

WEBVTT

NOTE duration: "00:04:16.213"

NOTE Confidence: 0.998727

00:00:04.640 --> 00:00:06.080 The endometrium are those cells

NOTE Confidence: 0.998727

00:00:06.080 --> 00:00:07.040 in the center of the

NOTE Confidence: 0.998727

00:00:07.040 --> 00:00:09.059 uterus that normally support pregnancy.

NOTE Confidence: 0.9991562

00:00:10.240 --> 00:00:12.080 They're there to receive an

NOTE Confidence: 0.9991562

00:00:12.080 --> 00:00:12.580 embryo

NOTE Confidence: 0.952652

00:00:12.960 --> 00:00:14.480 where the embryo will initially

NOTE Confidence: 0.952652

00:00:14.480 --> 00:00:15.620 grow within the uterus,

NOTE Confidence: 0.9874531

00:00:15.975 --> 00:00:17.175 And each month, they build

NOTE Confidence: 0.9874531

00:00:17.175 --> 00:00:18.215 up to a point where

NOTE Confidence: 0.9874531

00:00:18.215 --> 00:00:19.675 they can accommodate that embryo,

NOTE Confidence: 0.9874531

00:00:19.895 --> 00:00:21.015 and then they're shed with

NOTE Confidence: 0.9874531

00:00:21.015 --> 00:00:22.775 menses and regrown in every

NOTE Confidence: 0.9874531

00:00:22.775 --> 00:00:23.675 menstrual cycle.

NOTE Confidence: 0.9622611

00:00:24.375 --> 00:00:26.375 It's evolved to protect, support,

NOTE Confidence: 0.9622611

00:00:26.375 --> 00:00:27.994 and nourish that early embryo,
NOTE Confidence: 0.9997241

00:00:28.615 --> 00:00:30.135 so it is the basis
NOTE Confidence: 0.9997241

00:00:30.135 --> 00:00:30.955 for all pregnancy.
NOTE Confidence: 0.96472305

00:00:34.909 --> 00:00:36.590 Asherman syndrome is a condition
NOTE Confidence: 0.96472305

00:00:36.590 --> 00:00:37.950 where that lining of the
NOTE Confidence: 0.96472305

00:00:37.950 --> 00:00:40.030 uterus is scarred or very
NOTE Confidence: 0.96472305

00:00:40.030 --> 00:00:41.390 thin and won't grow to
NOTE Confidence: 0.96472305

00:00:41.390 --> 00:00:43.070 that nice lush environment that
NOTE Confidence: 0.96472305

00:00:43.070 --> 00:00:44.210 supports an embryo.
NOTE Confidence: 0.9824419

00:00:45.114 --> 00:00:46.315 The most common time to
NOTE Confidence: 0.9824419

00:00:46.315 --> 00:00:47.434 see it is after a
NOTE Confidence: 0.9824419

00:00:47.434 --> 00:00:48.954 pregnancy. The hormone levels are
NOTE Confidence: 0.9824419

00:00:48.954 --> 00:00:49.854 down from pregnancy,
NOTE Confidence: 0.9857478

00:00:50.234 --> 00:00:51.515 and maybe somebody has some
NOTE Confidence: 0.9857478

00:00:51.515 --> 00:00:52.734 bleeding after pregnancy.
NOTE Confidence: 0.99806935

00:00:53.754 --> 00:00:55.675 Some sort of inflammation or

NOTE Confidence: 0.99806935

00:00:55.675 --> 00:00:56.894 insult to the endometrium

NOTE Confidence: 0.9612117

00:00:57.195 --> 00:00:58.394 causes it to scar, and

NOTE Confidence: 0.9612117

00:00:58.394 --> 00:00:59.620 the walls of the uterus

NOTE Confidence: 0.9612117

00:00:59.620 --> 00:01:01.060 may even attach to one

NOTE Confidence: 0.9612117

00:01:01.060 --> 00:01:03.700 another that prevents that uterine

NOTE Confidence: 0.9612117

00:01:03.700 --> 00:01:05.720 lining, that endometrium from growing.

