

WEBVTT

NOTE duration: "00:04:35.626"

NOTE Confidence: 0.9853499

00:00:04.720 --> 00:00:06.240 The epidermis is very, very

NOTE Confidence: 0.9853499

00:00:06.240 --> 00:00:07.919 thin. It's only about the

NOTE Confidence: 0.9853499

00:00:07.919 --> 00:00:08.880 thickness of a sheet of

NOTE Confidence: 0.9853499

00:00:08.880 --> 00:00:10.160 paper, so less than one

NOTE Confidence: 0.9853499

00:00:10.160 --> 00:00:11.679 millimeter thick. And there's a

NOTE Confidence: 0.9853499

00:00:11.679 --> 00:00:12.559 lot of cells that are

NOTE Confidence: 0.9853499

00:00:12.559 --> 00:00:13.840 packed in there doing this

NOTE Confidence: 0.9853499

00:00:13.840 --> 00:00:15.765 important job of protecting your

NOTE Confidence: 0.9853499

00:00:15.765 --> 00:00:17.305 body from the external environment.

NOTE Confidence: 0.9853499

00:00:17.605 --> 00:00:18.585 There are keratinocytes

NOTE Confidence: 0.9351196

00:00:19.525 --> 00:00:20.965 which are the most common

NOTE Confidence: 0.9351196

00:00:20.965 --> 00:00:23.845 cells and they start at

NOTE Confidence: 0.9351196

00:00:23.845 --> 00:00:24.505 the bottom,

NOTE Confidence: 0.98696

00:00:24.965 --> 00:00:26.965 the basal layer. And then

NOTE Confidence: 0.98696

00:00:26.965 --> 00:00:28.165 as the cells move up
NOTE Confidence: 0.98696

00:00:28.165 --> 00:00:29.205 into the upper layers of
NOTE Confidence: 0.98696

00:00:29.205 --> 00:00:29.865 the epidermis,
NOTE Confidence: 0.99921876

00:00:30.300 --> 00:00:31.760 they do what's called differentiation
NOTE Confidence: 0.93408203

00:00:32.220 --> 00:00:33.840 and they change their function.
NOTE Confidence: 0.9841761

00:00:34.300 --> 00:00:35.500 They become more and more
NOTE Confidence: 0.9841761

00:00:35.500 --> 00:00:36.960 plate like or squamous.
NOTE Confidence: 0.9965376

00:00:37.899 --> 00:00:39.180 To become more of an
NOTE Confidence: 0.9965376

00:00:39.180 --> 00:00:40.699 effective barrier to the external
NOTE Confidence: 0.9965376

00:00:40.699 --> 00:00:41.199 environment.
NOTE Confidence: 0.9984267

00:00:41.900 --> 00:00:43.260 And the third type of
NOTE Confidence: 0.9984267

00:00:43.260 --> 00:00:44.460 cell that you see in
NOTE Confidence: 0.9984267

00:00:44.460 --> 00:00:45.199 the epidermis
NOTE Confidence: 0.99077696

00:00:45.815 --> 00:00:46.715 is the melanocyte,
NOTE Confidence: 0.973999

00:00:47.175 --> 00:00:48.875 the pigment producing cell.
NOTE Confidence: 0.98960656

00:00:49.495 --> 00:00:51.415 And the melanocyte is obviously

NOTE Confidence: 0.98960656
00:00:51.415 --> 00:00:52.395 extremely important
NOTE Confidence: 0.8852539
00:00:52.854 --> 00:00:53.354 because
NOTE Confidence: 0.9716797
00:00:53.815 --> 00:00:56.395 it provides protection against ultraviolet
NOTE Confidence: 0.9716797
00:00:56.615 --> 00:00:57.115 radiation,
NOTE Confidence: 0.9991048
00:00:57.815 --> 00:00:59.175 which is damaging to the
NOTE Confidence: 0.9991048
00:00:59.175 --> 00:00:59.675 skin.
NOTE Confidence: 0.98388267
00:01:00.110 --> 00:01:01.870 The sun exposure causes the
NOTE Confidence: 0.98388267
00:01:01.870 --> 00:01:04.270 UV damages, and while our
NOTE Confidence: 0.98388267
00:01:04.270 --> 00:01:05.790 body does its job to
NOTE Confidence: 0.98388267
00:01:05.790 --> 00:01:08.030 repair those damages, chronic sun
NOTE Confidence: 0.98388267
00:01:08.030 --> 00:01:10.370 exposure or intense sun exposure
NOTE Confidence: 0.98388267
00:01:10.590 --> 00:01:12.050 can lead to more damages.
NOTE Confidence: 0.99234444
00:01:12.505 --> 00:01:14.425 Over time, if those basal
NOTE Confidence: 0.99234444
00:01:14.425 --> 00:01:15.545 cells that live in the
NOTE Confidence: 0.99234444
00:01:15.545 --> 00:01:16.685 basement of the skin
NOTE Confidence: 0.98885536

