



Reconstructive Surgery for Melanoma and Skin Cancers

Hosted by: Steven Gore, MD

Guest: James Clune, MD

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Welcome to Yale Cancer Answers with doctors Anees Chagpar and Steven Gore. I am Bruce Barber. Yale Cancer Answers features the latest information on cancer care by welcoming oncologists and specialists who are on the forefront of the battle to fight cancer. This week, it is a conversation about reconstructive surgery for melanoma and skin cancers with Dr. James Clune. Dr. Clune is an Assistant Professor of Plastic and Reconstructive Surgery at the Yale School of Medicine, and Dr. Gore is a Professor of Internal Medicine and Hematology at Yale and Director of Hematologic Malignancies at Smilow Cancer Hospital.

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Gore So, wow! Melanoma and plastic surgery. I think of melanoma as skin cancer.

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Clune It's correct. It is a skin cancer, but the surgical treatment of this type of skin cancer can result in some pretty large, what we call defects, holes and I think it is important to have a plastic surgeon or someone who is versed in reconstructive surgery to treat the patient afterwards to make sure that they come up the best they can afterwards.

01:20.800 --> 01:36.300

Gore So, melanoma is like the really scary skin cancer right? I mean, everyone thinks ah! it is just a skin cancer, I guess basal cell carcinoma, squamous cell carcinomas that lots of people have shaved off and stuff. The melanoma is the one that people are really scared off right. They are like the discolored mole or something like that?

01:36.300 --> 01:56.400

Clune That is correct. It is very, of the skin cancers, it is the most serious. Fortunately, it is the most rare as well. But treatment has improved over the last even 3 years to a point where we are hoping to have this managed as more of a chronic disease than what the Internet may tell you.

[01:56.400 --> 02:04.900](#)

Gore Well, used to be kind of a deadly disease uniformly if the melanoma was not caught in time as I recall?

02:04.900 --> 02:24.200

Clune And it certainly still can be. We have unfortunately many patients who do not make it these days, but with our new treatments, we are hoping that these advances continue rapidly as they have been in the last few years to really help our patients make this more of a chronic problem than acute problem.

02:24.200 --> 02:54.000

Gore Now, last I was up-to-date on melanoma, which is quite a long time ago, Jim, you know there was a certain kind of staging procedure, having to do with the depth of the melanoma in the skin and it seems to me that, you know, a lot of that dealt with by either dermatologists or dermatologic surgeons, is that the right word? Right, which resect or take off the primary lesion and hope that it was not too deep. Is that still the case?

02:54.000 --> 03:58.700

Clune Yes. Usually, what happens is, the patient may find the mole on their own or often a spouse or a partner will find something on their back as they cannot see it. They say that looks weird, you should go see somebody about it. The patient put it off for a while. They eventually end up in dermatologist's office. The dermatologist will shave it off or punch it out using a little core needle that kind of punches the mole out or sometimes they will just ellipse it out with a little knife and excise it and put stitches in. They need to get a piece of that tissue to send it to what is called the dermatopathologist. It is a pathologist who looks under the microscope, specifically at skin problems, and they will look at it and make a determination as to whether is a nothing mole versus what could be a melanoma. And that depth, how deeply that melanoma goes, determines what happens next. Sometimes, you just may need a little bit more taken out and that will be considered what is called a melanoma in situ -- meaning that is in the very, very superficial layer of your skin.

03:58.700 --> 04:00.000

Gore It has not really invaded very deeply?

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Clune Correct. It has not gone into the dermis yet, but it is in the very superficial layers of your skin or could be deeper and we usually do this by measuring how deep it is using millimeters. So, and that will help determine what we do next, how deep the melanoma goes - helps us determine how much we need to take out. And at a certain depth, we start to worry that the melanoma may travel through the lymphatics into the lymph nodes - those little bunches of grapes that we have in our arm pit, in our neck, in our groin that become enlarged when we are sick.

04:33.600 --> 04:34.500

Gore Swollen glands like.

04:34.500 --> 04:51.100

Clune Correct. Yeah, so once we get to a certain depth, we have a concern that it may have traveled to the lymph nodes and we want to check those lymph nodes and that is another part of surgery where we actually take some of the lymph nodes out, send those to the laboratory for them to look under the microscope those lymph nodes to see if there is any melanoma in those lymph nodes.

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Gore Is that something you do or is that still another kind of surgeon?