NOTE Confidence: 0.9746685

00:01:06.740 --> 00:01:08.660 The first sign that somebody

NOTE Confidence: 0.9746685

00:01:08.660 --> 00:01:10.180 may have Asherman syndrome is

NOTE Confidence: 0.9746685

00:01:10.180 --> 00:01:11.800 often that their period becomes

NOTE Confidence: 0.9746685

00:01:12.100 --> 00:01:14.145 either absent or very light.

NOTE Confidence: 0.9746685

00:01:14.145 --> 00:01:16.625 There's less endometrial lining, or

NOTE Confidence: 0.9746685

00:01:16.625 --> 00:01:17.825 sometimes it may be more

NOTE Confidence: 0.9746685

00:01:17.825 --> 00:01:19.105 subtle. They may continue to

NOTE Confidence: 0.9746685

00:01:19.105 --> 00:01:20.385 get bleeding at the time

NOTE Confidence: 0.9746685

00:01:20.385 --> 00:01:21.825 of their period, but the

NOTE Confidence: 0.9746685

00:01:21.825 --> 00:01:23.105 lining may just not be
NOTE Confidence: 0.9746685

00:01:23.105 --> 00:01:24.865 thick enough or appropriate enough
NOTE Confidence: 0.9746685

00:01:24.865 --> 00:01:26.145 to support a pregnancy. So
NOTE Confidence: 0.9746685

00:01:26.145 --> 00:01:27.285 we may have infertility
NOTE Confidence: 0.9145492

00:01:27.910 --> 00:01:29.430 as the first sign, or
NOTE Confidence: 0.9145492

00:01:29.430 --> 00:01:31.610 unfortunately miscarriage may be another,
NOTE Confidence: 0.9312148

00:01:31.990 --> 00:01:33.610 sign of an Asherman syndrome.
NOTE Confidence: 0.9736472

00:01:34.069 --> 00:01:35.910 And this is, just such
NOTE Confidence: 0.9736472

00:01:35.910 --> 00:01:36.890 a heart wrenching,
NOTE Confidence: 0.98991555

00:01:37.670 --> 00:01:39.190 condition when somebody can't get
NOTE Confidence: 0.98991555

00:01:39.190 --> 00:01:39.690 pregnant
NOTE Confidence: 0.94630367

00:01:40.150 --> 00:01:41.290 or is having
NOTE Confidence: 0.9321837

00:01:41.685 --> 00:01:43.625 miscarriages, often recurrent miscarriages,
NOTE Confidence: 0.9990768

00:01:44.165 --> 00:01:45.365 it's so important to be
NOTE Confidence: 0.9990768

00:01:45.365 --> 00:01:46.744 able to offer them some
NOTE Confidence: 0.9990768

00:01:46.805 --> 00:01:47.945 treatment and hope.

NOTE Confidence: 0.97639585
00:01:53.045 --> 00:01:54.564 The mainstay of treatments right
NOTE Confidence: 0.97639585
00:01:54.564 --> 00:01:55.545 now are surgical,
NOTE Confidence: 0.99069995
00:01:56.270 --> 00:01:57.310 and we have a clinical
NOTE Confidence: 0.99069995
00:01:57.310 --> 00:01:58.509 trial going on, the only
NOTE Confidence: 0.99069995
00:01:58.509 --> 00:01:59.869 one in the country that
NOTE Confidence: 0.99069995
00:01:59.869 --> 00:02:01.950 can potentially help patients when
NOTE Confidence: 0.99069995
00:02:01.950 --> 00:02:03.570 surgery hasn't been successful.
NOTE Confidence: 0.9592116
00:02:04.590 --> 00:02:06.110 To repair the Aschterman syndrome,
NOTE Confidence: 0.9592116
00:02:06.110 --> 00:02:07.229 of course, we wanna open
NOTE Confidence: 0.9592116
00:02:07.229 --> 00:02:08.989 up the uterine cavity, so
NOTE Confidence: 0.9592116
00:02:08.989 --> 00:02:10.034 we wanna take care of
NOTE Confidence: 0.9592116
00:02:10.034 --> 00:02:11.234 that scar tissue that may
NOTE Confidence: 0.9592116
00:02:11.234 --> 00:02:12.375 be holding it together.
NOTE Confidence: 0.9960554
00:02:12.754 --> 00:02:14.915 So this procedure involves a
NOTE Confidence: 0.9960554
00:02:14.915 --> 00:02:15.415 hysteroscopy
NOTE Confidence: 0.8574226