00:01:16.985 --> 00:01:19.245 develop mutations in their DNA,
NOTE Confidence: 0.98885536

00:01:19.385 --> 00:01:20.584 these are gonna get passed
NOTE Confidence: 0.98885536

00:01:20.584 --> 00:01:22.905 along as they're reproducing and
NOTE Confidence: 0.98885536

00:01:22.905 --> 00:01:24.285 repopulating the skin.
NOTE Confidence: 0.9753165

00:01:24.630 --> 00:01:26.630 More mutations will develop. That
NOTE Confidence: 0.9753165

00:01:26.630 --> 00:01:28.229 cell will then lose all
NOTE Confidence: 0.9753165

00:01:28.229 --> 00:01:30.069 of its control and continue
NOTE Confidence: 0.9753165

00:01:30.069 --> 00:01:31.670 to grow and destroy the
NOTE Confidence: 0.9753165

00:01:31.670 --> 00:01:33.430 surrounding tissue. And that is
NOTE Confidence: 0.9753165

00:01:33.430 --> 00:01:35.050 the definition of cancer.
NOTE Confidence: 0.98766273

00:01:40.575 --> 00:01:43.055 Skin cancer is typically categorized
NOTE Confidence: 0.98766273

00:01:43.055 --> 00:01:44.975 into non melanoma skin cancer
NOTE Confidence: 0.98766273

00:01:44.975 --> 00:01:46.275 as well as the melanoma.
NOTE Confidence: 0.9943499

00:01:46.655 --> 00:01:48.735 Non melanoma skin cancers are
NOTE Confidence: 0.9943499

00:01:48.735 --> 00:01:50.755 most commonly squamous cell carcinoma
NOTE Confidence: 0.9943499

00:01:51.055 --> 00:01:52.650 and basal cell carcinoma.

NOTE Confidence: 0.99383545

00:01:53.189 --> 00:01:55.189 Basal cell skin cancer tends

NOTE Confidence: 0.99383545

00:01:55.189 --> 00:01:56.250 to grow slowly.

NOTE Confidence: 0.97772545

00:01:56.790 --> 00:01:58.869 It is unlikely to spread

NOTE Confidence: 0.97772545

00:01:58.869 --> 00:02:00.549 or metastasize to other areas

NOTE Confidence: 0.97772545

00:02:00.549 --> 00:02:01.590 in the body. So that's

NOTE Confidence: 0.97772545

00:02:01.590 --> 00:02:03.189 good news. But it is

NOTE Confidence: 0.97772545

00:02:03.189 --> 00:02:04.815 very persistent in its growth.

NOTE Confidence: 0.97772545

00:02:04.895 --> 00:02:06.015 And so while it grows

NOTE Confidence: 0.97772545

00:02:06.015 --> 00:02:06.515 slowly,

NOTE Confidence: 0.9996338

00:02:06.895 --> 00:02:08.014 it can grow to a

NOTE Confidence: 0.9996338

00:02:08.014 --> 00:02:09.155 very large size

NOTE Confidence: 0.9938965

00:02:09.455 --> 00:02:11.055 and be very destructive to

NOTE Confidence: 0.9938965

00:02:11.055 --> 00:02:12.735 surrounding tissues over a period

NOTE Confidence: 0.9938965

00:02:12.735 --> 00:02:13.315 of years.

