

WEBVTT

NOTE duration: "00:03:33.717"

NOTE Confidence: 0.96589357

00:00:12.719 --> 00:00:14.160 The red blood cells carry

NOTE Confidence: 0.96589357

00:00:14.160 --> 00:00:15.700 the oxygen to the tissue.

NOTE Confidence: 0.9886581

00:00:16.185 --> 00:00:17.704 And as they unload, they

NOTE Confidence: 0.9886581

00:00:17.704 --> 00:00:19.064 have to go and just

NOTE Confidence: 0.9886581

00:00:19.064 --> 00:00:20.685 reload and come back, reload

NOTE Confidence: 0.9886581

00:00:20.744 --> 00:00:22.824 and come back. However, if

NOTE Confidence: 0.9886581

00:00:22.824 --> 00:00:23.945 the number of the red

NOTE Confidence: 0.9886581

00:00:23.945 --> 00:00:25.945 blood cells are scarce or

NOTE Confidence: 0.9886581

00:00:25.945 --> 00:00:26.985 low, then it would be

NOTE Confidence: 0.9886581

00:00:26.985 --> 00:00:28.664 an anemia. Then the demand

NOTE Confidence: 0.9886581

00:00:28.664 --> 00:00:30.265 of oxygen might not be

NOTE Confidence: 0.9886581

00:00:30.265 --> 00:00:30.765 met.

NOTE Confidence: 0.9950053

00:00:31.400 --> 00:00:33.159 In the fetal life, that

NOTE Confidence: 0.9950053

00:00:33.159 --> 00:00:35.000 oxygenation happens at the level

NOTE Confidence: 0.9950053

00:00:35.000 --> 00:00:35.740 of placenta.
NOTE Confidence: 0.9953206

00:00:44.615 --> 00:00:46.695 The fetal anemia can be
NOTE Confidence: 0.9953206

00:00:46.695 --> 00:00:49.015 caused by multiple reasons. If
NOTE Confidence: 0.9953206

00:00:49.015 --> 00:00:49.835 there is
NOTE Confidence: 0.9946289

00:00:50.295 --> 00:00:51.034 an incompatibility
NOTE Confidence: 0.9736328

00:00:52.135 --> 00:00:55.015 between the pregnant person's blood
NOTE Confidence: 0.9736328

00:00:55.015 --> 00:00:57.035 type and the fetuses
NOTE Confidence: 0.70532227

00:00:57.495 --> 00:00:58.170 blood type,
NOTE Confidence: 0.9941406

00:00:58.649 --> 00:00:59.149 inevitably
NOTE Confidence: 0.99106854

00:00:59.929 --> 00:01:01.949 would lead to an immune
NOTE Confidence: 0.99106854

00:01:02.170 --> 00:01:04.090 response to develop within the
NOTE Confidence: 0.99106854

00:01:04.090 --> 00:01:04.990 pregnant person.
NOTE Confidence: 0.9973958

00:01:05.610 --> 00:01:06.750 And those antibodies
NOTE Confidence: 0.9636167

00:01:07.290 --> 00:01:09.310 are able to be transferred
NOTE Confidence: 0.9636167

00:01:09.369 --> 00:01:11.209 through the placenta to go
NOTE Confidence: 0.9636167

00:01:11.209 --> 00:01:12.030 to the fetus

NOTE Confidence: 0.96191406
00:01:12.330 --> 00:01:14.555 and destroy those red blood
NOTE Confidence: 0.99902344
00:01:15.055 --> 00:01:15.555 cells.
NOTE Confidence: 0.9942627
00:01:16.055 --> 00:01:17.274 In order to compensate
NOTE Confidence: 0.9989258
00:01:17.735 --> 00:01:19.435 for the need of oxygen,
NOTE Confidence: 0.9970703
00:01:19.895 --> 00:01:21.834 the fetal heart starts working
NOTE Confidence: 1
00:01:22.215 --> 00:01:22.715 faster
NOTE Confidence: 0.9477539
00:01:23.015 --> 00:01:23.834 and harder.
NOTE Confidence: 0.97743446
00:01:24.375 --> 00:01:25.655 And at some point, the
NOTE Confidence: 0.97743446
00:01:25.655 --> 00:01:28.020 heart would get tired, then
NOTE Confidence: 0.97743446
00:01:28.020 --> 00:01:29.319 it would not pump
NOTE Confidence: 0.93736976
00:01:29.700 --> 00:01:31.060 and the blood would back
NOTE Confidence: 0.93736976
00:01:31.060 --> 00:01:32.580 up, then that would be
NOTE Confidence: 0.93736976
00:01:32.580 --> 00:01:34.680 just before a fetal demise.
NOTE Confidence: 0.8709961
00:01:43.605 --> 00:01:45.145 In the past, the diagnosis
NOTE Confidence: 0.984375
00:01:45.444 --> 00:01:46.665 was done invasively.
NOTE Confidence: 0.977521

00:01:47.445 --> 00:01:49.605 However, Yale showed that we

NOTE Confidence: 0.977521

00:01:49.605 --> 00:01:51.445 could predict the level of

NOTE Confidence: 0.977521

00:01:51.445 --> 00:01:53.045 anemia through the speed of

NOTE Confidence: 0.977521

00:01:53.045 --> 00:01:54.165 the blood in the brain,

NOTE Confidence: 0.977521

00:01:54.165 --> 00:01:56.104 which is called middle cerebral

NOTE Confidence: 0.977521

00:01:56.245 --> 00:01:57.305 artery Doppler.

