

WEBVTT

NOTE duration: "00:03:52.661"

NOTE Confidence: 0.9853891

00:00:05.440 --> 00:00:07.520 The kidney's primary job is

NOTE Confidence: 0.9853891

00:00:07.520 --> 00:00:09.280 to filter the blood of

NOTE Confidence: 0.9853891

00:00:09.280 --> 00:00:11.059 excess waste, minerals,

NOTE Confidence: 0.9897461

00:00:11.599 --> 00:00:12.580 and fluid.

NOTE Confidence: 0.9682379

00:00:13.025 --> 00:00:14.625 So anything that you've consumed

NOTE Confidence: 0.9682379

00:00:14.625 --> 00:00:15.665 in excess that the body

NOTE Confidence: 0.9682379

00:00:15.665 --> 00:00:16.665 doesn't need or is trying

NOTE Confidence: 0.9682379

00:00:16.665 --> 00:00:17.505 to get rid of, the,

NOTE Confidence: 0.9682379

00:00:17.825 --> 00:00:19.364 kidneys will filter the blood,

NOTE Confidence: 0.9682379

00:00:19.425 --> 00:00:20.545 convert it into urine, and

NOTE Confidence: 0.9682379

00:00:20.545 --> 00:00:21.425 then pass it on to

NOTE Confidence: 0.9682379

00:00:21.425 --> 00:00:22.545 the urinary tract or the

NOTE Confidence: 0.9682379

00:00:22.545 --> 00:00:23.045 bladder.

NOTE Confidence: 0.9908635

00:00:24.224 --> 00:00:25.904 If the concentration or the

NOTE Confidence: 0.9908635

00:00:25.904 --> 00:00:27.744 amount of minerals relative to
NOTE Confidence: 0.9908635

00:00:27.744 --> 00:00:29.880 the fluid is high, then
NOTE Confidence: 0.9908635

00:00:29.880 --> 00:00:31.880 a crystallization of minerals can
NOTE Confidence: 0.9908635

00:00:31.880 --> 00:00:33.320 come together and form a
NOTE Confidence: 0.9908635

00:00:33.320 --> 00:00:33.820 stone.
NOTE Confidence: 0.98782784

00:00:34.680 --> 00:00:36.600 The classic kidney stone symptom
NOTE Confidence: 0.98782784

00:00:36.600 --> 00:00:38.600 is severe pain and that
NOTE Confidence: 0.98782784

00:00:38.600 --> 00:00:40.680 usually happens when a small
NOTE Confidence: 0.98782784

00:00:40.680 --> 00:00:42.275 enough kidney stone gets on
NOTE Confidence: 0.98782784

00:00:42.275 --> 00:00:43.515 the move and tries to
NOTE Confidence: 0.98782784

00:00:43.515 --> 00:00:44.954 pass. And as it's going
NOTE Confidence: 0.98782784

00:00:44.954 --> 00:00:46.155 down the ureter, which is
NOTE Confidence: 0.98782784

00:00:46.155 --> 00:00:47.915 the narrow tube that connects
NOTE Confidence: 0.98782784

00:00:47.915 --> 00:00:49.295 the kidney to the bladder,
NOTE Confidence: 0.98782784

00:00:49.594 --> 00:00:51.354 it can block the ureter
NOTE Confidence: 0.98782784