NOTE Confidence: 0.98836744

00:02:14.415 --> 00:02:16.255 Unlike basal cell, squamous cell

NOTE Confidence: 0.98836744

00:02:16.255 --> 00:02:18.415 skin cancer can spread outside
NOTE Confidence: 0.98836744

00:02:18.415 --> 00:02:20.409 of the skin and can
NOTE Confidence: 0.98836744

00:02:20.409 --> 00:02:21.310 cause metastasis
NOTE Confidence: 0.9992676

00:02:21.769 --> 00:02:23.549 and mortality for patients.
NOTE Confidence: 0.9741821

00:02:24.730 --> 00:02:26.730 Melanoma, while being much less
NOTE Confidence: 0.9741821

00:02:26.730 --> 00:02:27.230 common,
NOTE Confidence: 0.99609375

00:02:27.609 --> 00:02:29.049 is more concerning because it
NOTE Confidence: 0.99609375

00:02:29.049 --> 00:02:30.250 has a higher rate of
NOTE Confidence: 0.99609375

00:02:30.250 --> 00:02:30.750 spread.
NOTE Confidence: 0.98482424

00:02:31.129 --> 00:02:32.889 And melanoma, of course, has
NOTE Confidence: 0.98482424

00:02:32.889 --> 00:02:35.444 historically been a very lethal
NOTE Confidence: 0.98482424

00:02:35.504 --> 00:02:37.284 disease in the advanced stages.
NOTE Confidence: 0.98482424

00:02:37.504 --> 00:02:38.784 However, the good news, and
NOTE Confidence: 0.98482424

00:02:38.784 --> 00:02:40.564 I can't emphasize this enough,
NOTE Confidence: 0.9982422

00:02:41.105 --> 00:02:42.805 that the majority of melanomas
NOTE Confidence: 0.9995117

00:02:43.105 --> 00:02:43.924 are discovered

NOTE Confidence: 0.9793091
00:02:44.385 --> 00:02:46.224 at an early treatable stage,
NOTE Confidence: 0.9793091
00:02:46.224 --> 00:02:47.364 ninety six percent.
NOTE Confidence: 0.9903231
00:02:48.489 --> 00:02:50.410 Skin cancer can really look
NOTE Confidence: 0.9903231
00:02:50.410 --> 00:02:52.569 like many things and can
NOTE Confidence: 0.9903231
00:02:52.569 --> 00:02:53.069 mimic
NOTE Confidence: 0.9843038
00:02:53.370 --> 00:02:55.069 benign conditions of the skin.
NOTE Confidence: 0.9843038
00:02:55.129 --> 00:02:56.010 And so this is why
NOTE Confidence: 0.9843038
00:02:56.010 --> 00:02:57.450 it's really important to have
NOTE Confidence: 0.9843038
00:02:57.450 --> 00:02:59.610 your annual screening exam with
NOTE Confidence: 0.9843038
00:02:59.610 --> 00:03:01.069 a board certified dermatologist
NOTE Confidence: 0.9926369
00:03:01.895 --> 00:03:03.495 because their trained eye will
NOTE Confidence: 0.9926369
00:03:03.495 --> 00:03:04.615 be able to pick up
NOTE Confidence: 0.9926369
00:03:04.615 --> 00:03:05.815 what is, you know, a
NOTE Confidence: 0.9926369
00:03:05.815 --> 00:03:06.935 skin cancer that needs to
NOTE Confidence: 0.9926369
00:03:06.935 --> 00:03:07.595 be biopsied.
NOTE Confidence: 0.9658067

00:03:13.014 --> 00:03:15.000 So most skin cancers, especially
NOTE Confidence: 0.9658067

00:03:15.000 --> 00:03:16.200 basal cell and squamous cell
NOTE Confidence: 0.9658067

00:03:16.200 --> 00:03:17.980 skin cancer, can be cured
NOTE Confidence: 0.9658067

00:03:18.280 --> 00:03:19.580 with surgical removal.
NOTE Confidence: 0.9859755

00:03:20.200 --> 00:03:22.700 We have various surgical approaches
NOTE Confidence: 0.9859755

00:03:22.919 --> 00:03:24.220 to treat skin cancer,
NOTE Confidence: 0.9695963

00:03:24.520 --> 00:03:26.280 which include a standard excision
NOTE Confidence: 0.9695963