00:02:15.715 --> 00:02:16.594 where we're gonna go in
NOTE Confidence: 0.8574226

00:02:16.594 --> 00:02:17.954 with a little telescope, and
NOTE Confidence: 0.8574226

00:02:17.954 --> 00:02:18.454 we
NOTE Confidence: 0.98833185

00:02:19.234 --> 00:02:21.814 cut apart those scarring adhesions
NOTE Confidence: 0.98833185

00:02:21.875 --> 00:02:23.234 that hold the uterine cavity
NOTE Confidence: 0.98833185

00:02:23.234 --> 00:02:24.754 closed to remove the scar
NOTE Confidence: 0.98833185

00:02:24.754 --> 00:02:25.254 tissue.
NOTE Confidence: 0.99829775

00:02:25.690 --> 00:02:27.450 Just before the surgical procedure,
NOTE Confidence: 0.99829775

00:02:27.450 --> 00:02:28.190 we also
NOTE Confidence: 0.9987694

00:02:28.490 --> 00:02:29.370 give a shot of a
NOTE Confidence: 0.9987694

00:02:29.370 --> 00:02:30.750 medication that mobilizes
NOTE Confidence: 0.99931526

00:02:31.050 --> 00:02:31.790 stem cells.
NOTE Confidence: 0.9919552

00:02:33.130 --> 00:02:34.169 One of the ways which
NOTE Confidence: 0.9919552

00:02:34.169 --> 00:02:36.090 this uterine lining heals when
NOTE Confidence: 0.9919552

00:02:36.090 --> 00:02:38.169 it's severely damaged is by
NOTE Confidence: 0.9919552

00:02:38.169 --> 00:02:40.250 recruiting stem cells from other

NOTE Confidence: 0.9919552
00:02:40.250 --> 00:02:41.389 areas of the body.
NOTE Confidence: 0.99419385
00:02:41.985 --> 00:02:43.185 So stem cells are these
NOTE Confidence: 0.99419385
00:02:43.185 --> 00:02:43.685 undifferentiated
NOTE Confidence: 0.98900574
00:02:44.065 --> 00:02:45.665 cells that can travel to
NOTE Confidence: 0.98900574
00:02:45.665 --> 00:02:47.105 an organ and help repair
NOTE Confidence: 0.98900574
00:02:47.105 --> 00:02:48.245 and heal that organ.
NOTE Confidence: 0.99517226
00:02:50.145 --> 00:02:51.825 There aren't usually enough stem
NOTE Confidence: 0.99517226
00:02:51.825 --> 00:02:52.885 cells in the circulation
NOTE Confidence: 0.99977815
00:02:53.840 --> 00:02:54.500 to overcome
NOTE Confidence: 0.9887914
00:02:54.960 --> 00:02:56.400 a large injury to the
NOTE Confidence: 0.9887914
00:02:56.400 --> 00:02:56.900 uterus.
NOTE Confidence: 0.99696016
00:02:57.280 --> 00:02:59.120 So by simply administering a
NOTE Confidence: 0.99696016
00:02:59.120 --> 00:03:01.680 drug that mobilizes one's own
NOTE Confidence: 0.99696016
00:03:01.680 --> 00:03:02.500 stem cells
NOTE Confidence: 0.9668572
00:03:02.800 --> 00:03:04.160 into their blood, at the
NOTE Confidence: 0.9668572

