WEBVTT

NOTE duration:"00:25:20"

NOTE recognizability:0.932

NOTE language:en-us

NOTE Confidence: 0.93010205

00:00:11.100 --> 00:00:12.768 we're going to demonstrate a joint

NOTE Confidence: 0.93010205

00:00:12.768 --> 00:00:14.460 examination in a couple of minutes.

NOTE Confidence: 0.93010205

00:00:14.460 --> 00:00:15.500 But before we do that,

NOTE Confidence: 0.93010205

00:00:15.500 --> 00:00:17.614 I want to emphasize a couple of

NOTE Confidence: 0.93010205

00:00:17.614 --> 00:00:19.397 points that are important as

NOTE Confidence: 0.93010205

00:00:19.397 --> 00:00:21.417 you examine a patient's joints.

NOTE Confidence: 0.93010205

00:00:21.420 --> 00:00:23.180 The patient should be undressed

NOTE Confidence: 0.93010205

00:00:23.180 --> 00:00:24.940 and in an examining gown.

NOTE Confidence: 0.93010205

00:00:24.940 --> 00:00:26.700 The upper extremity should be

NOTE Confidence: 0.93010205

00:00:26.700 --> 00:00:28.460 examined with the patient seated,

NOTE Confidence: 0.93010205

00:00:28.460 --> 00:00:30.440 the lower extremities examined

NOTE Confidence: 0.93010205

00:00:30.440 --> 00:00:32.420 with the patient supine.

NOTE Confidence: 0.93010205

00:00:32.420 --> 00:00:34.178 It's important to know the anatomy

NOTE Confidence: 0.93010205

00:00:34.178 --> 00:00:35.780 of the joint capsule itself,

NOTE Confidence: 0.93010205

00:00:35.780 --> 00:00:37.940 as well as surrounding Bursa.

NOTE Confidence: 0.93010205

00:00:37.940 --> 00:00:39.518 It's also important to know the

NOTE Confidence: 0.93010205

00:00:39.518 --> 00:00:41.419 range of motion of certain joints,

NOTE Confidence: 0.93010205

00:00:41.420 --> 00:00:42.920 particularly the wrists,

NOTE Confidence: 0.93010205

00:00:42.920 --> 00:00:44.420 the glenohumeral joint,

NOTE Confidence: 0.93010205

00:00:44.420 --> 00:00:45.584 and the hips.

NOTE Confidence: 0.93010205

00:00:45.584 --> 00:00:47.524 You can't diagnose tendonitis if

NOTE Confidence: 0.93010205

00:00:47.524 --> 00:00:50.419 you don't know the active range of

NOTE Confidence: 0.93010205

00:00:50.419 --> 00:00:52.464 motion via affected tendon because

NOTE Confidence: 0.93010205

00:00:52.536 --> 00:00:54.864 you make the diagnosis by resisting

NOTE Confidence: 0.93010205

00:00:54.864 --> 00:00:56.826 that active range of motion.

NOTE Confidence: 0.93010205

00:00:56.826 --> 00:00:58.856 So you're diagnosed rotator cuff,

NOTE Confidence: 0.93010205

00:00:58.860 --> 00:01:00.471 tendonitis, bicipital tendonitis,

NOTE Confidence: 0.93010205

00:01:00.471 --> 00:01:04.850 and the flexors and extensors of the wrists.

NOTE Confidence: 0.93010205

00:01:04.850 --> 00:01:06.945 Also recognize that the pattern

NOTE Confidence: 0.93010205

00:01:06.945 --> 00:01:09.513 of joint involvement can be very

NOTE Confidence: 0.93010205

00:01:09.513 --> 00:01:11.889 helpful in the diagnosis you make.

NOTE Confidence: 0.93010205

00:01:11.890 --> 00:01:12.826 So generalize,

NOTE Confidence: 0.93010205

00:01:12.826 --> 00:01:15.166 Osteoarthritis affects the DI P's,

NOTE Confidence: 0.93010205

00:01:15.170 --> 00:01:16.175 the Pi P's,

NOTE Confidence: 0.93010205

00:01:16.175 --> 00:01:18.263 the first carpal metacarpal joint, hip,

NOTE Confidence: 0.93010205

00:01:18.263 --> 00:01:20.328 knee, and tarsal metatarsal joints.

NOTE Confidence: 0.93010205

00:01:20.330 --> 00:01:21.905 Rheumatoid arthritis affects

NOTE Confidence: 0.93010205

00:01:21.905 --> 00:01:24.530 virtually every joint in the

NOTE Confidence: 0.93010205

00:01:24.530 --> 00:01:27.546 body except the DIP of the hand,

NOTE Confidence: 0.93010205

00:01:27.546 --> 00:01:30.030 the common joints to look at,

NOTE Confidence: 0.93010205

00:01:30.030 --> 00:01:31.430 of the metacarpal fluential joints,

NOTE Confidence: 0.93010205

00:01:31.430 --> 00:01:33.411 and the Pi P's and the wrists

NOTE Confidence: 0.93010205

00:01:33.411 --> 00:01:34.710 and every other joint.

NOTE Confidence: 0.93010205

00:01:34.710 --> 00:01:36.830 Psoriatic arthritis has a

NOTE Confidence: 0.93010205

00:01:36.830 --> 00:01:38.950 predilection for certain joints.

NOTE Confidence: 0.93010205

00:01:38.950 --> 00:01:40.650 It commonly affects the DIP

NOTE Confidence: 0.93010205

00:01:40.650 --> 00:01:42.839 joints of the hands and the

NOTE Confidence: 0.93010205

00:01:42.839 --> 00:01:44.949 interfluential joints of the toes,

NOTE Confidence: 0.93010205

00:01:44.950 --> 00:01:48.387 but can also affect any other joint.

NOTE Confidence: 0.93010205

00:01:48.390 --> 00:01:50.833 So we'd like to talk today about

NOTE Confidence: 0.93010205

00:01:50.833 --> 00:01:52.790 a screening joint examination.

NOTE Confidence: 0.93010205

00:01:52.790 --> 00:01:55.025 When you're evaluating a patient

NOTE Confidence: 0.93010205

00:01:55.025 --> 00:01:56.813 with a musculoskeletal problem,

NOTE Confidence: 0.93010205

00:01:56.820 --> 00:01:59.144 the gold standard for the diagnosis is

NOTE Confidence: 0.93010205

00:01:59.144 --> 00:02:01.936 not the MRI and not a laboratory test.

NOTE Confidence: 0.93010205

00:02:01.940 --> 00:02:04.340 It's the finding on physical exam.

NOTE Confidence: 0.93010205

00:02:04.340 --> 00:02:06.020 After you've done the physical exam,

NOTE Confidence: 0.93010205

00:02:06.020 --> 00:02:08.126 the exam may lead you to

NOTE Confidence: 0.93010205

00:02:08.126 --> 00:02:09.179 certain diagnostic tests,

NOTE Confidence: 0.93010205

00:02:09.180 --> 00:02:11.735 but the key is the physical exam.

NOTE Confidence: 0.93010205

00:02:11.740 --> 00:02:13.420 So as we examine joints,

NOTE Confidence: 0.93010205

00:02:13.420 --> 00:02:15.100 we're interested in several things.

NOTE Confidence: 0.93010205

00:02:15.100 --> 00:02:17.214 We want to know whether there's any

NOTE Confidence: 0.93010205

00:02:17.214 --> 00:02:18.810 joint swelling and whether that

NOTE Confidence: 0.93010205

00:02:18.810 --> 00:02:20.700 swelling is Bony or soft tissue.

NOTE Confidence: 0.93010205

00:02:20.700 --> 00:02:22.668 We want to know whether there's

NOTE Confidence: 0.93010205

00:02:22.668 --> 00:02:24.400 any malalignment of the joint.

NOTE Confidence: 0.93010205

00:02:24.400 --> 00:02:26.493 We want to know the range of

NOTE Confidence: 0.93010205

00:02:26.493 --> 00:02:27.920 motion of certain joints,

NOTE Confidence: 0.93010205

00:02:27.920 --> 00:02:29.750 particularly the wrists,

NOTE Confidence: 0.93010205

00:02:29.750 --> 00:02:32.800 the shoulder and the hip.

NOTE Confidence: 0.93010205

00:02:32.800 --> 00:02:34.864 And we also want to know

NOTE Confidence: 0.93010205

00:02:34.864 --> 00:02:36.240 which joints are involved,

NOTE Confidence: 0.93010205

00:02:36.240 --> 00:02:38.520 because the pattern of joint involvement

NOTE Confidence: 0.93010205

00:02:38.520 --> 00:02:41.360 gives us a very strong clue about

NOTE Confidence: 0.93010205

00:02:41.360 --> 00:02:43.440 what diagnosis the patient has.

NOTE Confidence: 0.93010205

00:02:43.440 --> 00:02:46.344 So we start with the patient

NOTE Confidence: 0.93010205

00:02:46.344 --> 00:02:48.920 sitting facing you to do the upper

NOTE Confidence: 0.93010205

00:02:48.920 --> 00:02:50.320 extremities and we start with

NOTE Confidence: 0.93010205

00:02:50.320 --> 00:02:52.389 a distal interphalingeal joint.

NOTE Confidence: 0.93010205

00:02:52.390 --> 00:02:52.647 Well,

NOTE Confidence: 0.93010205

00:02:52.647 --> 00:02:54.703 we'd look to see if there's any swelling,

NOTE Confidence: 0.93010205

00:02:54.710 --> 00:02:57.326 if the soft tissue swelling of

NOTE Confidence: 0.93010205

00:02:57.326 --> 00:02:59.070 the distal interferential joint.

NOTE Confidence: 0.93010205

00:02:59.070 --> 00:03:02.226 The leading diagnosis is psoriatic arthritis.