00:03:26.280 --> 00:03:27.639 where the skin cancer is
NOTE Confidence: 0.9695963

00:03:27.639 --> 00:03:29.260 removed, sent off to pathology.
NOTE Confidence: 0.99890137

00:03:30.195 --> 00:03:31.815 If it's a lesion
NOTE Confidence: 0.97350466

00:03:32.275 --> 00:03:33.794 on the body that has
NOTE Confidence: 0.97350466

00:03:33.794 --> 00:03:35.415 a pattern under the microscope
NOTE Confidence: 0.97350466

00:03:35.475 --> 00:03:36.775 or it has little roots,
NOTE Confidence: 0.97350466

00:03:36.835 --> 00:03:38.435 then the Mohs technique, which
NOTE Confidence: 0.97350466

00:03:38.435 --> 00:03:39.955 allows us to excise the
NOTE Confidence: 0.97350466

00:03:39.955 --> 00:03:41.715 tumor in the office and

NOTE Confidence: 0.97350466
00:03:41.715 --> 00:03:43.075 study it while the patient
NOTE Confidence: 0.97350466
00:03:43.075 --> 00:03:45.095 waits, is the preferred approach.
NOTE Confidence: 0.9745206
00:03:45.920 --> 00:03:48.480 It allows us to assess
NOTE Confidence: 0.9745206
00:03:48.480 --> 00:03:50.080 the margins better. The margins
NOTE Confidence: 0.9745206
00:03:50.080 --> 00:03:50.580 meaning
NOTE Confidence: 0.967513
00:03:50.880 --> 00:03:52.480 around the skin cancer as
NOTE Confidence: 0.967513
00:03:52.480 --> 00:03:53.440 well as the base of
NOTE Confidence: 0.967513
00:03:53.440 --> 00:03:55.140 it. We're able to visualize
NOTE Confidence: 0.97188526
00:03:55.440 --> 00:03:57.040 theoretically a hundred percent of
NOTE Confidence: 0.97188526
00:03:57.040 --> 00:03:58.400 the margins and be more
NOTE Confidence: 0.97188526
00:03:58.400 --> 00:04:00.045 confident that we had removed
NOTE Confidence: 0.97188526
00:04:00.045 --> 00:04:01.345 all the skin cancers.
NOTE Confidence: 0.98741317
00:04:01.805 --> 00:04:03.165 So most skin cancers will
NOTE Confidence: 0.98741317
00:04:03.165 --> 00:04:04.225 start in the epidermis,
NOTE Confidence: 0.9939453
00:04:04.605 --> 00:04:06.865 but once they become cancerous,
NOTE Confidence: 0.9939453

00:04:07.085 --> 00:04:09.265 they invade into deeper tissues.

NOTE Confidence: 0.9777832

00:04:09.805 --> 00:04:11.485 Mohs surgery allows us to

NOTE Confidence: 0.9777832

00:04:11.485 --> 00:04:13.165 be as precise as possible

NOTE Confidence: 0.9777832

00:04:13.165 --> 00:04:14.365 when we're doing this because

NOTE Confidence: 0.9777832

00:04:14.365 --> 00:04:15.540 we can track that tumor

NOTE Confidence: 0.9777832

00:04:15.620 --> 00:04:16.979 tumor under the microscope as

NOTE Confidence: 0.9777832

00:04:16.979 --> 00:04:18.339 we go. And it allows

NOTE Confidence: 0.9777832

00:04:18.339 --> 00:04:19.940 us to achieve that highest

NOTE Confidence: 0.9777832

00:04:19.940 --> 00:04:21.220 cure rate of making sure

NOTE Confidence: 0.9777832

00:04:21.220 --> 00:04:22.660 we're removing all of the

NOTE Confidence: 0.9777832

00:04:22.660 --> 00:04:23.960 tumor that we can detect,

NOTE Confidence: 0.9777832

00:04:24.180 --> 00:04:25.699 as well as preserving any

NOTE Confidence: 0.9777832

00:04:25.699 --> 00:04:27.560 normal tissues that are nearby

NOTE Confidence: 0.9777832

00:04:27.699 --> 00:04:29.220 and not removing anything more

NOTE Confidence: 0.9777832

00:04:29.220 --> 00:04:30.440 than what we need to.