00:00:51.354 --> 00:00:52.315 almost like a cork in

NOTE Confidence: 0.98782784
00:00:52.315 --> 00:00:53.995 a bottle. And as the
NOTE Confidence: 0.98782784
00:00:53.995 --> 00:00:55.835 ureter becomes blocked, the urine
NOTE Confidence: 0.98782784
00:00:55.835 --> 00:00:57.114 being created by the kidney
NOTE Confidence: 0.98782784
00:00:57.114 --> 00:00:58.090 starts to back up into
NOTE Confidence: 0.98782784
00:00:58.090 --> 00:00:58.710 the kidney,
NOTE Confidence: 0.97624326
00:00:59.090 --> 00:01:00.530 balloon the kidney up, and
NOTE Confidence: 0.97624326
00:01:00.530 --> 00:01:01.890 stretch the capsule or the
NOTE Confidence: 0.97624326
00:01:01.890 --> 00:01:03.090 skin of the kidney, and
NOTE Confidence: 0.97624326
00:01:03.090 --> 00:01:03.970 that's where all the nerves
NOTE Confidence: 0.97624326
00:01:03.970 --> 00:01:05.569 are. And so with that
NOTE Confidence: 0.97624326
00:01:05.569 --> 00:01:06.069 stretching,
NOTE Confidence: 0.99029183
00:01:06.530 --> 00:01:08.130 you get really bad pain
NOTE Confidence: 0.99029183
00:01:08.130 --> 00:01:09.410 referred to as a colic,
NOTE Confidence: 0.99029183
00:01:09.410 --> 00:01:11.110 very similar to really severe
NOTE Confidence: 0.99029183
00:01:11.250 --> 00:01:12.069 gas pain.
NOTE Confidence: 0.99365234

00:01:13.515 --> 00:01:14.955 When a kidney is blocked
NOTE Confidence: 0.99365234

00:01:14.955 --> 00:01:16.555 by a kidney stone and
NOTE Confidence: 0.99365234

00:01:16.555 --> 00:01:17.834 the kidney starts to back
NOTE Confidence: 0.99365234

00:01:17.834 --> 00:01:18.735 up with urine,
NOTE Confidence: 0.9992676

00:01:19.194 --> 00:01:20.735 that kidney becomes congested.
NOTE Confidence: 0.98660654

00:01:21.515 --> 00:01:22.715 If the kidney's blocked for
NOTE Confidence: 0.98660654

00:01:22.715 --> 00:01:23.675 a long period of time
NOTE Confidence: 0.98660654

00:01:23.675 --> 00:01:24.715 with poor blood flow, it
NOTE Confidence: 0.98660654

00:01:24.715 --> 00:01:26.380 can deteriorate the kidney. And
NOTE Confidence: 0.98660654

00:01:26.380 --> 00:01:27.819 so even if someone is
NOTE Confidence: 0.98660654

00:01:27.819 --> 00:01:29.500 not having symptoms necessarily from
NOTE Confidence: 0.98660654

00:01:29.500 --> 00:01:30.860 a blocked kidney, we don't
NOTE Confidence: 0.98660654

00:01:30.860 --> 00:01:31.740 like to sit on that
NOTE Confidence: 0.98660654

00:01:31.740 --> 00:01:32.620 for too long. We'll give
NOTE Confidence: 0.98660654

00:01:32.620 --> 00:01:33.500 them a chance to try
NOTE Confidence: 0.98660654

00:01:33.500 --> 00:01:34.460 to pass the stone if

NOTE Confidence: 0.98660654
00:01:34.460 --> 00:01:35.120 it's practical.
NOTE Confidence: 0.951711
00:01:35.580 --> 00:01:37.020 However, at some point, we
NOTE Confidence: 0.951711
00:01:37.020 --> 00:01:38.140 need to unblock that kidney
NOTE Confidence: 0.951711
00:01:38.140 --> 00:01:39.500 because you could deteriorate the
NOTE Confidence: 0.951711
00:01:39.500 --> 00:01:40.860 kidney over time, and it'll
NOTE Confidence: 0.951711
00:01:40.860 --> 00:01:41.925 affect your kidney function.
NOTE Confidence: 0.9324079
00:01:47.125 --> 00:01:49.525 Most patient stones are treated
NOTE Confidence: 0.9324079
00:01:49.525 --> 00:01:50.585 via ureteroscopy.
NOTE Confidence: 0.9787744
00:01:51.685 --> 00:01:52.885 This is a procedure in
NOTE Confidence: 0.9787744
00:01:52.885 --> 00:01:54.485 which we would pass a
NOTE Confidence: 0.9787744
00:01:54.485 --> 00:01:56.790 very small flexible camera into
NOTE Confidence: 0.9787744
00:01:56.790 --> 00:01:58.229 the urinary tract, up the
NOTE Confidence: 0.9787744
00:01:58.229 --> 00:01:59.530 ureter, and into the kidney,
NOTE Confidence: 0.997406
00:01:59.909 --> 00:02:01.509 see the stone, visualize it,
NOTE Confidence: 0.997406
00:02:01.509 --> 00:02:02.729 break it with a laser,
NOTE Confidence: 0.997406

