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0:00:03.997 -> 0:00:05.697 Hospital and AstraZeneca.
0:00:07.96 -> 0:00:09.808 Welcome to Yale Cancer Answers with
0:00:09.808 -> 0:00:11.843 your host doctor Anees Chagpar.
0:00:11.843 -> 0:00:13.693 Yale Cancer Answers features the
0:00:13.693 -> 0:00:15.923 latest information on cancer care by
0:00:15.923 -> 0:00:17.335 welcoming oncologists and specialists
0:00:17.335 -> 0:00:19.664 who are on the forefront of the
0:00:19.664 -> 0:00:21.438 battle to fight cancer. This week,
0:00:21.438 -> 0:00:23.216 it's a conversation about the care of
0:00:23.216 -> 0:00:24.86 patients with liver cancer with doctor
0:00:24.86 -> 0:00:27.219 Ariel Jaffe. Dr. Jaffe is an assistant
0:00:27.219 -> 0:00:29.575 professor of medicine and the section of
0:00:29.575 -> 0:00:31.495 digestive diseases at the Yale School
0:00:31.559 -> 0:00:33.617 of Medicine where Doctor Chagpar is
0:00:33.62 -> 0:00:35.57 a professor of surgical oncology.
0:00:36.75 -> 0:00:38.486 Ariel, maybe we can start off by
0:00:38.486 -> 0:00:40.389 you telling us a little bit about
0:00:40.389 -> 0:00:42.039 yourself and what exactly you do.
0:00:42.81 -> 0:00:44.9 Sure, so basically I specialize
0:00:44.9 -> 0:00:47.842 in the care of patients that have
0:00:47.842 -> 0:00:50.164 advanced liver disease and I work
0:00:50.164 -> 0:00:52.77 both in the transplant program,
0:00:52.77 -> 0:00:54.513 so patients who need to go on
0:00:54.513 -> 0:00:56.41 to have a liver transplant,
0:00:56.41 -> 0:00:58.035 and also patients
0:00:58.035 -> 0:00:59.335 that develop liver cancer,
0:00:59.34 -> 0:01:01.152 which is an extremely common
0:01:01.152 -> 0:01:02.964 complication in patients that
0:01:02.964 -> 0:01:04.88 have chronic liver disease.

0:01:05.15 -> 0:01:07.686 So let's talk a little bit about that.
0:01:07.69 -> 0:01:10.54 So when you're talking about
0:01:10.54 -> 0:01:12.82 patients who require transplant,
0:01:12.82 -> 0:01:14.944 what kinds of conditions
0:01:14.944 -> 0:01:16.537 require liver transplants?
0:01:16.54 -> 0:01:20.92 I mean, are these patients who
0:01:20.92 -> 0:01:23.376 have hepatitis, cirrhosis, tell
0:01:23.376 -> 0:01:25.238 us a little bit more about what
0:01:25.238 -> 0:01:26.877 kinds of conditions will lead
0:01:26.877 -> 0:01:28.965 you down the path of transplant?
0:01:31.202 -> 0:01:33.045 Most commonly, patients that develop
0:01:33.045 -> 0:01:35.064 end stage liver disease, which is
0:01:35.064 -> 0:01:36.966 what we commonly know
0:01:36.966 -> 0:01:39.275 as cirrhosis are the ones that we
0:01:39.275 -> 0:01:40.89 do evaluate for liver transplant,
0:01:40.89 -> 0:01:42.626 and that could be from a variety
0:01:42.626 -> 0:01:43.37 of different causes.
0:01:43.37 -> 0:01:45.41 Some which you alluded to.
0:01:45.41 -> 0:01:47.182 You know patients that
0:01:47.182 -> 0:01:48.954 have chronic viral disease.
0:01:48.96 -> 0:01:51.172 Certain toxins, like alcohol use,
0:01:51.172 -> 0:01:53.384 certain genetic disorders,
0:01:53.39 -> 0:01:55.946 patients with obesity and diabetes which
0:01:55.946 -> 0:01:59.128 can lead to fatty liver and
0:01:59.13 -> 0:02:00.434 go on to develop
0:02:00.434 -> 0:02:01.738 end stage liver disease.
0:02:01.74 -> 0:02:03.35 Once you start to have
0:02:03.35 -> 0:02:04.316 complications from that,
0:02:04.32 -> 0:02:06.35 we generally start to consider
0:02:06.35 -> 0:02:07.568 you for transplant.
0:02:07.57 -> 0:02:10.13 There are a subset of patients who may

0:02:10.13 -> 0:02:11.949 actually have really well preserved
0:02:11.949 -> 0:02:14.539 liver function and look and feel well,
0:02:14.54 -> 0:02:17.158 but in patients that develop liver cancer,
0:02:17.16 -> 0:02:18.27 which sort of as I mentioned,
0:02:18.27 -> 0:02:20.72 is an extremely common complication,
0:02:20.72 -> 0:02:23.449 8 to 10% of patients with
0:02:23.449 -> 0:02:25.927 cirrhosis will develop cancer each year.
0:02:25.93 -> 0:02:27.946 That's another indication in which we
0:02:27.946 -> 0:02:30.58 go on to consider them for transplant.
0:02:30.58 -> 0:02:30.865 Because
0:02:31.435 -> 0:02:33.43 transplant will not only cure the cancer,
0:02:33.43 -> 0:02:35.356 but it will actually cure their
0:02:35.356 -> 0:02:36.319 underlying liver disease,
0:02:36.32 -> 0:02:38.282 which is the major risk factor
0:02:38.282 -> 0:02:39.59 for their cancer development.
0:02:40.75 -> 0:02:43.228 So tell us a little bit more
0:02:43.228 -> 0:02:45.729 about that in terms of cancer.
0:02:45.73 -> 0:02:48.376 Are all patients with liver cancer
0:02:48.376 -> 0:02:50.568 candidates for
0:02:50.568 -> 0:02:52.65 transplant or is it only those
0:02:52.65 -> 0:02:54.817 who have that underlying chronic
0:02:54.817 -> 0:02:57.955 liver disease that would make them
0:02:57.955 -> 0:03:00.1 potentially a candidate anyways?
0:03:01.29 -> 0:03:03.725 So not all patients are
0:03:03.725 -> 0:03:05.186 candidates for transplant.
0:03:05.19 -> 0:03:06.96 The majority of patients who
0:03:06.96 -> 0:03:09.146 develop liver cancer will have some
0:03:09.146 -> 0:03:10.896 form of chronic liver disease,
0:03:10.9 -> 0:03:12.444 but interestingly, we're actually
0:03:12.444 -> 0:03:14.76 seeing a unique population who don't
0:03:14.818 -> 0:03:16.968 have underlying advanced liver disease