00:03:04.160 --> 00:03:05.440 time we're doing a procedure
NOTE Confidence: 0.9668572

00:03:05.440 --> 00:03:07.540 to the uterus, they'll naturally
NOTE Confidence: 0.9668572

00:03:07.680 --> 00:03:10.014 home towards that area to
NOTE Confidence: 0.9668572

00:03:10.014 --> 00:03:11.775 help repair it and, allow
NOTE Confidence: 0.9668572

00:03:11.775 --> 00:03:13.794 that endometrial lining to grow.
NOTE Confidence: 0.97658706

00:03:18.655 --> 00:03:20.755 We have a really comprehensive
NOTE Confidence: 0.97658706

00:03:20.975 --> 00:03:22.720 approach to patients with infertility.
NOTE Confidence: 0.97658706

00:03:22.780 --> 00:03:23.660 Not only do we have
NOTE Confidence: 0.97658706

00:03:23.660 --> 00:03:25.340 a great IVF program, but
NOTE Confidence: 0.97658706

00:03:25.340 --> 00:03:26.959 we have people involved
NOTE Confidence: 0.99488145

00:03:27.739 --> 00:03:29.599 in research and clinical care
NOTE Confidence: 0.95813125

00:03:30.060 --> 00:03:31.980 covering the spectrum of special
NOTE Confidence: 0.95813125

00:03:31.980 --> 00:03:33.919 conditions that often lead to
NOTE Confidence: 0.95813125

00:03:33.980 --> 00:03:34.480 infertility.
NOTE Confidence: 0.940279

00:03:35.145 --> 00:03:36.605 We have within our infertility
NOTE Confidence: 0.9428479

00:03:36.905 --> 00:03:39.084 program people with surgical expertise

NOTE Confidence: 0.951438
00:03:39.465 --> 00:03:40.745 in treating this, which aren't
NOTE Confidence: 0.951438
00:03:40.745 --> 00:03:42.584 always coupled, that surgical expertise
NOTE Confidence: 0.951438
00:03:42.584 --> 00:03:44.285 within an infertility center.
NOTE Confidence: 0.9498535
00:03:44.985 --> 00:03:46.905 Plus, we have some active
NOTE Confidence: 0.9498535
00:03:46.905 --> 00:03:48.825 ongoing research to try and
NOTE Confidence: 0.9498535
00:03:48.825 --> 00:03:50.444 understand Asherman syndrome.
NOTE Confidence: 0.993387
00:03:51.700 --> 00:03:52.680 Twenty years ago,
NOTE Confidence: 0.9653689
00:03:53.060 --> 00:03:54.340 we here at Yale first
NOTE Confidence: 0.9653689
00:03:54.340 --> 00:03:55.780 describe the role of stem
NOTE Confidence: 0.9653689
00:03:55.780 --> 00:03:57.300 cells in the uterus, and
NOTE Confidence: 0.9653689
00:03:57.300 --> 00:03:58.580 it's so nice now twenty
NOTE Confidence: 0.9653689
00:03:58.580 --> 00:04:00.100 years later to finally bring
NOTE Confidence: 0.9653689
00:04:00.100 --> 00:04:01.300 this to the patient that
NOTE Confidence: 0.9653689
00:04:01.300 --> 00:04:03.620 that basic science discovery we
NOTE Confidence: 0.9653689
00:04:03.620 --> 00:04:04.600 made in the laboratory
NOTE Confidence: 0.9657168

00:04:04.975 --> 00:04:06.015 has come all the way

NOTE Confidence: 0.9657168

00:04:06.015 --> 00:04:08.015 to a actual practical approach

NOTE Confidence: 0.9657168

00:04:08.015 --> 00:04:09.295 where we're helping people because

NOTE Confidence: 0.9657168

00:04:09.295 --> 00:04:10.195 of that discovery.