

WEBVTT

NOTE duration: "00:06:26.944"

NOTE Confidence: 0.9407345

00:00:01.040 --> 00:00:03.300 Welcome to Yale emergency ultrasound

NOTE Confidence: 0.9407345

00:00:03.520 --> 00:00:05.440 nerve block series. Today, we're

NOTE Confidence: 0.9407345

00:00:05.440 --> 00:00:06.480 going to be talking about

NOTE Confidence: 0.9407345

00:00:06.480 --> 00:00:08.740 fascia ileaca and pain blocks.

NOTE Confidence: 0.97734785

00:00:10.559 --> 00:00:12.080 Because both of these blocks

NOTE Confidence: 0.97734785

00:00:12.080 --> 00:00:13.974 are large falling blocks, we

NOTE Confidence: 0.97734785

00:00:13.974 --> 00:00:15.974 recommend about thirty to forty

NOTE Confidence: 0.97734785

00:00:15.974 --> 00:00:19.015 cc total of anesthetic and

NOTE Confidence: 0.97734785

00:00:19.015 --> 00:00:20.314 normal saline together.

NOTE Confidence: 0.96456283

00:00:21.255 --> 00:00:22.535 As far as your choice

NOTE Confidence: 0.96456283

00:00:22.535 --> 00:00:24.715 of anesthetics, we recommend ropivacate

NOTE Confidence: 0.96456283

00:00:24.935 --> 00:00:25.595 or bupivacate

NOTE Confidence: 0.98166984

00:00:25.974 --> 00:00:27.675 for longer lasting effects

NOTE Confidence: 0.9920634

00:00:28.070 --> 00:00:30.490 and consulting your pharmacist regarding

NOTE Confidence: 0.9920634

00:00:30.550 --> 00:00:31.210 the dose  
NOTE Confidence: 0.9777735

00:00:31.510 --> 00:00:32.810 as well as the concentration.  
NOTE Confidence: 0.97303075

00:00:34.310 --> 00:00:35.590 Now, let's talk about the  
NOTE Confidence: 0.97303075

00:00:35.590 --> 00:00:37.450 indications for these two blocks.  
NOTE Confidence: 0.9748515

00:00:37.830 --> 00:00:40.729 Fascia iliaca block provides anesthesia  
NOTE Confidence: 0.9748515

00:00:41.030 --> 00:00:42.409 to the regions above.  
NOTE Confidence: 0.99458325

00:00:43.425 --> 00:00:44.945 So it's used for low  
NOTE Confidence: 0.99458325

00:00:44.945 --> 00:00:46.805 force mechanism hip fracture  
NOTE Confidence: 0.9478597

00:00:47.185 --> 00:00:48.465 as well as mid shaft  
NOTE Confidence: 0.9478597

00:00:48.465 --> 00:00:49.365 femur fracture.  
NOTE Confidence: 0.97964877

00:00:50.145 --> 00:00:51.185 As far as the pain  
NOTE Confidence: 0.97964877

00:00:51.185 --> 00:00:53.125 block, it will help with  
NOTE Confidence: 0.97964877