0:03:16.97 -> 0:03:19.69 go on to develop liver cancer and it's
0:03:19.69 -> 0:03:21.335 a little bit of a controversial field
0:03:21.34 -> 0:03:24.56 if those patients should be
0:03:24.56 -> 0:03:26.54 considered for transplant or not.
0:03:26.54 -> 0:03:28.54 But in terms of those that
0:03:28.54 -> 0:03:30.249 may have chronic liver disease
0:03:30.249 -> 0:03:31.777 and develop liver cancer,
0:03:31.78 -> 0:03:33.418 there are certain criteria that need
0:03:33.418 -> 0:03:35.812 to be met for patients to be considered
0:03:35.812 -> 0:03:38.23 for transplant and some of that includes
0:03:38.23 -> 0:03:41.366 how extensive their liver cancer is.
0:03:41.37 -> 0:03:42.357 So for example,
0:03:42.357 -> 0:03:44.66 if it's spread outside of the liver,
0:03:44.66 -> 0:03:46.245 they would not be good
0:03:46.245 -> 0:03:47.196 candidates for transplant,
0:03:47.2 -> 0:03:49.741 or if they have a large amount
0:03:49.741 -> 0:03:51.68 of tumors within the liver,
0:03:51.68 -> 0:03:54.08 they would not be considered
0:03:54.08 -> 0:03:54.88 good candidates.
0:03:54.88 -> 0:03:57.267 We also sometimes like to look at
0:03:57.267 -> 0:03:59.859 patients if they have recurrent cancer.
0:04:00.586 -> 0:04:02.764 We're more likely to consider them
0:04:02.764 -> 0:04:04.855 for transplant or if their underlying
0:04:04.855 -> 0:04:07.223 liver is really very very sick so
0:04:07.223 -> 0:04:09.323 that they have other complications of
0:04:09.323 -> 0:04:11.55 liver disease in addition to cancer,
0:04:11.55 -> 0:04:12.72 then you know,
0:04:13.028 -> 0:04:15.184 we're more likely to want to pursue
0:04:15.184 -> 0:04:16.689 transplant in those patients.
0:04:17.79 -> 0:04:20.009 One of the things that
0:04:20.009 -> 0:04:22.268 people might be thinking about when

0:04:22.268 -> 0:04:24.746 we think about transplant is that
0:04:24.75 -> 0:04:26.89 oftentimes people
0:04:26.89 -> 0:04:29.03 may be under the impression
0:04:29.106 -> 0:04:31.316 that patients who have cancers,
0:04:31.32 -> 0:04:36.206 for example, may not be a potential
0:04:36.206 -> 0:04:39.38 recipient of organs,
0:04:39.38 -> 0:04:41.599 but it sounds like for liver cancer,
0:04:41.6 -> 0:04:43.555 that's not the case, that
0:04:43.555 -> 0:04:45.51 if you have liver cancer,
0:04:45.51 -> 0:04:48.588 even if it's recurrent liver cancer,
0:04:48.59 -> 0:04:52.806 you can still be on the organ
0:04:52.806 -> 0:04:53.86 recipient list.
0:04:53.86 -> 0:04:54.388 Is that right?
0:04:54.95 -> 0:04:56.262 Yes, actually
0:04:56.262 -> 0:04:58.23 it's a really unique cancer and
0:04:58.29 -> 0:05:00.078 you're very spot on with that.
0:05:00.08 -> 0:05:01.86 In that transplant is
0:05:01.86 -> 0:05:04.28 considered one of the curative therapies,
0:05:05.75 -> 0:05:07.352 and it really can't have spread outside
0:05:07.352 -> 0:05:09.375 of the liver or you can't have
0:05:09.375 -> 0:05:10.88 such an extensive tumor burden.
0:05:10.88 -> 0:05:12.948 But because you're really
0:05:12.948 -> 0:05:14.499 replacing the liver,
0:05:14.5 -> 0:05:16.12 you're not only treating the cancer,
0:05:16.12 -> 0:05:18.437 but you're sort of getting rid of
0:05:18.437 -> 0:05:20.36 the damaged organ because we like
0:05:20.36 -> 0:05:22.53 to think of liver cancer in
0:05:22.602 -> 0:05:24.786 particular as sort of a complication
0:05:24.786 -> 0:05:26.85 of a failing organ.
0:05:26.85 -> 0:05:31.169 I think it's an important perspective to have.
0:05:32.29 -> 0:05:33.555 Yeah, it does not mean that

0:05:33.555 -> 0:05:34.343 you're not a candidate.
0:05:34.35 -> 0:05:36.246 It's actually one of the most
0:05:36.246 -> 0:05:37.51 curative therapies and really
0:05:37.568 -> 0:05:39.228 currently in the United States,
0:05:39.23 -> 0:05:39.539 honestly,
0:05:39.539 -> 0:05:41.084 about a quarter of transplants
0:05:41.084 -> 0:05:42.744 are done for the indication
0:05:42.744 -> 0:05:44.216 of having liver cancer.
0:05:44.61 -> 0:05:48.018 Wow, so the other thing that we often
0:05:48.018 -> 0:05:51.53 think about when we think about transplant
0:05:51.53 -> 0:05:54.8 is the universal shortage of organs.
0:05:54.8 -> 0:05:58.978 Liver is one of those nice organs that there
0:05:58.978 -> 0:06:02.402 is a potential for a living related donor.
0:06:02.41 -> 0:06:04.558 How often is that used in
0:06:04.558 -> 0:06:06.58 patients who have liver cancer?
0:06:06.58 -> 0:06:08.164 Can you talk a little bit more about that?
0:06:09 -> 0:06:11.894 Definitely so the liver is
0:06:13.24 -> 0:06:15.27 just one of the most remarkable
0:06:15.27 -> 0:06:17.48 organs, and its ability to regenerate.
0:06:17.48 -> 0:06:20.126 So in certain patients who are
0:06:20.126 -> 0:06:22.681 candidates for a living donor organ,
0:06:22.681 -> 0:06:25.3 meaning that a part of the liver is taken
0:06:25.363 -> 0:06:27.874 from a donor and put into the recipient and
0:06:27.874 -> 0:06:30.399 it will actually grow to a normal size,
0:06:30.4 -> 0:06:33.166 usually in about 12 weeks time.
0:06:34.21 -> 0:06:35.734 To determine if someone is
0:06:35.734 -> 0:06:37.479 a candidate for a living donor,
0:06:37.48 -> 0:06:39.154 there's a few factors that we
0:06:39.154 -> 0:06:40.81 have to take into account.
0:06:40.81 -> 0:06:43.344 One is the size of the patient
0:06:43.35 -> 0:06:46.566 because there's a certain sort of

