 $00:21:29.160 \longrightarrow 00:21:32.283$ through a catheter

00:21:35.710 --> 00:21:38.374 which is a small tube and most of the cases

NOTE Confidence: 0.8326042

00:21:38.374 --> 00:21:42.019 of systemic BCG has been related to

NOTE Confidence: 0.8326042

 $00{:}21{:}42.019 \dashrightarrow 00{:}21{:}44.050$ what we call traumatic catheterization meaning

NOTE Confidence: 0.8326042

 $00:21:44.050 \longrightarrow 00:21:46.507$ that when you put the catheter in an d

NOTE Confidence: 0.8326042

00:21:46.507 --> 00:21:48.280 it's been difficult to put in,

NOTE Confidence: 0.8326042

 $00:21:48.280 \longrightarrow 00:21:49.905$ you've gotten blood back from

NOTE Confidence: 0.8326042

 $00:21:49.905 \longrightarrow 00:21:51.530$ the catheter and the

NOTE Confidence: 0.8326042

 $00:21:51.530 \longrightarrow 00:21:53.480$ medication is injected under some force.

00:21:53.480 --> 00:21:56.080 And obviously you don't want to do that.

NOTE Confidence: 0.8326042

 $00:21:56.080 \longrightarrow 00:21:58.272$ So typically in our office if someone

NOTE Confidence: 0.8326042

 $00:21:58.272 \longrightarrow 00:22:00.377$ placed the catheter and they

NOTE Confidence: 0.8326042

 $00{:}22{:}00.377 \dashrightarrow 00{:}22{:}02.242$ get blood during the catheterization,

NOTE Confidence: 0.8326042

 $00:22:02.250 \longrightarrow 00:22:04.525$ they will not give the treatment

NOTE Confidence: 0.8326042

 $00:22:04.525 \longrightarrow 00:22:05.830$ that day.

NOTE Confidence: 0.8353027

 $00:22:05.830 \longrightarrow 00:22:07.450$ John another question

NOTE Confidence: 0.8353027

 $00:22:07.450 \longrightarrow 00:22:10.100$ why is it that we use BCG

NOTE Confidence: 0.8353027

 $00:22:10.183 \longrightarrow 00:22:12.920$ when we think about cancer and

NOTE Confidence: 0.8353027

 $00:22:12.920 \longrightarrow 00:22:15.648$ talk about cancer on the show

NOTE Confidence: 0.8353027

 $00{:}22{:}15.650 \dashrightarrow 00{:}22{:}17.785$ often times when we're thinking

NOTE Confidence: 0.8353027

 $00:22:17.785 \longrightarrow 00:22:19.920$ about medications to treat cancer,

NOTE Confidence: 0.8353027

 $00{:}22{:}19.920 \dashrightarrow 00{:}22{:}21.656$ we're thinking about chemotherapy.

NOTE Confidence: 0.8353027

 $00{:}22{:}21.656 \dashrightarrow 00{:}22{:}24.260$ Rarely do we actually think about

NOTE Confidence: 0.8353027

00:22:24.324 --> 00:22:26.748 something like BCG or a mycobacterium.

 $00:22:26.750 \longrightarrow 00:22:29.739$ Yes, so it starts to set up

NOTE Confidence: 0.8288937

 $00{:}22{:}29.740 \dashrightarrow 00{:}22{:}32.374$ this immune response, which is kind

NOTE Confidence: 0.8288937

 $00:22:32.374 \longrightarrow 00:22:36.148$ of a hot topic with a lot of cancers.

NOTE Confidence: 0.8288937

 $00:22:36.150 \longrightarrow 00:22:38.285$ Now BCG he's been around

NOTE Confidence: 0.8288937

 $00:22:38.285 \longrightarrow 00:22:40.420$ from since the early 1980s,

NOTE Confidence: 0.8288937

 $00:22:40.420 \longrightarrow 00:22:43.876$ and it's been shown to cut down on the

NOTE Confidence: 0.8288937

 $00:22:43.876 \longrightarrow 00:22:47.738$ the incidence of recurrence by about 50%.

