College of Veterinary Medicine

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Diagnostic Imaging

Open House 2021

This is how small animals are radiographed:

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And this is how it looks for large animals:

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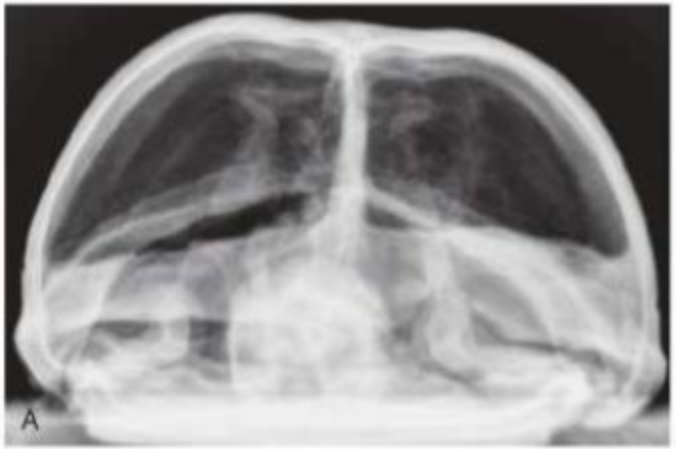
Sometimes it’s hard to know what we’re looking at...



… until we see it in another way!

This is what an arm fracture in a dog looks like.

And this is how it’s fixed!

Common repair of lateral humeral condylar fracture

If the fracture is really bad, sometimes repairing it looks like this:

T-Y fracture, most complex type of humeral condylar fracture

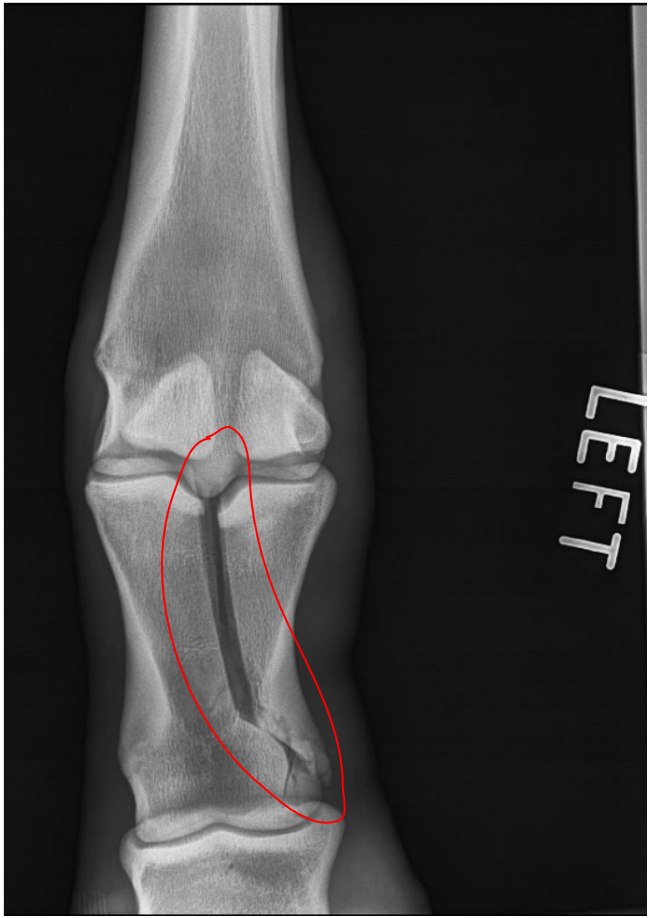
Sometimes, we can't always see a problem in just one picture, or "view".

This horse's leg looks fine, right?

Oh no!

A different view shows us it’s broken!

Can you spot the fracture?



Even looking at a “normal” leg, it’s amazing how much more you can see by just changing your perspective!

These may look different at first, but they’re all views of the same part of a back leg of a horse.

Anatomy!

Knowing what is considered “normal” is an important part of diagnosing with imaging. For example, a little dog, like a dachshund aka a “weiner dog” typically have short legs and long bodies. This is a big difference from a big German Shepherd. So the images you are going to see are going to be different as well!

The key to a good diagnosis…

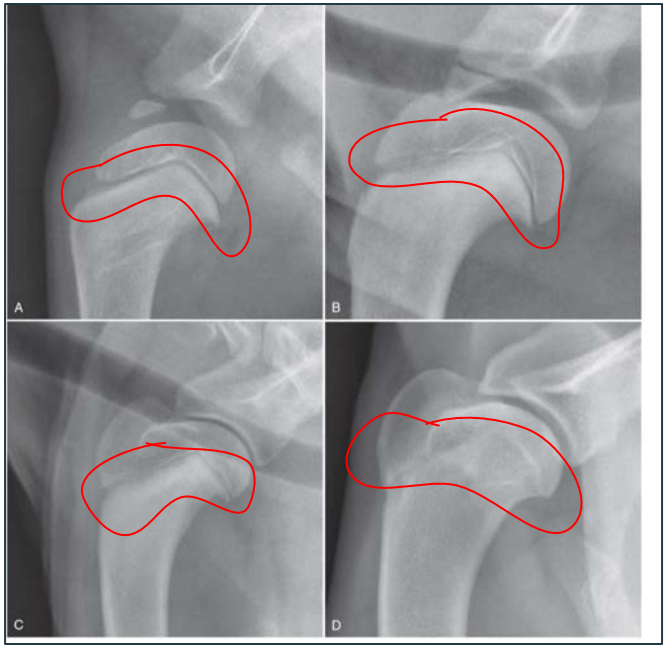
As a clinician you need to be able to apply your knowledge of different species on a 2D image.