0:06:46.57 -> 0:06:48.994 massive liver that you would need
0:06:48.994 -> 0:06:51.79 to sufficiently
0:06:51.79 -> 0:06:54.157 do its job in a person.
0:06:54.16 -> 0:06:56.566 So if you're a really really
0:06:56.566 -> 0:06:58.74 big guy or big girl,
0:06:58.74 -> 0:07:01.134 your candidates might be limited.
0:07:01.14 -> 0:07:03.191 You would really need someone who is
0:07:03.191 -> 0:07:05.199 equally as tall or as large as you.
0:07:05.2 -> 0:07:06.62 The second thing is,
0:07:06.62 -> 0:07:09.537 if you're really incredibly sick and have a
0:07:09.537 -> 0:07:12.057 lot of complications from your liver disease,
0:07:12.06 -> 0:07:14.324 there's concern that you may not be able
0:07:14.324 -> 0:07:16.31 to tolerate just a piece of an organ.
0:07:16.31 -> 0:07:18.215 So it's actually something
0:07:18.215 -> 0:07:20.12 that we use quite often,
0:07:22.042 -> 0:07:23.974 and it varies based on programs and
0:07:23.974 -> 0:07:25.83 how large the programs are,
0:07:25.83 -> 0:07:28.238 but we definitely do a lot of
0:07:28.238 -> 0:07:30.548 living donors in our center here,
0:07:30.55 -> 0:07:33.042 and it's a really a great option
0:07:33.042 -> 0:07:35.16 for a certain subset of patients.
0:07:36.12 -> 0:07:38.264 And tell us a little
0:07:38.264 -> 0:07:40.318 bit more about how that works,
0:07:40.32 -> 0:07:43.414 because I think that for many people
0:07:43.414 -> 0:07:46.48 just the thought of having a relative
0:07:46.567 -> 0:07:49.983 or a loved one being diagnosed with
0:07:49.983 -> 0:07:52.11 a potentially treatable cancer,
0:07:52.11 -> 0:07:53.58 but that you can help with,
0:07:53.58 -> 0:07:57.188 you can help give them a new life,
0:08:00.796 -> 0:08:04.204 is really awesome in terms of the actual
0:08:04.204 -> 0:08:07.13 benefit that you can provide,

0:08:07.13 -> 0:08:09.14 but people may have some
0:08:09.14 -> 0:08:10.346 questions about that.
0:08:10.38 -> 0:08:13.604 Yes, so it's definitely a pretty
0:08:13.61 -> 0:08:15.746 grueling process
0:08:15.746 -> 0:08:18.792 and the way that it works
0:08:18.792 -> 0:08:20.978 is once we determine that someone
0:08:20.978 -> 0:08:23.246 is ineligible as a transplant candidate,
0:08:23.25 -> 0:08:25.497 they're then open to have either relatives
0:08:25.497 -> 0:08:28.103 or even just altruistic
0:08:28.103 -> 0:08:30.735 donors that can call in and be screened
0:08:30.735 -> 0:08:32.715 to see if they're compatible and
0:08:32.72 -> 0:08:34.34 usually it starts with
0:08:34.34 -> 0:08:36.002 just looking at blood typing to
0:08:36.002 -> 0:08:37.58 see if there is a compatibility.
0:08:37.58 -> 0:08:40.163 The rejection is a little bit different
0:08:40.163 -> 0:08:43.059 in the liver compared to other organs,
0:08:43.06 -> 0:08:45.643 so it's nice in that there's not
0:08:45.65 -> 0:08:47.81 so many factors that have to be
0:08:47.81 -> 0:08:50.504 directly matched to be
0:08:50.504 -> 0:08:52.3 considered a compatible donor.
0:08:52.3 -> 0:08:53.872 But once we think that there's
0:08:53.872 -> 0:08:55.9 not going to be overt rejection,
0:08:55.9 -> 0:08:58.108 and that really comes down a lot of
0:08:58.108 -> 0:09:00.678 times to compatibility and blood typing.
0:09:00.68 -> 0:09:03.2 We have a very strict process
0:09:03.2 -> 0:09:05.251 to make sure that the donor itself
0:09:05.251 -> 0:09:07.388 is someone who would do very well
0:09:07.388 -> 0:09:09.182 going to surgery, that they have
0:09:09.244 -> 0:09:10.92 no underlying liver disease,
0:09:10.92 -> 0:09:12.292 and that ultimately we
0:09:12.98 -> 0:09:15.345 feel would essentially come out

0:09:15.345 -> 0:09:18.228 unscathed should they decide to go
0:09:18.228 -> 0:09:20.418 forth with donating their liver.
0:09:20.42 -> 0:09:23.943 It's extremely rare in general to have any
0:09:23.943 -> 0:09:25.958 type of rejection from incompatibility.
0:09:25.96 -> 0:09:27.808 Just because our ability to screen
0:09:27.808 -> 0:09:30.016 and make sure that blood types and
0:09:30.016 -> 0:09:31.84 things match is so great now,
0:09:31.84 -> 0:09:34.726 so that's not generally a major
0:09:34.73 -> 0:09:35.438 major concern,
0:09:35.438 -> 0:09:37.916 but there's a lot of strict processes
0:09:37.916 -> 0:09:40.722 in terms of making sure the size is
0:09:40.722 -> 0:09:42.692 appropriate that the recipient,
0:09:42.692 -> 0:09:44.897 whatever portion was donated,
0:09:44.9 -> 0:09:47.516 that that would be enough for the patient
0:09:47.516 -> 0:09:50.49 not to have what we call post operative
0:09:50.49 -> 0:09:53.53 liver failure or liver insufficiency.
0:09:53.53 -> 0:09:56.344 So I would say technology and our
0:09:56.344 -> 0:09:58.425 screening strategies are just so
0:09:58.425 -> 0:10:00.435 remarkable now that those
0:10:00.435 -> 0:10:03.029 factors are really very well detailed
0:10:03.03 -> 0:10:05.07 before we would proceed with any
0:10:05.07 -> 0:10:07.52 type of living donor liver transplant.
0:10:08.51 -> 0:10:10.73 And then after the transplant,
0:10:10.73 -> 0:10:13.54 does the recipient stay on
0:10:13.54 -> 0:10:15.788 immunosuppressive therapy for life?
0:10:15.79 -> 0:10:16.92 Or how does that work?
0:10:18.2 -> 0:10:20.594 Yeah, so there's variations
0:10:20.594 -> 0:10:23.502 in the quantity of immunosuppression
0:10:23.502 -> 0:10:25.966 in liver transplant recipients.
0:10:25.97 -> 0:10:29.09 Generally within a year after transplant
0:10:29.09 -> 0:10:31.458 you can get patients down to an extremely

