

0:00:00 -> 0:00:02.415 Support for Yale Cancer Answers
0:00:02.415 -> 0:00:04.83 comes from AstraZeneca providing
0:00:04.913 -> 0:00:06.905 important treatment options for
0:00:06.905 -> 0:00:09.893 various types and stages of cancer.
0:00:09.9 -> 0:00:13.728 More information at astrazeneca-us.com.
0:00:13.73 -> 0:00:15.608 Welcome to Yale Cancer Answers with
0:00:15.608 -> 0:00:17.668 your host doctor Anees Chagpar.
0:00:17.668 -> 0:00:19.543 Yale Cancer Answers features the
0:00:19.543 -> 0:00:21.807 latest information on cancer care by
0:00:21.807 -> 0:00:23.239 welcoming oncologists and specialists
0:00:23.239 -> 0:00:25.732 who are on the forefront of the
0:00:25.732 -> 0:00:27.85 battle to fight cancer. This week
0:00:27.85 -> 0:00:29.386 it's a conversation about
0:00:29.386 -> 0:00:30.922 cognitive decline after prostate
0:00:30.922 -> 0:00:32.787 cancer with doctor Herta Chao.
0:00:32.79 -> 0:00:34.812 Doctor Chao is the deputy director
0:00:34.812 -> 0:00:36.589 at the VA Comprehensive Cancer
0:00:36.589 -> 0:00:38.444 Center and an associate professor
0:00:38.444 -> 0:00:40.328 of Medicine and medical oncology
0:00:40.328 -> 0:00:42.32 at the Yale School of Medicine,
0:00:42.32 -> 0:00:44.84 where doctor Chagpar is a
0:00:44.84 -> 0:00:47.17 professor of surgical on oncology.
0:00:47.58 -> 0:00:50.408 I hear you work at the VA.
0:00:50.41 -> 0:00:53.021 Tell us a little bit about the
0:00:53.021 -> 0:00:55.134 VA and about cancer services
0:00:55.134 -> 0:00:58.11 at the VA?
0:00:58.11 -> 0:01:01.054 I feel very fortunate to work at the West Haven VA
0:01:01.054 -> 0:01:03.599 Cancer Center because it's so closely
0:01:03.599 -> 0:01:06.209 affiliated with Yale Cancer Center,
0:01:06.21 -> 0:01:08.576 we basically can take advantage of a
0:01:08.576 -> 0:01:11.506 lot of the knowledge and expertise and

0:01:11.506 -> 0:01:14.266 resources that are available at your
0:01:14.346 -> 0:01:17.307 Cancer Center as well.
0:01:17.307 -> 0:01:20.061 A particularly important thing for the
0:01:20.061 -> 0:01:23.438 VA is that we're a tertiary center,
0:01:23.438 -> 0:01:26.072 and many resources are available
0:01:26.072 -> 0:01:28.624 that are not necessarily
0:01:28.624 -> 0:01:31.81 available in the private sector.
0:01:31.81 -> 0:01:32.782 For instance,
0:01:32.782 -> 0:01:34.726 if veterans need transportation,
0:01:34.73 -> 0:01:38.139 we can actually ask our social worker
0:01:38.139 -> 0:01:42.15 to help. If a veteran needs additional
0:01:42.15 -> 0:01:43.479 support and therapy,
0:01:43.479 -> 0:01:46.137 we can actually ask the physical
0:01:46.137 -> 0:01:49.05 therapist to meet them in the Cancer Center,
0:01:49.05 -> 0:01:50.674 so it's
0:01:50.674 -> 0:01:52.298 very tailored to veterans.
0:01:52.71 -> 0:01:55.14 Tell us a little bit about,
0:01:55.14 -> 0:01:57.975 you know when we think about cancer
0:01:57.98 -> 0:02:00.346 we kind of think of it ubiquitously
0:02:00.346 -> 0:02:03.167 but tell us about the prevalence of
0:02:03.167 -> 0:02:05.759 cancer in the veteran population and
0:02:05.836 -> 0:02:08.428 whether the the incidence of cancers
0:02:08.428 -> 0:02:10.926 and particular kinds of cancers are
0:02:10.926 -> 0:02:13.224 different in the veteran population as
0:02:13.224 -> 0:02:16 opposed to the general population?
0:02:16 -> 0:02:18.94 That's a very very important point.
0:02:21.39 -> 0:02:24.33 I think we continue to
0:02:24.33 -> 0:02:26.29 learn. For many decades
0:02:26.29 -> 0:02:29.404 it was actually debated whether certain
0:02:29.404 -> 0:02:32.66 cancers are really related to an herbicide,
0:02:32.66 -> 0:02:34.07 like Agent Orange.

0:02:34.07 -> 0:02:37.36 We know it was widely used
0:02:37.457 -> 0:02:41.097 during the Vietnam War and many veterans
0:02:41.1 -> 0:02:44.094 develop cancers
0:02:44.094 -> 0:02:46.09 that are unusually aggressive,
0:02:46.09 -> 0:02:48.59 unusually early in their lifetime,
0:02:48.59 -> 0:02:52.526 and it took many decades before it was
0:02:52.526 -> 0:02:56.067 recognized that Agent Orange is a carcinogen.
0:02:56.07 -> 0:02:58.062 For instance,
0:02:58.062 -> 0:03:00.552 I think soft tissue sarcoma,
0:03:00.56 -> 0:03:03.56 which is a connective tissue cancer,
0:03:03.56 -> 0:03:06.05 occurs early in our lifetime.
0:03:06.05 -> 0:03:09.452 It was recognized earlier that this is
0:03:09.452 -> 0:03:12.05 probably related to Agent Orange.
0:03:12.05 -> 0:03:14.816 Exposure has increased the risks of
0:03:14.816 -> 0:03:17.799 these veterans to develop these cancers.
0:03:17.8 -> 0:03:19.712 Prostate cancer, for instance,
0:03:19.712 -> 0:03:22.102 is so common among men and is
0:03:22.11 -> 0:03:25.456 the most frequent cancer among veterans.
0:03:25.46 -> 0:03:29.798 But for the many decades it was actually not
0:03:29.798 -> 0:03:32.646 acknowledged to be Agent Orange related.
0:03:32.65 -> 0:03:36.122 Not until 2008 there was a very
0:03:36.122 -> 0:03:38.985 important study done by Doctor Karen
0:03:38.985 -> 0:03:41.847 Shami at UCLA that actually proved
0:03:41.939 -> 0:03:44.629 that the
0:03:44.63 -> 0:03:47.726 rate of prostate cancer and
0:03:47.726 -> 0:03:50.589 aggressiveness of prostate cancer was much,
0:03:50.59 -> 0:03:53.901 much higher in the veterans that were
0:03:53.901 -> 0:03:56.888 exposed to Agent Orange compared to
0:03:56.888 -> 0:04:00.325 veterans during the same era but not
0:04:00.415 -> 0:04:03.903 exposed to Agent Orange, so we know
0:04:03.903 -> 0:04:06.669 more and more that veterans may be