00:02:02.950 --> 00:02:04.869 and then recover the stone
NOTE Confidence: 0.997406

00:02:04.869 --> 00:02:05.369 fragments.
NOTE Confidence: 0.9982813

00:02:06.390 --> 00:02:07.930 The main benefit of ureteroscopy
NOTE Confidence: 0.9998372

00:02:08.615 --> 00:02:09.975 is that you have incredible
NOTE Confidence: 0.9998372

00:02:09.975 --> 00:02:10.475 flexibility
NOTE Confidence: 0.9579432

00:02:10.775 --> 00:02:12.375 to address stones in any
NOTE Confidence: 0.9579432

00:02:12.375 --> 00:02:13.815 region of the urinary tract.
NOTE Confidence: 0.9579432

00:02:13.815 --> 00:02:14.695 So all the way down
NOTE Confidence: 0.9579432

00:02:14.695 --> 00:02:15.735 low in the ureter close
NOTE Confidence: 0.9579432

00:02:15.735 --> 00:02:17.495 to the bladder, higher up
NOTE Confidence: 0.9579432

00:02:17.495 --> 00:02:19.175 in the kidney throughout multiple
NOTE Confidence: 0.9579432

00:02:19.175 --> 00:02:20.235 spots in the kidney.
NOTE Confidence: 0.9891089

00:02:20.870 --> 00:02:22.389 Under a single anesthesia, they
NOTE Confidence: 0.9891089

00:02:22.389 --> 00:02:23.270 can have all of their
NOTE Confidence: 0.9891089

00:02:23.270 --> 00:02:25.030 stones treated. They're less likely
NOTE Confidence: 0.9891089

00:02:25.030 --> 00:02:26.470 to need multiple procedures to

NOTE Confidence: 0.9891089

00:02:26.470 --> 00:02:27.990 get them out. It's less

NOTE Confidence: 0.9891089

00:02:27.990 --> 00:02:29.590 invasive in that we're not

NOTE Confidence: 0.9891089

00:02:29.590 --> 00:02:31.350 making an incision into the

NOTE Confidence: 0.9891089

00:02:31.350 --> 00:02:32.389 body to get to the

NOTE Confidence: 0.9891089

00:02:32.389 --> 00:02:32.889 stones.

NOTE Confidence: 0.9930827

00:02:34.385 --> 00:02:35.845 It is generally an outpatient

NOTE Confidence: 0.9930827

00:02:35.905 --> 00:02:36.405 procedure.

NOTE Confidence: 0.9775662

00:02:36.785 --> 00:02:38.545 People are back to normal

NOTE Confidence: 0.9775662

00:02:38.545 --> 00:02:40.065 activities within a couple days

NOTE Confidence: 0.9775662

00:02:40.065 --> 00:02:41.665 and fully recovered usually about

NOTE Confidence: 0.9775662

00:02:41.665 --> 00:02:42.565 a week afterwards.