NOTE Confidence: 0.93010205

00:03:02.230 --> 00:03:04.670 For reasons unknown to anyone,

NOTE Confidence: 0.93010205

00:03:04.670 --> 00:03:07.470 that joint is frequently involved

NOTE Confidence: 0.93010205

00:03:07.470 --> 00:03:09.150 in psoriatic arthritis.

NOTE Confidence: 0.93010205

00:03:09.150 --> 00:03:11.502 The most common disease to affect

NOTE Confidence: 0.93010205

00:03:11.502 --> 00:03:13.070 the distal interferential joint,

NOTE Confidence: 0.93010205

00:03:13.070 --> 00:03:15.510 however is generalized osteoarthritis.

NOTE Confidence: 0.93010205

00:03:15.510 --> 00:03:17.950 Osteoarthritis is a disease

NOTE Confidence: 0.93010205

00:03:17.950 --> 00:03:20.030 of articular cartilage.

NOTE Confidence: 0.93010205

00:03:20.030 --> 00:03:22.328 So when you have cartilage loss,

NOTE Confidence: 0.93010205

00:03:22.330 --> 00:03:25.300 you have asymmetry and medial or

NOTE Confidence: 0.93010205

00:03:25.300 --> 00:03:27.890 lateral deviation of the joint.

NOTE Confidence: 0.93010205

00:03:27.890 --> 00:03:30.210 So if there's generalized osteoarthritis,

NOTE Confidence: 0.94397664

00:03:30.210 --> 00:03:32.316 you're going to get what's called

NOTE Confidence: 0.94397664

00:03:32.316 --> 00:03:34.141 Bony enlargement because of the

NOTE Confidence: 0.94397664

00:03:34.141 --> 00:03:35.926 osteophytes and you'll have medial

NOTE Confidence: 0.94397664

00:03:35.926 --> 00:03:38.050 or lateral deviation of the joints.

NOTE Confidence: 0.94397664

00:03:38.050 --> 00:03:40.094 So the distal interphalangeal

NOTE Confidence: 0.94397664

00:03:40.094 --> 00:03:42.138 joint thinks psoriatic arthritis

NOTE Confidence: 0.94397664

00:03:42.138 --> 00:03:44.210 and generalized osteoarthritis.

NOTE Confidence: 0.94397664

00:03:44.210 --> 00:03:46.884 Gout of course can affect any joint.

NOTE Confidence: 0.94397664

00:03:46.890 --> 00:03:49.062 Proximal interphalential joint is

NOTE Confidence: 0.94397664

00:03:49.062 --> 00:03:51.777 involved in both inflammatory arthritis,

NOTE Confidence: 0.94397664

00:03:51.780 --> 00:03:54.099 particularly rheumatoid arthritis

NOTE Confidence: 0.94397664

00:03:54.099 --> 00:03:56.418 and generalized osteoarthritis.

NOTE Confidence: 0.94397664

00:03:56.420 --> 00:03:58.044 So with generalized osteoarthritis,

NOTE Confidence: 0.94397664

00:03:58.044 --> 00:04:00.480 again you're going to see Bony

NOTE Confidence: 0.94397664

00:04:00.548 --> 00:04:02.108 enlargement and medial or

NOTE Confidence: 0.94397664

00:04:02.108 --> 00:04:04.058 lateral deviation of the joint.

NOTE Confidence: 0.94397664

00:04:04.060 --> 00:04:05.818 With inflammatory arthritis,

NOTE Confidence: 0.94397664

00:04:05.818 --> 00:04:07.576 particularly rheumatoid arthritis,

NOTE Confidence: 0.94397664

00:04:07.580 --> 00:04:10.124 you're going to see what we call fusiform

NOTE Confidence: 0.94397664

00:04:10.124 --> 00:04:12.069 swelling that is most of the swelling

NOTE Confidence: 0.94397664

00:04:12.069 --> 00:04:14.436 at the joint and in a tapering both

NOTE Confidence: 0.94397664

00:04:14.436 --> 00:04:16.560 proximately and distantly to the joint.

NOTE Confidence: 0.94397664

00:04:16.560 --> 00:04:18.132 Now the proximal interferential

NOTE Confidence: 0.94397664

00:04:18.132 --> 00:04:20.922 joint is the site of several common

NOTE Confidence: 0.94397664

00:04:20.922 --> 00:04:23.442 Mal alignments that we used to see

NOTE Confidence: 0.94397664

00:04:23.442 --> 00:04:25.680 very commonly in rheumatoid disease.

NOTE Confidence: 0.94397664

00:04:25.680 --> 00:04:27.888 Now that we have medications that

NOTE Confidence: 0.94397664

00:04:27.888 --> 00:04:29.960 can affect the Natural History,

NOTE Confidence: 0.94397664

00:04:29.960 --> 00:04:31.478 we don't see it as often,

NOTE Confidence: 0.94397664

00:04:31.480 --> 00:04:33.734 but the two most common ones are

NOTE Confidence: 0.94397664

00:04:33.734 --> 00:04:36.119 what's called a boutineer deformity.

NOTE Confidence: 0.94397664

00:04:36.120 --> 00:04:38.592 And with a boutineer deformity you

NOTE Confidence: 0.94397664

00:04:38.592 --> 00:04:41.140 have hyperflexion of the PIP joint

NOTE Confidence: 0.94397664

00:04:41.140 --> 00:04:43.840 and hyperextension of the DIP joint.

NOTE Confidence: 0.94397664

00:04:43.840 --> 00:04:47.496 And the the deformity occurs because of

NOTE Confidence: 0.94397664

00:04:47.496 --> 00:04:51.000 chronic constant swelling of the PIP joint.

NOTE Confidence: 0.94397664

00:04:51.000 --> 00:04:52.938 There is the tendon that goes

NOTE Confidence: 0.94397664

00:04:52.938 --> 00:04:55.039 over the dorsum of the finger,

NOTE Confidence: 0.94397664

00:04:55.040 --> 00:04:56.960 has a medial slip in it,

NOTE Confidence: 0.94397664

00:04:56.960 --> 00:04:59.560 there's a medial and lateral component to it.

NOTE Confidence: 0.94397664

00:04:59.560 --> 00:05:02.440 So with persistent swelling,

NOTE Confidence: 0.94397664

00:05:02.440 --> 00:05:05.421 the that tendon opens up and slips medial

NOTE Confidence: 0.94397664

00:05:05.421 --> 00:05:08.245 and laterally to the joint and you get

NOTE Confidence: 0.94397664

00:05:08.245 --> 00:05:10.040 a buttonhole or boutonniere deformity.

NOTE Confidence: 0.94397664

00:05:10.040 --> 00:05:12.270 The other common deformity that

NOTE Confidence: 0.94397664

00:05:12.270 --> 00:05:14.054 affects patients with longstanding

NOTE Confidence: 0.94397664

00:05:14.054 --> 00:05:15.670 rheumatoid arthritis is what's

NOTE Confidence: 0.94397664

00:05:15.670 --> 00:05:17.515 called the swan neck deformity.

NOTE Confidence: 0.94397664

00:05:17.520 --> 00:05:20.112 And the swan neck deformity gives

NOTE Confidence: 0.94397664

00:05:20.112 --> 00:05:22.296 you hyperextension of the PIP

NOTE Confidence: 0.94397664

00:05:22.296 --> 00:05:24.515 and hyperflexion of the DIP.

NOTE Confidence: 0.94397664

00:05:24.515 --> 00:05:27.280 That is not due to disease of

NOTE Confidence: 0.94397664

00:05:27.280 --> 00:05:29.760 the PIP or the DIP.

NOTE Confidence: 0.94397664

00:05:29.760 --> 00:05:32.880 It's due to swelling and inflammation

NOTE Confidence: 0.94397664

00:05:32.984 --> 00:05:35.512 of the metacarpal phalangeal

NOTE Confidence: 0.94397664

00:05:35.512 --> 00:05:39.120 joints with shortening of the the

NOTE Confidence: 0.94397664

00:05:39.120 --> 00:05:41.320 extensor tendon and the socalled

NOTE Confidence: 0.9229076

00:05:43.670 --> 00:05:46.388 shortening and telescoping of that tendon,

NOTE Confidence: 0.9229076

00:05:46.390 --> 00:05:49.750 which gives you the swan neck deformity.

NOTE Confidence: 0.9229076

00:05:49.750 --> 00:05:52.280 The joints that are most

NOTE Confidence: 0.9229076

00:05:52.280 --> 00:05:54.416 helpful in diagnosing rheumatic

NOTE Confidence: 0.9229076

00:05:54.416 --> 00:05:56.584 disease are the metacarpal,

NOTE Confidence: 0.9229076

00:05:56.590 --> 00:05:59.070 phalangeal joints or the knuckles.

NOTE Confidence: 0.9229076

00:05:59.070 --> 00:06:01.625 Normally there should be an

NOTE Confidence: 0.9229076

00:06:01.625 --> 00:06:03.669 indentation between each knuckle,

NOTE Confidence: 0.9229076

00:06:03.670 --> 00:06:06.630 a valley between the heels of the knuckles.

NOTE Confidence: 0.9229076

00:06:06.630 --> 00:06:09.238 If that valley is filled in and you

NOTE Confidence: 0.9229076

00:06:09.238 --> 00:06:11.390 see swelling between the knuckles,

NOTE Confidence: 0.9229076

00:06:11.390 --> 00:06:13.910 that's an indication of inflammation

NOTE Confidence: 0.9229076

00:06:13.910 --> 00:06:16.430 of the metacarpal phalangeal joints.

NOTE Confidence: 0.9229076

00:06:16.430 --> 00:06:18.438 And it's pretty diagnostic

NOTE Confidence: 0.9229076

00:06:18.438 --> 00:06:19.944 of inflammatory arthritis.