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Clune No, we do all of them at the same time. So, the dermatologist will do the biopsy, then they will come see us and we will make the determination of how much skin needs to come out, how many lymph nodes if any need to come out and then we do the reconstruction all at the same time.

05:08.700 --> 05:13.700

Gore Wow! So, but the biopsy has been done, so already know how deep it is right?

05:13.700 --> 05:17.200

Clune Usually we know how deep it is based on the biopsy.

[05:17.200 --> 05:23.200](#)

Gore Okay. Then, you take over at that point, the plastic surgeon comes in.

05:23.200 --> 05:59.500

Clune Yeah. They will show up in the office, you know, a couple of weeks after the biopsy when we have had our dermatopathologist really go over with a fine-tooth comb to make sure we have the correct diagnosis, and then that is where we take over, and you know, we have an hour meeting with the patient before we schedule anything to talk about, all the steps that need to be taken. We actually need to know which lymph nodes to take out ahead of time because the patient in their armpits say for example may have 20 lymph nodes, we do not need to take out all of their lymph nodes which may have been done in the past on the first surgery, we just need to take out the lymph node that drains and cleans that piece of skin where the melanoma was.

05:59.500 --> 06:00.500

Gore Well, how do you figure that out?

06:00.500 --> 06:04.200

<vClune>So, we get this fancy test called the lymphoscintogram.

06:04.200 --> 06:07.400

Gore A lymphoscintogram? Come on, you made that up.

06:07.400 --> 06:24.600

Clune Basically it is just a map. That is what I tell the patients. You are going to go to the radiology department, you do not go to sleep for this or anything like that. Where the melanoma is, they are going to inject a little dye and then they are going to have you wait in the waiting room for about an hour, then they are going to take your picture with an x-ray and then the first lymph node that lights up with that dye is the one I need to take out in the operating room.

06:24.600 --> 06:26.000

Gore Is the dye radioactive?

[06:26.000 --> 07:01.200](#)

Clune There is a radioactive injection that occurs at that time, it is called technetium 99, and we will actually inject that again the day of your surgery so that I can use a hand-held, almost like those little sticks that are used to find water in the cartoons, it is called Geiger counter and that will pick up the radioactive isotope and the noise gets louder and I get an increase count on my Geiger counter in the operating room that day, so we use the map. I have that up on our computer screen in the operating room that day of surgery and then I will also use the little hand-held Geiger counter to guide me to the lymph node that I need to take out so I do not take out more than what is necessary.

07:01.200 --> 07:03.100

Gore So, you are just an overgrown geek really?

07:03.100 --> 07:05.100

Clune A little bit.

07:05.100 --> 07:12.200

Gore So, it seems to me that this lymph node thing, did not they used to inject some colored dye and look for the lymph node to change color, was what that ever done or?

07:12.200 --> 08:10.900

Clune We also use a methylene blue or a Lymphazurin blue as a dye. We still use that on the day of surgery. The radiologist when they do their injection, they do not use it, they just use the technetium. We use the Lymphazurin blue and the methylene blue on the day of surgery because in at least in the body, someone has a melanoma in the arm or the back or the leg, I will use and that will help me visualize when I make the incision to take the lymph nodes out, not only do I have the Geiger counter, but I also have the lymph node will turn blue from our dye to tell me that is also a lymph node that I should consider taking out. And, you know, in the head and neck when you have a melanoma of the face or the neck, I do not use the blue dye because some of the lymphatic channels are very superficial on your skin and those dyes are similar to tattoo dye and you can leave somebody with a streak in their face as that Lymphazurin blue is traveling to lymph nodes, it can permanently stain this. So, I do not use in head and neck but anywhere else in the body I will use it.

08:10.900 --> 08:20.000

Gore So that is really cool. So, you got like a double identifier right? You got a blue and it is, you know, given off the Geiger noises?

[08:20.000 --> 08:38.500](#)

Clune Correct. I find that if you use the blue dye, you may be you are listening to your Geiger counter, but there is fat and lymph nodes around that kind of do not give you a full 3D picture but if you see a little blue hue behind some fat, you know to move that out of the way to take that lymph node out. So, it is just an additional way to find what you are looking for carefully.

08:38.500 --> 08:45.300

Gore Now, the fact that you are taking out these lymph nodes, whether they turn blue or they are radioactive or not, that does not mean that they are involved with cancer right?