00:00:53.265 --> 00:00:53.765 intratracheatic  
NOTE Confidence: 0.9842526

00:00:54.545 --> 00:00:55.045 fracture,  
NOTE Confidence: 0.69698614

00:00:55.745 --> 00:00:56.245 acrotabular  
NOTE Confidence: 0.99371856

00:00:56.705 --> 00:00:57.205 fracture,

NOTE Confidence: 0.8477082  
00:00:57.750 --> 00:00:59.050 pubic merrimae fracture,  
NOTE Confidence: 0.9488303  
00:00:59.429 --> 00:01:00.730 as well as hip dislocations.  
NOTE Confidence: 0.9423457  
00:01:03.190 --> 00:01:04.229 Now let's look at the  
NOTE Confidence: 0.9423457  
00:01:04.229 --> 00:01:04.729 anatomy.  
NOTE Confidence: 0.99011946  
00:01:05.030 --> 00:01:06.470 This is the right lower  
NOTE Confidence: 0.99011946  
00:01:06.470 --> 00:01:06.970 extremity.  
NOTE Confidence: 0.979356  
00:01:07.909 --> 00:01:09.590 If you look, you can  
NOTE Confidence: 0.979356  
00:01:09.590 --> 00:01:10.490 see navel  
NOTE Confidence: 0.88072664  
00:01:11.015 --> 00:01:12.315 from femoral nerve,  
NOTE Confidence: 0.99637866  
00:01:12.854 --> 00:01:13.354 artery,  
NOTE Confidence: 0.9462943  
00:01:13.735 --> 00:01:15.115 vein, and lymphatics.  
NOTE Confidence: 0.92662066  
00:01:16.055 --> 00:01:17.354 On top of the screen,  
NOTE Confidence: 0.92662066  
00:01:17.415 --> 00:01:18.955 you can see fascia latae.  
NOTE Confidence: 0.97157973  
00:01:19.575 --> 00:01:21.194 If you follow along down,  
NOTE Confidence: 0.9743805  
00:01:21.575 --> 00:01:23.354 you can see fascia iliaca.  
NOTE Confidence: 0.97219133

00:01:24.470 --> 00:01:26.170 And right below the fascia  
NOTE Confidence: 0.97219133

00:01:26.229 --> 00:01:26.729 iliaca  
NOTE Confidence: 0.9420368

00:01:27.110 --> 00:01:28.390 is where you will dump  
NOTE Confidence: 0.9420368

00:01:28.390 --> 00:01:29.369 all the anesthetics.  
NOTE Confidence: 0.91936326

00:01:31.189 --> 00:01:32.630 So now let's review the  
NOTE Confidence: 0.91936326

00:01:32.630 --> 00:01:34.229 anatomy on a real live  
NOTE Confidence: 0.91936326

00:01:34.229 --> 00:01:34.729 model.  
NOTE Confidence: 0.93399084

00:01:36.244 --> 00:01:37.365 You'll want to use the  
NOTE Confidence: 0.93399084

00:01:37.365 --> 00:01:39.524 linear probe in nerve block  
NOTE Confidence: 0.93399084

00:01:39.524 --> 00:01:40.024 settings  
NOTE Confidence: 0.9549255

00:01:41.045 --> 00:01:42.645 Position your probe as if  
NOTE Confidence: 0.9549255

00:01:42.645 --> 00:01:44.024 you were doing a femoral  
NOTE Confidence: 0.9549255

00:01:44.084 --> 00:01:45.064 central line  
NOTE Confidence: 0.9522695

00:01:46.084 --> 00:01:47.445 Slide the probe a little  
NOTE Confidence: 0.9522695

00:01:47.445 --> 00:01:47.945 laterally  
NOTE Confidence: 0.9168287

00:01:48.325 --> 00:01:49.625 that way you can identify

NOTE Confidence: 0.9168287  
00:01:49.685 --> 00:01:50.985 the femoral artery  
NOTE Confidence: 0.9390317  
00:01:51.970 --> 00:01:54.070 Follow along even more lateral,  
NOTE Confidence: 0.94765186  
00:01:54.850 --> 00:01:56.450 and here, you can see  
NOTE Confidence: 0.94765186  
00:01:56.450 --> 00:01:57.590 your fascia lata.  
NOTE Confidence: 0.99395263  
00:02:00.290 --> 00:02:01.110 Right underneath,  
NOTE Confidence: 0.99071527  
00:02:01.650 --> 00:02:03.190 you can see the fascia  
NOTE Confidence: 0.99071527  
00:02:03.330 --> 00:02:03.830 iliaca.  
NOTE Confidence: 0.9884757  
00:02:05.295 --> 00:02:06.915 Going through the fascial layers,  
NOTE Confidence: 0.9884757  
00:02:07.055 --> 00:02:07.955 you should feel  
NOTE Confidence: 0.934084  
00:02:08.415 --> 00:02:10.575 two pops from fascia lata  
NOTE Confidence: 0.934084  
00:02:10.575 --> 00:02:11.875 and fascia iliaca.  
NOTE Confidence: 0.94074136  
00:02:13.695 --> 00:02:14.975 And of course, last but  
NOTE Confidence: 0.94074136  
00:02:14.975 --> 00:02:16.995 not least, here's your iliopsoas  
NOTE Confidence: 0.9969449  
00:02:17.294 --> 00:02:17.794 muscle.  
NOTE Confidence: 0.9903878  
00:02:18.480 --> 00:02:19.600 So now that you're ready  
NOTE Confidence: 0.9903878