NOTE Confidence: 0.9229076

00:06:19.950 --> 00:06:21.138 Can be rheumatoid arthritis,

NOTE Confidence: 0.9229076

00:06:21.138 --> 00:06:23.690 can be lupus, can be psoriatic arthritis,

NOTE Confidence: 0.9229076

00:06:23.690 --> 00:06:25.350 but it's not osteoarthritis.

NOTE Confidence: 0.9229076

00:06:25.350 --> 00:06:27.420 So swelling of the metacarpal

NOTE Confidence: 0.9229076

00:06:27.420 --> 00:06:30.145 phalangeal joints is a very helpful

NOTE Confidence: 0.9229076

00:06:30.145 --> 00:06:32.469 sign for inflammatory arthritis.

NOTE Confidence: 0.9229076

00:06:32.470 --> 00:06:34.132 Sometimes you'll have patients that will

NOTE Confidence: 0.9229076

00:06:34.132 --> 00:06:36.507 have a lot of foot pain and you can't

NOTE Confidence: 0.9229076

00:06:36.507 --> 00:06:38.600 see some of the joints of the foot,

NOTE Confidence: 0.9229076

00:06:38.600 --> 00:06:41.040 particularly the metatarsal phalangeal joint.

NOTE Confidence: 0.9229076

00:06:41.040 --> 00:06:43.680 So a patient that comes in with severe

NOTE Confidence: 0.9229076

00:06:43.680 --> 00:06:46.039 metatarsal pain and you find thickening

NOTE Confidence: 0.9229076

00:06:46.039 --> 00:06:48.079 of the metacarpal phalangeal joints,

NOTE Confidence: 0.9229076

00:06:48.080 --> 00:06:50.936 that's a very helpful sign that you're

NOTE Confidence: 0.9229076

00:06:50.936 --> 00:06:53.262 probably dealing with an inflammatory

NOTE Confidence: 0.9229076

00:06:53.262 --> 00:06:55.837 arthritis causing the patient's pain.

NOTE Confidence: 0.9229076

00:06:55.840 --> 00:06:57.100 Now there are several other

NOTE Confidence: 0.9229076

00:06:57.100 --> 00:06:58.880 things to look for on the hand.

NOTE Confidence: 0.9229076

00:06:58.880 --> 00:07:01.370 Sometimes patients will have deformities

NOTE Confidence: 0.9229076

00:07:01.370 --> 00:07:04.920 of the finger joints with no arthritis.

NOTE Confidence: 0.9229076

00:07:04.920 --> 00:07:07.632 That occurs frequently in a condition

NOTE Confidence: 0.9229076

00:07:07.632 --> 00:07:09.440 known as Dupitron's contracture,

NOTE Confidence: 0.9229076

00:07:09.440 --> 00:07:11.680 and that's contracture and thickening

NOTE Confidence: 0.9229076

00:07:11.680 --> 00:07:13.472 of the palmar aponeurosis.

NOTE Confidence: 0.9229076

00:07:13.480 --> 00:07:15.176 And if it's severe,

NOTE Confidence: 0.9229076

00:07:15.176 --> 00:07:16.872 you'll sometimes get flexion

NOTE Confidence: 0.9229076

00:07:16.872 --> 00:07:18.338 of the PIP&DIP joint.

NOTE Confidence: 0.9229076

00:07:18.338 --> 00:07:20.501 And the way in which you diagnose

NOTE Confidence: 0.9229076

00:07:20.501 --> 00:07:21.956 Dupitron's contracture is just run

NOTE Confidence: 0.9229076

00:07:21.956 --> 00:07:24.120 your finger over the palm of the hand.

NOTE Confidence: 0.9229076

00:07:24.120 --> 00:07:26.955 And if you feel linear thickening here,

NOTE Confidence: 0.9229076

00:07:26.960 --> 00:07:30.020 you know you have Dupitron's contractures.

NOTE Confidence: 0.9229076

00:07:30.020 --> 00:07:31.744 Another common abnormality that

NOTE Confidence: 0.9229076

00:07:31.744 --> 00:07:35.020 occurs in the hand area is what's

NOTE Confidence: 0.9229076

00:07:35.020 --> 00:07:36.859 called Decreveins disease.

NOTE Confidence: 0.9229076

00:07:36.860 --> 00:07:40.700 There is a common sheath for the extensor

NOTE Confidence: 0.9229076

00:07:40.700 --> 00:07:44.063 and abductor tendons of the thumb that

NOTE Confidence: 0.9229076

00:07:44.063 --> 00:07:47.180 runs right over the radial styloid.

NOTE Confidence: 0.9229076

00:07:47.180 --> 00:07:50.138 And when that sheath is irritated,

NOTE Confidence: 0.9229076

00:07:50.140 --> 00:07:51.276 you'll sometimes get a

NOTE Confidence: 0.9229076

00:07:51.276 --> 00:07:52.980 good deal of pain over the

NOTE Confidence: 0.9337535

00:07:55.020 --> 00:07:57.660 area proximal to the thumb.

NOTE Confidence: 0.9337535

00:07:57.660 --> 00:07:59.564 And the way in which you diagnose

NOTE Confidence: 0.9337535

00:07:59.564 --> 00:08:01.256 theaker veins is you ask the

NOTE Confidence: 0.9337535

00:08:01.256 --> 00:08:02.616 patient to take their thumb,

NOTE Confidence: 0.9337535

00:08:02.620 --> 00:08:04.260 put it in the palm of their hand,

NOTE Confidence: 0.9337535

00:08:04.260 --> 00:08:06.852 make a fist, and then you take the hand

NOTE Confidence: 0.9337535

00:08:06.852 --> 00:08:09.498 and just move it in this fashion here.

NOTE Confidence: 0.9337535

00:08:09.500 --> 00:08:10.254 All right.

NOTE Confidence: 0.9337535

00:08:10.254 --> 00:08:12.516 And this will produce significant pain

NOTE Confidence: 0.9337535

00:08:12.516 --> 00:08:15.860 if a patient has dupitron's contractures.

NOTE Confidence: 0.9337535

00:08:15.860 --> 00:08:18.200 Another condition that can affect the

NOTE Confidence: 0.9337535

00:08:18.200 --> 00:08:21.576 finger is the what we call a trigger finger.

NOTE Confidence: 0.9337535

00:08:21.580 --> 00:08:25.228 And a trigger finger is caused by a

NOTE Confidence: 0.9337535

00:08:25.228 --> 00:08:27.904 flexure tendon nodule and thickening

NOTE Confidence: 0.9337535

00:08:27.904 --> 00:08:31.246 of fibrosis of the tendon sheath.

NOTE Confidence: 0.9337535

00:08:31.250 --> 00:08:31.850 So clinically,

NOTE Confidence: 0.9337535

00:08:31.850 --> 00:08:33.950 a trigger finger is when the patient

NOTE Confidence: 0.9337535

00:08:33.950 --> 00:08:36.206 tells you that they get up in the morning,

NOTE Confidence: 0.9337535

00:08:36.210 --> 00:08:37.836 bend their hand and can't open

NOTE Confidence: 0.9337535

00:08:37.836 --> 00:08:39.775 up their finger and have to take

NOTE Confidence: 0.9337535

00:08:39.775 --> 00:08:41.365 another finger to open that up.

NOTE Confidence: 0.9337535

00:08:41.370 --> 00:08:44.821 And that's due to the tendon nodule

NOTE Confidence: 0.9337535

00:08:44.821 --> 00:08:47.284 getting caught behind the narrowed

NOTE Confidence: 0.9337535

00:08:47.284 --> 00:08:51.088 area of the flexor tendon sheath.

NOTE Confidence: 0.9337535

00:08:51.090 --> 00:08:54.037 The wrist we want to check range

NOTE Confidence: 0.9337535

00:08:54.037 --> 00:08:56.029 of motion because generalized

NOTE Confidence: 0.9337535

00:08:56.029 --> 00:08:59.857 osteoarthritis does not affect the wrist.

NOTE Confidence: 0.9337535

00:08:59.860 --> 00:09:01.140 If you have wrist disease,

NOTE Confidence: 0.9337535

00:09:01.140 --> 00:09:02.956 you have inflammatory arthritis.

NOTE Confidence: 0.9337535

00:09:02.956 --> 00:09:05.226 Anything from gout to rheumatoid

NOTE Confidence: 0.9337535

00:09:05.226 --> 00:09:07.019 arthritis can affect the wrist.

NOTE Confidence: 0.9337535

00:09:07.020 --> 00:09:09.883 So normally you should have at any

NOTE Confidence: 0.9337535

00:09:09.883 --> 00:09:12.974 age roughly 90 degrees of flexion and

NOTE Confidence: 0.9337535

00:09:12.974 --> 00:09:16.220 90 degrees of extension of the wrist.

NOTE Confidence: 0.9337535

00:09:16.220 --> 00:09:18.374 If a patient has asymptomatic loss

NOTE Confidence: 0.9337535

00:09:18.374 --> 00:09:20.769 of range of motion of the wrist,

NOTE Confidence: 0.9337535

00:09:20.770 --> 00:09:21.670 think inflammatory arthritis.

NOTE Confidence: 0.9337535

00:09:21.670 --> 00:09:23.170 I may not have it,

NOTE Confidence: 0.9337535

00:09:23.170 --> 00:09:25.786 but that's one of the clues to make

NOTE Confidence: 0.9337535

00:09:25.786 --> 00:09:28.568 us look for inflammatory arthritis.

NOTE Confidence: 0.9337535

00:09:28.570 --> 00:09:30.170 So when examining the hands,

NOTE Confidence: 0.9337535

00:09:30.170 --> 00:09:33.650 you're looking for patterns of disease.

