

Radiologists Conceal Heavy Metal Accumulation From MRIs

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✓ Fact Checked

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STORY AT-A-GLANCE

- › Enhanced MRIs use a contrast agent or dye to improve the clarity of the images produced. A poll revealed 58% of radiologists avoid informing patients when deposits of toxic contrast agents are discovered
- › The most commonly cited justification for omitting any mention of gadolinium deposits in their radiology report was to avoid provoking “unnecessary patient anxiety” over toxicity
- › Gadolinium, a toxic heavy metal, is the contrast agent of choice in about one-third of cases. To reduce its toxicity, the gadolinium is administered with a chelating agent. Research suggests as much as 25% of the gadolinium injected is not excreted, and deposits are still found in some patients long afterward
- › In a 2016 paper, researchers propose gadolinium deposits in the body should be viewed as a new disease category, “gadolinium deposition disease”
- › Patients at high risk for gadolinium deposits include those requiring multiple lifetime doses, pregnant women, children and patients with inflammatory conditions. Minimize repeated high contrast MRIs when possible, particularly closely spaced MRI studies

This article was previously published November 20, 2019, and has been updated with new information.

Magnetic resonance imaging (MRI) is an imaging study that allows your physician to see detailed pictures of your organs and tissues. The MRI machine uses a large magnet,

radio waves and a computer to take detailed cross-sectional pictures of your internal organs and tissues.¹

The scanner looks like a tube with a table that enables you to slide into the tunnel of the machine to gather data. Unlike CT scans or X-rays that use ionizing radiation known to damage DNA, the MRI uses magnetic fields.

Images from an MRI give physicians better information about abnormalities, tumors, cysts and specific organ problems with your heart, liver, uterus, kidneys and other organs.

In some instances, your physician may want an enhanced MRI, one using a contrast agent or dye to improve the clarity of the images produced. According to a recent international poll,² a majority of radiologists avoid informing patients when deposits of toxic contrast agents are discovered.

FDA Guidance on Gadolinium

Gadolinium is the contrast agent of choice in about one-third of cases.³ It's injected into your body, allowing for greater detail to show up in the MRI images. There's a price for this, however, as gadolinium is a highly toxic heavy metal.

To reduce its toxicity, the gadolinium is administered with a chelating agent.⁴ However, research suggests as much as 25% of the gadolinium injected in certain patients is not excreted,^{5,6} and deposits are still found in some patients long afterward.

In 2015, the U.S. Food and Drug Administration (FDA) began investigating the potential health effects from brain deposits of gadolinium, and released guidelines⁷ on the use of gadolinium-based contrast agents (GBCAs) to lower any potential risk.

Two years later, the agency issued an update⁸ saying "Gadolinium retention has not been directly linked to adverse health effects in patients with normal kidney function," and that the benefits of GBCAs outweigh potential risks. Still, the agency required a new

class warning and certain safety measures to be implemented. In its December 19, 2017, safety announcement, the FDA stated:⁹

"... after additional review and consultation with the Medical Imaging Drugs Advisory Committee, we are requiring several actions to alert health care professionals and patients about gadolinium retention after an MRI using a GBCA, and actions that can help minimize problems.

These include requiring a new patient Medication Guide, providing educational information that every patient will be asked to read before receiving a GBCA. We are also requiring manufacturers of GBCAs to conduct human and animal studies to further assess the safety of these contrast agents ...

Health care professionals should consider the retention characteristics of each agent when choosing a GBCA for patients who may be at higher risk for gadolinium retention ...

These patients include those requiring multiple lifetime doses, pregnant women, children, and patients with inflammatory conditions. Minimize repeated GBCA imaging studies when possible, particularly closely spaced MRI studies."

Patients Responsible for Requesting Medication Guide

However, while MRI centers are required to provide the gadolinium medication guide to all first-time patients scheduled for an enhanced MRI, hospital inpatients are not required to receive the guide unless the patient specifically requests it. A rather disconcerting detail mentioned in the FDA's May 16, 2018, update is that:¹⁰

"A health care professional who determines that it is not in a patient's best interest to receive a Medication Guide because of significant concerns about its effects may direct that it not be provided to that patient."

In other words, if they think you might say no to the procedure because you're worried about heavy metal toxicity, the health professional is allowed to simply withhold the

safety information. Only if you specifically ask for it must that guide be provided to you.

While the FDA decided not to restrict the use of any GBCAs, the European Medicines Agency's Pharmacovigilance and Risk Assessment Committee has recommended suspending the use of four linear gadolinium contrast agents shown to be less stable (and therefore more likely to accumulate in the brain and cause issues in those with kidney problems) than macrocyclic GBCAs.¹¹

Most Radiologists Hide Findings of Gadolinium Deposits

An equally disturbing finding¹² is that 58% of radiologists hide findings of gadolinium deposits from patients when they're found on scans. As reported by Health Imaging,¹³ the most commonly cited justification for omitting any mention of gadolinium deposits in their radiology report was to avoid provoking "unnecessary patient anxiety."

However, this also prevents patients from taking action to protect their health, which could be really important if they're experiencing effects of gadolinium toxicity and haven't put 2 and 2 together yet.

To date, the greatest danger of GBCA has been thought to be relegated to those with severe kidney disease, in whom GBCA exposure has been linked to nephrogenic systemic fibrosis (NSF),¹⁴ a debilitating disease involving progressive tissue fibrosis involving skin and subcutaneous tissues.¹⁵ To avoid this, those with kidney disease need to receive more stable forms of chelate with the gadolinium.¹⁶

However, the fact that gadolinium can accumulate in the brain (and throughout your body) even if you do not have kidney problems could have significant, hitherto unrecognized, dangers. For example, use of GBCAs has been linked to hypersensitivity in two brain regions (the dentate nucleus and globus pallidus),¹⁷ the consequences of which are still unknown.