NOTE Confidence: 0.8288937

 $00:22:47.740 \longrightarrow 00:22:50.240$ There are other medications used

NOTE Confidence: 0.8288937

 $00{:}22{:}50.240 \dashrightarrow 00{:}22{:}52.240$ in tramuscularly, and those tend

NOTE Confidence: 0.8288937

 $00:22:52.240 \longrightarrow 00:22:54.740$ to be chemotherapy agents,

NOTE Confidence: 0.8288937

 $00:22:54.740 \longrightarrow 00:22:58.170$ meaning they kill on contact.

NOTE Confidence: 0.8288937

 $00:23:03.620 \longrightarrow 00:23:05.948$ But their

NOTE Confidence: 0.8288937

 $00:23:05.950 \longrightarrow 00:23:09.442$ response rates are not as good as BCG

NOTE Confidence: 0.8117576

 $00:23:09.450 \longrightarrow 00:23:11.826$ because of this immune

NOTE Confidence: 0.8117576

 $00:23:11.826 \longrightarrow 00:23:13.730$ response that it sets up,

NOTE Confidence: 0.8117576

 $00:23:13.730 \longrightarrow 00:23:16.208$ it sounds like that's really the mechanism

 $00{:}23{:}16.208 \dashrightarrow 00{:}23{:}18.790$ by which it affects these cancers.

NOTE Confidence: 0.8117576

 $00:23:18.790 \longrightarrow 00:23:21.506$ Which brings me to the question of,

NOTE Confidence: 0.8117576

00:23:21.510 --> 00:23:23.202 well, does immunotherapy work

NOTE Confidence: 0.8117576

 $00:23:23.202 \longrightarrow 00:23:25.740$ more in these patients where the

NOTE Confidence: 0.8117576

 $00:23:25.811 \longrightarrow 00:23:28.198$ immune system is kind of revved up?

00:23:32.121 --> 00:23:35.059 That's the hot topic in bladder cancer right now,

NOTE Confidence: 0.7749244

 $00:23:35.060 \longrightarrow 00:23:38.714$ and there's two situations where

NOTE Confidence: 0.7749244

 $00:23:38.714 \longrightarrow 00:23:41.543$ we'd use immunotherapy, one is for

NOTE Confidence: 0.7749244

00:23:41.543 --> 00:23:44.210 men or women who have failed BCG

NOTE Confidence: 0.7749244

00:23:44.304 --> 00:23:47.339 but still have superficial disease,

NOTE Confidence: 0.7749244

 $00{:}23{:}47.340 \dashrightarrow 00{:}23{:}50.049$ and called CIS or carcinoma in situ

NOTE Confidence: 0.7749244

 $00:23:50.049 \longrightarrow 00:23:53.625$ which is it's

NOTE Confidence: 0.7749244

 $00{:}23{:}53.625 \dashrightarrow 00{:}23{:}56.420$ own sliver of bladder cancer.

NOTE Confidence: 0.7749244

00:23:56.420 --> 00:23:59.426 And it's been approved,

NOTE Confidence: 0.7749244

 $00:23:59.430 \longrightarrow 00:24:01.940$ Pembrolizumab has been approved for

NOTE Confidence: 0.7749244

 $00{:}24{:}01.940 \dashrightarrow 00{:}24{:}04.450$ patients in that particular case.

00:24:04.450 --> 00:24:08.636 It's also been approved for people who failed

NOTE Confidence: 0.7749244

 $00:24:08.640 \longrightarrow 00:24:11.172$ or who are ineligible to receive

NOTE Confidence: 0.7749244

 $00:24:11.172 \longrightarrow 00:24:12.860$ chemotherapy for invasive disease.

NOTE Confidence: 0.7749244

 $00:24:12.860 \longrightarrow 00:24:16.010$ So we do start to use it more and

NOTE Confidence: 0.7749244

 $00{:}24{:}16.010 \dashrightarrow 00{:}24{:}19.188$ more in more advanced bladder cancer.

NOTE Confidence: 0.8833491

 $00:24:21.060 \longrightarrow 00:24:23.380$ And so let's let's talk a little bit

NOTE Confidence: 0.8833491

 $00:24:23.380 \longrightarrow 00:24:25.750$ more about the advanced bladder cancer.

NOTE Confidence: 0.8833491

 $00:24:25.750 \longrightarrow 00:24:27.430$ When you say more advanced,

NOTE Confidence: 0.8833491

 $00:24:27.430 \longrightarrow 00:24:29.440$ do you mean invading the muscle?