NOTE Confidence: 0.9337535

00:09:33.650 --> 00:09:35.603 Generalized osteoarthritis affects

NOTE Confidence: 0.9337535

00:09:35.603 --> 00:09:38.207 the distal interfalendial joint,

NOTE Confidence: 0.9337535

00:09:38.210 --> 00:09:40.146 the proximal interfalendial joint,

NOTE Confidence: 0.9337535

00:09:40.146 --> 00:09:42.566 the first carpal metacarpal joint,

NOTE Confidence: 0.9337535

00:09:42.570 --> 00:09:43.842 the acromioclavicular joint,

NOTE Confidence: 0.9337535

00:09:43.842 --> 00:09:45.514 the hips, the knees,

NOTE Confidence: 0.9337535

00:09:45.514 --> 00:09:48.810 and the tarsal metatarsal joints of the foot.

NOTE Confidence: 0.9337535

00:09:48.810 --> 00:09:50.550 Inflammatory arthritis usually

NOTE Confidence: 0.9337535

00:09:50.550 --> 00:09:53.142 doesn't affect the DIP joint

NOTE Confidence: 0.9337535

00:09:53.142 --> 00:09:54.846 unless it's psoriatic arthritis,

NOTE Confidence: 0.9337535

00:09:54.850 --> 00:09:56.593 but most importantly,

NOTE Confidence: 0.9337535

00:09:56.593 --> 00:09:59.498 very commonly affects the metacarpal

NOTE Confidence: 0.9337535

00:09:59.498 --> 00:10:02.808 phalangeal joints or knuckles and the wrists.

NOTE Confidence: 0.9337535

00:10:02.810 --> 00:10:04.634 You also want to make sure you look

NOTE Confidence: 0.9337535

00:10:04.634 --> 00:10:06.209 for trigger fingers for dupitrons,

NOTE Confidence: 0.9337535

00:10:06.210 --> 00:10:11.290 contractures, and for decreveins disease.

NOTE Confidence: 0.9337535

00:10:11.290 --> 00:10:13.450 So we look at the elbow.

NOTE Confidence: 0.9337535

00:10:13.450 --> 00:10:15.055 We're first interested in the

NOTE Confidence: 0.9337535

00:10:15.055 --> 00:10:17.100 range of motion of the elbow,

NOTE Confidence: 0.9337535

00:10:17.100 --> 00:10:18.696 so it's very easy to check.

NOTE Confidence: 0.9337535

00:10:18.700 --> 00:10:20.284 You see if you can take your thumb

NOTE Confidence: 0.9337535

00:10:20.284 --> 00:10:21.838 and touch your shoulder and then

NOTE Confidence: 0.9337535

00:10:21.838 --> 00:10:23.218 simply straighten the elbow out.

NOTE Confidence: 0.9337535

00:10:23.220 --> 00:10:24.060 If you can do that,

NOTE Confidence: 0.9337535

00:10:24.060 --> 00:10:25.815 you've got normal range of

NOTE Confidence: 0.9337535

00:10:25.815 --> 00:10:27.219 motion of the elbow.

NOTE Confidence: 0.9337535

00:10:27.220 --> 00:10:28.816 Now when we're looking at the elbow,

NOTE Confidence: 0.9337535

00:10:28.820 --> 00:10:30.224 we're particularly interested

NOTE Confidence: 0.9337535

00:10:30.224 --> 00:10:32.096 in the elbow joint,

NOTE Confidence: 0.9337535

00:10:32.100 --> 00:10:33.945 the what's called the electronon

NOTE Confidence: 0.9337535

00:10:33.945 --> 00:10:35.790 Bursa and then what's called

NOTE Confidence: 0.9337535

00:10:35.860 --> 00:10:37.740 tennis elbow or golfer's elbow.

NOTE Confidence: 0.9337535

00:10:37.740 --> 00:10:39.500 And that's actually a tendonitis.

NOTE Confidence: 0.9337535

00:10:39.500 --> 00:10:42.762 So this model of the elbow points

NOTE Confidence: 0.9337535

00:10:42.762 --> 00:10:45.810 out that this is the humerus and

NOTE Confidence: 0.9337535

00:10:45.810 --> 00:10:47.920 this is the humeral epicondyle.

NOTE Confidence: 0.9337535

00:10:47.920 --> 00:10:51.214 Here just distal to the humeral

NOTE Confidence: 0.9337535

00:10:51.214 --> 00:10:54.000 epicondyle is the radial head,

NOTE Confidence: 0.9337535

00:10:54.000 --> 00:10:54.840 and the

NOTE Confidence: 0.92962086

00:10:57.480 --> 00:11:00.355 radio ulnar articulation proximally is

NOTE Confidence: 0.92962086

00:11:00.355 --> 00:11:04.120 at the elbow, distally is at the wrist.

NOTE Confidence: 0.92962086

00:11:04.120 --> 00:11:07.140 So when I look at the elbow,

NOTE Confidence: 0.92962086

00:11:07.140 --> 00:11:09.870 I'm going to start bringing my thumb

NOTE Confidence: 0.92962086

00:11:09.870 --> 00:11:12.660 down the patient's forearm until I

NOTE Confidence: 0.92962086

00:11:12.660 --> 00:11:14.880 find a Bony prominence right here.

NOTE Confidence: 0.92962086

00:11:14.880 --> 00:11:16.640 And that Bony prominence

NOTE Confidence: 0.92962086

00:11:16.640 --> 00:11:18.400 is the lateral epicondyle.

NOTE Confidence: 0.92962086

00:11:18.400 --> 00:11:20.360 As I go more distally,

NOTE Confidence: 0.92962086

00:11:20.360 --> 00:11:22.747 I feel an indentation and then I

NOTE Confidence: 0.92962086

00:11:22.747 --> 00:11:25.039 feel a second Bony prominence.

NOTE Confidence: 0.92962086

00:11:25.040 --> 00:11:27.236 So that's probably the radial head.

NOTE Confidence: 0.92962086

00:11:27.240 --> 00:11:29.520 But to make sure, I rotate,

NOTE Confidence: 0.92962086

00:11:29.520 --> 00:11:31.840 pronate, and supinate the wrist,

NOTE Confidence: 0.92962086

00:11:31.840 --> 00:11:35.080 and if that bone rotates under my thumb,

NOTE Confidence: 0.92962086

00:11:35.080 --> 00:11:36.800 it is the radial head.

NOTE Confidence: 0.92962086

00:11:36.800 --> 00:11:38.816 The importance of that is I want to

NOTE Confidence: 0.92962086

00:11:38.816 --> 00:11:40.725 then take my finger and go between

NOTE Confidence: 0.92962086

00:11:40.725 --> 00:11:42.690 the radial head and the electronon

NOTE Confidence: 0.92962086

00:11:42.690 --> 00:11:44.376 and this space here between the

NOTE Confidence: 0.92962086

00:11:44.376 --> 00:11:46.170 radial head and the electronon.

NOTE Confidence: 0.92962086

00:11:46.170 --> 00:11:48.650 That's where you feel the

NOTE Confidence: 0.92962086

00:11:48.650 --> 00:11:51.130 synovial capsule of the elbow.

NOTE Confidence: 0.92962086

00:11:51.130 --> 00:11:53.650 So if the synovitis of the elbow,

NOTE Confidence: 0.92962086

00:11:53.650 --> 00:11:54.966 this is where you will see it.

NOTE Confidence: 0.92962086

00:11:54.970 --> 00:11:57.602 You can actually tap or aspirate the

NOTE Confidence: 0.92962086

00:11:57.602 --> 00:12:00.170 elbow joint fairly simply in that area.

NOTE Confidence: 0.92962086

00:12:00.170 --> 00:12:02.762 Now there's a second area very close to that,

NOTE Confidence: 0.92962086

00:12:02.770 --> 00:12:04.870 right at the tip of the electronon.

NOTE Confidence: 0.92962086

00:12:04.870 --> 00:12:06.697 And the tip of the electronon is

NOTE Confidence: 0.92962086

00:12:06.697 --> 00:12:08.430 what's called the electronon Bursa.

NOTE Confidence: 0.92962086

00:12:08.430 --> 00:12:10.628 People talk about water on the elbow,

NOTE Confidence: 0.92962086

00:12:10.630 --> 00:12:13.108 they're talking about the electronon Bursa.

NOTE Confidence: 0.92962086

00:12:13.110 --> 00:12:16.029 So swelling here is the electronon Bursa.

NOTE Confidence: 0.92962086

00:12:16.030 --> 00:12:19.066 Swelling here is a synovial capsule,

NOTE Confidence: 0.92962086

00:12:19.070 --> 00:12:21.150 the true elbow joint.

NOTE Confidence: 0.92962086

00:12:21.150 --> 00:12:24.988 Now, we sometimes use the term tennis elbow,

NOTE Confidence: 0.92962086

00:12:24.990 --> 00:12:27.150 and we use it.

NOTE Confidence: 0.92962086

00:12:27.150 --> 00:12:29.682 Another term for that is lateral

NOTE Confidence: 0.92962086

00:12:29.682 --> 00:12:30.104 epicondylitis,

NOTE Confidence: 0.92962086

00:12:30.110 --> 00:12:32.475 but that's actually that's incorrect

NOTE Confidence: 0.92962086

00:12:32.475 --> 00:12:35.360 because the epicondyle is completely normal.

NOTE Confidence: 0.92962086

00:12:35.360 --> 00:12:38.706 So tennis elbow is a tendonitis of

NOTE Confidence: 0.92962086

00:12:38.706 --> 00:12:41.358 the extensor muscles of the wrist.

NOTE Confidence: 0.92962086

00:12:41.360 --> 00:12:44.006 Those muscles have their origin on the

NOTE Confidence: 0.92962086

00:12:44.006 --> 00:12:46.296 lateral epicondyle of the humerus and

NOTE Confidence: 0.92962086

00:12:46.296 --> 00:12:48.480 their insertion on the carpal bones.