0:04:06.669 -> 0:04:09.316 at risk due to service related
0:04:09.316 -> 0:04:12.454 exposures to certain type of cancer,
0:04:12.46 -> 0:04:13.954 including lung cancer,
0:04:13.954 -> 0:04:15.478 prostate cancer, leukemia
0:04:15.478 -> 0:04:17.062 and lymphomas.
0:04:17.59 -> 0:04:20.712 These days for men and women
0:04:20.712 -> 0:04:24.386 who are in combat al ot of times
0:04:24.386 -> 0:04:27.104 we don't think about
0:04:27.104 -> 0:04:29.524 people using a particular agent
0:04:29.524 -> 0:04:32.15 like Agent Orange in combat,
0:04:32.15 -> 0:04:35.657 but more it's artillery,
0:04:35.66 -> 0:04:38.17 there's more
0:04:38.17 -> 0:04:40.68 roadside bombs and so on.
0:04:40.68 -> 0:04:43.62 Are those also associated
0:04:43.62 -> 0:04:46.699 with a higher risk of cancers?
0:04:46.71 -> 0:04:52.87 I think we will find out very soon.
0:04:52.87 -> 0:04:56.062 Unfortunately my colleagues
0:04:56.062 -> 0:05:00.052 and myself have been
0:05:00.06 -> 0:05:03.185 unpleasantly surprised about how many
0:05:03.185 -> 0:05:07.696 aggressive cases of cancer we see in very
0:05:07.696 -> 0:05:11.17 young veterans like in the 40s and 50s,
0:05:11.17 -> 0:05:13.81 and a whole variety of
0:05:13.81 -> 0:05:15.922 different type of cancer,
0:05:15.93 -> 0:05:20.378 not just one specific cancer and the
0:05:20.378 -> 0:05:24.015 common thread of the story is really
0:05:24.015 -> 0:05:27.57 they were exposed to the burn pits,
0:05:27.57 -> 0:05:30.738 where apparently many things were burned,
0:05:30.74 -> 0:05:31.79 including
0:05:31.79 -> 0:05:39.14 what I was told was equipment that
0:05:39.14 -> 0:05:41.678 they wanted to be destroyed,
0:05:41.68 -> 0:05:43.8 and so there were many

0:05:43.8 -> 0:05:45.92 toxic exposures and I fear,
0:05:45.92 -> 0:05:48.496 and I believe it will be true
0:05:48.496 -> 0:05:51.595 that we will see many other risk
0:05:51.595 -> 0:05:53.98 factors for different types of
0:05:53.98 -> 0:05:56.2 malignancies.
0:05:56.2 -> 0:05:59.257 I mean I don't know whether we still
0:05:59.257 -> 0:06:01.91 see veterans who were exposed to Hiroshima
0:06:01.91 -> 0:06:04.156 and Nagasaki, but radiation
0:06:04.156 -> 0:06:07.117 also can expose you to a variety
0:06:07.12 -> 0:06:08.84 of malignancies too, right?
0:06:08.84 -> 0:06:10.13 Absolutely, in fact
0:06:10.13 -> 0:06:13.818 I can talk about this because
0:06:13.818 -> 0:06:17.199 one of my veterans really wanted
0:06:17.199 -> 0:06:21.365 to raise more awareness and he and
0:06:21.365 -> 0:06:24.575 his wife really wanted want to
0:06:24.575 -> 0:06:28.32 publicly speak more about it.
0:06:28.32 -> 0:06:31.53 He was actually exposed,
0:06:34.21 -> 0:06:36.88 in regular service to radiation in
0:06:36.88 -> 0:06:39.016 the nuclear powered submarines,
0:06:39.02 -> 0:06:39.844 and unfortunately,
0:06:39.844 -> 0:06:41.904 he was in very close proximity
0:06:41.904 -> 0:06:44.772 to it and unfortunately now deals
0:06:44.772 -> 0:06:46.848 with a very aggressive cancer.
0:06:46.85 -> 0:06:48.634 They were fortunately able
0:06:48.634 -> 0:06:50.418 to control it with chemotherapy,
0:06:50.42 -> 0:06:53.549 but it does look like he will
0:06:53.549 -> 0:06:54.89 be on chemotherapy
0:06:54.89 -> 0:06:57.566 probably for rest of his life.
0:06:57.57 -> 0:06:59.362 What about other agents?
0:06:59.362 -> 0:06:59.81 Do we have any idea
0:06:59.81 -> 0:07:03.051 about the carcinogenic