NOTE Confidence: 0.8833491

 $00:24:29.440 \longrightarrow 00:24:31.778$ Which is where we kind of left

NOTE Confidence: 0.8833491

 $00:24:31.780 \longrightarrow 00:24:33.460$ off in that algorithm, correct?

NOTE Confidence: 0.8833491

 $00:24:33.460 \longrightarrow 00:24:35.812$ So you're talking about what we call T2

NOTE Confidence: 0.8833491

 $00{:}24{:}35.812 \dashrightarrow 00{:}24{:}37.856$ or higher stage bladder cancer

NOTE Confidence: 0.8833491

 $00:24:37.856 \longrightarrow 00:24:40.490$ into the muscle layer of the bladder,

NOTE Confidence: 0.8833491

 $00:24:40.490 \longrightarrow 00:24:42.730$ as seen on the pathology from the

 $00:24:42.730 \longrightarrow 00:24:45.177$ reception that you did with the telescope.

NOTE Confidence: 0.8305577

 $00:24:45.990 \longrightarrow 00:24:48.138$ And so how are those patients

NOTE Confidence: 0.8305577

 $00:24:48.140 \longrightarrow 00:24:50.732$ treated?

NOTE Confidence: 0.8305577

 $00:24:50.732 \longrightarrow 00:24:53.148$ In the old days we would just take their bladders

out,

NOTE Confidence: 0.8305577

 $00:24:53.150 \longrightarrow 00:24:54.940$ or we'd radiate the bladder.

NOTE Confidence: 0.8305577

 $00:24:54.940 \longrightarrow 00:24:57.418$ We found that that the success rate

NOTE Confidence: 0.8305577

00:24:57.418 --> 00:24:59.950 of survival was pretty poor,

NOTE Confidence: 0.8305577

 $00{:}24{:}59.950 \dashrightarrow 00{:}25{:}02.098$ less than 50% five year survival.

NOTE Confidence: 0.8305577

 $00:25:02.100 \longrightarrow 00:25:03.890$ So about 15 years ago

NOTE Confidence: 0.8305577

 $00:25:03.890 \longrightarrow 00:25:06.109$ there are a couple of very good

NOTE Confidence: 0.8305577

 $00{:}25{:}06.109 \longrightarrow 00{:}25{:}08.545$ studies that have looked at using

NOTE Confidence: 0.8305577

00:25:08.545 --> 00:25:10.675 chemotherapy both either in the

NOTE Confidence: 0.8305577

00:25:10.748 --> 00:25:13.464 adjuvant or neo

NOTE Confidence: 0.8305577

 $00:25:13.464 \longrightarrow 00:25:16.019$ setting meaning before or after surgery.

NOTE Confidence: 0.8305577

00:25:16.019 --> 00:25:17.871 This improved the survival

 $00:25:17.871 \longrightarrow 00:25:19.260$ significantly,

NOTE Confidence: 0.8305577

00:25:19.260 --> 00:25:22.284 so that's been kind of the standard

NOTE Confidence: 0.8305577

 $00:25:22.284 \longrightarrow 00:25:25.028$ treatment for most people with

NOTE Confidence: 0.8305577

 $00:25:25.028 \longrightarrow 00:25:27.308$ invasive bladder cancer is to

NOTE Confidence: 0.8305577

00:25:27.308 --> 00:25:29.980 receive some form of chemotherapy,

NOTE Confidence: 0.8305577

00:25:29.980 --> 00:25:31.375 preferably before surgery,

NOTE Confidence: 0.8305577

00:25:31.375 --> 00:25:34.165 before you take the bladder out,

NOTE Confidence: 0.8305577

 $00:25:34.170 \longrightarrow 00:25:36.018$ and typically the regiments

NOTE Confidence: 0.8305577

 $00{:}25{:}36.018 \dashrightarrow 00{:}25{:}38.790$ will include either a two drug

NOTE Confidence: 0.8305577

 $00:25:38.869 \longrightarrow 00:25:40.717$ regiment called Cisplatinum and

NOTE Confidence: 0.8305577

00:25:40.717 --> 00:25:43.489 Gemcitabine, or MVAC

NOTE Confidence: 0.8305577

 $00:25:43.490 \longrightarrow 00:25:46.370$ which is short for

NOTE Confidence: 0.8305577

00:25:46.370 --> 00:25:48.458 Methotrexate, Vinblastine, Doxorubicin, Cis-

platin.