NOTE Confidence: 0.92962086

00:12:48.480 --> 00:12:50.345 So these patients will complain

NOTE Confidence: 0.92962086

00:12:50.345 --> 00:12:51.837 of severe pain here.

NOTE Confidence: 0.92962086

00:12:51.840 --> 00:12:54.311 But the way to diagnose tennis elbow

NOTE Confidence: 0.92962086

00:12:54.311 --> 00:12:56.573 is by resisting the active range

NOTE Confidence: 0.92962086

00:12:56.573 --> 00:12:58.835 of motion of the affected tendon.

NOTE Confidence: 0.92962086

00:12:58.840 --> 00:13:00.904 So I'll ask Andrea to pull her hand

NOTE Confidence: 0.92962086

00:13:00.904 --> 00:13:02.907 back like this to extend her wrist,

NOTE Confidence: 0.92962086

00:13:02.910 --> 00:13:04.630 and now will resist that.

NOTE Confidence: 0.92962086

00:13:04.630 --> 00:13:06.424 So I'm resisting her extension of

NOTE Confidence: 0.92962086

00:13:06.424 --> 00:13:08.509 the wrist if that produces pain.

NOTE Confidence: 0.92962086

00:13:08.510 --> 00:13:10.454 Here, that's tennis elbow.

NOTE Confidence: 0.92962086

00:13:10.454 --> 00:13:13.370 The 2nd tendon is the medial

NOTE Confidence: 0.92962086

00:13:13.460 --> 00:13:15.668 at the medial epicondyle,

NOTE Confidence: 0.92962086

00:13:15.670 --> 00:13:17.986 so-called golfer's elbow, much less common.

NOTE Confidence: 0.92962086

00:13:17.990 --> 00:13:20.186 But with golfer's elbow the tendon's

NOTE Confidence: 0.92962086

00:13:20.186 --> 00:13:22.602 origin is on the medial epicondyle

NOTE Confidence: 0.92962086

00:13:22.602 --> 00:13:25.668 insertion again is in the carpal bones.

NOTE Confidence: 0.92962086

00:13:25.670 --> 00:13:28.091 And here you ask the patient to flex their

NOTE Confidence: 0.92962086

00:13:28.091 --> 00:13:30.267 wrist and you do it against resistance.

NOTE Confidence: 0.92962086

00:13:30.270 --> 00:13:32.376 So Andrea will flex her wrist

NOTE Confidence: 0.92962086

00:13:32.380 --> 00:13:33.724 and I'll resist that.

NOTE Confidence: 0.92962086

00:13:33.724 --> 00:13:35.740 And if that produces pain here,

NOTE Confidence: 0.92962086

00:13:35.740 --> 00:13:39.660 that's so-called Golfer's elbow.

NOTE Confidence: 0.92962086

00:13:39.660 --> 00:13:43.510 So the shoulder is the joint that

NOTE Confidence: 0.92962086

00:13:43.510 --> 00:13:47.732 is most involved with pain and the

NOTE Confidence: 0.92962086

00:13:47.732 --> 00:13:50.180 examination is absolutely key.

NOTE Confidence: 0.92962086

00:13:50.180 --> 00:13:51.956 So there are actually three joints

NOTE Confidence: 0.92962086

00:13:51.956 --> 00:13:54.098 and a pseudo joint in the shoulder.

NOTE Confidence: 0.92962086

00:13:54.100 --> 00:13:57.257 The three joints are the Glenoumeral joint,

NOTE Confidence: 0.92962086

00:13:57.260 --> 00:13:59.672 here, the acromioclavicular joint,

NOTE Confidence: 0.92962086

00:13:59.672 --> 00:14:02.687 and the sternal clavicular joint.

NOTE Confidence: 0.92962086

00:14:02.690 --> 00:14:05.204 The pseudo joint is the movement

NOTE Confidence: 0.92962086

00:14:05.204 --> 00:14:07.666 of the scapular on the thorax.

NOTE Confidence: 0.92962086

00:14:07.666 --> 00:14:11.770 So when you and I pick up our arm,

NOTE Confidence: 0.92962086

00:14:11.770 --> 00:14:16.327 we move our scapular about 30 degrees

NOTE Confidence: 0.92962086

00:14:16.330 --> 00:14:20.404 and we call that scapular humeral rhythm.

NOTE Confidence: 0.9324504

00:14:20.410 --> 00:14:23.609 When the patient picks their arm up,

NOTE Confidence: 0.9324504

00:14:23.610 --> 00:14:27.860 they will move their arm to 1

NOTE Confidence: 0.9324504

00:14:27.860 --> 00:14:29.635 degree for every two degrees

NOTE Confidence: 0.9324504

00:14:29.635 --> 00:14:32.149 movement of the glenohumeral joint.

NOTE Confidence: 0.9324504

00:14:32.150 --> 00:14:34.686 Now another thing I want you to notice

NOTE Confidence: 0.9324504

00:14:34.686 --> 00:14:37.601 as I'm using this model here is that

NOTE Confidence: 0.9324504

00:14:37.601 --> 00:14:39.990 as we passively abduct the humerus,

NOTE Confidence: 0.9324504

00:14:39.990 --> 00:14:45.482 we pinch 4 structures between the chromium

NOTE Confidence: 0.9324504

00:14:45.482 --> 00:14:48.464 and the greater tuberosity of the humerus.

NOTE Confidence: 0.9324504

00:14:48.470 --> 00:14:50.348 Three of the rotator cuff tendons,

NOTE Confidence: 0.9324504

00:14:50.350 --> 00:14:52.582 the so-called sit tendons,

NOTE Confidence: 0.9324504

00:14:52.582 --> 00:14:53.698 the supraspinatus,

NOTE Confidence: 0.9324504

00:14:53.700 --> 00:14:55.565 the intraspinatus and a Terry's

NOTE Confidence: 0.9324504

00:14:55.565 --> 00:14:57.902 minor have their origin on the

NOTE Confidence: 0.9324504

00:14:57.902 --> 00:14:59.937 greater tuberosity of the humerus.

NOTE Confidence: 0.9324504

00:14:59.940 --> 00:15:02.860 Right on top of those tendons is a

NOTE Confidence: 0.9324504

00:15:02.860 --> 00:15:05.380 Bursa called the subacromial Bursa.

NOTE Confidence: 0.9324504

00:15:05.380 --> 00:15:07.900 So when you abduct your arm,

NOTE Confidence: 0.9324504

00:15:07.900 --> 00:15:11.500 if I passively abduct Andrea's arm

NOTE Confidence: 0.9324504

00:15:11.500 --> 00:15:16.134 between 45 and 120 degrees or so,

NOTE Confidence: 0.9324504

00:15:16.140 --> 00:15:18.380 if pain is produced with that movement,

NOTE Confidence: 0.9324504

00:15:18.380 --> 00:15:21.251 we call it a painful arc and it tells

NOTE Confidence: 0.9324504

00:15:21.251 --> 00:15:24.243 us that there is something going on

NOTE Confidence: 0.9324504

00:15:24.243 --> 00:15:27.031 either in those three rotator cuff

NOTE Confidence: 0.9324504

00:15:27.031 --> 00:15:29.965 tendons or in the subacromial Bursa.

NOTE Confidence: 0.9324504

00:15:29.970 --> 00:15:33.288 As as we examine the shoulder,

NOTE Confidence: 0.9324504

00:15:33.290 --> 00:15:35.516 we're first interested in the passive

NOTE Confidence: 0.9324504

00:15:35.516 --> 00:15:38.529 range of motion of the Glenouneral joint,

NOTE Confidence: 0.9324504

00:15:38.530 --> 00:15:40.609 so we find a Bony prominence here.

NOTE Confidence: 0.9324504

00:15:40.610 --> 00:15:42.762 This is a superior spine of the scapula

NOTE Confidence: 0.9324504

00:15:42.762 --> 00:15:44.487 that's going to be our marker okay.

NOTE Confidence: 0.9324504

00:15:44.490 --> 00:15:46.394 So my hand is on the superior

NOTE Confidence: 0.9324504

00:15:46.394 --> 00:15:47.800 spine of the scapula,

NOTE Confidence: 0.9324504

00:15:47.800 --> 00:15:49.640 and then I'm going to

NOTE Confidence: 0.9324504

00:15:49.640 --> 00:15:51.112 passively abduct Andrea's arm.

NOTE Confidence: 0.9324504

00:15:51.120 --> 00:15:52.443 I don't want her to move it

NOTE Confidence: 0.9324504

00:15:52.443 --> 00:15:53.920 because if she movements moves it,

NOTE Confidence: 0.9324504

00:15:53.920 --> 00:15:55.588 she's going to move her scapular

NOTE Confidence: 0.9324504

00:15:55.588 --> 00:15:57.518 and her humerus at the same time,

NOTE Confidence: 0.9324504

00:15:57.520 --> 00:15:59.256 as we've just demonstrated.

NOTE Confidence: 0.9324504

00:15:59.256 --> 00:16:02.688 So I take Andrea's arm and I gently

NOTE Confidence: 0.9324504

00:16:02.688 --> 00:16:05.315 abduct the arm and the point at which

NOTE Confidence: 0.9324504

00:16:05.315 --> 00:16:07.559 the scapular rises is about 90 degrees,

NOTE Confidence: 0.9324504

00:16:07.560 --> 00:16:10.626 and that's the normal Glenohumeral Abduction.

NOTE Confidence: 0.9324504

00:16:10.630 --> 00:16:13.780 So we find the extent of Glyniorinal

NOTE Confidence: 0.9324504

00:16:13.780 --> 00:16:16.098 Abduction by passively abducting the

NOTE Confidence: 0.9324504

00:16:16.098 --> 00:16:19.185 arm until the scapular starts to rise.

NOTE Confidence: 0.9324504

00:16:19.190 --> 00:16:21.390 We then check external rotation.