08:45.300 --> 09:03.400

Clune That's right. It is just a map and that is what I tell the patient right from the beginning. I say whether I find 5 lymph nodes that are blue or 2 lymph nodes that are blue, it does not mean that your melanoma is any worse than what we predicted in the beginning; it is simply a map to tell me which lymph node drains and cleans that piece of skin.

09:03.400 --> 09:05.500

Gore So, where the cancer would be if it has spread?

09:05.500 --> 09:08.000

Clune Exactly.

09:08.000 --> 09:10.200

Gore And, I mean, is it often in the lymph node or?

09:10.200 --> 09:22.600

Clune Well, we typically use percentages based on thousands of patients. So, the typical numbers are if the melanoma is 0.8 mm up to 1 mm...

[09:22.600 --> 09:23.700](#)

Gore It is almost like a little dot really?

09:23.700 --> 09:29.500

Clune It is almost nothing. That is how deep it is. The chances of it being a lymph node are between 8 and 12%.

09:29.500 --> 09:30.500

Gore Oh! That's pretty high.

09:30.500 --> 09:47.700

Clune And once we get to 1 mm in depth, that is kind of the Gold standard where everyone will have a lymph node biopsy, that gives you about a 20% chance of having melanoma in the lymph node. Now, just because you have melanoma in the lymph node, does not mean that bad things are automatically going to happen.

09:47.700 --> 09:49.200

Gore Does not sound good.

09:49.200 --> 10:20.300

Clune It just tells us we need to watch you more carefully. Typically, we will get additional imaging, maybe a CAT scan or PET scan if the melanoma has worked its way into the lymph nodes. And in some cases now, depending on how big the amount of melanoma is in that lymph node, we actually will often start people on immunotherapies, which is a new way of treating melanoma over the last few years. We often will start people on those medications even if they do not have any evidence anywhere else in their body and only in that lymph node, the evidence is good that we may be able to prevent it from becoming worse.

10:20.300 --> 10:55.000

Gore Well, let us talk about that in the second half. I think that is really, really interesting but what I am thinking about here is that, you know, moles, like what many of us think of as moles seem to raise up out the skin oftentimes more than a millimeter right? Like coming out 3-4 mm if it is a big mole, you know, vertically right? So, does that mean, I mean, first of all, are melanomas likely to be like those usually raised moles or they often flat, and if they are like that raised moles that is 4 mm up, does that mean it is going to be 4 mm down and that is pretty scary?

[10:55.000 --> 12:00.700](#)

Clune So, you know, the melanomas that I see in my clinic, it is kind of a mixed bag. It is patients who have had a lot of sun exposure throughout their life, lot of sunburns, maybe tanning bed use, a lot of freckles throughout their body and then one that was flat and well circumscribed, they are down, nice and smooth and round, probably smaller than the size of a pencil eraser, all of a sudden, 3 months or 6 months before they met us, started to change and started to be a little jagged at the edges, maybe it became a little bit raised, it was bleeding and itching, then that is a sign that could be a melanoma. The other group of patients that I see is patients that have, you know, average amount of sun exposure, even dark pigmented skin, any ethnic background, had a mole since they were born and then 20-30 years later, all of a sudden that mole began to change, and those can also be a melanoma, and yes, they can be quite deep, they can be 4-5 mm off the skin and the more it changes superficial, they can go deeper into the dermis and they can be quite deep.

12:00.700 --> 12:02.500

Gore Those are not necessarily deep just because it is sticking out of...

12:02.500 --> 12:15.900

Clune Not necessarily. Part of, you know, only a portion of that may have changed, all of it may have changed or it can just be what we call an atypical mole and it needs to come off because we see some atypical cells in it, but it was not a melanoma.

12:15.900 --> 12:45.700

Gore So, you know, I know this is not really your bailiwick particularly, but you know, which people, which patients should be, you know being scrutinized sort of regularly just because they have got a lot of freckles or moles or you know he has a partner, I do not ask my wife to, like, scrutinize every mole that she often does, like, bother me with "what's wrong with that mole?" Sorry, Amie, she does not really sound like that.

12:45.700 --> 13:26.700

Clune No, our friends and family are important, keeping us safe in all aspects of our health, but the patients with a history of blistering sunburns, multiple blistering sunburns, especially in childhood, use of tanning beds, fair - very fair skin, these types of patients should be seeing their dermatologists once a year for an annual skin exam. Our dermatologist colleagues can probably weigh in even more on that, and then, you know, one of the biggest predictors I see is family history. If you have a parent or a direct child or aunt or uncle, but mostly parents, who had melanoma that is an indicator that you should be checked out as well, at least once a year unless something more concerning has been found because there is a strong correlation with family history.