00:25:49.510 --> 00:25:51.446 A lot of patience when you talk to

NOTE Confidence: 0.8363407

 $00:25:51.446 \longrightarrow 00:25:53.466$ them about neoadjuvant chemotherapy or

NOTE Confidence: 0.8363407

 $00:25:53.466 \longrightarrow 00:25:55.434$ getting chemotherapy before surgery

 $00:25:55.440 \longrightarrow 00:25:57.672$ they say why would I need the surgery then

NOTE Confidence: 0.8363407

00:25:57.672 --> 00:26:00.330 if I'm taking the chemotherapy upfront,

NOTE Confidence: 0.8363407

 $00:26:00.330 \longrightarrow 00:26:02.647$ could that kill off all of the

NOTE Confidence: 0.8363407

00:26:02.647 --> 00:26:05.153 cancer cells and then maybe I can

NOTE Confidence: 0.8363407

00:26:05.153 --> 00:26:06.953 save myself having the surgery,

NOTE Confidence: 0.8363407

 $00:26:06.960 \longrightarrow 00:26:09.564$ especially if that means that you won't

NOTE Confidence: 0.8363407

 $00:26:09.564 \longrightarrow 00:26:12.546$ have to take out my bladder.

NOTE Confidence: 0.8363407

 $00:26:12.550 \longrightarrow 00:26:14.805$ It's a great question and

NOTE Confidence: 0.8363407

 $00:26:17.530 \longrightarrow 00:26:20.260$ there is a response rate of probably 30% more

people

NOTE Confidence: 0.8363407

 $00{:}26{:}20.260 \dashrightarrow 00{:}26{:}22.990$ become what we call P0 meaning

NOTE Confidence: 0.8363407

 $00:26:22.990 \longrightarrow 00:26:25.720$ If you do take their bladders out,

NOTE Confidence: 0.8363407

 $00:26:25.720 \longrightarrow 00:26:28.840$ there will be no cancer in the specimen.

NOTE Confidence: 0.8363407

 $00:26:28.840 \longrightarrow 00:26:31.850$ There are two issues, one

NOTE Confidence: 0.8363407

 $00:26:31.850 \longrightarrow 00:26:33.986$ you've got to be very careful

NOTE Confidence: 0.8363407

 $00:26:33.986 \longrightarrow 00:26:36.248$ because it's often times hard to

00:26:36.248 --> 00:26:38.163 determine if they have recurrent

NOTE Confidence: 0.8363407

 $00:26:38.163 \longrightarrow 00:26:40.699$ disease or not in their bladder, and two

NOTE Confidence: 0.8363407

 $00:26:40.700 \longrightarrow 00:26:43.150$ even though you don't take their bladders

NOTE Confidence: 0.8363407

 $00:26:43.150 \longrightarrow 00:26:45.659$ out and the disease may be cured,

NOTE Confidence: 0.8363407

 $00:26:45.660 \longrightarrow 00:26:47.492$ it still can recur.

NOTE Confidence: 0.8363407

 $00:26:47.492 \longrightarrow 00:26:50.240$ So for some patients it's an

NOTE Confidence: 0.8363407

 $00:26:50.240 \longrightarrow 00:26:52.395$ option, but it's not one

NOTE Confidence: 0.8363407

 $00:26:52.395 \longrightarrow 00:26:53.688$ we usually recommend.

NOTE Confidence: 0.89805925

00:26:54.840 --> 00:26:57.634 And I guess

NOTE Confidence: 0.89805925

 $00{:}26{:}57.634 \to 00{:}26{:}59.713$ the other thing is that you don't

NOTE Confidence: 0.89805925

00:26:59.713 --> 00:27:01.460 really know that every single

NOTE Confidence: 0.89805925

 $00:27:01.460 \longrightarrow 00:27:03.536$ solitary cell of that cancer has

NOTE Confidence: 0.89805925

 $00{:}27{:}03.598 \rightarrow 00{:}27{:}05.479$ disappeared after chemotherapy,

NOTE Confidence: 0.89805925

00:27:05.480 --> 00:27:08.049 unless you look at every single cell,

NOTE Confidence: 0.89805925

 $00:27:08.050 \longrightarrow 00:27:10.246$ which often means doing more surgery,

 $00:27:10.250 \longrightarrow 00:27:12.085$ so does the surgery mean

NOTE Confidence: 0.89805925

00:27:12.085 --> 00:27:13.920 taking out the whole bladder?