0:07:03.051 -> 0:07:05.619 potential of things like tear gas,
0:07:05.62 -> 0:07:08.296 which is commonly used both
0:07:08.3 -> 0:07:11.478 I guess in combat and in
0:07:11.478 -> 0:07:13.25 civilian crowd control?
0:07:13.25 -> 0:07:15.632 I'm not
0:07:15.632 -> 0:07:17.98 an expert in this regard,
0:07:17.98 -> 0:07:20.876 so I have to apologize that I can't
0:07:20.876 -> 0:07:23.139 answer this question correctly.
0:07:23.14 -> 0:07:26.515 But I do think that we have
0:07:26.515 -> 0:07:30.444 to be aware about all the herbicides
0:07:30.45 -> 0:07:32.565 we are using still commercially and
0:07:32.565 -> 0:07:35.547 also in the private sector that I
0:07:35.547 -> 0:07:37.522 believe is under recognized
0:07:39.91 -> 0:07:42.675 so certainly there are
0:07:42.675 -> 0:07:45.5 a whole host of exposures that
0:07:45.5 -> 0:07:47.96 are unique to veterans and our
0:07:47.96 -> 0:07:50.428 military families and we have to
0:07:50.428 -> 0:07:52.672 remember that. And
0:07:52.672 -> 0:07:55.433 cancer is not uncommon
0:07:55.433 -> 0:07:57.373 even in the general public.
0:07:57.38 -> 0:08:00.152 And so when you are seeing patients
0:08:00.152 -> 0:08:02.465 at the VA, you're seeing people
0:08:02.465 -> 0:08:04.715 who may be at increased risk
0:08:04.715 -> 0:08:06.877 because of their military service.
0:08:06.88 -> 0:08:09.31 But you're also seeing people who
0:08:09.31 -> 0:08:11.363 are just diagnosed with cancers
0:08:11.363 -> 0:08:13.848 that they would get as part of
0:08:13.848 -> 0:08:15.988 the general population as well.
0:08:17.076 -> 0:08:20.124 We serve all veterans,
0:08:20.13 -> 0:08:23.7 whether they've been in combat or not
0:08:23.7 -> 0:08:26.862 and if they fulfill the criteria

0:08:26.862 -> 0:08:29.8 to receive care at the VA,
0:08:29.8 -> 0:08:32.77 we will absolutely see all veterans
0:08:32.77 -> 0:08:35.909 that are eligible for VA health care.
0:08:37.293 -> 0:08:40.059 We will also see the cancers
0:08:40.059 -> 0:08:43.272 that are not related to service
0:08:43.272 -> 0:08:46.61 connection and we will treat
0:08:46.61 -> 0:08:50.418 these veterans, as much as we can do,
0:08:50.42 -> 0:08:54.695 and one of the benefits for me to
0:08:54.7 -> 0:08:57.556 be an oncologist at the VA,
0:08:57.56 -> 0:09:00.368 is that we have many other people
0:09:00.368 -> 0:09:02.79 helping me with their care.
0:09:02.79 -> 0:09:06.5 One of the things that I do not miss is
0:09:06.6 -> 0:09:10.41 the billing issues and medication issues.
0:09:10.41 -> 0:09:12.79 I mean, as you know,
0:09:12.79 -> 0:09:15.676 there so many
0:09:15.676 -> 0:09:17.119 very very expensive
0:09:17.12 -> 0:09:18.824 cancer medications, in fact,
0:09:18.824 -> 0:09:21.825 we see a stream of
0:09:21.825 -> 0:09:24.009 new patients into the VA because
0:09:24.009 -> 0:09:26.505 of the very very expensive drug
0:09:26.505 -> 0:09:29.151 prices and any veteran that finds
0:09:29.151 -> 0:09:32.13 out that they can probably get
0:09:32.13 -> 0:09:34.66 these medications for \$9 copay
0:09:34.756 -> 0:09:37.38 at the VA a month will come to
0:09:37.38 -> 0:09:39.998 the VA.
0:09:40 -> 0:09:43.294 For those who may or may not know, if you are
0:09:43.294 -> 0:09:46.244 a veteran, you can get coverage
0:09:46.244 -> 0:09:48.74 through the VA for your family,
0:09:48.74 -> 0:09:51.38 your spouse, and your children?
0:09:51.38 -> 0:09:55.209 That's a very interesting question.
0:09:55.21 -> 0:09:58.843 I ask the social worker all the

0:09:58.843 -> 0:10:02.826 time and it turns out that spouses
0:10:02.826 -> 0:10:05.591 of 100% service connected veterans
0:10:05.591 -> 0:10:10.019 are eligible to get care at the VA
0:10:10.019 -> 0:10:12.849 until the immediate Medicare age.
0:10:12.85 -> 0:10:15.06 I believe that the children
0:10:15.06 -> 0:10:16.386 are not necessarily,
0:10:16.39 -> 0:10:19.274 but I think there might
0:10:19.274 -> 0:10:22.026 be mechanisms to take care of
0:10:22.026 -> 0:10:23.93 the children of veterans,
0:10:23.93 -> 0:10:27.026 but the spouses of 100% service connected
0:10:27.026 -> 0:10:30.57 veteran are eligible for care here at the VA.
0:10:30.57 -> 0:10:33.228 What does 100% service connection mean?
0:10:33.23 -> 0:10:36.038 It means that these veterans have
0:10:36.038 -> 0:10:38.808 a condition that disables them and
0:10:38.808 -> 0:10:41.65 it originated during the time of
0:10:41.65 -> 0:10:42.994 the military service.
0:10:42.994 -> 0:10:45.225 And you see
0:10:45.225 -> 0:10:47.895 patients with all kinds of cancers,
0:10:47.9 -> 0:10:51.008 and you treat them at the VA.
0:10:51.01 -> 0:10:53.485 Are there particular things that
0:10:53.485 -> 0:10:56.441 you're thinking about in terms of
0:10:56.441 -> 0:10:58.799 their treatment in terms of side
0:10:58.799 -> 0:11:02.203 effects and so on that may be of
0:11:02.203 -> 0:11:03.915 particular concern to veterans?
0:11:04.54 -> 0:11:08.138 I think there's several
0:11:08.138 -> 0:11:11.647 things that we do have to consider,
0:11:11.65 -> 0:11:14.698 and that is, for instance, service
0:11:14.698 -> 0:11:17.238 connected post traumatic stress disorder.
0:11:17.24 -> 0:11:20.432 We unfortunately take care of a fair
0:11:20.432 -> 0:11:23.599 number of veterans that suffer from
0:11:23.599 -> 0:11:25.875 post traumatic stress disorder,