00:02:19.600 --> 00:02:21.040 to block your patient, let's  
NOTE Confidence: 0.9903878

00:02:21.040 --> 00:02:22.260 talk about the steps.  
NOTE Confidence: 0.9683616

00:02:22.720 --> 00:02:23.540 Step one,  
NOTE Confidence: 0.9966956

00:02:23.840 --> 00:02:24.980 prep for the block.  
NOTE Confidence: 0.98439807

00:02:25.520 --> 00:02:26.639 First, of course, you will  
NOTE Confidence: 0.98439807

00:02:26.639 --> 00:02:28.000 need to get consent from  
NOTE Confidence: 0.98439807

00:02:28.000 --> 00:02:28.660 your patient.  
NOTE Confidence: 0.96689516

00:02:29.600 --> 00:02:30.720 Put the patient on the  
NOTE Confidence: 0.96689516

00:02:30.720 --> 00:02:31.220 monitor.  
NOTE Confidence: 0.9926365

00:02:31.855 --> 00:02:34.035 Finding your resources, which includes  
NOTE Confidence: 0.9926365

00:02:34.255 --> 00:02:35.955 grabbing the nerve block kit  
NOTE Confidence: 0.9926365

00:02:36.014 --> 00:02:37.855 outside of a sixteen, extra  
NOTE Confidence: 0.9926365

00:02:37.855 --> 00:02:38.975 hands that can help you  
NOTE Confidence: 0.9926365

00:02:38.975 --> 00:02:39.955 push the anesthetics,  
NOTE Confidence: 0.96832025

00:02:40.495 --> 00:02:41.935 and, of course, discussing with  
NOTE Confidence: 0.96832025

00:02:41.935 --> 00:02:42.595 your pharmacists.

NOTE Confidence: 0.98793215

00:02:44.070 --> 00:02:45.530 Step two, identify

NOTE Confidence: 0.9703496

00:02:45.990 --> 00:02:47.669 the landmark and anatomy on

NOTE Confidence: 0.9703496

00:02:47.669 --> 00:02:49.350 your patient. Don't forget to

NOTE Confidence: 0.9703496

00:02:49.350 --> 00:02:50.630 use about one to two

NOTE Confidence: 0.9703496

00:02:50.630 --> 00:02:52.389 cc of lidocaine to make

NOTE Confidence: 0.9703496

00:02:52.389 --> 00:02:54.550 a wheel, then stabilize your

NOTE Confidence: 0.9703496

00:02:54.550 --> 00:02:56.230 non dominant hand that's holding

NOTE Confidence: 0.9703496

00:02:56.230 --> 00:02:57.530 the ultrasound probe.

NOTE Confidence: 0.9672926

00:02:58.185 --> 00:02:59.305 And when you're ready, you're

NOTE Confidence: 0.9672926

00:02:59.305 --> 00:03:00.525 going to poke the patient.

NOTE Confidence: 0.9721185

00:03:00.905 --> 00:03:02.665 Then you'll poke and pop

NOTE Confidence: 0.9721185

00:03:02.665 --> 00:03:04.525 through fascia latae and fascia

NOTE Confidence: 0.9721185

00:03:04.585 --> 00:03:06.505 ileaca. Once you've popped through

NOTE Confidence: 0.9721185

00:03:06.505 --> 00:03:07.885 your fascia ileaca,

NOTE Confidence: 0.9833719

00:03:08.425 --> 00:03:09.465 make sure to have your

NOTE Confidence: 0.9833719

00:03:09.465 --> 00:03:11.145 assistant give you about one  
NOTE Confidence: 0.9833719

00:03:11.145 --> 00:03:12.765 to two cc to hydro  
NOTE Confidence: 0.9833719

00:03:12.825 --> 00:03:15.200 dissect. You'll switch to anesthetics  
NOTE Confidence: 0.9954497

00:03:15.500 --> 00:03:16.560 once you're ready  
NOTE Confidence: 0.90994734

00:03:16.940 --> 00:03:17.840 and inject  
NOTE Confidence: 0.9905851

00:03:18.380 --> 00:03:19.680 four to five cc  
NOTE Confidence: 0.9909986

00:03:20.300 --> 00:03:22.160 every thirty seconds or so.  
NOTE Confidence: 0.92104757