NOTE Confidence: 0.89805925

 $00{:}27{:}13.920 \dashrightarrow 00{:}27{:}16.688$ Is there ever a time when you can

NOTE Confidence: 0.89805925

00:27:16.688 --> 00:27:19.493 take out just a part of the bladder

NOTE Confidence: 0.89805925

 $00:27:19.493 \longrightarrow 00:27:22.000$ and put it back together

NOTE Confidence: 0.89805925

 $00:27:22.000 \longrightarrow 00:27:23.588$ again?

NOTE Confidence: 0.89805925

 $00{:}27{:}23.588 \to 00{:}27{:}25.176$ Absolutely there are certain tumors

NOTE Confidence: 0.89805925

 $00:27:25.180 \longrightarrow 00:27:27.574$ and it all depends on the location.

NOTE Confidence: 0.89805925

 $00:27:27.580 \longrightarrow 00:27:29.638$ If it's what we call in

NOTE Confidence: 0.89805925

 $00:27:29.640 \longrightarrow 00:27:31.350$ the dome of the bladder,

NOTE Confidence: 0.89805925

 $00{:}27{:}31.350 \dashrightarrow 00{:}27{:}33.639$ meaning that top part of the bladder

NOTE Confidence: 0.89805925

00:27:33.639 --> 00:27:35.808 where you can get good margins,

NOTE Confidence: 0.89805925

00:27:35.810 --> 00:27:37.868 you can do a partial cystectomy.

NOTE Confidence: 0.89805925

00:27:37.870 --> 00:27:39.680 Unfortunately, that's not where the

NOTE Confidence: 0.89805925

00:27:39.680 --> 00:27:41.989 majority of the bladder tumors form,

NOTE Confidence: 0.89805925

 $00:27:41.990 \longrightarrow 00:27:44.830$ so the chance of just doing a partial

 $00:27:44.830 \longrightarrow 00:27:46.449$ cystectomy is pretty low.

NOTE Confidence: 0.89805925

00:27:46.450 --> 00:27:47.718 But in my practice,

NOTE Confidence: 0.89805925

00:27:47.718 --> 00:27:50.910 if I see three or four patients a year,

NOTE Confidence: 0.89805925

 $00:27:50.910 \longrightarrow 00:27:52.968$ that's probably a lot that are

NOTE Confidence: 0.89805925

 $00{:}27{:}52.968 \dashrightarrow 00{:}27{:}54.340$ candidates for partial cystectomy.

NOTE Confidence: 0.89805925

 $00:27:54.340 \longrightarrow 00:27:57.204$ So yes, you can do a partial cystectomy

NOTE Confidence: 0.89805925

 $00:27:57.210 \longrightarrow 00:27:58.968$ if it's in the right location

NOTE Confidence: 0.9008096

 $00:27:58.970 \longrightarrow 00:28:01.306$ and so for the rest of the people,

NOTE Confidence: 0.9008096

00:28:01.310 --> 00:28:03.330 that means that you're taking

NOTE Confidence: 0.9008096

 $00:28:03.330 \longrightarrow 00:28:04.946$ out their whole bladder.

NOTE Confidence: 0.9008096

 $00:28:04.950 \longrightarrow 00:28:06.885$ And so the question obviously

NOTE Confidence: 0.9008096

 $00:28:06.885 \longrightarrow 00:28:09.175$ becomes what does that mean for

NOTE Confidence: 0.9008096

00:28:09.175 --> 00:28:11.463 me in terms of my quality of life?

NOTE Confidence: 0.9008096

00:28:11.470 --> 00:28:13.864 I mean, does this mean a stoma?

NOTE Confidence: 0.9008096

 $00:28:13.870 \longrightarrow 00:28:16.264$ How does that work exactly?