0:10:31.458 -> 0:10:33.646 low level of immunosuppression which
0:10:33.646 -> 0:10:35.561 again is slightly different than
0:10:35.561 -> 0:10:37.471 other organs where rejection rates
0:10:37.471 -> 0:10:40.322 are much higher and it's interesting
0:10:40.322 -> 0:10:43.038 because there are certain reports
0:10:43.038 -> 0:10:45.306 of patients being able to completely
0:10:45.306 -> 0:10:47.799 come off of immunosuppression.
0:10:47.8 -> 0:10:49.865 And we've actually had a few patients
0:10:49.865 -> 0:10:52.1 within our center that we've done that on.
0:10:52.1 -> 0:10:53.666 It's a little bit higher risk,
0:10:53.67 -> 0:10:56.197 and it requires some more close monitoring,
0:10:56.2 -> 0:10:58.84 but I would say the vast majority of
0:10:58.84 -> 0:11:01.391 patients are usually on at least one
0:11:01.391 -> 0:11:04.02 medication for the duration of their life,
0:11:04.02 -> 0:11:07.035 but it's again incredibly low
0:11:07.035 -> 0:11:09.47 dose compared to the majority of
0:11:09.47 -> 0:11:11.61 other organ transplant recipients.
0:11:12.34 -> 0:11:14.506 And they quote cured?
0:11:16.3 -> 0:11:17.461 Yeah, so that's
0:11:17.461 -> 0:11:20.17 exactly the hope is
0:11:20.252 -> 0:11:22.96 that from liver transplant,
0:11:22.96 -> 0:11:24.744 you're essentially replacing the
0:11:24.744 -> 0:11:27.568 entire organ, and so whatever the
0:11:27.568 -> 0:11:29.496 etiology of that patients,
0:11:29.5 -> 0:11:32.88 liver diseases is essentially cured.
0:11:32.88 -> 0:11:35.796 Of course, there's a risk if
0:11:35.796 -> 0:11:37.74 patients redevelop viral infections,
0:11:37.74 -> 0:11:40.022 or if some of the risk factors
0:11:40.022 -> 0:11:41.85 that led initially to their
0:11:41.85 -> 0:11:43.8 liver disease are still present.
0:11:43.8 -> 0:11:46.344 And I think a lot in our population

0:11:46.35 -> 0:11:48.672 the common things are patients
0:11:48.672 -> 0:11:50.81 who develop fatty liver disease
0:11:50.81 -> 0:11:52.609 in the post transplant setting,
0:11:52.61 -> 0:11:54.944 if they continue to
0:11:54.944 -> 0:11:56.5 have diabetes or obesity,
0:11:56.5 -> 0:11:57.924 you can develop recurrent
0:11:57.924 -> 0:11:59.348 disease in the organ.
0:11:59.35 -> 0:12:02.795 But if patients mitigate their risk
0:12:02.795 -> 0:12:06.07 factors and go on to live a healthy life,
0:12:06.07 -> 0:12:07.715 then yes, liver transplant is
0:12:07.715 -> 0:12:09.83 curative not only for the cancer,
0:12:09.83 -> 0:12:11.755 but again for the initial
0:12:11.755 -> 0:12:13.295 cause of their cirrhosis.
0:12:14.19 -> 0:12:17.678 And so for patients who have liver cancer
0:12:17.68 -> 0:12:19.983 is transplant one of the things that
0:12:19.983 -> 0:12:22.548 you think of first or do people have
0:12:22.548 -> 0:12:25 to kind of go through chemotherapy?
0:12:25 -> 0:12:27.015 At least in assessment of
0:12:27.015 -> 0:12:29.03 surgical resection and so on?
0:12:29.03 -> 0:12:31.145 Kind of the more commonplace
0:12:31.145 -> 0:12:33.26 cancer therapies before you think
0:12:33.333 -> 0:12:35.413 about transplant or is transplant
0:12:35.413 -> 0:12:37.91 something that is now first line?
0:12:38.92 -> 0:12:41.285 So it definitely is extremely
0:12:41.285 -> 0:12:43.52 independent on each patient's case.
0:12:43.52 -> 0:12:48.02 If we see a patient who has a single tumor,
0:12:48.02 -> 0:12:50.02 that's very small in size,
0:12:50.02 -> 0:12:52.436 and we think that we can cure them
0:12:52.436 -> 0:12:54.016 with a local resection, meaning,
0:12:54.016 -> 0:12:56.609 just cutting out a portion of that liver,
0:12:56.61 -> 0:12:58.8 that's generally the first line

0:12:58.8 -> 0:13:01.49 therapy that we would actually go to.
0:13:01.49 -> 0:13:03.22 In patients that have more
0:13:03.22 -> 0:13:04.95 advanced liver disease and other
0:13:05.017 -> 0:13:06.837 complications from their liver,
0:13:06.84 -> 0:13:07.97 if they develop a cancer
0:13:07.97 -> 0:13:10.472 on top of that, we know that a transplant
0:13:10.472 -> 0:13:12.407 would cure both of those aspects,
0:13:12.41 -> 0:13:15.45 so I would not say it's often firstline,
0:13:15.45 -> 0:13:17.592 but it's a curative approach that we
0:13:17.592 -> 0:13:19.798 definitely have in the back of our heads
0:13:19.8 -> 0:13:21.48 for a subset of patients that
0:13:21.48 -> 0:13:22.6 would be good candidates.
0:13:23.05 -> 0:13:25.096 Terrific, we're going to learn
0:13:25.096 -> 0:13:27.685 a lot more about liver cancer and
0:13:27.685 -> 0:13:29.615 transplant hepatology right after we
0:13:29.615 -> 0:13:32.579 take a short break for a medical minute.
0:13:32.58 -> 0:13:34.404 Please stay tuned to learn more
0:13:34.404 -> 0:13:36.389 with my guest doctor Ariel Jaffe.
0:13:37.09 -> 0:13:39.05 Funding for Yale Cancer Answers
0:13:39.05 -> 0:13:41.01 comes from AstraZeneca, dedicated
0:13:41.074 -> 0:13:42.944 to advancing options and providing
0:13:42.944 -> 0:13:45.3 hope for people living with cancer.
0:13:45.3 -> 0:13:50.88 More information at AstraZeneca Dash us.com.
0:13:50.88 -> 0:13:52.752 Genetic testing can be useful for
0:13:52.752 -> 0:13:54.585 people with certain types of cancer
0:13:54.585 -> 0:13:56.433 that seem to run in their families.
0:13:56.44 -> 0:13:58.948 Genetic counseling is a process that
0:13:58.948 -> 0:14:01.084 includes collecting a detailed personal
0:14:01.084 -> 0:14:03.835 and family history or risk assessment and
0:14:03.835 -> 0:14:06.38 a discussion of genetic testing options.
0:14:06.38 -> 0:14:09.052 Only about 5 to 10% of all cancers

0:14:09.052 -> 0:14:10.976 are inherited, and genetic testing
0:14:10.976 -> 0:14:13.036 is not recommended for everyone.
0:14:13.04 -> 0:14:15.38 Individuals who have a personal and
0:14:15.38 -> 0:14:17.464 or family history that includes
0:14:17.464 -> 0:14:19.709 cancer at unusually early ages,
0:14:19.71 -> 0:14:20.376 multiple relatives
0:14:20.376 -> 0:14:22.707 on the same side of the family
0:14:22.707 -> 0:14:24.07 with the same cancer,
0:14:24.07 -> 0:14:25.93 more than one diagnosis of
0:14:25.93 -> 0:14:27.79 cancer in the same individual,
0:14:27.79 -> 0:14:30.597 rare cancers or a family history of a
0:14:30.597 -> 0:14:32.912 known altered cancer predisposing gene
0:14:32.912 -> 0:14:36.026 could be candidates for genetic testing.
0:14:36.03 -> 0:14:38.095 Resources for genetic counseling and
0:14:38.095 -> 0:14:40.16 testing are available at federally
0:14:40.222 -> 0:14:41.443 designated comprehensive cancer
0:14:41.443 -> 0:14:43.885 centers such as Yale Cancer Center
0:14:43.885 -> 0:14:45.868 and at Smilow Cancer Hospital.
0:14:45.87 -> 0:14:48.95 More information is available at
0:14:48.95 -> 0:14:50.546 yalecancercenter.org. You're listening
0:14:50.546 -> 0:14:52.674 to Connecticut Public Radio.
0:14:52.68 -> 0:14:53.16 Welcome
0:14:53.17 -> 0:14:55.11 back to Yale Cancer Answers.
0:14:55.11 -> 0:14:58.017 This is doctor Anees Chagpar and I'm joined
0:14:58.017 -> 0:15:00.367 tonight by my guest doctor Ariel Jaffe.
0:15:00.37 -> 0:15:03.196 We're talking about patients with liver
0:15:03.196 -> 0:15:06.052 cancer, and before the break we talked
0:15:06.052 -> 0:15:08.68 about the whole aspect of transplant
0:15:08.68 -> 0:15:11.56 as a potential curative modality for
0:15:11.56 -> 0:15:14.126 patients with liver cancer. But Ariel,
0:15:14.126 -> 0:15:16.35 just as we were heading to the break,