NOTE Confidence: 0.9324504

00:16:21.390 --> 00:16:22.038 Very simply,

NOTE Confidence: 0.9324504

00:16:22.038 --> 00:16:23.982 rotate the arm until it gets

NOTE Confidence: 0.9324504

00:16:23.982 --> 00:16:25.349 a little bit tight,

NOTE Confidence: 0.9324504

00:16:25.350 --> 00:16:27.086 and that's called external

NOTE Confidence: 0.9324504

00:16:27.086 --> 00:16:28.388 or lateral rotation,

NOTE Confidence: 0.9324504

00:16:28.390 --> 00:16:29.820 and then medial or internal

NOTE Confidence: 0.9324504

00:16:29.820 --> 00:16:31.607 rotation is to move it medially

NOTE Confidence: 0.9324504

00:16:31.607 --> 00:16:33.707 until it gets a little bit tight.

NOTE Confidence: 0.9324504

00:16:33.710 --> 00:16:35.210 Normally it's about 80

NOTE Confidence: 0.9324504

00:16:35.210 --> 00:16:36.710 degrees of internal rotation,

NOTE Confidence: 0.9324504

00:16:36.710 --> 00:16:38.870 90 degrees of external rotation,

NOTE Confidence: 0.9324504

00:16:38.870 --> 00:16:41.670 and 90 degrees of abduction.

NOTE Confidence: 0.9324504

00:16:41.670 --> 00:16:43.308 The next maneuver I'm going to do,

NOTE Confidence: 0.9324504

00:16:43.310 --> 00:16:45.014 we talked a little bit earlier

NOTE Confidence: 0.9324504

00:16:45.014 --> 00:16:46.150 about the painful arc.

NOTE Confidence: 0.9324504

00:16:46.150 --> 00:16:48.019 I'm going to take this arm and

NOTE Confidence: 0.9324504

00:16:48.019 --> 00:16:49.876 I'm going to passively abduct it

NOTE Confidence: 0.9324504

00:16:49.876 --> 00:16:52.446 up to around 120 degrees or so.

NOTE Confidence: 0.9324504

00:16:52.446 --> 00:16:54.810 If the patient complains of pain

NOTE Confidence: 0.9324504

00:16:54.889 --> 00:16:57.129 anywhere between 45 and 1:20,

NOTE Confidence: 0.9324504

00:16:57.130 --> 00:16:59.008 we call it a painful arc,

NOTE Confidence: 0.9324504

00:16:59.010 --> 00:17:00.770 and we're concerned about either

NOTE Confidence: 0.9324504

00:17:00.770 --> 00:17:02.530 the rotator cuff tendons or

NOTE Confidence: 0.9324504

00:17:02.597 --> 00:17:03.890 the subacromial Bursa.

NOTE Confidence: 0.9324504

00:17:03.890 --> 00:17:04.578 All right,

NOTE Confidence: 0.9324504

00:17:04.578 --> 00:17:06.986 now I next want to look and

NOTE Confidence: 0.9324504

00:17:06.986 --> 00:17:09.457 see if there's anything wrong

NOTE Confidence: 0.9324504

00:17:09.457 --> 00:17:12.007 with the rotator cuff muscles,

NOTE Confidence: 0.9324504

00:17:12.010 --> 00:17:14.362 so I'm going to ask the patient

NOTE Confidence: 0.9324504

00:17:14.362 --> 00:17:15.930 to contract that muscle.

NOTE Confidence: 0.9324504

00:17:15.930 --> 00:17:17.782 So abduction is caused.

NOTE Confidence: 0.9324504

00:17:17.782 --> 00:17:21.205 The abduction is the action of the

NOTE Confidence: 0.9324504

00:17:21.205 --> 00:17:23.990 supraspinatus tendon and the deltoid

NOTE Confidence: 0.9324504

00:17:23.990 --> 00:17:26.910 muscle of deltoid muscle rarely,

NOTE Confidence: 0.9324504

00:17:26.910 --> 00:17:28.670 if ever, causes shoulder pain.

NOTE Confidence: 0.9324504

00:17:28.670 --> 00:17:30.710 So if there's pain or difficulty

NOTE Confidence: 0.9324504

00:17:30.710 --> 00:17:31.390 with abduction,

NOTE Confidence: 0.9324504

00:17:31.390 --> 00:17:32.554 it's usually the supraspinatus.

NOTE Confidence: 0.9324504

00:17:32.554 --> 00:17:34.771 So I'll ask the patient to pick their

NOTE Confidence: 0.9324504

00:17:34.771 --> 00:17:36.451 arm up and I'll see if they can

NOTE Confidence: 0.93269163

00:17:36.509 --> 00:17:38.750 do that. OK, so she's able to abduct her arm.

NOTE Confidence: 0.93269163

00:17:38.750 --> 00:17:40.676 Fine. OK, now she had pain

NOTE Confidence: 0.93269163

00:17:40.676 --> 00:17:42.980 here and had a painful arc.

NOTE Confidence: 0.93269163

00:17:42.980 --> 00:17:45.059 I would, just as we did with tennis elbow,

NOTE Confidence: 0.93269163

00:17:45.060 --> 00:17:47.020 I would resist the superspinatus.

NOTE Confidence: 0.93269163

00:17:47.020 --> 00:17:48.788 So I would ask Andrea to pick up

NOTE Confidence: 0.93269163

00:17:48.788 --> 00:17:50.616 her arm and I would resist that.

NOTE Confidence: 0.93269163

00:17:50.620 --> 00:17:53.539 So if that maneuver caused pain here,

NOTE Confidence: 0.93269163

00:17:53.540 --> 00:17:56.340 I'd be concerned about

NOTE Confidence: 0.93269163

00:17:56.340 --> 00:17:57.740 superspinatus tendonitis.

NOTE Confidence: 0.93269163

00:17:57.740 --> 00:18:01.544 Now the intraspinatus and the Terry's

NOTE Confidence: 0.93269163

00:18:01.544 --> 00:18:05.100 minor cause external or lateral rotation.

NOTE Confidence: 0.93269163

00:18:05.100 --> 00:18:07.312 So I want Andrea to keep her

NOTE Confidence: 0.93269163

00:18:07.312 --> 00:18:09.665 elbow by her side and then to

NOTE Confidence: 0.93269163

00:18:09.665 --> 00:18:11.979 move her arm out like this okay.

NOTE Confidence: 0.93269163

00:18:11.979 --> 00:18:14.531 So that tells me that she has good

NOTE Confidence: 0.93269163

00:18:14.531 --> 00:18:15.980 infraspinatus and Terry's minor.

NOTE Confidence: 0.93269163

00:18:15.980 --> 00:18:17.940 And again, if she had shoulder pain,

NOTE Confidence: 0.93269163

00:18:17.940 --> 00:18:19.944 I would resist that movement to

NOTE Confidence: 0.93269163

00:18:19.944 --> 00:18:21.899 see if that reproduced her pain.

NOTE Confidence: 0.93269163

00:18:21.900 --> 00:18:24.700 So we we've looked at the supraspinatus,

NOTE Confidence: 0.93269163

00:18:24.700 --> 00:18:25.820 the infraspinatus,

NOTE Confidence: 0.93269163

00:18:25.820 --> 00:18:28.620 and the Terry's minor tendon.

NOTE Confidence: 0.93269163

00:18:28.620 --> 00:18:32.358 One of the key laws in musculoskeletal

NOTE Confidence: 0.93269163

00:18:32.358 --> 00:18:36.092 medicine is that if active range of motion

NOTE Confidence: 0.93269163

00:18:36.092 --> 00:18:38.780 is less than passive range of motion,

NOTE Confidence: 0.93269163

00:18:38.780 --> 00:18:40.946 you worry about a muscle tear.

NOTE Confidence: 0.93269163

00:18:40.950 --> 00:18:43.158 So we did demonstrate that Andrea

NOTE Confidence: 0.93269163

00:18:43.158 --> 00:18:45.790 has 90 degrees of passive abduction

NOTE Confidence: 0.93269163

00:18:45.790 --> 00:18:48.110 of her glenohumeral joint,

NOTE Confidence: 0.93269163

00:18:48.110 --> 00:18:49.706 and when she picks her arm up,

NOTE Confidence: 0.93269163

00:18:49.710 --> 00:18:52.990 she also has 90 degrees of active abduction.

NOTE Confidence: 0.93269163

00:18:52.990 --> 00:18:54.258 So they're the same.

NOTE Confidence: 0.93269163

00:18:54.258 --> 00:18:56.560 We're not too worried about the muscle

NOTE Confidence: 0.93269163

00:18:56.560 --> 00:18:58.570 because both of them are working

NOTE Confidence: 0.93269163

00:18:58.570 --> 00:19:00.620 fine Now a couple of other muscles

NOTE Confidence: 0.93269163

00:19:00.620 --> 00:19:03.030 we want to look at in the shoulder.

NOTE Confidence: 0.93269163

00:19:03.030 --> 00:19:04.908 One of them is the biceps.

NOTE Confidence: 0.93269163

00:19:04.910 --> 00:19:07.106 So the biceps muscle actually has

NOTE Confidence: 0.93269163

00:19:07.106 --> 00:19:09.339 three maneuvers we want to look at.

NOTE Confidence: 0.93269163

00:19:09.340 --> 00:19:11.860 The 1st is flexion of the elbow.

NOTE Confidence: 0.93269163

00:19:11.860 --> 00:19:13.980 So I'll ask Andrea to take her wrist,

NOTE Confidence: 0.93269163

00:19:13.980 --> 00:19:15.540 bring it up to her shoulder,

NOTE Confidence: 0.93269163

00:19:15.540 --> 00:19:16.964 and I'll resist that.

NOTE Confidence: 0.93269163

00:19:16.964 --> 00:19:19.100 So if that produces pain here,

NOTE Confidence: 0.93269163

00:19:19.100 --> 00:19:22.100 I'm concerned about bicipital tendonitis.