[13:26.700 --> 13:39.500](#)

Gore And is there any correlation between like having other sun damage, like, you know what they call actinic keratoses or anything like that or other kind of skin cancers; in melanoma is it kind of not necessarily?

13:39.500 --> 13:51.600

Clune Well, not directly, but because actinic keratosis, basal cell, squamous cell are also direct result of increased sun exposure over lifetime, then you would presume that your risk of melanoma is also higher.

13:51.600 --> 13:57.200

Gore Okay. Well, we are going to need to take a break for a medical minute, but I guess it is fair to say that you probably do not support the use of tanning beds?

13:57.200 --> 13:57.400

Clune No.

13:57.400 --> 14:09.500

Gore Okay. Very good. So, with that said, get off your tanning bed and let us take a short break for a medical minute. Please stay tuned to learn more about reconstructive surgery for melanoma and skin cancers with Dr. James Clune.

14:09.500 --> 14:22.600

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14:22.600 --> 15:04.700

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on healthy living. More information is available at YaleCancerCenter.org. You are listening to Connecticut Public Radio.

[15:04.700 --> 15:45.900](#)

Gore Welcome back to Yale Cancer Answers. This is Dr. Steven Gore. I am joined tonight by my guest Dr. James Clune. We have been discussing skin cancer and particularly melanoma and James is a plastic surgeon, so thanks so much. Thus, first half we have talked a lot of about sort of what happens, screening for melanoma, identification of melanoma and the primary management taking out the melanoma and look for the potential spread of melanoma, but so far we have not talked about plastic surgery. Now, I am thinking facelifts, I am thinking about you know Botox, like what's up, where is the connection?

15:45.900 --> 16:02.300

Clune So, plastic surgeons have been involved in melanoma since the surgical treatment of melanoma began because the resection site, meaning where we take the melanoma out and leave a large hole, so plastic surgeons have always been involved in the removal and the reconstruction.

16:02.300 --> 16:07.900

Gore But the melanoma, you said, might only be a few millimeters wide, right? So, why do you need to take out all bunch of skin?

16:07.900 --> 16:36.700

Clune Right. So, yes, you can take the melanoma itself out, but what we are worried about with melanoma and this is why we do lymph node biopsies and that sort of thing is the spread of melanoma into the lymphatic channels that are in the fat and below the melanoma, so we have learned over the years that if we take a certain predetermined normal skin margin around it, then we can help prevent the disease from coming back in that area, called local recurrence.

16:36.700 --> 16:38.100

Gore So, how wide is that usually?

[16:38.100 --> 16:46.300](#)

Clune So, for the very thin melanoma that I mentioned earlier, the melanoma in situ, the one that has not gone deep at all, we just take a half centimeter margin.

16:46.300 --> 16:47.100

Gore Okay that is not too big.

16:47.100 --> 17:06.600

Clune It is 5 mm. And then as it gets deeper, we take more and more, so anything between 1 mm in depth or there are some other indicators that we see on the pathology report that will make us take a little bit more, but it tends to be 1- to 2-cm margin. The 2-cm margin is for the deeper melanomas, the 1 cm is for the medium-thickness melanoma.

17:06.600--> 17:12.600

Gore So, when you say 2-cm margin, basically you are talking a radius of 2 cm or is it 2 cm all the way around?

17:12.600 --> 17:31.100

Clune No, it is the diameter. From the edge of the biopsy site. So, if you have a biopsy site that is the size of a half dollar, then you take 2 cm all the way around it. So, that can end up being something maybe the size of the palm of my hand. So, it can be a larger resection site.

17:31.100 --> 17:34.300

Gore Oh! Wow. And that could be on the arm or?

17:34.300 --> 17:37.000

Clune Could be anywhere, on the face.

17:37.000 --> 17:38.100

Gore 7 cm on the face you might take off?

[17:38.100 --> 17:50.800](#)

Clune It is possible. Sometimes, the melanomas are very large, so if we have a melanoma of the size of a golf ball, then the resection site is going to be quite large, which is where the plastic surgery comes into play.