0:11:25.88 -> 0:11:29.144 and one of the things that
0:11:29.144 -> 0:11:33.1 we have to be aware of is
0:11:33.1 -> 0:11:37.108 sometimes when the cancer treatment itself
0:11:37.11 -> 0:11:37.85 causes stress,
0:11:37.85 -> 0:11:40.81 some of the PTSD
0:11:40.889 -> 0:11:43.209 symptoms can
0:11:43.209 -> 0:11:46.924 flare up and that is the reason why
0:11:46.924 -> 0:11:49.546 we really right from the beginning
0:11:49.55 -> 0:11:52.13 even before we start treatment,
0:11:52.13 -> 0:11:54.5 we actually frequently have palliative
0:11:54.5 -> 0:11:57.269 care and the health psychology team,
0:11:57.27 -> 0:11:59.85 in addition to psychiatry, if necessary,
0:11:59.85 -> 0:12:01.995 be involved in the
0:12:01.995 -> 0:12:04.14 management of the patient.
0:12:04.14 -> 0:12:05.888 For instance, when
0:12:05.888 -> 0:12:07.199 our veterans
0:12:07.2 -> 0:12:10.11 have to undergo complicated cancer surgery
0:12:10.11 -> 0:12:12.66 there is actually a service for
0:12:12.66 -> 0:12:15.461 elderly veterans called
0:12:15.461 -> 0:12:17.513 Champions where the geriatrician
0:12:17.513 -> 0:12:20.3 and the psychologists are involved
0:12:20.3 -> 0:12:23.054 before even the surgery and really
0:12:23.054 -> 0:12:26.21 prepare the patients for the surgery
0:12:26.21 -> 0:12:28.688 and follows them all along through
0:12:28.688 -> 0:12:31.939 the hospitalization and after discharge.
0:12:31.94 -> 0:12:34.435 Yeah, because I can imagine
0:12:34.435 -> 0:12:37.28 that for any patient cancer is
0:12:37.28 -> 0:12:40.058 a big diagnosis, it's a scary diagnosis,
0:12:40.06 -> 0:12:42.646 but for veterans it may be even
0:12:42.646 -> 0:12:46.901 more so that it kind of adds to the
0:12:46.901 -> 0:12:49.336 stress that they've already gone

0:12:49.34 -> 0:12:50.23 through.
0:12:50.23 -> 0:12:53.79 And that is one of the things where
0:12:53.872 -> 0:12:56.297 we are incredibly grateful for at
0:12:56.3 -> 0:12:58.345 the VA in Connecticut, we actually
0:12:58.345 -> 0:13:00.924 over the years we have developed
0:13:00.924 -> 0:13:03.224 a cancer care coordination
0:13:03.224 -> 0:13:05.741 system where the cancer
0:13:05.741 -> 0:13:07.547 care coordinator actually
0:13:07.55 -> 0:13:09.735 tracks patients that may
0:13:09.735 -> 0:13:11.483 develop cancer,
0:13:11.49 -> 0:13:14.206 but it's still in the work up
0:13:14.206 -> 0:13:16.894 and the primary care physician or
0:13:16.894 -> 0:13:19.768 any provider can council the cancer
0:13:19.768 -> 0:13:22.478 care coordination team to try to
0:13:22.478 -> 0:13:25.068 expedite the work up and navigate
0:13:25.068 -> 0:13:27.258 for the patients
0:13:27.258 -> 0:13:29.01 going through the treatment.
0:13:29.01 -> 0:13:30.758 Yeah, that's so important.
0:13:30.76 -> 0:13:33.798 We're going to talk a lot more
0:13:33.798 -> 0:13:36.053 about cancer treatment and the
0:13:36.053 -> 0:13:38.218 side effects in our veterans
0:13:38.22 -> 0:13:39.528 right after we take a short
0:13:39.528 -> 0:13:40.78 break for a medical minute.
0:13:41.34 -> 0:13:44.065 Support for Yale Cancer Answers
0:13:44.065 -> 0:13:46.79 comes from AstraZeneca, dedicated
0:13:46.882 -> 0:13:50.238 to providing innovative treatment
0:13:50.238 -> 0:13:54.433 options for people living with
0:13:54.433 -> 0:13:55.272 cancer. Learn more@astrazeneca-us.com.
0:13:55.28 -> 0:13:57.38 This is a medical minute
0:13:57.38 -> 0:13:58.64 about smoking cessation.
0:13:58.64 -> 0:14:00.74 There are many obstacles to

0:14:00.74 -> 0:14:02.42 face when quitting smoking.
0:14:02.42 -> 0:14:05.36 As smoking involves the potent drug nicotine.
0:14:05.36 -> 0:14:08.3 But it's a very important lifestyle change,
0:14:08.3 -> 0:14:09.56 especially for patients
0:14:09.56 -> 0:14:10.82 undergoing cancer treatment.
0:14:10.82 -> 0:14:13.082 Quitting smoking has been shown to
0:14:13.082 -> 0:14:15.131 positively impact response to treatments,
0:14:15.131 -> 0:14:17.516 decrease the likelihood that patients
0:14:17.516 -> 0:14:19.424 will develop second malignancies
0:14:19.491 -> 0:14:21.316 and increase rates of survival.
0:14:21.32 -> 0:14:22.956 Tobacco treatment programs are
0:14:22.956 -> 0:14:25.001 currently being offered at federally
0:14:25.001 -> 0:14:26.988 designated comprehensive cancer centers
0:14:26.99 -> 0:14:28.69 and operate on the principles
0:14:28.69 -> 0:14:31.048 of the US Public Health Service
0:14:31.048 -> 0:14:32.827 clinical practice guidelines.
0:14:32.83 -> 0:14:34.93 All treatment components are evidence
0:14:34.93 -> 0:14:37.48 based and therefore all patients are
0:14:37.48 -> 0:14:39.814 treated with FDA approved first line
0:14:39.814 -> 0:14:41.915 medications for smoking cessation as
0:14:41.915 -> 0:14:44.085 well as smoking cessation counseling
0:14:44.09 -> 0:14:46.586 that stresses appropriate coping skills.
0:14:46.59 -> 0:14:48.735 More information is available at
0:14:48.735 -> 0:14:50.022 yalecancercenter.org. You're listening
0:14:50.022 -> 0:14:51.589 to Connecticut public radio.
0:14:52.73 -> 0:14:55.118 Welcome back to Yale Cancer Answers.
0:14:55.12 -> 0:14:57.436 This is doctor Anees Chagpar
0:14:57.436 -> 0:14:59.872 and I'm joined tonight by
0:14:59.872 -> 0:15:02.278 my guest doctor Herta Chao.
0:15:02.28 -> 0:15:04.024 We're talking about cancer,
0:15:04.024 -> 0:15:05.768 particularly in veterans and