0:15:16.35 -> 0:15:18.018 you mentioned that there are a
0:15:18.018 -> 0:15:20.092 lot of other things that go into
0:15:20.092 -> 0:15:21.904 thinking about liver cancer as well,
0:15:21.91 -> 0:15:23.52 so I wanted to take a step back
0:15:23.52 -> 0:15:26.236 and talk a little bit about
0:15:26.24 -> 0:15:28.879 how common is liver cancer?
0:15:29.81 -> 0:15:32.687 Primary liver cancer is actually
0:15:32.687 -> 0:15:34.939 a quite significant global burden.
0:15:34.94 -> 0:15:37.072 There's over 800,000 new
0:15:37.072 -> 0:15:39.204 cases diagnosed each year,
0:15:39.21 -> 0:15:41.24 and actually in the US in particular,
0:15:41.24 -> 0:15:43.09 it's the fastest increasing cause
0:15:43.09 -> 0:15:45.435 of cancer and the fastest increasing
0:15:45.435 -> 0:15:47.58 cause of cancer related death.
0:15:47.58 -> 0:15:49.897 When we talk about
0:15:49.897 -> 0:15:52.012 primary liver cancer we mean cancer
0:15:52.012 -> 0:15:53.762 that has originated and developed
0:15:53.762 -> 0:15:56.127 in the liver from the beginning.
0:15:56.13 -> 0:15:58.605 There are two main types that we think about,
0:15:58.61 -> 0:16:00.488 so hepatocellular carcinoma,
0:16:00.488 -> 0:16:03.618 probably accounts for 80 to
0:16:03.618 -> 0:16:05.634 90% of primary liver cancer,
0:16:05.634 -> 0:16:08.156 but another common type that we see
0:16:08.156 -> 0:16:10.454 that often develops in patients with
0:16:10.454 -> 0:16:12.518 chronic liver disease is something
0:16:12.518 -> 0:16:13.796 called cholangiocarcinoma and
0:16:13.796 -> 0:16:16.198 that arises in the biliary cells,
0:16:16.198 -> 0:16:17.806 and these are the cells that line
0:16:17.806 -> 0:16:19.933 the little lakes
0:16:19.933 -> 0:16:21.513 and channels within the liver
0:16:21.52 -> 0:16:23.697 that sort of drain and modify the

0:16:23.697 -> 0:16:25.41 substance that the liver makes,
0:16:25.41 -> 0:16:26.136 called bile.
0:16:26.136 -> 0:16:28.314 When you think about
0:16:28.314 -> 0:16:29.55 secondary liver cancer,
0:16:29.55 -> 0:16:31.314 a lot of times what we're talking
0:16:31.314 -> 0:16:32.5 about is metastatic disease,
0:16:32.5 -> 0:16:35.92 so cancer that may have spread to the liver,
0:16:35.92 -> 0:16:37.95 but that's really treated and
0:16:37.95 -> 0:16:39.168 managed extremely differently
0:16:39.168 -> 0:16:40.769 than primary liver cancer.
0:16:41.91 -> 0:16:43.71 And so that's really fascinating.
0:16:43.71 -> 0:16:45.582 I didn't realize that liver
0:16:45.582 -> 0:16:47.942 cancer in the United States was the
0:16:47.942 -> 0:16:50.036 the fastest growing in terms of
0:16:50.036 -> 0:16:52.641 incidence and mortality. Why is that?
0:16:52.641 -> 0:16:55.263 What are the risk factors that
0:16:55.263 -> 0:16:58.138 predispose to liver cancer that
0:16:58.138 -> 0:17:00.488 are factoring into this equation?
0:17:00.49 -> 0:17:02.098 Or is it the risk factors?
0:17:02.78 -> 0:17:04.929 Yes, so there's definitely been a shift
0:17:04.929 -> 0:17:07.665 sort of in the risk factors globally where
0:17:07.665 -> 0:17:10.216 prior the major causes of liver disease
0:17:10.216 -> 0:17:12.792 used to really be chronic viral disease.
0:17:12.8 -> 0:17:15.24 And mainly we're talking about
0:17:15.24 -> 0:17:17.91 chronic hepatitis B and hepatitis C,
0:17:17.91 -> 0:17:20.31 but with the ability to treat
0:17:20.31 -> 0:17:22.899 hepatitis C and control hepatitis B,
0:17:22.9 -> 0:17:26.68 and even prevent that with vaccinations
0:17:26.68 -> 0:17:28.24 really in the Western world,
0:17:28.24 -> 0:17:30.744 what we're seeing as the major cause of
0:17:30.744 -> 0:17:33.028 liver disease is definitely what we call

0:17:33.03 -> 0:17:35.66 Fatty liver disease or non-alcoholic
0:17:35.66 -> 0:17:38.284 fatty liver disease, and
0:17:38.284 -> 0:17:42.419 as we see a rise in the obesity epidemic,
0:17:42.42 -> 0:17:45.381 we're seeing more and more patients that
0:17:45.381 -> 0:17:47.479 develop complications such as diabetes,
0:17:47.48 -> 0:17:50.26 high cholesterol,
0:17:50.26 -> 0:17:51.556 central adiposity,
0:17:51.556 -> 0:17:53.176 meaning
0:17:53.18 -> 0:17:55.288 a lot of belly fat, which is inflammatory
0:17:55.288 -> 0:17:58.2 bad fat that the body does not like,
0:17:58.2 -> 0:18:00.16 and high blood pressure.
0:18:01.14 -> 0:18:03.1 As we're seeing more patients
0:18:03.1 -> 0:18:04.276 develop those complications,
0:18:04.28 -> 0:18:05.93 we're seeing a rise in the
0:18:05.93 -> 0:18:07.47 incidence of fatty liver disease.
0:18:07.75 -> 0:18:10.63 It is certainly true that there's just
0:18:10.63 -> 0:18:13.621 this exponential rise in obesity in
0:18:13.621 -> 0:18:16.638 America and in the world quite frankly.
0:18:16.64 -> 0:18:21.049 So let me ask you this, is it possible
0:18:21.049 -> 0:18:24.096 to reverse that, if you lose weight,
0:18:24.096 -> 0:18:26.847 do you reduce your risk of fatty
0:18:26.847 -> 0:18:29.577 liver and therefore reduce your
0:18:29.577 -> 0:18:31.761 risk of hepatocellular carcinoma?
0:18:32.53 -> 0:18:34.306 Absolutely,
0:18:34.306 -> 0:18:36.082 generally when patients have
0:18:36.082 -> 0:18:38.199 developed cirrhosis which is really
0:18:38.199 -> 0:18:40.139 advanced scarring within the liver,
0:18:40.14 -> 0:18:42.508 we do say that you can't
0:18:42.508 -> 0:18:44.249 reverse completely to having
0:18:44.25 -> 0:18:45.342 a normal healthy liver,
0:18:45.342 -> 0:18:47.34 but for a lot of patients who