 $00:28:16.270 \longrightarrow 00:28:18.664$ So there are three

NOTE Confidence: 0.8730591

 $00{:}28{:}18.670 \dashrightarrow 00{:}28{:}20.365$ options when you take some one's

NOTE Confidence: 0.8730591

 $00:28:20.365 \longrightarrow 00:28:22.462$ bladder out as far as where

NOTE Confidence: 0.8730591

 $00:28:22.462 \longrightarrow 00:28:24.642$ the urine goes, one is a stoma.

NOTE Confidence: 0.8730591

 $00:28:24.642 \longrightarrow 00:28:27.240$ Or we take a small piece of small

NOTE Confidence: 0.8730591

 $00:28:27.240 \longrightarrow 00:28:29.907$ intestine and we connect the tubes from

NOTE Confidence: 0.8730591

 $00{:}28{:}29.907 \dashrightarrow 00{:}28{:}33.078$ the kidneys and bring it out of the skin

NOTE Confidence: 0.8730591

 $00:28:33.080 \longrightarrow 00:28:35.894$ so it drains into a bag,

NOTE Confidence: 0.8730591

 $00{:}28{:}35.900 \to 00{:}28{:}38.960$ 24 hours, seven days a week.

NOTE Confidence: 0.8730591

00:28:38.960 --> 00:28:41.156 You can make a continent stoma,

NOTE Confidence: 0.8730591

 $00:28:41.160 \longrightarrow 00:28:43.715$ meaning you take part of the patients

NOTE Confidence: 0.8730591

 $00:28:43.715 \longrightarrow 00:28:45.910$ right colon

NOTE Confidence: 0.8730591

 $00:28:47.010 \longrightarrow 00:28:49.425$ and bring a small piece of intestines up

NOTE Confidence: 0.8730591

 $00:28:49.425 \longrightarrow 00:28:51.290$ and they actually catheterized

NOTE Confidence: 0.8730591

 $00:28:51.290 \longrightarrow 00:28:54.322$ a stoma four to six times a day.

NOTE Confidence: 0.8730591

00:28:54.330 --> 00:28:54.982 And thirdly,

 $00{:}28{:}54.982 \to 00{:}28{:}56.938$ you can actually make a new

NOTE Confidence: 0.8730591

 $00:28:56.938 \longrightarrow 00:28:58.893$ bladder where you take several

NOTE Confidence: 0.8730591

00:28:58.893 -> 00:29:00.549 centimeters of small intestine,

NOTE Confidence: 0.8730591

00:29:00.550 --> 00:29:02.746 you fashion it into a sphere, 00:29:06.040 --> 00:29:07.865 so everything's on the inside,

NOTE Confidence: 0.8730591

 $00:29:07.870 \longrightarrow 00:29:09.640$ so they urinate normally without

NOTE Confidence: 0.8730591

 $00{:}29{:}09.640 \dashrightarrow 00{:}29{:}11.900$ a bag or without a stoma.

NOTE Confidence: 0.8727357

00:29:12.530 --> 00:29:14.726 Doctor John Colberg is a professor

NOTE Confidence: 0.8727357

 $00:29:14.726 \longrightarrow 00:29:16.984$ of urology and director of Urologic

NOTE Confidence: 0.8727357

00:29:16.984 --> 00:29:19.532 Oncology at the Yale School of Medicine.

NOTE Confidence: 0.8727357

 $00{:}29{:}19.540 \dashrightarrow 00{:}29{:}22.109$ If you have questions the address is

NOTE Confidence: 0.8727357

 $00:29:22.109 \longrightarrow 00:29:23.584$ canceranswers@yale.edu and past editions

NOTE Confidence: 0.8727357

 $00{:}29{:}23.584 \dashrightarrow 00{:}29{:}25.775$ of the program are available in audio

NOTE Confidence: 0.8727357

 $00:29:25.775 \longrightarrow 00:29:28.028$ and written form at Yalecancercenter.org.

NOTE Confidence: 0.8727357

 $00:29:28.030 \longrightarrow 00:29:30.782$ We hope you'll join us next week to

NOTE Confidence: 0.8727357

 $00{:}29{:}30.782 \dashrightarrow 00{:}29{:}33.459$ learn more about the fight against

 $00{:}29{:}33.459 \dashrightarrow 00{:}29{:}36.327$ cancer here on Connecticut public radio.