For example what's wrong here?

NOTHING!

These images show how a bone changes as a pet ages from a puppy (the “broken” appearance in the image on the top left) to an adult (bottom right).

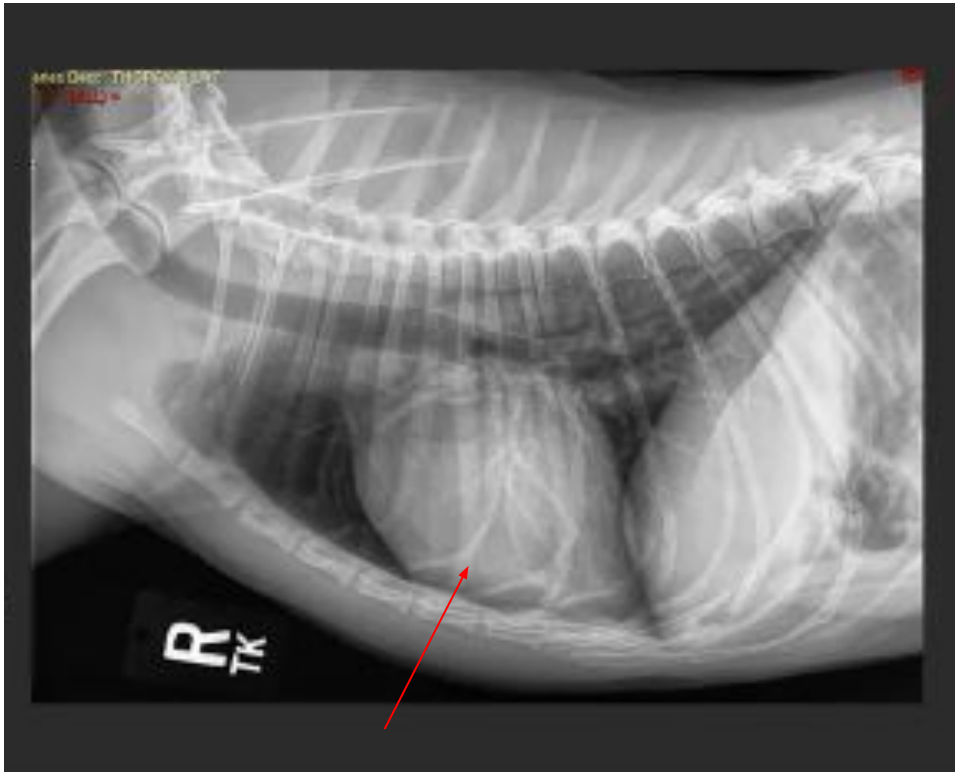
A good veterinarian needs to know these signs in order to not misdiagnose something when taking these images.



On to the thorax!

Veterinarians can radiograph any part of the animal's body, how incredible!

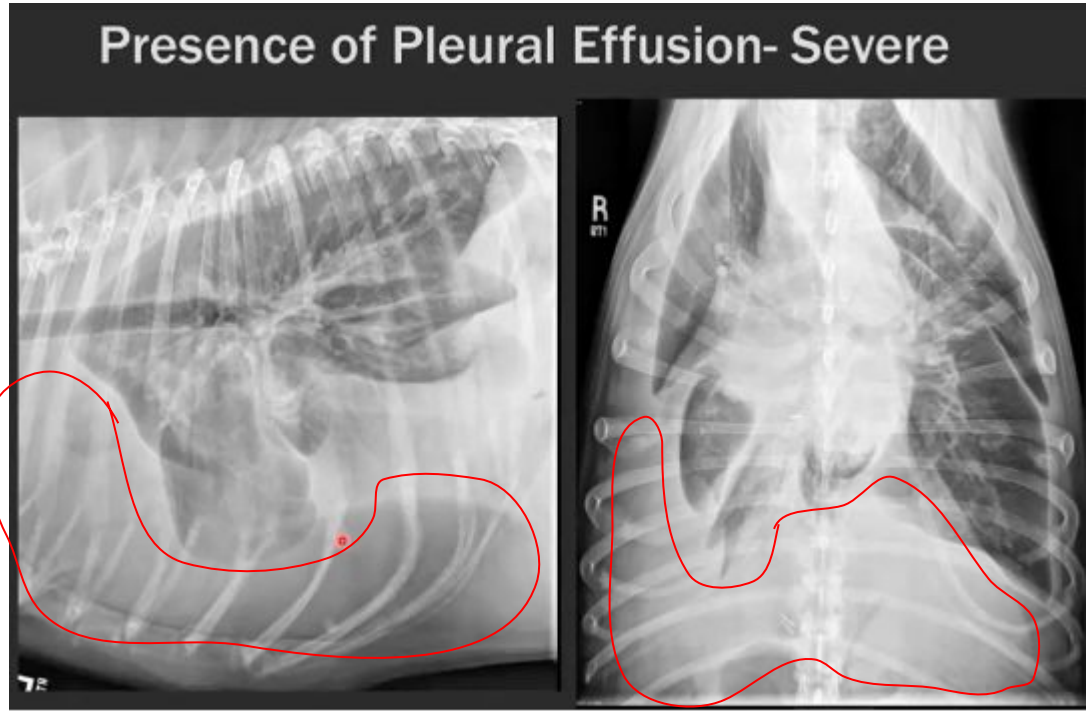
Which organ do you think is the heart?



