Scary-sounding 'black disc disease' really a common, benign condition

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Question: I have been diagnosed with black disc disease. I've never even heard of this condition. The doctor said my back looked like I have been smoking for 40 years every day.

I have never smoked, but lived near a steel mill, chemical plant, nuclear plant, and a limestone quarry off of the Detroit River in Michigan. Can toxins in water and air cause Black Disc Disease?

Answer: Thank you for your question. First, let me make sure that it has been explained to you what black disc disease actually means.

“Black disc disease” isn’t a disease

There isn't really a disease called “black disc disease”. It's really just a reference to a condition in which a person's spinal discs have begun to deteriorate, usually due to wear and tear. The name sounds scary, kind of reminds you of "black lung", but it's really a very common, very benign condition.
See, when our discs begin to wear out, one of the first things that happens is that they start to dry out a bit. Normally the center part of our discs (called the "nucleus") is a very moist, springy cartilage. As we age, the nucleus dries out. When you do an MRI of someone's back, things with water in it (like fat, or other areas with lots of water) look brighter. The less water, the darker it looks. When the center of your discs dry out, they start to look black in the middle on the MRI.

It is important to realize your discs do NOT actually turn black! They just look that way on MRI scans. So I hope you understand, you don't have a disease, you just have worn-out discs.

**Causes of “black disc disease”**

**Smoking** – We know that much more rapid disc deterioration exists in smokers than average people.

**Physical activity** – We also know that many years of strenuous physical activity can wear out your discs.

**Genetics also plays a role** – lots of people (but not everyone) with "black discs" have several relatives who have had back problems.

**Environmental impact?** – We don't really know if any other kinds of toxic exposures have any effect on disc deterioration.

So there, after all that, I can only tell you "we don't know" if toxins contribute to "black disc disease". But at least I hope this helps you understand things better. My very unscientific guess is that these things in your environment probably haven't caused your discs to wear out, but I don't know with certainty.

Good luck, and take care.

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