NOTE Confidence: 0.93269163

00:19:22.100 --> 00:19:24.420 The 2nd maneuver to look at the biceps

NOTE Confidence: 0.93269163

00:19:24.420 --> 00:19:26.832 tendon is have the patient put their

NOTE Confidence: 0.93269163

00:19:26.832 --> 00:19:28.580 elbow straight and pick up their arm.

NOTE Confidence: 0.93269163

00:19:28.580 --> 00:19:30.414 We call this flexion of the shoulder.

NOTE Confidence: 0.93269163

00:19:30.420 --> 00:19:31.505 So I'm going to ask Andrea to

NOTE Confidence: 0.93269163

00:19:31.505 --> 00:19:32.538 pick up her arm like that,

NOTE Confidence: 0.93269163

00:19:32.540 --> 00:19:34.172 and I'm going to resist that

NOTE Confidence: 0.93269163

00:19:34.172 --> 00:19:35.260 if that produces pain.

NOTE Confidence: 0.93269163

00:19:35.260 --> 00:19:36.276 Here again,

NOTE Confidence: 0.93269163

00:19:36.276 --> 00:19:39.324 that's a sign of bicipital tendonitis.

NOTE Confidence: 0.93269163

00:19:39.330 --> 00:19:40.548 The third maneuver,

NOTE Confidence: 0.93269163

00:19:40.548 --> 00:19:41.766 a little complicated,

NOTE Confidence: 0.93269163

00:19:41.770 --> 00:19:44.785 is keep your elbow by your side and then

NOTE Confidence: 0.93269163

00:19:44.785 --> 00:19:47.090 externally rotate or supinate the wrist.

NOTE Confidence: 0.93269163

00:19:47.090 --> 00:19:48.449 So I'm going to ask Andrea to do that.

NOTE Confidence: 0.93269163

00:19:48.450 --> 00:19:50.606 OK And I'm going to resist that.

NOTE Confidence: 0.93269163

00:19:50.610 --> 00:19:53.165 So if that maneuver causes pain here,

NOTE Confidence: 0.93269163

00:19:53.170 --> 00:19:56.848 that's another sign of bicipital tendonitis.

NOTE Confidence: 0.93269163

00:19:56.850 --> 00:19:59.760 So we're checking for rotator

NOTE Confidence: 0.93269163

00:19:59.760 --> 00:20:00.924 cuff tendonitis,

NOTE Confidence: 0.93269163

00:20:00.930 --> 00:20:03.324 we're checking for a rotator cuff tear,

NOTE Confidence: 0.93269163

00:20:03.330 --> 00:20:05.715 and we're checking for subacromial

NOTE Confidence: 0.93269163

00:20:05.715 --> 00:20:07.623 Bursitis and bicipital tendonitis.

NOTE Confidence: 0.93269163

00:20:07.630 --> 00:20:08.870 Now Andrea has a problem

NOTE Confidence: 0.93269163

00:20:08.870 --> 00:20:09.862 on her right shoulder,

NOTE Confidence: 0.93269163

00:20:09.870 --> 00:20:11.742 so we're going to look at the right shoulder.

NOTE Confidence: 0.93269163

00:20:11.750 --> 00:20:14.174 So here we'll look for the

NOTE Confidence: 0.93269163

00:20:14.174 --> 00:20:15.790 passive range of motion.

NOTE Confidence: 0.93269163

00:20:15.790 --> 00:20:17.830 So I relax Andrea's arm,

NOTE Confidence: 0.93269163

00:20:17.830 --> 00:20:20.068 I'm going to gently abduct it,

NOTE Confidence: 0.93269163

00:20:20.070 --> 00:20:21.519 and she's going to tell me if

NOTE Confidence: 0.93269163

00:20:21.519 --> 00:20:23.110 she has any discomfort at all.

NOTE Confidence: 0.93269163

00:20:23.110 --> 00:20:24.520 And actually she does have a

NOTE Confidence: 0.93269163

00:20:24.520 --> 00:20:25.990 little loss of range of motion.

NOTE Confidence: 0.93269163

00:20:25.990 --> 00:20:28.542 So I get up to about 60 degrees

NOTE Confidence: 0.93269163

00:20:28.542 --> 00:20:31.150 and the scapula starts to rise.

NOTE Confidence: 0.93269163

00:20:31.150 --> 00:20:33.375 So her Glenny Humeral Abduction

NOTE Confidence: 0.93269163

00:20:33.375 --> 00:20:35.600 on the right side is

NOTE Confidence: 0.9315359

00:20:35.690 --> 00:20:37.058 only 60 degrees.

NOTE Confidence: 0.9315359

00:20:37.060 --> 00:20:39.460 I will check the rotation.

NOTE Confidence: 0.9315359

00:20:39.460 --> 00:20:41.860 Her external rotation is also limited.

NOTE Confidence: 0.9315359

00:20:41.860 --> 00:20:43.386 So when I take her arm here

NOTE Confidence: 0.9315359

00:20:43.386 --> 00:20:45.140 and try to externally rotate,

NOTE Confidence: 0.9315359

00:20:45.140 --> 00:20:47.219 I can only rotate about 30 degrees.

NOTE Confidence: 0.9315359

00:20:47.220 --> 00:20:49.420 It should be 90, it's only about 30.

NOTE Confidence: 0.9315359

00:20:49.420 --> 00:20:52.660 And then Internal Rotation is about 45 or so.

NOTE Confidence: 0.9315359

00:20:52.660 --> 00:20:55.418 So she has some limitation of passive

NOTE Confidence: 0.9315359

00:20:55.418 --> 00:20:58.619 range of Motion of the Glenohumeral Joint.

NOTE Confidence: 0.9315359

00:20:58.620 --> 00:20:59.660 Now when I ask Andrew,

NOTE Confidence: 0.9315359

00:20:59.660 --> 00:21:02.020 let's try this side and her left arm,

NOTE Confidence: 0.9315359

00:21:02.020 --> 00:21:04.348 I ask her to pick her arm up. Does it?

NOTE Confidence: 0.9315359

00:21:04.348 --> 00:21:06.524 Fine. OK, now, on the right side,

NOTE Confidence: 0.9315359

00:21:06.524 --> 00:21:08.300 let's try to pick the arm up.

NOTE Confidence: 0.9315359

00:21:08.300 --> 00:21:09.500 She can't do it. OK.

NOTE Confidence: 0.9315359

00:21:09.500 --> 00:21:12.293 All right, so the passive range of

NOTE Confidence: 0.9315359

00:21:12.293 --> 00:21:14.468 motion of Andrea's right Glenny

NOTE Confidence: 0.9315359

00:21:14.468 --> 00:21:17.174 humeral joint was about 60 degrees.

NOTE Confidence: 0.9315359

00:21:17.180 --> 00:21:19.700 The active range of motion was 10 or 15.

NOTE Confidence: 0.9315359

00:21:19.700 --> 00:21:23.180 So we're worried about a rotator cuff tear,

NOTE Confidence: 0.9315359

00:21:23.180 --> 00:21:24.744 particularly a superspinatus tear.

NOTE Confidence: 0.9315359

00:21:24.744 --> 00:21:27.580 So there's a second maneuver. Will do.

NOTE Confidence: 0.9315359

00:21:27.580 --> 00:21:30.220 And again, take Andrea's left arm,

NOTE Confidence: 0.9315359

00:21:30.220 --> 00:21:31.935 take the left arm, hold it up,

NOTE Confidence: 0.9315359

00:21:31.940 --> 00:21:32.696 and she can hold it up.

NOTE Confidence: 0.9315359

00:21:32.700 --> 00:21:33.450 Fine. OK.

NOTE Confidence: 0.9315359

00:21:33.450 --> 00:21:34.950 I'll be gentle here,

NOTE Confidence: 0.9315359

00:21:34.950 --> 00:21:36.710 take the right arm, I pick it up,

NOTE Confidence: 0.9315359

00:21:36.710 --> 00:21:38.663 ask her to hold it up and she can't.

NOTE Confidence: 0.9315359

00:21:38.670 --> 00:21:40.550 And we call that a drop on sign.

NOTE Confidence: 0.9315359

00:21:40.550 --> 00:21:43.622 So the physical examination of Andrea's

NOTE Confidence: 0.9315359

00:21:43.622 --> 00:21:46.076 right shoulder demonstrates that she

NOTE Confidence: 0.9315359

00:21:46.076 --> 00:21:48.365 has signs of a super spinotist hair

NOTE Confidence: 0.9315359

00:21:48.365 --> 00:21:50.974 with a little bit of loss of range

NOTE Confidence: 0.9315359

00:21:50.974 --> 00:21:52.936 of motion of her glenohumeral joint.

NOTE Confidence: 0.9315359

00:21:52.936 --> 00:21:55.407 So the exam gives you an awful

NOTE Confidence: 0.9315359

00:21:55.407 --> 00:21:56.809 lot of information.

NOTE Confidence: 0.9315359

00:21:56.810 --> 00:21:58.676 It's been confirmed on MRI that

NOTE Confidence: 0.9315359

00:21:58.676 --> 00:22:01.249 she has a right supraspinatus tear,

NOTE Confidence: 0.9315359

00:22:01.250 --> 00:22:03.336 but we almost didn't need the MRI

NOTE Confidence: 0.9315359

00:22:03.336 --> 00:22:05.068 because the physical exam told us

NOTE Confidence: 0.9315359

00:22:05.068 --> 00:22:06.881 what was going on in the shoulder.

NOTE Confidence: 0.9315359

00:22:06.890 --> 00:22:08.222 So for the shoulder,

NOTE Confidence: 0.9315359

00:22:08.222 --> 00:22:10.690 we're interested in passive range of motion,

NOTE Confidence: 0.9315359

00:22:10.690 --> 00:22:11.103 abduction,

NOTE Confidence: 0.9315359

00:22:11.103 --> 00:22:12.755 external internal rotation of

NOTE Confidence: 0.9315359

00:22:12.755 --> 00:22:14.407 the Gleny humeral joint.