NOTE Confidence: 0.9638977

00:01:57.720 --> 00:01:59.640 And today, we monitor our

NOTE Confidence: 0.9638977

00:01:59.640 --> 00:02:01.100 patients with that.

NOTE Confidence: 0.91064453

00:02:04.760 --> 00:02:05.800 If we see that the

NOTE Confidence: 0.91064453

00:02:05.800 --> 00:02:07.260 anemia is in the

NOTE Confidence: 0.98791504

00:02:07.640 --> 00:02:08.860 severe range,

NOTE Confidence: 0.9967448

00:02:09.160 --> 00:02:10.380 then we can

NOTE Confidence: 0.98301864

00:02:10.760 --> 00:02:11.980 do blood transfusion.

NOTE Confidence: 0.9848801

00:02:12.865 --> 00:02:14.544 If we suspect anemia very

NOTE Confidence: 0.9848801

00:02:14.544 --> 00:02:16.465 early in pregnancy, we can

NOTE Confidence: 0.9848801

00:02:16.465 --> 00:02:18.165 give the blood into the

NOTE Confidence: 0.9848801
00:02:18.465 --> 00:02:20.325 abdominal cavity of the baby,
NOTE Confidence: 0.9848801
00:02:20.385 --> 00:02:22.705 where it gets slowly absorbed
NOTE Confidence: 0.9848801
00:02:22.705 --> 00:02:24.085 into the fetal system.
NOTE Confidence: 0.96562266
00:02:24.544 --> 00:02:26.870 However, later, about after sixteen,
NOTE Confidence: 0.96562266
00:02:26.870 --> 00:02:28.389 seventeen weeks, the size of
NOTE Confidence: 0.96562266
00:02:28.389 --> 00:02:30.150 the cord gets large enough
NOTE Confidence: 0.96562266
00:02:30.150 --> 00:02:31.669 that we can insert a
NOTE Confidence: 0.96562266
00:02:31.669 --> 00:02:32.169 needle
NOTE Confidence: 0.88151044
00:02:33.110 --> 00:02:34.489 reliably and repeatedly,
NOTE Confidence: 0.9807129
00:02:34.870 --> 00:02:37.430 and, sample and deliver the
NOTE Confidence: 0.9807129
00:02:37.430 --> 00:02:39.110 blood as much as it
NOTE Confidence: 0.9807129
00:02:39.110 --> 00:02:39.770 is needed.
NOTE Confidence: 0.9926758
00:02:40.775 --> 00:02:42.715 After birth, the anemia
NOTE Confidence: 0.9934082
00:02:43.175 --> 00:02:44.395 generally resolves.
NOTE Confidence: 0.9178874
00:02:48.455 --> 00:02:50.795 What we believe, and I
NOTE Confidence: 0.9178874

00:02:51.095 --> 00:02:51.595 practice,
NOTE Confidence: 0.9998779
00:02:51.895 --> 00:02:53.835 is the human touch.
NOTE Confidence: 1
00:02:54.560 --> 00:02:55.860 We do not
NOTE Confidence: 0.9888509
00:02:56.160 --> 00:02:58.580 leave our patients alone. We
NOTE Confidence: 0.9888509
00:02:58.720 --> 00:02:59.220 spend
NOTE Confidence: 0.9923828
00:02:59.919 --> 00:03:01.680 time and effort to be
NOTE Confidence: 0.9923828
00:03:01.680 --> 00:03:03.940 with them throughout their journey.
NOTE Confidence: 0.998291
00:03:04.639 --> 00:03:06.340 These procedures are available
NOTE Confidence: 0.98291016
00:03:06.880 --> 00:03:07.700 through multiple
NOTE Confidence: 0.74438477
00:03:08.160 --> 00:03:08.660 centers,
NOTE Confidence: 0.994812
00:03:08.985 --> 00:03:10.924 But what is really different
NOTE Confidence: 0.994812
00:03:10.985 --> 00:03:12.044 is the personal
NOTE Confidence: 0.9281006
00:03:12.424 --> 00:03:14.185 touch being next to the
NOTE Confidence: 0.9281006
00:03:14.185 --> 00:03:14.685 patient,
NOTE Confidence: 0.99658203
00:03:15.065 --> 00:03:16.985 being with them through the
NOTE Confidence: 0.99658203
00:03:16.985 --> 00:03:17.485 diagnosis

NOTE Confidence: 0.9245827

00:03:18.105 --> 00:03:19.965 and through the prenatal care

NOTE Confidence: 0.9245827

00:03:20.105 --> 00:03:21.544 and the delivery and the

NOTE Confidence: 0.9245827

00:03:21.544 --> 00:03:22.044 transitions.

NOTE Confidence: 0.99018556

00:03:23.510 --> 00:03:25.210 Treatment is the easiest part.

NOTE Confidence: 0.96968585

00:03:25.669 --> 00:03:27.190 The feeling that they are

NOTE Confidence: 0.96968585

00:03:27.190 --> 00:03:28.470 not alone is the most

NOTE Confidence: 0.96968585

00:03:28.470 --> 00:03:29.530 important thing.