00:03:23.260 --> 00:03:24.540 Make sure to check-in with  
NOTE Confidence: 0.92104757

00:03:24.540 --> 00:03:26.139 your patients for signs and  
NOTE Confidence: 0.92104757

00:03:26.139 --> 00:03:27.440 symptoms of the test.  
NOTE Confidence: 0.9798603

00:03:28.535 --> 00:03:29.815 Wow. You've made it this  
NOTE Confidence: 0.9798603

00:03:29.815 --> 00:03:31.335 far. Now let's talk about  
NOTE Confidence: 0.9798603

00:03:31.335 --> 00:03:32.235 the PING block.  
NOTE Confidence: 0.7000567

00:03:32.695 --> 00:03:33.195 Pericapsular  
NOTE Confidence: 0.97226876

00:03:33.575 --> 00:03:35.015 nerve root, also known as  
NOTE Confidence: 0.97226876

00:03:35.015 --> 00:03:35.515 PING,

NOTE Confidence: 0.9941404  
00:03:36.215 --> 00:03:37.975 provides anesthesia to the hip  
NOTE Confidence: 0.9941404  
00:03:37.975 --> 00:03:39.815 joint without affecting the motor  
NOTE Confidence: 0.9941404  
00:03:39.815 --> 00:03:40.795 function of quadriceps  
NOTE Confidence: 0.89651996  
00:03:41.095 --> 00:03:43.190 muscle or altering the sensory  
NOTE Confidence: 0.89651996  
00:03:43.190 --> 00:03:43.690 exam.  
NOTE Confidence: 0.988433  
00:03:44.390 --> 00:03:45.670 Now let's talk about some  
NOTE Confidence: 0.988433  
00:03:45.670 --> 00:03:47.270 of the anatomy and your  
NOTE Confidence: 0.988433  
00:03:47.270 --> 00:03:48.170 probe of choice.  
NOTE Confidence: 0.99673116  
00:03:48.790 --> 00:03:50.170 You're going to be using  
NOTE Confidence: 0.99673116  
00:03:50.390 --> 00:03:51.610 curvilinear probe  
NOTE Confidence: 0.9836687  
00:03:51.989 --> 00:03:53.030 as this will be a  
NOTE Confidence: 0.9836687  
00:03:53.030 --> 00:03:54.010 deeper block,  
NOTE Confidence: 0.9894169  
00:03:54.325 --> 00:03:55.364 and you're going to be  
NOTE Confidence: 0.9894169  
00:03:55.364 --> 00:03:56.564 coming in at a very  
NOTE Confidence: 0.9894169  
00:03:56.564 --> 00:03:57.844 steep angle that you may  
NOTE Confidence: 0.9894169

00:03:57.844 --> 00:03:59.224 not be familiar with.  
NOTE Confidence: 0.9919621

00:03:59.924 --> 00:04:01.545 Using your curvilinear probe,  
NOTE Confidence: 0.91404235

00:04:02.004 --> 00:04:03.444 find your femoral vein and  
NOTE Confidence: 0.91404235

00:04:03.444 --> 00:04:04.424 femoral artery.  
NOTE Confidence: 0.9902931

00:04:04.965 --> 00:04:06.405 From there, you're going to  
NOTE Confidence: 0.9902931

00:04:06.405 --> 00:04:08.200 move up and laterally,  
NOTE Confidence: 0.9944969

00:04:09.140 --> 00:04:11.380 finding your iliacus muscle and  
NOTE Confidence: 0.9944969

00:04:11.380 --> 00:04:12.520 your psoas tendon.  
NOTE Confidence: 0.9345312

00:04:13.220 --> 00:04:14.900 Your goal is to aim  
NOTE Confidence: 0.9345312

00:04:14.900 --> 00:04:16.980 tighter dissect behind the psoas  
NOTE Confidence: 0.9345312

00:04:16.980 --> 00:04:17.480 tendon  
NOTE Confidence: 0.97884387

00:04:17.940 --> 00:04:20.100 with tactile sensation of hitting  
NOTE Confidence: 0.97884387