0:15:05.768 -> 0:15:07.847 right before the break you
0:15:07.85 -> 0:15:09.84 were telling me about
0:15:09.84 -> 0:15:11.83 the really fabulous
0:15:11.83 -> 0:15:13.82 services that the VA offers
0:15:13.82 -> 0:15:16.268 veterans who are diagnosed with cancer.
0:15:16.27 -> 0:15:18.202 It is really a comprehensive approach
0:15:18.202 -> 0:15:20.134 a multidisciplinary approach with
0:15:20.134 -> 0:15:22.621 social work, with geriatricians, with
0:15:22.621 -> 0:15:24.553 psychologists and psychiatrists to
0:15:24.553 -> 0:15:26.931 really provide the best treatment
0:15:26.931 -> 0:15:28.647 to veterans facing cancer.
0:15:28.65 -> 0:15:31.44 Because many of these veterans may
0:15:31.44 -> 0:15:34.346 face an increased risk of cancer
0:15:34.346 -> 0:15:36.736 due to military based exposure.
0:15:36.74 -> 0:15:40.284 The other thing that I think a lot
0:15:40.284 -> 0:15:43.697 of people may not know about the VA
0:15:43.697 -> 0:15:47.23 is that the VA actually supports
0:15:47.23 -> 0:15:51.433 a lot of research in the area of cancer.
0:15:51.44 -> 0:15:55.643 Can you talk a little bit about the DoD,
0:15:55.65 -> 0:15:57.578 the Department of Defense,
0:15:57.578 -> 0:16:00.8 and the support that it provides for
0:16:00.8 -> 0:16:03.14 research into cancer?
0:16:03.14 -> 0:16:06.129 Yes, they had several mechanisms at the
0:16:06.129 -> 0:16:09.687 VA to apply for funding for research
0:16:09.69 -> 0:16:10.626 in veterans,
0:16:10.626 -> 0:16:12.498 including veterans with cancer.
0:16:12.5 -> 0:16:15.461 One is the DoD Department of Defense
0:16:15.461 -> 0:16:17.68 has several grant mechanisms
0:16:17.68 -> 0:16:19.888 in many different cancers,
0:16:19.888 -> 0:16:21.544 including prostate cancer,
0:16:21.55 -> 0:16:23.706 lung cancer, breast cancer,

0:16:23.706 -> 0:16:25.323 there's another mechanism
0:16:25.323 -> 0:16:27.63 that's called VA Merit
0:16:27.63 -> 0:16:30.72 which is internally
0:16:30.72 -> 0:16:34.068 within the VA you can apply
0:16:34.068 -> 0:16:37.038 for funding to conduct research,
0:16:37.04 -> 0:16:39.248 an obviously there are others
0:16:39.248 -> 0:16:40.904 like the National Institutes of Health
0:16:43.19 -> 0:16:44.9 sponsored grants that
0:16:44.9 -> 0:16:47.215 physicians and researchers at the
0:16:47.215 -> 0:16:50.827 VA can apply to so I certainly
0:16:50.827 -> 0:16:53.837 benefited from these grant mechanisms.
0:16:53.84 -> 0:16:56.996 One of my research interests,
0:16:57 -> 0:16:59.22 in addition to conducting clinical
0:16:59.22 -> 0:17:02.822 trials at the VA and making clinical
0:17:02.822 -> 0:17:05.41 trials accessible for veterans,
0:17:05.41 -> 0:17:08.546 is to look at the potential cognitive
0:17:08.546 -> 0:17:11.851 side effects and toxicity of prostate
0:17:11.851 -> 0:17:14.966 cancer treatment with hormonal therapy.
0:17:14.97 -> 0:17:17.715 And this actually was not
0:17:17.715 -> 0:17:20.46 something that I thought about,
0:17:20.46 -> 0:17:24.292 this was prompted by one of my patients
0:17:24.292 -> 0:17:28.697 who is a decorated Vietnam War veteran,
0:17:28.7 -> 0:17:31.485 and he developed aggressive prostate
0:17:31.485 -> 0:17:34.73 cancer at a fairly young age.
0:17:34.73 -> 0:17:38.09 He was just in his early 60s when
0:17:38.09 -> 0:17:41.767 he was diagnosed with metastatic
0:17:41.767 -> 0:17:45.177 gleason 8 prostate cancer and
0:17:45.18 -> 0:17:47.478 he was diagnosed in the private
0:17:47.478 -> 0:17:50.168 sector and then found out that it
0:17:50.168 -> 0:17:52.334 was eligible for the VA benefits.
0:17:52.34 -> 0:17:55.343 He came to the VA and participated