NOTE Confidence: 0.9315359

00:22:14.410 --> 00:22:17.686 We're concerned about a painful arc.

NOTE Confidence: 0.9315359

00:22:17.690 --> 00:22:19.376 We want to know the status

NOTE Confidence: 0.9315359

00:22:19.376 --> 00:22:21.050 of the rotator cuff tendons,

NOTE Confidence: 0.9315359

00:22:21.050 --> 00:22:21.610 supraspinatus,

NOTE Confidence: 0.9315359

00:22:21.610 --> 00:22:23.850 infraspinatus and Terry's minor.

NOTE Confidence: 0.9315359

00:22:23.850 --> 00:22:25.970 We want to know whether they can be

NOTE Confidence: 0.9315359

00:22:25.970 --> 00:22:28.428 moved and whether there's any pain on

NOTE Confidence: 0.9315359

00:22:28.428 --> 00:22:30.288 resisted movement of those tendons.

NOTE Confidence: 0.9315359

00:22:30.290 --> 00:22:30.962 And finally,

NOTE Confidence: 0.9315359

00:22:30.962 --> 00:22:33.314 we want to learn about the bicipital

NOTE Confidence: 0.9315359

00:22:33.314 --> 00:22:35.810 tendon by checking resisted elbow flexion,

NOTE Confidence: 0.9315359

00:22:35.810 --> 00:22:38.568 shoulder flexion and supination of the arm.

NOTE Confidence: 0.9316984

00:22:42.960 --> 00:22:45.032 So I'd like to review some of the

NOTE Confidence: 0.9316984

00:22:45.032 --> 00:22:47.143 specific things we talked about in our

NOTE Confidence: 0.9316984

00:22:47.143 --> 00:22:48.678 overview of upper extremity joints.

NOTE Confidence: 0.9316984

00:22:48.680 --> 00:22:50.228 Looking at the hands,

NOTE Confidence: 0.9316984

00:22:50.228 --> 00:22:51.776 the distal interphalangeal joints

NOTE Confidence: 0.9316984

00:22:51.776 --> 00:22:54.147 are commonly involved in generalized

NOTE Confidence: 0.9316984

00:22:54.147 --> 00:22:56.195 osteoarthritis and psoriatic arthritis.

NOTE Confidence: 0.9316984

00:22:56.200 --> 00:22:57.320 Proximal interphalangeal,

NOTE Confidence: 0.9316984

00:22:57.320 --> 00:22:59.000 both generalized osteoarthritis

NOTE Confidence: 0.9316984

00:22:59.000 --> 00:23:00.680 and inflammatory arthritis.

NOTE Confidence: 0.9316984

00:23:00.680 --> 00:23:03.545 The metacarpal phalangeal joints are

NOTE Confidence: 0.9316984

00:23:03.545 --> 00:23:05.837 specific for inflammatory arthritis.

NOTE Confidence: 0.9316984

00:23:05.840 --> 00:23:06.864 Dupitrons, contractures,

NOTE Confidence: 0.9316984

00:23:06.864 --> 00:23:08.400 a trigger finger,

NOTE Confidence: 0.9316984

00:23:08.400 --> 00:23:10.815 and decrevene tenosynovitis are all

NOTE Confidence: 0.9316984

00:23:10.815 --> 00:23:14.000 mechanical things that can affect the hands.

NOTE Confidence: 0.9316984

00:23:14.000 --> 00:23:15.506 Look at wrist range of motion

NOTE Confidence: 0.9316984

00:23:15.506 --> 00:23:17.423 because the wrist is not involved

NOTE Confidence: 0.9316984

00:23:17.423 --> 00:23:18.716 in generalized osteoarthritis.

NOTE Confidence: 0.9316984

00:23:18.720 --> 00:23:20.295 So if you have decreased

NOTE Confidence: 0.9316984

00:23:20.295 --> 00:23:21.555 wrist range of motion,

NOTE Confidence: 0.9316984

00:23:21.560 --> 00:23:23.735 that indicates you're probably dealing

NOTE Confidence: 0.9316984

00:23:23.735 --> 00:23:25.475 with an inflammatory arthritis.

NOTE Confidence: 0.9316984

00:23:25.480 --> 00:23:27.944 At the elbow you find the synovial

NOTE Confidence: 0.9316984

00:23:27.944 --> 00:23:30.282 capsule by running your finger between

NOTE Confidence: 0.9316984

00:23:30.282 --> 00:23:32.712 the radial head and the electronon.

NOTE Confidence: 0.9316984

00:23:32.720 --> 00:23:34.155 You look at the electron on Bursa,

NOTE Confidence: 0.9316984

00:23:34.160 --> 00:23:36.200 which sits right on top of the elbow,

NOTE Confidence: 0.9316984

00:23:36.200 --> 00:23:38.720 and you make a diagnosis of tennis

NOTE Confidence: 0.9316984

00:23:38.720 --> 00:23:40.960 elbow by resisting wrist extension,

NOTE Confidence: 0.9316984

00:23:40.960 --> 00:23:44.278 Golfer's elbow by resisting wrist flexion.

NOTE Confidence: 0.9316984

00:23:44.280 --> 00:23:45.272 Looking at the shoulder,

NOTE Confidence: 0.9316984

00:23:45.272 --> 00:23:46.760 we look at the glenohumeral joint,

NOTE Confidence: 0.9316984

00:23:46.760 --> 00:23:48.240 the chromial clavicular joint,

NOTE Confidence: 0.9316984

00:23:48.240 --> 00:23:49.720 the sternal clavicular joint,

NOTE Confidence: 0.9316984

00:23:49.720 --> 00:23:52.142 and the movement of the scapular on

NOTE Confidence: 0.9316984

00:23:52.142 --> 00:23:54.600 the thorax as you abduct the arm,

NOTE Confidence: 0.9316984

00:23:54.600 --> 00:23:56.060 so-called scapular humeral rhythm.

NOTE Confidence: 0.9316984

00:23:56.060 --> 00:23:58.604 The way in which you determine range

NOTE Confidence: 0.9316984

00:23:58.604 --> 00:24:00.683 of motion with the glynumeral joint is

NOTE Confidence: 0.9316984

00:24:00.683 --> 00:24:03.189 put your hand on the superior spine to

NOTE Confidence: 0.9316984

00:24:03.189 --> 00:24:05.510 the scapula and passively abduct the arm.

NOTE Confidence: 0.9316984

00:24:05.510 --> 00:24:07.670 When the scapula starts to move,

NOTE Confidence: 0.9316984

00:24:07.670 --> 00:24:09.886 you have Glynumeral Abduction,

NOTE Confidence: 0.9316984

00:24:09.886 --> 00:24:11.548 lateral or external.

NOTE Confidence: 0.9316984

00:24:11.550 --> 00:24:13.428 It should be roughly 90 degrees,

NOTE Confidence: 0.9316984

00:24:13.430 --> 00:24:16.550 medial or internal roughly 80 degrees.

NOTE Confidence: 0.9316984

00:24:16.550 --> 00:24:18.643 A painful arc occurs when you pinch

NOTE Confidence: 0.9316984

00:24:18.643 --> 00:24:20.484 one of four structures between

NOTE Confidence: 0.9316984

00:24:20.484 --> 00:24:22.669 the humerus and the chromium.

NOTE Confidence: 0.9316984

00:24:22.670 --> 00:24:24.510 Those structures are the supraspinatus,

NOTE Confidence: 0.9316984

00:24:24.510 --> 00:24:26.990 Intraspinatus, and Terry's minor tendons,

NOTE Confidence: 0.9316984

00:24:26.990 --> 00:24:28.958 and the subacromial Bursa.

NOTE Confidence: 0.9316984

00:24:28.958 --> 00:24:30.926 The supraspinatus and deltoid

NOTE Confidence: 0.9316984

00:24:30.926 --> 00:24:32.909 are involved in abduction,

NOTE Confidence: 0.9316984

00:24:32.910 --> 00:24:34.714 infraspinatus and Terry's minor

NOTE Confidence: 0.9316984

00:24:34.714 --> 00:24:36.067 and external rotation,

NOTE Confidence: 0.9316984

00:24:36.070 --> 00:24:38.286 Terry's major in subchatularis.

NOTE Confidence: 0.9316984

00:24:38.286 --> 00:24:41.230 In internal rotation to diagnose

NOTE Confidence: 0.9316984

00:24:41.230 --> 00:24:43.150 rotator cuff tendonitis,

NOTE Confidence: 0.9316984

00:24:43.150 --> 00:24:46.209 you would have pain on resisted abduction

NOTE Confidence: 0.9316984

00:24:46.209 --> 00:24:48.720 or external rotation of the shoulder.

NOTE Confidence: 0.9316984

00:24:48.720 --> 00:24:51.168 You diagnose a tear when there

NOTE Confidence: 0.9316984

00:24:51.168 --> 00:24:53.770 is less active range of motion

NOTE Confidence: 0.9316984

00:24:53.770 --> 00:24:55.995 than passive range of motion.

NOTE Confidence: 0.9316984

00:24:56.000 --> 00:24:57.680 You diagnose precipital tendonitis if

NOTE Confidence: 0.9316984

00:24:57.680 --> 00:25:00.120 there is pain on flexion of the elbow,

NOTE Confidence: 0.9316984

00:25:00.120 --> 00:25:01.680 forward flexion of the arm,

NOTE Confidence: 0.9316984

00:25:01.680 --> 00:25:02.940 or supination of the wrist

NOTE Confidence: 0.9316984

00:25:02.940 --> 00:25:04.520 while the arms at the side.