

## PREVIEW\_ Mark Berger - Presentation (Breckenridge 2017) 1

**Dr. Berger:** Just to orient people who are not familiar with cross-sectional imaging, this is a picture of a CT scan. This explains what we're seeing. This is a person... let's pretend that you're standing at the person's feet and you're looking at their head. The person is right as you look at them to your left.

And it's opposite and the right is the patient's left. And they're laying on their back and the white area at the bottom is the spine and then the front of the belly, kind of like umbilicus area, is anterior. And so this person has actually a normal distribution of fat. And on CT fat is black.

And you can see the rim of black around the perimeter and that's a very normal amount of subcutaneous fat. This person has very little visceral fat. Tiny little triangles of dark that you can see interpose between bowel. So this would be the normal fat distribution. And the problem with the waist circumference...

Now this is... are eight different patients and this is an MRI. And rather than the fat been black that we saw on CT, the fat is actually white on MRI. And these are eight different individuals all of the same waist circumference.

So the problem is in the very first one, they have very little visceral fat and in the bottom, the very last one, they have a tremendous amount. Now this waist circumference in this individual comes in at 38. They're going to pass as non-obese using the waist circumference technique.

But the actuality is this person on the bottom here would be... Somebody would call TOFI - thin on the outside, fat on the inside. They have a lot of visceral fat and would be at increased metabolic risk compared to the people who were earlier on in this slide.