0:17:55.343 -> 0:17:56.63 in several studies.
0:17:56.63 -> 0:17:57.085 Finally,
0:17:57.085 -> 0:17:59.36 after three years taking care
0:17:59.36 -> 0:18:02.04 of him and his prostate
0:18:02.04 -> 0:18:04.032 cancer it was beautiful controlled.
0:18:04.032 -> 0:18:07.509 He finally told me,
0:18:07.509 -> 0:18:09.927 I don't want to be ungrateful,
0:18:09.93 -> 0:18:12.906 but I think these hormone shots
0:18:12.906 -> 0:18:14.89 are frying my brain.
0:18:14.89 -> 0:18:18.022 And I asked him, what do you mean?
0:18:18.03 -> 0:18:19.78 And he said well,
0:18:19.78 -> 0:18:21.592 you know I've been busy all
0:18:21.592 -> 0:18:23.62 my life I can multitask,
0:18:23.62 -> 0:18:25.708 I can do so many things.
0:18:25.71 -> 0:18:28.146 But since I started the hormone shot,
0:18:28.15 -> 0:18:31.129 I have to write down the
0:18:31.129 -> 0:18:34.775 10 things I want to do within the next hour.
0:18:34.78 -> 0:18:35.98 And that's not me.
0:18:35.98 -> 0:18:38.256 I usually can think of multiple
0:18:38.256 -> 0:18:41.063 things and I can get everything done,
0:18:41.07 -> 0:18:43.558 but now I feel like I have to
0:18:43.558 -> 0:18:45.658 write down and remind myself
0:18:45.66 -> 0:18:48.17 what I want to do.
0:18:48.17 -> 0:18:50.178 So then I thought,
0:18:50.178 -> 0:18:51.658 oh, that's easy.
0:18:51.658 -> 0:18:55.081 I'll refer you for
0:18:55.081 -> 0:18:57.689 neurocognitive testing and it turns
0:18:57.689 -> 0:19:00.219 out that he scored beautifully.
0:19:00.22 -> 0:19:03.342 There was no deficit that we could
0:19:03.342 -> 0:19:06.74 find on regular neurocognitive testing.
0:19:06.74 -> 0:19:09.752 And then I started looking into

0:19:09.752 -> 0:19:13.32 it and it's
0:19:13.32 -> 0:19:15.92 still not well understood
0:19:15.92 -> 0:19:18.74 what hormone therapy for prostate
0:19:18.74 -> 0:19:22.72 cancer can do the to the brain.
0:19:22.72 -> 0:19:26.122 I think that the breast cancer
0:19:26.122 -> 0:19:28.39 experts are way ahead.
0:19:28.39 -> 0:19:31.984 I mean the recognition that
0:19:31.984 -> 0:19:34.38 chemotherapy or hormonal therapy
0:19:34.483 -> 0:19:37.603 for breast cancer has been for
0:19:37.603 -> 0:19:39.163 many years already
0:19:39.17 -> 0:19:41.454 suspected and many
0:19:41.454 -> 0:19:43.738 studies actually support
0:19:43.74 -> 0:19:47.125 the suspicion that chemotherapy and
0:19:47.125 -> 0:19:50.51 hormonal therapy for breast cancer
0:19:50.611 -> 0:19:54.888 can cause chemo fog, or chemo brain.
0:19:54.888 -> 0:19:58.98 It's not as well understood in prostate
0:19:59.107 -> 0:20:03.174 cancer so around 2009
0:20:03.18 -> 0:20:07.14 I started looking into that.
0:20:07.14 -> 0:20:09.085 And the interesting part is
0:20:09.085 -> 0:20:11.03 that it's not very easy
0:20:11.109 -> 0:20:14.581 to characterize these impact of hormone shots
0:20:14.581 -> 0:20:17.747 for prostate cancer, effects on the brain.
0:20:17.75 -> 0:20:19.96 If you do regular testing,
0:20:19.96 -> 0:20:21.358 neurocognitive testing,
0:20:21.358 -> 0:20:24.154 whether it's a paper and pencil or
0:20:24.154 -> 0:20:26.15 whether it's on a computer,
0:20:26.15 -> 0:20:29.406 we have to be aware that there's a
0:20:29.406 -> 0:20:31.89 certain amount of practice effect.
0:20:31.89 -> 0:20:35.426 So if you do it every three months,
0:20:35.43 -> 0:20:38.559 if you do it every six months,
0:20:38.56 -> 0:20:41.78 you know what to expect to do in the test,

0:20:41.78 -> 0:20:45.038 so your test score may actually hold hold up
0:20:45.038 -> 0:20:47.895 despite the fact there might be a deficit.
0:20:47.9 -> 0:20:53.465 And that is probably true for many,
0:20:53.47 -> 0:20:54.734 many patients.
0:20:54.734 -> 0:20:59.158 That is what prompted me to think
0:20:59.158 -> 0:21:03.761 about what do other people do to study
0:21:03.761 -> 0:21:08.457 effects of anything in the brain,
0:21:08.46 -> 0:21:10.203 whether it's depression,
0:21:10.203 -> 0:21:11.946 whether it's dementia,
0:21:11.95 -> 0:21:14.282 whether it's psychiatric illnesses.
0:21:14.282 -> 0:21:17.78 So that's the reason why I approached
0:21:17.78 -> 0:21:20.264 my colleagues at the Yale Medical School
0:21:20.264 -> 0:21:22.784 in psychiatry that are involved in
0:21:22.784 -> 0:21:25.148 functional brain imaging to see whether
0:21:25.148 -> 0:21:27.788 or not hormone therapy can affect
0:21:27.788 -> 0:21:30.013 functional brain imaging.
0:21:30.02 -> 0:21:31.286 Just to clarify,
0:21:31.286 -> 0:21:32.13 what are
0:21:32.13 -> 0:21:34.24 these hormone shots that you're
0:21:34.24 -> 0:21:35.928 giving for prostate cancer?
0:21:35.93 -> 0:21:37.502 What exactly is that?
0:21:37.502 -> 0:21:39.467 Because when we talk about
0:21:39.467 -> 0:21:41.288 hormonal therapy or endocrine
0:21:41.288 -> 0:21:43.1 therapy in breast cancer,
0:21:43.1 -> 0:21:44.696 that's often a pill.
0:21:44.696 -> 0:21:47.74 Is it the same kind of thing?
0:21:47.88 -> 0:21:52.712 It's not exactly the same because we know
0:21:52.712 -> 0:21:58.181 that if we just use a pill form like
0:21:58.181 -> 0:22:02.954 something called by Bicalutamide which is a
0:22:02.954 -> 0:22:04.838 testosterone receptor blocker,
0:22:04.84 -> 0:22:08.963 it usually is not sufficient to suppress