0:18:47.34 -> 0:18:48.825 are not quite yet cirrhotic,
0:18:48.83 -> 0:18:51.87 or who may be cirrhotic but have active,
0:18:51.87 -> 0:18:54.11 ongoing inflammation, which is a
0:18:54.11 -> 0:18:55.994 big risk factor for
0:18:55.994 -> 0:18:57.25 the development of cancer,
0:18:57.25 -> 0:19:00.26 you can absolutely reduce the risk of
0:19:00.26 -> 0:19:02.52 developing complications from liver disease,
0:19:02.52 -> 0:19:04.8 and the development of liver cancer.
0:19:04.8 -> 0:19:08.349 So in particular for fatty liver disease,
0:19:08.35 -> 0:19:10.78 really the only kind of approved
0:19:10.78 -> 0:19:13.43 therapy at this time is the
0:19:13.43 -> 0:19:15.318 recommendation to lose weight.
0:19:15.32 -> 0:19:18.143 And generally we say 5 to 10% of
0:19:18.143 -> 0:19:20.458 weight loss has been associated
0:19:20.458 -> 0:19:22.31 with reduction in inflammation
0:19:22.385 -> 0:19:24.875 reduction in scarring of the liver,
0:19:24.88 -> 0:19:26.61 and even reduction in the
0:19:26.61 -> 0:19:28.34 potential to develop liver cancer.
0:19:28.34 -> 0:19:30.628 And it's why we like to really tell
0:19:30.628 -> 0:19:32.779 patients that a lot of the risk factors
0:19:32.78 -> 0:19:34.742 to develop liver disease and liver
0:19:34.742 -> 0:19:36.05 cancer are really preventable.
0:19:36.22 -> 0:19:39.79 And you see and
0:19:39.887 -> 0:19:43.84 treat patients with liver disease who may
0:19:43.84 -> 0:19:46.815 be at risk of developing liver cancer,
0:19:46.82 -> 0:19:49.268 and you also see patients who
0:19:49.268 -> 0:19:50.9 have developed liver cancer.
0:19:50.9 -> 0:19:52.817 You know if you tell them to lose weight,
0:19:52.82 -> 0:19:56.918 that's often easier said than done.
0:19:56.92 -> 0:19:58.93 Are there any specific recommendations
0:19:58.93 -> 0:20:00.538 that you give patients?

0:20:00.54 -> 0:20:02.878 I'm just thinking that our listeners
0:20:02.88 -> 0:20:04.092 might be thinking, yeah,
0:20:04.092 -> 0:20:07.6 I'd love to lose 5 to 10% of my body weight.
0:20:07.6 -> 0:20:09.73 How exactly do I do that?
0:20:10.35 -> 0:20:12.282 Yeah, so it is definitely
0:20:12.282 -> 0:20:13.57 easier said than done,
0:20:13.57 -> 0:20:15.73 and I think especially in the COVID era
0:20:15.73 -> 0:20:18.28 where a lot of people were really
0:20:18.28 -> 0:20:19.738 confined to their home,
0:20:19.74 -> 0:20:21.906 it's been an even bigger challenge,
0:20:21.91 -> 0:20:24.278 so oftentimes what I say to patients is,
0:20:24.28 -> 0:20:26.248 we kind of go through what
0:20:26.248 -> 0:20:28.137 they're eating and their physical activity.
0:20:28.14 -> 0:20:30.168 And sometimes their food choices.
0:20:30.17 -> 0:20:31.78 They may think that they're eating healthy,
0:20:31.78 -> 0:20:34.202 but when we actually breakdown the calories
0:20:34.202 -> 0:20:36.758 or the amount of sugar they're eating,
0:20:36.76 -> 0:20:39.345 it's a lot more than they're aware of so
0:20:39.345 -> 0:20:40.32 off the bat,
0:20:40.32 -> 0:20:42.703 I always offer patients to speak with
0:20:42.703 -> 0:20:45.258 nutrition because I think to have someone
0:20:45.258 -> 0:20:48.309 hold you accountable and really go through
0:20:48.31 -> 0:20:51.187 the target of each food
0:20:51.187 -> 0:20:53.48 group and macro and micro nutrients
0:20:53.48 -> 0:20:55.657 you should be hitting is very helpful.
0:20:55.66 -> 0:20:57.832 We also have specific fatty liver
0:20:57.832 -> 0:21:00.18 clinics and weight loss clinics here,
0:21:00.18 -> 0:21:02.31 so there are definitely patients
0:21:02.31 -> 0:21:04.608 even if they're dieting or exercising,
0:21:04.61 -> 0:21:06.746 they're just really stuck in this
0:21:06.746 -> 0:21:08.519 challenging place and they can't

0:21:08.519 -> 0:21:10.247 get to an ideal body weight.
0:21:10.25 -> 0:21:12.434 And in that situation there are
0:21:12.434 -> 0:21:14.235 medications that are available to
0:21:14.235 -> 0:21:15.897 sort of assist in weight loss.
0:21:15.9 -> 0:21:17.671 So we have a lot of programs
0:21:17.671 -> 0:21:19.24 and a lot of
0:21:19.874 -> 0:21:21.459 ancillary help for patients that
0:21:21.459 -> 0:21:22.093 really struggle.
0:21:22.49 -> 0:21:24.23 Alright, so the news flash
0:21:24.23 -> 0:21:26.55 there is talk to your doctor,
0:21:26.55 -> 0:21:28.79 because there likely is
0:21:28.79 -> 0:21:31.134 help available and we can
0:21:31.134 -> 0:21:33.126 all get through this
0:21:33.126 -> 0:21:34.95 and hopefully reduce our risk.
0:21:34.95 -> 0:21:36.903 But Ariel, I want to just kind
0:21:36.903 -> 0:21:38.59 of switch gears a little bit.
0:21:38.59 -> 0:21:40.858 Let's suppose it's a little too late.
0:21:40.86 -> 0:21:44.71 And we develop liver cancer.
0:21:44.71 -> 0:21:47.132 How do you know that you
0:21:47.132 -> 0:21:48.77 have developed liver cancer?
0:21:48.77 -> 0:21:50.75 So how is that diagnosis made?
0:21:50.75 -> 0:21:53.534 Are you going to have signs and symptoms?
0:21:53.54 -> 0:21:56.177 Are you going to go yellow or is this
0:21:56.177 -> 0:21:58.228 something that is picked up
0:21:58.23 -> 0:21:59.92 incidentally?
0:21:59.93 -> 0:22:01.31 That's a great question.
0:22:01.31 -> 0:22:03.746 You know, the majority of patients
0:22:03.746 -> 0:22:06.426 that develop liver cancer are really
0:22:06.426 -> 0:22:08.638 asymptomatic until it becomes very advanced.
0:22:08.638 -> 0:22:11.059 So at the time that someone may have
0:22:11.06 -> 0:22:14.032 pain or start to have