[17:50.800 --> 17:52.600](#)

Gore So, what do you do? I mean,

[17:52.600 --> 18:12.000](#)

Clune So, we have what is called a flap where we basically, you know in the past, I think the coverage has been with skin grafts, and skin grafts are useful in many ways, especially in burn patients and that sort of thing, but when you cover something with a skin graft, you do not have any thickness to it. So, you end up with a very concave surface.

[18:12.000 --> 18:16.000](#)

Gore You can always tell when somebody has had a skin graft. You always think, why, wonder what happened?

[18:16.000 --> 19:38.000](#)

Clune It can be a waxy appearance and it can be a little wrinkly, a depression and what people notice when they look at somebody from across the room is not necessarily a scar, but what they notice is asymmetries. So, if you have an asymmetry on your face, that is more noticeable than a scar. So, the one of the ways to prevent asymmetry is to replace like with like. It is a saying in plastic surgery. So, if you have taken out something that has skin and you know a couple of inches of fat underneath it, you want to replace it with something that has skin and a couple inches of fat with it. So, we take advantages of parts of the body that have loose skin and rotate those into the parts of the body that we have taken the melanoma out, say on the face, one of the best places we call donor sites, the place where we are going to take our flap from is say the neck, especially as patients get older, they have excess skin in the neck, we will make a cut down the neck and take the skin and the fat from the neck and rotate it into the hole that we have made on the face and we try and hide the scars in places that you would probably typically see a scar for a facelift, so right in front of the ear and that little wrinkle there one has or behind the ear and the wrinkles of the lateral eye. Crow's feet, we can hide scars there; the forehead, so we are try and hide; and nasolabial fold, which is a fold that comes between your nose and the corner of your mouth.

[19:38.000 --> 19:38.200](#)

Gore Yeah, the smile lines, kind of?

19:38.200 --> 19:49.000

Clune Exactly. So, we try and hide the scars where we take the flap from in those lines so that they are less conspicuous and again we are trying to prevent asymmetry, so we want to give the patient a symmetric look.

19:49.000 --> 20:00.300

Gore Is the flap still attached to where you got it from, I mean, I am picturing you got this thing going from your neck and going around your ear and it looks kind of, my brain picture of this is not as good.

20:00.300 --> 20:16.100

Clune Yes. So, there are multiple types of flaps, but the most common flap is called a local flap and that actually still is partially attached to where it came from, but you use geometry to make it so that it is a smooth surface in terms of the cuts that you make.

20:16.100 --> 20:18.200

Gore Is it connected underneath and you tunnel it?

20:18.200 --> 20:37.700

Clune You can tunnel flaps, you can tunnel them and take the skin off the top and tunnel underneath normal skin. There are so many amazing, interesting ways to reconstruct and use flaps, it is an art and actually probably the most enjoyable part of the job is recreating somebody's face for them after you have done this resection.

20:37.700 --> 20:41.900

Gore And do you have this planned ahead of this or is it kind of let's see how it looks and then figure it out as I go?

20:41.900 --> 21:01.000

Clune I usually go into the operating room with about 3-4 options and then it all depends on how we take it out, and then we look at it and we say, you know, this was my first option but maybe when I put that there, it is going to distort the corner of the mouth a little bit, I do not want to give him a droopy mouth, let's go to plan B and this looks better and we go like that.

[21:01.000 --> 21:05.200](#)

Gore And you have discussed this with the patient ahead of time what the various possibilities are?

21:05.200 --> 21:28.600

Clune Yeah. We try and tell them ahead of time, you know I am probably going to use what is called a flap, and I try and tell them where it is going to come from, I draw out the incision and show them the scar on a piece of paper and say, you know, this is probably going to look like this and you know most of them, you know, they are quite understanding of what you are doing before you go in there, especially around the eyes, the eyelids, you know, interesting places to reconstruct and have a pretty good idea what is happening before you go in there.

21:28.600 --> 21:32.200

Gore Do you use computer graphics at all, so like use their picture and alter it and...

21:32.200 --> 21:33.800

Clune No, I will just do everything by hand, hand draw them.

21:33.800 --> 21:38.600

Gore Gotcha. And what happens to the donor site. Is there a big hole there now that you have got to patch up?

21:38.600 --> 21:46.900

Clune So, that is the good thing. If it is coming from a loose spot, then you can close that spot primarily just with a regular straight incision and then hide that scar in a regular.