00:04:20.100 --> 00:04:20.839 the ilium.  
NOTE Confidence: 0.9797334

00:04:21.895 --> 00:04:23.574 Once you're there, make sure  
NOTE Confidence: 0.9797334

00:04:23.574 --> 00:04:24.854 you ask your assistant to  
NOTE Confidence: 0.9797334

00:04:24.854 --> 00:04:26.214 give about one to two

NOTE Confidence: 0.9797334  
00:04:26.214 --> 00:04:28.615 cc of normal saline to  
NOTE Confidence: 0.9797334  
00:04:28.615 --> 00:04:29.115 hydrodissect.  
NOTE Confidence: 0.9885949  
00:04:29.975 --> 00:04:31.014 And when you see the  
NOTE Confidence: 0.9885949  
00:04:31.014 --> 00:04:33.035 iliacus muscle lift up  
NOTE Confidence: 0.99266356  
00:04:33.415 --> 00:04:35.175 from the bone, that's how  
NOTE Confidence: 0.99266356  
00:04:35.175 --> 00:04:36.475 you know you have separated  
NOTE Confidence: 0.99266356  
00:04:36.535 --> 00:04:37.115 the plane.  
NOTE Confidence: 0.9771216  
00:04:37.540 --> 00:04:38.820 At this time, you may  
NOTE Confidence: 0.9771216  
00:04:38.820 --> 00:04:40.020 now switch over to your  
NOTE Confidence: 0.9771216  
00:04:40.020 --> 00:04:40.520 anesthetics  
NOTE Confidence: 0.96629333  
00:04:42.260 --> 00:04:43.300 And now let's look at  
NOTE Confidence: 0.96629333  
00:04:43.300 --> 00:04:44.520 it on a real model  
NOTE Confidence: 0.94541097  
00:04:44.900 --> 00:04:46.180 Here we can see your  
NOTE Confidence: 0.94541097  
00:04:46.180 --> 00:04:47.940 femoral vein and femoral artery  
NOTE Confidence: 0.94541097  
00:04:47.940 --> 00:04:48.680 in the center  
NOTE Confidence: 0.9944281

00:04:49.300 --> 00:04:50.260 At the bottom of the  
NOTE Confidence: 0.9944281

00:04:50.260 --> 00:04:50.760 screen  
NOTE Confidence: 0.94188964

00:04:51.220 --> 00:04:52.260 What you're seeing is the  
NOTE Confidence: 0.94188964

00:04:52.260 --> 00:04:53.240 femoral head  
NOTE Confidence: 0.99868834

00:04:53.595 --> 00:04:55.195 Once you see this, you  
NOTE Confidence: 0.99868834

00:04:55.195 --> 00:04:55.935 can move  
NOTE Confidence: 0.9953904

00:04:56.235 --> 00:04:57.695 cranially and laterally.  
NOTE Confidence: 0.792994

00:04:59.035 --> 00:05:00.555 As we move the probe  
NOTE Confidence: 0.792994

00:05:00.555 --> 00:05:01.775 lateral and cranially,  
NOTE Confidence: 0.9979383

00:05:02.235 --> 00:05:03.675 you can identify some of  
NOTE Confidence: 0.9979383

00:05:03.675 --> 00:05:05.295 the muscles and other structures.  
NOTE Confidence: 0.993028

00:05:05.759 --> 00:05:07.520 On screen left, you can  
NOTE Confidence: 0.993028

00:05:07.520 --> 00:05:09.300 see the iliacus muscle.  
NOTE Confidence: 0.96917266

00:05:10.080 --> 00:05:11.620 You will also see psoas  
NOTE Confidence: 0.96917266

00:05:11.680 --> 00:05:13.520 tendon coming into view, which  
NOTE Confidence: 0.96917266