0:22:14.032 -> 0:22:16.062 some vague symptoms like weight
0:22:16.062 -> 0:22:18.46 loss or significant fatigue or even
0:22:18.46 -> 0:22:20.68 jaundice or yellowing of the eyes,
0:22:20.68 -> 0:22:23.17 which suggests that there's either a
0:22:23.17 -> 0:22:25.926 blockage in the liver or that the tumor
0:22:25.926 -> 0:22:28.365 has spread so much in the liver that it's
0:22:28.365 -> 0:22:30.563 just kind of taken over any remaining
0:22:30.563 -> 0:22:32.49 normal tissue, that's often too late.
0:22:32.49 -> 0:22:35.388 So really, what's incredibly important is
0:22:35.388 -> 0:22:38.689 to identify patients that have chronic liver
0:22:38.689 -> 0:22:41.713 disease or risk factors for liver cancer.
0:22:41.72 -> 0:22:43.875 Some which include
0:22:43.875 -> 0:22:45.168 poorly controlled diabetes,
0:22:45.17 -> 0:22:47.026 heavy alcohol use, obesity,
0:22:47.026 -> 0:22:49.346 and make sure that we're
0:22:49.346 -> 0:22:51.009 screening those patients.
0:22:51.01 -> 0:22:53.344 So really all major societies recommend
0:22:53.344 -> 0:22:55.746 in patients with chronic liver disease
0:22:55.746 -> 0:22:58.08 that every six months you're actually
0:22:58.08 -> 0:23:00.118 screened for liver cancer with the
0:23:00.118 -> 0:23:02.278 hopes that if you develop a cancer,
0:23:02.278 -> 0:23:04.854 you can actually pick it up early.
0:23:04.86 -> 0:23:06.8 And it's interesting because liver
0:23:06.8 -> 0:23:09.655 cancer is the only solid organ tumor
0:23:09.655 -> 0:23:11.77 that could actually be diagnosed
0:23:11.77 -> 0:23:14.01 based on imaging alone,
0:23:14.01 -> 0:23:17.802 so it has very unique features when we
0:23:17.802 -> 0:23:20.15 do a CAT scan or an MRI that basically
0:23:20.15 -> 0:23:22.586 allow us to definitively tell if this
0:23:22.586 -> 0:23:24.644 is a hepatocellular carcinoma and
0:23:24.644 -> 0:23:27.647 oftentimes we don't even have to do

0:23:27.65 -> 0:23:30.236 a biopsy to confirm the diagnosis.
0:23:30.89 -> 0:23:33.578 So people who have those risk factors
0:23:33.578 -> 0:23:36.84 should have a CT or MRI every six months.
0:23:37.57 -> 0:23:40.366 So we always recommend an ultrasound.
0:23:40.37 -> 0:23:41.669 That's the first
0:23:41.669 -> 0:23:44.7 step for screening,
0:23:44.7 -> 0:23:46.175 and that's really just based
0:23:46.175 -> 0:23:47.65 on sort of cost effectiveness,
0:23:47.65 -> 0:23:49.906 and you know the fact that it is
0:23:49.906 -> 0:23:52.086 fairly sensitive, but in some patients,
0:23:52.086 -> 0:23:54.98 if their liver is very scarred down,
0:23:54.98 -> 0:23:57.25 so you can't get a good look at that tissue,
0:23:57.25 -> 0:23:59.578 or if there's a lot of obesity, because
0:23:59.578 -> 0:24:02.483 a lot of fat in the belly can limit how
0:24:02.49 -> 0:24:04.594 good of a look you can get.
0:24:04.6 -> 0:24:05.386 In those cases,
0:24:05.386 -> 0:24:07.82 you may then need to do more advanced
0:24:07.82 -> 0:24:10.244 imaging, but generally once we see
0:24:10.244 -> 0:24:12.69 something abnormal on an ultrasound,
0:24:12.69 -> 0:24:15.741 the next step is to do a cross sectional
0:24:15.741 -> 0:24:18.199 scan with either a CT or an MRI.
0:24:19.14 -> 0:24:21.13 And so it's interesting
0:24:21.13 -> 0:24:23.511 that liver cancers are one of
0:24:23.511 -> 0:24:25.688 the few where you don't need a
0:24:25.688 -> 0:24:27.839 biopsy to make that diagnosis.
0:24:27.84 -> 0:24:30.514 So let's suppose you see that,
0:24:30.52 -> 0:24:32.59 tell us about some of
0:24:32.59 -> 0:24:33.625 the medical management,
0:24:33.63 -> 0:24:35.562 some of the things that are coming
0:24:35.562 -> 0:24:37.408 down the Pike short of transplant
0:24:37.408 -> 0:24:39.322 that might be helpful in these patients.

0:24:41.9 -> 0:24:43.73 Whenever someone has a new
0:24:43.73 -> 0:24:45.194 diagnosis of liver cancer,
0:24:45.2 -> 0:24:46.733 we always want to make sure that
0:24:46.733 -> 0:24:48.239 it hasn't spread outside the liver.
0:24:48.24 -> 0:24:49.46 So that's a big step,
0:24:49.46 -> 0:24:51.4 because once it has spread,
0:24:51.4 -> 0:24:53.556 your treatment is a little bit different,
0:24:53.56 -> 0:24:56.336 and it's very important to look at a
0:24:56.34 -> 0:24:57.796 patient's underlying liver function,
0:24:57.796 -> 0:25:00.432 because that plays a major role in
0:25:00.432 -> 0:25:02.412 understanding if they're eligible or
0:25:02.412 -> 0:25:03.996 would tolerate certain treatments.
0:25:04 -> 0:25:05.412 And outside of transplant,
0:25:05.412 -> 0:25:07.98 we really do think of
0:25:07.98 -> 0:25:09.875 liver cancer treatment in either
0:25:09.875 -> 0:25:11.934 a curative approach or what's
0:25:11.934 -> 0:25:14.281 called a palliative approach, and
0:25:14.281 -> 0:25:17.508 transplant is one of the curative therapies,
0:25:17.51 -> 0:25:19.78 but other curative therapies include
0:25:19.78 -> 0:25:22.05 local resection and that's
0:25:22.126 -> 0:25:24.324 when we cut out a small
0:25:24.324 -> 0:25:26.138 piece where that tumor is
0:25:26.14 -> 0:25:26.98 and of course,
0:25:26.98 -> 0:25:28.94 someone has to be a good candidate
0:25:28.997 -> 0:25:30.845 to undergo surgery and so if
0:25:30.845 -> 0:25:32.42 they have really advanced liver
0:25:32.42 -> 0:25:34.38 disease that would not be
0:25:34.38 -> 0:25:36.108 an ideal treatment choice,
0:25:36.108 -> 0:25:39.028 but other curative therapies
0:25:39.028 -> 0:25:41.704 include something called ablation which
0:25:41.704 -> 0:25:45.088 is really where you destroy the tumor and