21:46.900 --> 21:48.900

Gore So, you are getting a neck job at the same time.

[21:48.900 --> 21:50.500](#)

Clune Yeah, but only on one side.

21:50.500 --> 21:52.400

Gore So, is that fair for symmetry? Maybe you should do the whole thing?

21:52.400 --> 22:15.200

Clune Fortunately, you know, cancer care has evolved such as in breast cancer that if you have a breast cancer on one side, you reconstruct the right breast, the insurance will pay for a symmetrizing procedure on the side. So, that is something I have done to take a melanoma off the left upper eyelid, and I have basically do an eyelid lift to get the melanoma out and then you can do it on the right side as well at another time.

22:15.200 --> 22:42.800

Gore And, what the listeners cannot see is that Dr. Clune has a very handsome beard and it made me think about what about men's faces where you might be taken off, you know, an area that maybe the guy has thick beard growth even if he shaves, right? And so, if you are placed something from the neck and he does not have beard on his neck, now you are going to have this patch of, you know, plain skin?

22:42.800 --> 23:06.400

Clune Right. So, that is something we discuss with the patient as well, and for the most part, it not so much a matter of not being able to replace a hairy spot with a hairy skin, the problem is when you have hair-bearing skin in your flap and you want to rotate it to a place that never had hair before such as if I want to use a piece of skin from the cheek and rotate it onto the nose, you do not want to have to shave your nose.

23:06.400 --> 23:07.100

Gore Oh! that would be awful.

23:07.100 --> 23:30.900

Clune That is the challenge and so obviously we are not going to do that to somebody, but you know, there are ways to depilate, meaning take the hair follicles out of skin, say if you want to reconstruct the

ear with a flap from the neck and the neck has hair on it, you can reconstruct the ear with a neck flap and then depilate it or use methods to kill the hair follicles so that you do not have hair growth in that area.

[23:30.900 --> 23:37.400](#)

Gore That is really fascinating. I was thinking the reverse of like having a new bald spot, but I guess they need to stop grow your beard I guess.

23:37.400 --> 23:43.100

Clune Yeah, it is easier to shave and just say that you do not have a beard.

23:43.100 --> 23:54.200

Gore This is so cool. So, did you go into plastic surgery kind of with this in mind that melanoma was something very interesting for you or what was about that, what was your journey?

23:54.200 --> 24:01.100

Clune It was not until, I trained at Yale for 6 years as a resident at Yale prior to graduating and going to California.

24:01.100 --> 24:06.500

Gore And that starts with general surgery right? You have to do general surgery first.

24:06.500 --> 24:44.200

Clune Right. So, you do a portion of general surgery. So, these days you do probably about 3 years of general surgery and 3 years of plastic surgery and that is your training. So, Yale had a unique situation in that Dr. Steven Arion, 35 years ago, started the Yale Melanoma Unit, and he was a plastic surgeon, he trained me and another surgeon here, Dr. Deepak Narayan was also trained by Dr. Arion, so the two of them, Dr. Narayan and Dr. Arion built this program over the last 35 years and I was fortunate enough to be able to train with them to have this kind of unique combination of plastic surgery and melanoma surgery.

24:44.200 --> 24:47.700

Gore But you did not know that going into, that was kind of fortuitous?

[24:47.700 --> 24:58.900](#)

Clune I worked for a group called Operation Smile that does cleft lip and cleft palate surgery after college and I knew I wanted to be a plastic surgeon. I enjoyed the reconstructive portion of it, but everything else just kind of fell into places.

24:58.900 --> 25:07.700

Gore Wow! And, what percentage of your life is this melanoma? You mentioned that you also do breast reconstruction.

25:07.700 --> 25:50.900

Clune I do not do breast but we are trained in it, I was plastic surgeon so that is a good corollary because have been effected by that as well, but I would say about what I do for surgery is probably about 80% melanoma surgery right now. I treat about 350 melanoma patients per year. The other part of my practice is I do a lot of reconstruction for other surgeons that have taken large tumors out -- for sarcoma or malignant peripheral nerve sheath tumors, tumors of the nerves, we will go in and we can help reconstruct the nerves to help them give them hand function, to make things move again that were not working because the tumor was taken out.

25:50.900 --> 25:54.400

Gore And is that usually done at the time of the primary surgery or it is afterwards?