00:05:13.520 --> 00:05:14.879 looks like a circle above

NOTE Confidence: 0.96917266  
00:05:14.879 --> 00:05:15.620 the bone.  
NOTE Confidence: 0.99850446  
00:05:16.080 --> 00:05:18.080 Your psoas tendon sits on  
NOTE Confidence: 0.99850446  
00:05:18.080 --> 00:05:19.139 top of iliopsoas  
NOTE Confidence: 0.9670694  
00:05:19.520 --> 00:05:20.020 notch,  
NOTE Confidence: 0.9990244  
00:05:20.474 --> 00:05:22.175 which sits in between your  
NOTE Confidence: 0.96811664  
00:05:22.634 --> 00:05:23.134 AIIS  
NOTE Confidence: 0.99718094  
00:05:23.435 --> 00:05:24.254 and iliopsoas  
NOTE Confidence: 0.8548061  
00:05:24.714 --> 00:05:25.214 eminence.  
NOTE Confidence: 0.99620044  
00:05:26.714 --> 00:05:27.914 Now you're ready to block  
NOTE Confidence: 0.99620044  
00:05:27.914 --> 00:05:28.574 the patient.  
NOTE Confidence: 0.990489  
00:05:29.435 --> 00:05:31.375 Step one, prep the patient.  
NOTE Confidence: 0.96180314  
00:05:32.850 --> 00:05:34.370 Make sure you flush and  
NOTE Confidence: 0.96180314  
00:05:34.370 --> 00:05:36.210 prep your needle. That way,  
NOTE Confidence: 0.96180314  
00:05:36.210 --> 00:05:37.889 you don't inject air into  
NOTE Confidence: 0.96180314  
00:05:37.889 --> 00:05:39.910 the muscle and obstructive views.  
NOTE Confidence: 0.99914634

00:05:40.529 --> 00:05:41.350 Step two,  
NOTE Confidence: 0.951561

00:05:41.810 --> 00:05:43.350 identify the anatomy,  
NOTE Confidence: 0.94854885

00:05:44.130 --> 00:05:45.910 make a wheel, and stabilize  
NOTE Confidence: 0.94854885

00:05:46.050 --> 00:05:46.790 your nondominant  
NOTE Confidence: 0.9991405

00:05:47.250 --> 00:05:47.750 hand.  
NOTE Confidence: 0.99214506

00:05:48.324 --> 00:05:49.065 Step three,  
NOTE Confidence: 0.9993773

00:05:49.444 --> 00:05:49.944 poke  
NOTE Confidence: 0.8618831

00:05:50.485 --> 00:05:51.705 and hydro dissect.  
NOTE Confidence: 0.99323606

00:05:52.164 --> 00:05:53.224 Ask your assistant  
NOTE Confidence: 0.9777768

00:05:53.764 --> 00:05:55.284 to inject one to two  
NOTE Confidence: 0.9777768

00:05:55.284 --> 00:05:56.985 cc of normal saline.  
NOTE Confidence: 0.99093115

00:05:57.365 --> 00:05:58.745 And then when you're ready,  
NOTE Confidence: 0.99093115

00:05:58.884 --> 00:06:00.245 make sure to switch to  
NOTE Confidence: 0.99093115

00:06:00.245 --> 00:06:02.504 your anesthetics and give incremental  
NOTE Confidence: 0.99093115

00:06:02.565 --> 00:06:03.065 injection.  
NOTE Confidence: 0.97562927

00:06:03.589 --> 00:06:04.790 Don't forget to check-in with

NOTE Confidence: 0.97562927

00:06:04.790 --> 00:06:06.310 your patients for signs and

NOTE Confidence: 0.97562927

00:06:06.310 --> 00:06:07.450 symptoms of LAST.

NOTE Confidence: 0.9639195

00:06:12.230 --> 00:06:14.089 For more information on LAST,

NOTE Confidence: 0.9639195

00:06:14.150 --> 00:06:15.529 please review the material

NOTE Confidence: 0.9141464

00:06:15.830 --> 00:06:17.190 sent at the beginning of

NOTE Confidence: 0.9141464

00:06:17.190 --> 00:06:18.410 the nerve block series.

NOTE Confidence: 0.94878054

00:06:18.798 --> 00:06:20.958 We also recommend downloading safe

NOTE Confidence: 0.94878054

00:06:20.958 --> 00:06:21.458 local

NOTE Confidence: 0.92941564

00:06:21.759 --> 00:06:23.279 and MD Calc for safe

NOTE Confidence: 0.92941564

00:06:23.279 --> 00:06:25.119 and appropriate dosage for your

NOTE Confidence: 0.92941564

00:06:25.119 --> 00:06:25.619 patient.