What's The Difference Between An X-Ray, CT Scan and MRI - Which Is Best For Herniated Disc

So there are several radiographic tests that you can have to evaluate the neck. There are three popular tests we hear about most often. One is an x-ray, the other is a CT or CAT scan, and the third is an MRI scan. The x-ray has been around for a long time and that is a way of looking at the bones in the neck in two dimensions, meaning one from the side and one from the front. And x-ray just gives us a very simple picture of the bones and sometimes that is really important. For instance, it can tell us whether you have a fracture, whether you have a tumor, whether you have a dislocation of the bone. So if you are involved in a car accident, we may want to start with an x-ray even before going for a CAT scan or MRI. I like x-rays a lot. It tells me about the bones in the neck. It tells me is there lot of arthritis in the neck. It tells me if there is any instability, meaning are the neck bones loose and it tells me the condition of the bones, sometimes even conditions such as osteoporosis, osteopenia can be seen on the x-ray. So it is not as popular as it used to be with the advent of MRIs, but still x-ray is a good test to have. If you have a cervical herniated disc, you may not need to have an x-ray and that is something the doctor will decide, but do not be disappointed if you go to the doctor, think that you are going to get an MRI and you end up with a slip to get an x-ray, that is okay. The next test is a CAT scan. Now CAT scan still uses x-rays. It is still looking at bone, but it is a much more sophisticated test than an x-ray. A CAT scan takes very thin slices all through the neck with an image, not real slices with a knife, but as if you took a knife and it lets us look at all the different layers of the bone in the neck from all the way from below the skull all the way down to C7 and this is good to check for fractures, to check for tumors, to check for arthritis, and it is not as popular as it used to be because we have the MRI, but still a very good test sometimes to have to rule out a fracture. So if you have car accident again, you may start with an x-ray and if they do not see anything or if they see something that is suspicious you may end up with a CAT scan. Sometimes CAT scans are also used to diagnose herniated discs and that is okay. It is a less expensive test than the MRI, so sometimes the insurance companies will want to push you towards a CAT scan and that is okay. It is a first line test to see if you have a herniated disc. But the best test to check for a herniated disc is the MRI. The MRI does not use x-rays, does not use radiation. It uses a magnet, so that is a very safe test. There is no radiation involved with it at all. There are no really side effects from an MRI scan. It does not really look at the bone that well. What it looks at is that we call the soft tissue. What is soft tissue? Soft tissue is the disc, remember it is rubbery. The soft tissue is the nerve. The nerve is like a worm. It is very soft, looks at the spinal cord. So if you are having symptoms, nerve symptoms of numbness, tingling, weakness, we
want to take a look at the nerves and we do that with an MRI scan. So frequently if you have symptoms of a herniated disc in the cervical spine and you are not getting better, meaning after two, three, four, five, six
weeks, you may then be a candidate for the MRI and I think the MRI is the best test to check for a herniated disc. There is one more test I want to tell you about that is not used very often, but sometimes may be used and that is called a CT myelogram. That is a plain PET scan or CT scan, but it is done after you have an injection in the neck or what is called contrast material which is some clear fluid and that injection sort of paints an outline of all the nerves and then we take those slices with a CAT scan and that gives a beautiful picture of the nerves. So sometimes we have a patient who we know has a herniated disc and we do the MRI scan and we do not see anything there and we are still puzzled, what we will do is we will send that patient for a CT myelogram and that is even a more detailed study. But we do not do this as a first line, why, because a CT scan involves radiation and the myelogram involves an injection, so anything that is invasive or potentially dangerous to you is something we want to reserve for only as an as needed basis. So that is usually a test that is offered very infrequently, but sometimes it is very important and that is called the CT myelogram.

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