NOTE Confidence: 0.9981106

00:02:44.625 --> 00:02:45.505 One of the things I'm

NOTE Confidence: 0.9981106

00:02:45.505 --> 00:02:46.625 most proud about here at

NOTE Confidence: 0.9981106

00:02:46.625 --> 00:02:48.000 Yale is being on the

NOTE Confidence: 0.9981106

00:02:48.000 --> 00:02:50.340 cutting edge of surgical interventions

NOTE Confidence: 0.9981106

00:02:50.400 --> 00:02:51.460 for kidney stones.
NOTE Confidence: 0.9980469
00:02:51.919 --> 00:02:52.820 We offer
NOTE Confidence: 0.9972941
00:02:53.440 --> 00:02:54.980 the whole host of operations
NOTE Confidence: 0.9972941
00:02:55.040 --> 00:02:57.200 and procedures available to treating
NOTE Confidence: 0.9972941
00:02:57.200 --> 00:02:58.100 kidney stones.
NOTE Confidence: 0.97840166
00:02:58.400 --> 00:02:59.780 Within the realm of ureteroscopy,
NOTE Confidence: 0.98136395
00:03:00.395 --> 00:03:02.014 we've adopted aspiration
NOTE Confidence: 0.9829799
00:03:02.395 --> 00:03:03.835 sheets, which are almost like
NOTE Confidence: 0.9829799
00:03:03.835 --> 00:03:05.195 a Dyson vacuum cleaner that
NOTE Confidence: 0.9829799
00:03:05.195 --> 00:03:06.395 we can maneuver throughout the
NOTE Confidence: 0.9829799
00:03:06.395 --> 00:03:08.155 kidney, break up the stones,
NOTE Confidence: 0.9829799
00:03:08.155 --> 00:03:09.514 and suck out the pieces
NOTE Confidence: 0.9829799
00:03:09.514 --> 00:03:10.415 and the dust,
NOTE Confidence: 0.98764646
00:03:10.875 --> 00:03:12.175 which is the best predictor
NOTE Confidence: 0.98764646
00:03:12.235 --> 00:03:14.210 of preventing a stone event
NOTE Confidence: 0.98764646
00:03:14.210 --> 00:03:15.570 in the future, getting every

NOTE Confidence: 0.98764646

00:03:15.570 --> 00:03:17.110 single morsel of stone out.

NOTE Confidence: 0.9721442

00:03:17.490 --> 00:03:19.090 It also has allowed us

NOTE Confidence: 0.9721442

00:03:19.090 --> 00:03:21.889 to tackle larger stones that

NOTE Confidence: 0.9721442

00:03:21.889 --> 00:03:23.410 previously had to be addressed

NOTE Confidence: 0.9721442

00:03:23.410 --> 00:03:24.530 through an incision in the

NOTE Confidence: 0.9721442

00:03:24.530 --> 00:03:25.910 back of percutaneous nephrolithotomy.

NOTE Confidence: 0.9697044

00:03:26.925 --> 00:03:28.224 Now we can go in,

NOTE Confidence: 0.9697044

00:03:28.364 --> 00:03:29.245 dust them up with a

NOTE Confidence: 0.9697044

00:03:29.245 --> 00:03:30.525 high power laser, suck out

NOTE Confidence: 0.9697044

00:03:30.525 --> 00:03:31.885 all the pieces, and convert

NOTE Confidence: 0.9697044

00:03:31.885 --> 00:03:33.165 it to an outpatient procedure

NOTE Confidence: 0.9697044

00:03:33.165 --> 00:03:34.685 with a much easier recovery

NOTE Confidence: 0.9697044

00:03:34.685 --> 00:03:35.505 for the patient.

NOTE Confidence: 0.99748886

00:03:37.165 --> 00:03:38.605 So we've really been able

NOTE Confidence: 0.99748886

00:03:38.605 --> 00:03:39.345 to miniaturize

NOTE Confidence: 0.9908353

00:03:39.805 --> 00:03:41.665 and minimize the amount of

NOTE Confidence: 0.9908353

00:03:41.940 --> 00:03:44.020 morbidity and pain and recovery

NOTE Confidence: 0.9908353

00:03:44.020 --> 00:03:45.319 period for patients

NOTE Confidence: 0.9954834

00:03:45.620 --> 00:03:47.160 requiring kidney stone surgery.