0:22:08.963 -> 0:22:13.627 the effects on the prostate cancer cells.
0:22:13.63 -> 0:22:18.054 So usually men with both prostate cancer
0:22:18.06 -> 0:22:21.846 need to get something called Leuprolide,
0:22:21.85 -> 0:22:25.526 which is, I'm going to use
0:22:25.526 -> 0:22:30.26 the technical term LHRH
0:22:30.381 -> 0:22:36.191 agonist, that can shut down the testosterone
0:22:36.191 -> 0:22:39.831 production in a patients body
0:22:39.831 -> 0:22:43.943 and we use these shots to cause the
0:22:43.95 -> 0:22:46.988 testicles and also the remainder
0:22:46.988 -> 0:22:50.387 of the body to turn off testosterone
0:22:50.39 -> 0:22:53.15 production.
0:22:53.15 -> 0:22:56.732 So the key point being that the pills
0:22:56.732 -> 0:23:00.081 that many breast cancer patients take for
0:23:00.081 -> 0:23:04.029 five or ten years is different than these
0:23:04.029 -> 0:23:07.41 shots that men get for prostate cancer,
0:23:07.41 -> 0:23:09.25 especially advanced prostate cancer.
0:23:09.25 -> 0:23:11.55 They work through different mechanisms.
0:23:11.55 -> 0:23:14.84 They have different targets as it were.
0:23:14.84 -> 0:23:18.224 And so the side effects are pretty different,
0:23:18.23 -> 0:23:21.261 so many women, while it's true that
0:23:21.261 -> 0:23:23.045 with chemotherapy they certainly
0:23:23.045 -> 0:23:25.859 can get chemo brain or chemo fog,
0:23:25.86 -> 0:23:28.404 it's a little less common for
0:23:28.404 -> 0:23:30.1 women taking endocrine therapy,
0:23:30.1 -> 0:23:32.22 something like tamoxifen or some
0:23:32.22 -> 0:23:34.34 of the aromatase inhibitors.
0:23:34.34 -> 0:23:37.22 So how common is it that people can
0:23:37.22 -> 0:23:40.736 get this chemo brain or chemo fog
0:23:40.736 -> 0:23:43.514 or this cognitive decline when taking
0:23:43.514 -> 0:23:46.636 an LHRH agonist for prostate cancer?
0:23:46.65 -> 0:23:49.93 I think that's a very hot topic right

0:23:49.93 -> 0:23:53.179 now in prostate cancer research.
0:23:53.18 -> 0:23:56.186 I think for the longest time,
0:23:56.19 -> 0:23:59.822 and I would say like
0:23:59.822 -> 0:24:04.217 10 years ago I was equally guilty.
0:24:04.22 -> 0:24:06.72 We recognized the potential effect
0:24:06.72 -> 0:24:10.302 on the brain and we really just
0:24:10.302 -> 0:24:13.76 focus on like how to control cancer.
0:24:13.76 -> 0:24:15.404 Because as Oncologists,
0:24:15.404 -> 0:24:18.144 we want to control cancer.
0:24:18.15 -> 0:24:20.74 Now I think we have to recognize
0:24:20.74 -> 0:24:23.539 there so many different treatments,
0:24:23.54 -> 0:24:25.332 and that's the exciting part about
0:24:25.332 -> 0:24:27.124 being a cancer doctor nowadays.
0:24:27.13 -> 0:24:29.45 There's so many different treatments
0:24:29.45 -> 0:24:32.688 and you can treat cancer so many
0:24:32.688 -> 0:24:34.778 different ways that I think
0:24:34.778 -> 0:24:37.008 it's actually very important to
0:24:37.008 -> 0:24:39.253 know what each treatment could
0:24:39.253 -> 0:24:41.962 cause in terms of side effects,
0:24:41.962 -> 0:24:44.232 whether it's inside the body
0:24:44.232 -> 0:24:46.438 or whether it's inside the
0:24:46.44 -> 0:24:49.717 brain.
0:24:49.717 -> 0:24:52.699 And what did you find with the
0:24:52.699 -> 0:24:55.01 functional imaging study that you
0:24:55.01 -> 0:24:56.938 did?
0:24:56.938 -> 0:24:59.348 It's still a very active,
0:24:59.35 -> 0:25:00.577 ongoing study.
0:25:00.577 -> 0:25:03.991 We're trying to right now look at the
0:25:03.991 -> 0:25:06.316 effect of lowering the testosterone
0:25:06.316 -> 0:25:09.95 level what we call androgen deprivation,
0:25:09.95 -> 0:25:12.836 what it does over two years.

0:25:12.84 -> 0:25:15.708 My original pilot study only
0:25:15.708 -> 0:25:18.659 investigated effects in 30 veterans.
0:25:18.66 -> 0:25:21.885 15 leuprolide injection and
0:25:21.885 -> 0:25:26.068 15 as a control that underwent
0:25:26.068 -> 0:25:30.248 surgery or just radiation alone.
0:25:30.25 -> 0:25:32.81 It actually showed that the newer
0:25:32.81 -> 0:25:35.37 cognitive testing was the same.
0:25:35.37 -> 0:25:37.062 People scored the same,
0:25:37.062 -> 0:25:40.252 but when you look at the functional
0:25:40.252 -> 0:25:43.032 brain imaging just six months
0:25:43.032 -> 0:25:45.883 of hormone therapy for prostate
0:25:45.883 -> 0:25:48.573 cancer completely changed the way
0:25:48.573 -> 0:25:51.242 the brain shows activation.
0:25:51.242 -> 0:25:53.29 What does this mean?
0:25:53.29 -> 0:25:57.898 That's something I think I need to find out,
0:25:57.9 -> 0:26:01.484 but it was very striking
0:26:01.49 -> 0:26:05.018 and to be honest I was a bit surprised
0:26:05.018 -> 0:26:08.583 because I initially thought if the
0:26:08.583 -> 0:26:11.858 newer cognitive test scores are the same,
0:26:11.86 -> 0:26:15.017 why should the brain MRI be different?
0:26:15.02 -> 0:26:18.485 And so I was educated that it can be
0:26:18.485 -> 0:26:21.514 different and apparently in other disease
0:26:21.514 -> 0:26:24.49 processes it can be different too.
0:26:24.49 -> 0:26:27.41 Thanks to the support
0:26:27.41 -> 0:26:30.872 of pilot studies through the Yale Cancer
0:26:30.872 -> 0:26:33.517 Center through Dr. Herbst,
0:26:33.52 -> 0:26:36.09 who supported this project,
0:26:36.09 -> 0:26:39.688 we were able to do an additional study
0:26:39.69 -> 0:26:43.288 of these 30 patients.
0:26:43.29 -> 0:26:46.386 It actually turns out that certain
0:26:46.386 -> 0:26:48.45 circuits that are connecting