25:54.400 --> 26:07.600

Clune It depends on the cancer type. You know, if it is a cancer that we are worried, very concerned that it is not all out at the time of the.... we will wait a week or so until we are positive that it is all taken out and then we go back and reconstruct.

26:07.600 --> 26:10.500

Gore But sometimes you are involved with the planning from the get-go of...

[26:10.500 --> 26:55.100](#)

Clune Usually, I am always involved with the planning from the get-go, although they will see the patients, okay this gentleman has a large sarcoma on the leg. The sarcomas can be very big, they can be the size of a football. So, then we know that we are going to have to do what is called a free flap where we literally take skin, fat, muscle and the artery that perfuses it and gives it the blood supply, we will take it from one part of the body, say the back, we will transfer it to the leg and use a microscope and do what is called microsurgery to reattach the artery from the back to an artery in the leg so that the blood flow from the leg will be giving the blood flow to that flap. So, those are larger reconstructions that take a lot of planning.

26:55.100 --> 26:59.300

Gore And so, do you do any cosmetic surgery? I mean, I realize all of it is a little cosmetic, but I mean any primary cosmetic surgery?

26:59.300 --> 27:17.900

Clune Very rarely, yeah occasionally a spouse of one of my patients will be in the room with us, they are all healed up from the surgery and they will ask about their eyelids or something and maybe we will do something like that, but really we are so busy with all of the melanoma patients that we are taking care of, I do not have time for any cosmetic surgery.

27:17.900 --> 27:43.400

Gore Yeah, you know, we started off with a little snarky joke of mine, you know, part of our facelifts and stuff, but and there is nothing wrong with cosmetic surgery obviously, it makes a lot of people happy and pays the bills, but you know, I do think that when many Americans think of plastic surgery, that is what it sounds like, that is cosmetic surgery and really so much of plastics is not that at all right?

27:43.400 --> 28:08.800

Clune Yeah, you know there are a lot of shows out there, nip tuck and those types of things that talk about cosmetic surgery, but there is a huge proportion of plastic surgeons that are every day reconstructive surgeons taking care of the community and that is the majority of what our training is in is reconstructive surgery and we often will apply that to cosmetic surgery or vice versa, the cosmetic surgery we will apply to our reconstruction.

28:08.800 --> 28:27.900

Gore And I think that we do not often think about, I think we do not think, we often do not think, you know, in terms of suffering of cancer, the disfiguring surgery would be terrible to have to live with right? It is a constant reminder I imagine- plus we're used to our face looking a certain way, and even our arms?

[28:27.900 --> 29:42.700](#)

Clune You are right. And for plastic surgeons, it is what we do, our goal is to restore form and function, so the way you look, we try and restore that and then we want to restore the function that you have before, so you know, with the face it is important to restore a functional smile, you know drinking water, you do not want to having it come and dripping out the corner of your mouth because the muscles of your mouth were resected with a cancer operation, and as our advances in immunotherapy and treatments are getting better, patients, we expect them to live for a very, very long time after their surgery. So, we want them to look in the mirror and not be reminded of their cancer every day. There have been a lot of laws passed to support those efforts, many states have passed laws mandating that a plastic surgeon be available to treat breast cancer reconstruction patients if they have a mastectomy, there should be a plastic surgeon at least available if you choose to have reconstruction; reconstruction is not required but you know patients have it available and something I believe that should be available for any cancer operation, sarcoma, melanoma, breast cancer or whatever it is because our medications are so much better these days that we can expect a very large proportion of our patients to do very, very well.

[29:42.700 --> 29:50.400](#)

Gore That's wonderful. And Jim since it is early spring now, what do you want to say about people who are about to like to go their tanning beds and go into the sun all summer?

[29:50.400 --> 30:14.900](#)

Clune Yeah, do not try and get your base tanned to prevent the burn. It does not help. The sun damage is cumulative over life time, just go out and get one of those sun shirts, I slather my family and sunblock all the time. I do not like sunblock either, but I get one of those sun shirts with a 50 SPF on it, and I do not have to put the sunblock back on again all day. And it has really, really been great those sun shirts.

[30:14.900 --> 30:41:000](#)

Dr. James Clune is an Assistant Professor of Plastic and Reconstructive Surgery at Yale School of Medicine. If you have questions, the address is canceranswers@yale.edu and past editions of the program are available in audio and written form at YaleCancerCenter.org. I am Bruce Barber reminding you to tune in each week to learn more about the fight against cancer here on Connecticut Public Radio.