Let’s take a look at the lungs

We can also use radiographs to detect any fluid in the chest cavity.

See all of the cloudiness? That’s fluid!



The Abdomen

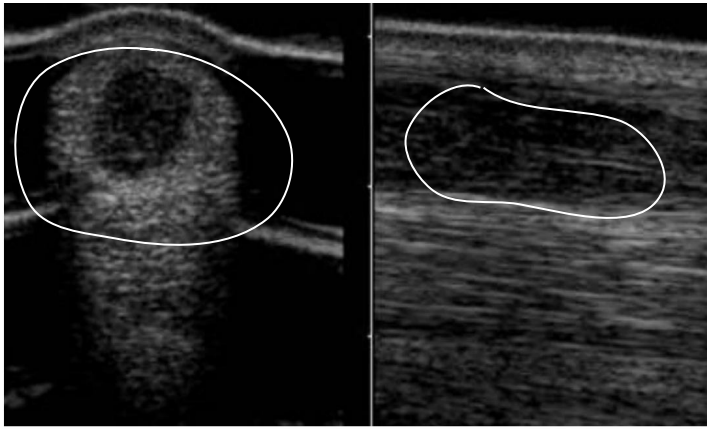
Radiographs can also be used to estimate how many puppies a dog will have!

How many puppies do you think are here?

We can see 14 skulls, but there may be some overlapping each other, so there may be a few more! That’s a lot of puppies!

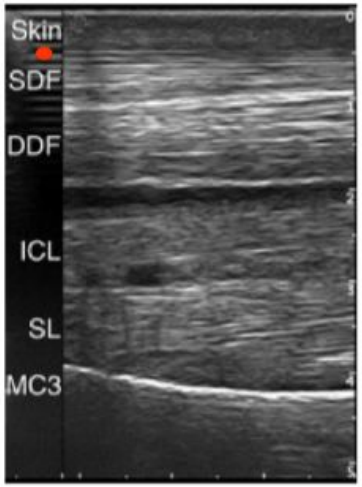
This helps to create a stronger diagnosis.

Veterinarians can use radiographs, ultrasound, MRI's, etc. To look at the inside of the pets body without the need for surgery. Being able to distinguish abnormalities helps with a stronger diagnosis. Note this ultrasound of a tear. We are able to see a dark area in the fiber, which is an indication of a tear and a blood clot.



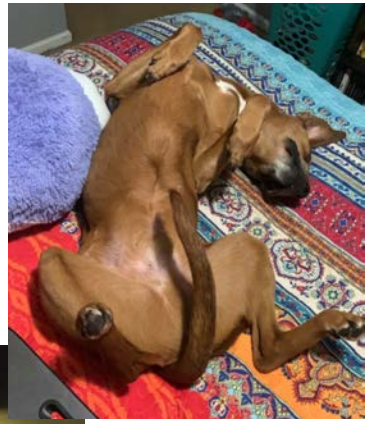
Ultrasound can be used in many different ways!

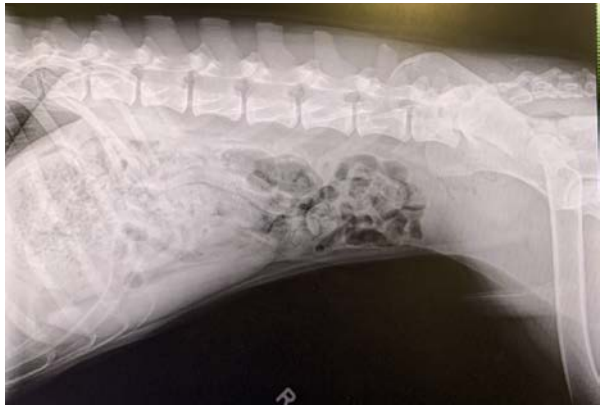
From looking at soft structures in the belly to harder structures in the leg, we can detect abnormalities we wouldn't be able to see with just our eyes alone. Here you can see the different layers of muscle underneath the skin of this horse's leg. How cool is that!?



Diagnostic imaging is so important to figure out what is going on inside! Animals cannot tell us where it hurts, so we have to use our veterinary skills to find the cause to be able to treat them! We hope this was exciting to learn about! Definitely ask your vet next time to see how your fur baby looks like on the inside!

This is how my boy Kato looks like on the inside and out!





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