0:25:45.088 -> 0:25:47.228 that can be either through
0:25:47.228 -> 0:25:48.084 thermal techniques,
0:25:48.09 -> 0:25:49.198 radiation techniques,
0:25:49.198 -> 0:25:50.306 electrical injury,
0:25:50.306 -> 0:25:54.896 and then we think of some of our
0:25:54.896 -> 0:25:57.248 palliative treatments which include
0:25:57.25 -> 0:26:00.225 what we call local regional
0:26:00.225 -> 0:26:02.23 therapies or transarterial therapies,
0:26:02.23 -> 0:26:04.768 and that's basically where you can
0:26:04.77 -> 0:26:06.734 either induce radiation damage
0:26:06.734 -> 0:26:09.68 or locally give chemotherapy to
0:26:09.767 -> 0:26:12.575 the tumor to kind of cut off the
0:26:12.575 -> 0:26:14.918 blood supply and kill that tumor,
0:26:14.92 -> 0:26:16.152 and then for patients
0:26:16.152 -> 0:26:18 that either are just not responding
0:26:18.065 -> 0:26:19.99 to those or where the cancer has
0:26:19.99 -> 0:26:21.43 spread outside of the liver,
0:26:21.43 -> 0:26:24.022 we start to think about systemic
0:26:24.022 -> 0:26:25.318 therapy or chemotherapy.
0:26:26.73 -> 0:26:28.11 And so you know,
0:26:28.11 -> 0:26:30.71 I can imagine that no patient wants
0:26:30.71 -> 0:26:33.41 to go through chemotherapy and
0:26:33.41 -> 0:26:35.848 everybody has heard horror stories
0:26:35.848 -> 0:26:38.368 about what chemotherapy is like.
0:26:38.37 -> 0:26:40.954 But very often on this show we've been
0:26:40.954 -> 0:26:43.338 talking about some of the newer advances,
0:26:43.34 -> 0:26:45.332 especially in systemic therapy,
0:26:45.332 -> 0:26:47.822 where we really are looking
0:26:47.822 -> 0:26:50.029 towards personalized medicine,
0:26:50.03 -> 0:26:51.35 sometimes immunotherapies.
0:26:51.35 -> 0:26:53.55 Is there anything like that

0:26:53.55 -> 0:26:56.159 going on in primary liver cancer?
0:26:56.74 -> 0:26:59.626 Absolutely, so I think probably the
0:26:59.626 -> 0:27:02.424 management for patients with liver cancer
0:27:02.424 -> 0:27:05.608 that's more advanced has been one of the
0:27:05.689 -> 0:27:07.904 most innovative
0:27:07.904 -> 0:27:09.62 fields within liver cancer.
0:27:09.62 -> 0:27:12.668 And that's because there have been so many
0:27:12.668 -> 0:27:14.405 new advancements in systemic therapies.
0:27:14.405 -> 0:27:17.399 Just a few years ago,
0:27:17.4 -> 0:27:20.334 we just had one or two medications,
0:27:20.34 -> 0:27:23.316 and now we have 10 FDA approved therapies.
0:27:23.32 -> 0:27:26.705 And as of May 2020, so just a
0:27:26.705 -> 0:27:28.835 little over a year ago,
0:27:28.84 -> 0:27:30.328 a new combination therapy.
0:27:31.82 -> 0:27:33.661 One of the components
0:27:33.661 -> 0:27:35.62 was an immune checkpoint inhibitor,
0:27:35.62 -> 0:27:38.662 which is one of our immunotherapy
0:27:38.662 -> 0:27:40.69 medications that actually proved to
0:27:40.771 -> 0:27:42.49 be the best first line therapy,
0:27:42.49 -> 0:27:45.1 so it had improvement in overall
0:27:45.1 -> 0:27:46.405 survival and disease
0:27:46.41 -> 0:27:48.906 free progression compared to what our
0:27:48.906 -> 0:27:51.551 prior first line was and is actually
0:27:51.551 -> 0:27:54.67 now what we try to use for our patients.
0:27:54.67 -> 0:27:58 And I think it's also important to know that
0:27:58 -> 0:27:58.346 oftentimes,
0:27:58.346 -> 0:28:00.768 when our patients hear that they're going
0:28:00.768 -> 0:28:03.629 to go on systemic therapy or chemotherapy,
0:28:03.63 -> 0:28:05.73 they kind of think of
0:28:06.36 -> 0:28:08.565 the movies or loved ones that they've
0:28:08.565 -> 0:28:10.709 seen have gotten really very sick.

0:28:10.71 -> 0:28:13.358 Or their hair has fallen out or their
0:28:13.358 -> 0:28:15.65 immune system is completely wiped out,
0:28:15.65 -> 0:28:18.093 and the medications that we use to
0:28:18.093 -> 0:28:19.876 treat liver cancer are definitely
0:28:19.876 -> 0:28:20.98 much more tolerable
0:28:22.366 -> 0:28:23.752 with significantly reduced side
0:28:23.752 -> 0:28:25.138 effects compared to
0:28:25.14 -> 0:28:27.768 what a lot of patients think about
0:28:27.77 -> 0:28:29.445 for sort of standard chemotherapy
0:28:29.445 -> 0:28:30.45 for other tumors.
0:28:31.27 -> 0:28:33.268 Doctor Ariel Jaffe is an assistant
0:28:33.268 -> 0:28:34.969 professor of medicine in the
0:28:34.969 -> 0:28:36.209 section of digestive diseases
0:28:36.209 -> 0:28:38.33 at the Yale School of Medicine.
0:28:38.33 -> 0:28:39.79 If you have questions,
0:28:39.79 -> 0:28:41.98 the address is cancer answers at
0:28:41.98 -> 0:28:44.458 yale.edu and past editions of the
0:28:44.458 -> 0:28:46.899 program are available in audio and
0:28:46.899 -> 0:28:48.28 written form at yalecancercenter.org.
0:28:48.28 -> 0:28:50.76 We hope you'll join us next week to
0:28:50.76 -> 0:28:52.65 learn more about the fight against
0:28:52.65 -> 0:28:54.175 cancer here on Connecticut Public Radio.
0:28:54.231 -> 0:28:55.681 Funding for Yale Cancer
0:28:55.681 -> 0:28:57.131 Answers is provided by Smilow
0:28:57.14 -> 0:29:00 Cancer Hospital and AstraZeneca.