WEBVTT

00:00:00.000 --> 00:00:02.316 When we talk about genetic testing,

00:00:02.320 --> 00:00:04.558 obviously that's pretty broad and there's

00:00:04.558 --> 00:00:07.198 lots of different areas of genetic testing,

00:00:07.200 --> 00:00:09.080 even if we're only talking

00:00:09.080 --> 00:00:10.584 about cancer genetic testing.

00:00:10.590 --> 00:00:13.227 So one of the things that often comes up

00:00:13.227 --> 00:00:15.850 now as different testing technologies.

00:00:15.850 --> 00:00:17.730 Both are becoming more common.

00:00:17.730 --> 00:00:20.480 Is this somatic versus germline?

00:00:20.480 --> 00:00:22.960 Germ line refers to the fact that there

00:00:22.960 --> 00:00:25.103 are certain genetic changes or mutations

00:00:25.103 --> 00:00:27.681 that are present from birth and present

00:00:27.681 --> 00:00:29.970 in almost every cell in our bodies,

00:00:29.970 --> 00:00:32.350 including the sperm and the egg cells,

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00:00:32.350 --> 00:00:34.716 which is what we call germ line.

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00:00:34.720 --> 00:00:36.886 So these are genetic mutations or

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00:00:36.886 --> 00:00:39.510 changes that can be passed from parent

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00:00:39.510 --> 00:00:42.086 to child and what we're looking for

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00:00:42.160 --> 00:00:44.617 in this case is to look at jeans that

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00:00:44.617 --> 00:00:46.792 we all have that normally provide our

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00:00:46.792 --> 00:00:48.477 bodies with some protection against

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00:00:48.477 --> 00:00:50.307 the development of certain cancers.

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00:00:50.310 --> 00:00:51.534 Tell our bodies how.

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00:00:51.534 --> 00:00:53.781 You know our sales should grow and

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00:00:53.781 --> 00:00:55.521 divide and the normal controlled

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00:00:55.521 --> 00:00:57.565 way overtime and what we're looking

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00:00:57.565 --> 00:00:59.623 for is to see did someone inherit

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00:00:59.623 --> 00:01:01.435 a change or misspelling a mutation

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00:01:01.435 --> 00:01:03.679 that's harmful in one of those jeans

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00:01:03.679 --> 00:01:05.689 that prevents it from providing that

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00:01:05.689 --> 00:01:07.610 protection and so that person would

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00:01:07.610 --> 00:01:09.398 be at increased risk for developing

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00:01:09.400 --> 00:01:10.980 certain cancers over their lifetime.

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00:01:10.980 --> 00:01:13.038 And so this testing is often done

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00:01:13.038 --> 00:01:15.080 with a blood or saliva sample.

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00:01:15.080 --> 00:01:17.608 It can be done on people that have

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00:01:17.608 --> 00:01:18.240 had cancer,

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00:01:18.240 --> 00:01:20.473 and people that have not had cancer

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00:01:20.473 --> 00:01:23.328 and so that is the majority of what we.

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00:01:23.330 --> 00:01:25.592 Work with and majority of what's

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00:01:25.592 --> 00:01:27.660 talked about in these videos.

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00:01:27.660 --> 00:01:29.904 Tumor testing now has become more

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00:01:29.904 --> 00:01:31.400 common to look at.

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00:01:31.400 --> 00:01:33.885 What is all of those genetic changes

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00:01:33.885 --> 00:01:36.444 that have gone into the tumor an

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00:01:36.444 --> 00:01:39.045 what's the kind of unique pattern are

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00:01:39.045 --> 00:01:41.427 distinct pattern of the genetic changes

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00:01:41.427 --> 00:01:44.490 in that tumor that may then make it

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00:01:44.490 --> 00:01:46.360 more responsive to certain treatments.

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00:01:46.360 --> 00:01:48.352 So we're mostly looking at those

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00:01:48.352 --> 00:01:50.475 changes that went into the cancer

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00:01:50.475 --> 00:01:52.290 developing that then maybe targetable

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00:01:52.290 --> 00:01:54.590 in terms of certain treatments,

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00:01:54.590 --> 00:01:56.798 or may tell us more about

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00:01:56.798 --> 00:01:58.750 prognosis at the same time.

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00:01:58.750 --> 00:02:00.270 Because those inherited or

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00:02:00.270 --> 00:02:02.170 germline changes are present in

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00:02:02.170 --> 00:02:03.898 virtually every cell in our body,

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00:02:03.900 --> 00:02:05.650 we oftentimes also detect those

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00:02:05.650 --> 00:02:07.400 in the tumor and sometimes

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00:02:07.468 --> 00:02:09.038 when they do this testing,

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00:02:09.040 --> 00:02:11.434 it's always on a sample of tumor.

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00:02:11.440 --> 00:02:13.848 But sometimes they also have blood or

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00:02:13.848 --> 00:02:15.936 saliva samples so they can compare

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00:02:15.936 --> 00:02:17.922 the two to what's inherited and

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00:02:17.922 --> 00:02:20.007 what just happened in the tumor.