0:26:48.536 -> 0:26:50.951 different brain areas to process
0:26:50.951 -> 0:26:53.985 things seem to be affected by
0:26:53.985 -> 0:26:56.645 hormone therapy for prostate cancer,
0:26:56.65 -> 0:27:00.41 so I suspect that the longer we give
0:27:00.41 -> 0:27:04.366 somebody hormone therapy for prostate cancer,
0:27:04.37 -> 0:27:08.18 the more effects we can see.
0:27:08.18 -> 0:27:09.788 Now that being said,
0:27:09.788 -> 0:27:13.339 I don't want to create any fear among
0:27:13.339 -> 0:27:15.964 patients to get hormone therapy.
0:27:15.97 -> 0:27:18.26 I think it's a very,
0:27:18.26 -> 0:27:20.996 very important treatment for prostate cancer,
0:27:21 -> 0:27:23.748 especially for stage four prostate cancer,
0:27:23.75 -> 0:27:26.084 and I think this is actually
0:27:26.084 -> 0:27:28.816 part of the cognitive
0:27:28.816 -> 0:27:31.536 side effects of hormone therapy.
0:27:31.54 -> 0:27:34.288 That's something we need to study,
0:27:34.29 -> 0:27:36.966 and I believe not everybody
0:27:36.966 -> 0:27:39.38 is vulnerable to it.
0:27:39.38 -> 0:27:41.33 There are certain individual vulnerability
0:27:41.33 -> 0:27:43.92 that we have to identify and study.
0:27:43.92 -> 0:27:45.535 That was going
0:27:45.535 -> 0:27:48.07 to be one of my questions.
0:27:48.07 -> 0:27:50.248 Was that in that functional MRI
0:27:50.248 -> 0:27:52.797 study where you had some
0:27:52.797 -> 0:27:55.184 patients who had the LHRH agonist
0:27:55.264 -> 0:27:57.898 therapy and some patients who didn't,
0:27:57.9 -> 0:28:00.168 and you found that there was a
0:28:00.168 -> 0:28:02.018 difference in the functional brain
0:28:02.018 -> 0:28:04.448 imaging between the two groups
0:28:04.448 -> 0:28:07.671 were all of the patients who had the
0:28:07.671 -> 0:28:09.519 LHRH against therapy still thinking that

0:28:09.519 -> 0:28:11.193 the hormones were frying their brain
0:28:11.193 -> 0:28:13.36 or were some of them quite functional?
0:28:14.03 -> 0:28:17.054 I would say some of them
0:28:17.054 -> 0:28:19.07 were quite functional and
0:28:19.07 -> 0:28:21.95 that is the reason why I was
0:28:21.95 -> 0:28:25.11 surprised to find on the brain imaging
0:28:25.11 -> 0:28:27.47 study that they're still changes.
0:28:27.47 -> 0:28:29.57 And some were
0:28:29.57 -> 0:28:31.67 complaining of maybe hot flashes.
0:28:31.67 -> 0:28:34.542 So I think frequently we say,
0:28:34.542 -> 0:28:37.621 maybe you feel more fatigued
0:28:37.621 -> 0:28:40.422 because of hot flashes that you
0:28:40.422 -> 0:28:43.008 can get with those LHRH agonist,
0:28:43.01 -> 0:28:45.578 or whether there could be
0:28:45.58 -> 0:28:47.644 some component of depression
0:28:47.644 -> 0:28:49.708 affecting your cognitive out,
0:28:49.71 -> 0:28:53.734 but I think that's the reason why it's
0:28:53.734 -> 0:28:56.388 actually important to have something
0:28:56.388 -> 0:28:59.502 that's not just subjective,
0:28:59.51 -> 0:29:02.606 it's actually fairly objective for the
0:29:03.492 -> 0:29:06.579 patients to see actually on brain imaging,
0:29:06.58 -> 0:29:09.28 there are changes and
0:29:09.28 -> 0:29:12.494 while this is all still
0:29:12.494 -> 0:29:15.128 very much a topic of research,
0:29:15.13 -> 0:29:17.518 for my patient,
0:29:17.52 -> 0:29:19.974 who was the original one to actually
0:29:19.974 -> 0:29:22.71 complain to me about it, was very,
0:29:22.71 -> 0:29:23.91 very comforted actually,
0:29:23.91 -> 0:29:27.492 to know that it's not just in his mind.
0:29:27.5 -> 0:29:29.49 It is actually something that
0:29:29.49 -> 0:29:30.684 we can see.

0:29:30.69 -> 0:29:33.028 Dr. Herta Chao is the deputy
0:29:33.028 -> 0:29:35.484 director at the VA comprehensive Cancer
0:29:35.484 -> 0:29:37.789 Center and an associate professor
0:29:37.789 -> 0:29:39.94 of Medicine and medical oncology
0:29:39.94 -> 0:29:42.256 at the Yale School of Medicine.
0:29:42.26 -> 0:29:43.9 If you have questions,
0:29:43.9 -> 0:29:45.54 the address is canceranswers@yale.edu.
0:29:45.54 -> 0:29:47.262 And past editions of the program
0:29:47.262 -> 0:29:49.323 are available in audio and written
0:29:49.323 -> 0:29:50.607 form at Yalecancercenter.org.
0:29:50.61 -> 0:29:53.234 We hope you'll join us next week to
0:29:53.234 -> 0:29:55.794 learn more about the fight against
0:29:55.794 -> 0:29:58.536 cancer here on Connecticut public radio.