Hyperintensity in the dentate nucleus has previously been linked to multiple sclerosis, and according to more recent research, this hyperintensity may actually be the result of

the large number of enhanced MRI scans MS patients tend to receive.¹⁸ Hyperintensity of the globus pallidus, meanwhile, has been linked to liver dysfunction.

Researchers Propose New Gadolinium Disease Category

In the 2016 paper,¹⁹ "Gadolinium in Humans: A Family of Disorders," the researchers actually propose that GBCA deposits in the body should be viewed as a new disease category. They write:

"In early 2014, an investigation by Kanda et.al. described the development of high signal intensity in brain tissue on T-2 weighted images of patients with normal renal function after repeated administrations of GBCA ...

This caught many radiologists by surprise, as many had thought that deposition of gadolinium could not occur in patients with normal renal function. This deposition results in signal-intensity increase on unenhanced T1-weighted images in different regions of the brain, primarily in the dentate nucleus and globus pallidus ...

To our knowledge, neither the bone deposition first reported by Gibby et. al. nor the brain deposition first reported by Kanda et. al. have been associated with recognized disease. We propose to name these storage entities 'gadolinium storage condition.'

Along a separate avenue of inquiry, patient advocacy groups have formed, with an online presence in which individual members report that they have experienced severe disease following the administration of GBCAs.

Some of these patients have reported persistent presence of gadolinium in their systems, as shown by continued elevated gadolinium in their urine. All experience a variety of symptoms including pain in both the torso and the extremities; the latter location is associated with skin thickening and discoloration.

These physical features are similar, but lesser in severity, to those reported for NSF. Our preliminary investigation has convinced us that this phenomenon is a true disease process, which we propose naming 'gadolinium deposition disease.'"

The researchers go on to note other common signs and symptoms of "gadolinium deposition disease," such as persistent headache, bone, joint, tendon and ligament pain (often described as sharp pins and needles, cutting or burning), tightness in the hands and feet, brain fog and soft-tissue thickening that "clinically appears somewhat spongy or rubbery without the hardness and redness observed in NSF."

Lawsuit Highlights Gadolinium Dangers

"Gadolinium deposition disease" is what Chuck Norris' wife Gena claims to have developed after undergoing three contrast-enhanced MRIs in a single week to evaluate her rheumatoid arthritis.

The study cited above is part of the evidence included in the Norris' lawsuit²⁰ (filed in November 2017) against several manufacturers and distributors of GBCAs. According to the lawsuit, the risks of gadolinium were known, yet patients are not warned.

Gena's symptoms began with a burning sensation in her skin. In a 2017 Full Measure interview, she described it as if there was acid burning her skin, slowly covering her body.²¹ Mental confusion, muscle spasms, kidney damage and muscle wasting followed.

She visited the emergency room several nights in a row, where doctors ran tests for ALS, MS, cancer and Parkinson's disease. The couple's attorney, Todd Walburg, told CBS News,²² "We have clients who have been misdiagnosed with Lyme disease, ALS, and then they've eventually ruled all those things out and the culprit remaining is the gadolinium."

In fact, it was Gena who made the connection between her symptoms and the MRIs she had undergone. She told Full Measure:²³

"When we got to the hospital in Houston this last time, and I'm so bad and I said, listen, I am sober enough in my thinking right now, because I had such brain issues going on, I said I'm only going to be able to tell you this one time and I need you to listen to me very closely. I have been poisoned with gadolinium or by gadolinium and we don't have much time to figure out how to get this out of my body or I am going to die."

The Norrises claim they've spent nearly \$2 million on efforts to restore Gena's health, with little progress. Even chelation therapy has had limited success.²⁴

Heavy Metal Toxicity Is a Common Modern Hazard

Heavy metals are widely distributed throughout the environment from industrial, agricultural, medical and technical pollution. Heavy metal toxicity has documented potential for serious health consequences, including kidney, neurological, cardiovascular, skeletal and endocrine damage.

Heavy metals most commonly associated with poisoning are arsenic, lead, mercury and cadmium, which are also the heavy metals most commonly found in environmental pollution. Symptoms of heavy metal poisoning vary based on the organ systems affected.

Scientists have found that heavy metals also increase oxidative stress secondary to free radical formation.²⁵ Testing for heavy metal toxicity includes blood, urine and hair and nail analysis for cumulative exposure.

Detoxification can be difficult, and needs to be done with proper care. I've written several articles about this. More information can be found in "The Three Pillars of Heavy Metal Detoxification" and "The Walsh Detoxification Program."

Carefully Consider Your Need for Contrast MRI

The key take-home message here is to avoid using MRI scans with contrast unless absolutely necessary. Many times, physicians will order these tests just to be complete and cover themselves from a legal perspective.

If that is your case, then simply refuse to have the test done with contrast. If necessary, consult with other physicians that can provide you with a different perspective.

This is particularly important if you have a condition such as MS in which multiple MRIs are done. Also remember that multiple MRIs with contrast will be particularly dangerous the closer they're done together.

If You Need an MRI, It Pays to Shop Around

While I always recommend being judicious in your use of medical diagnostic procedures, there are times when it is appropriate and useful for you to have a certain test.

What many don't realize is that the fees for these procedures can vary tremendously, depending on where they are performed. Hospitals tend to be the most expensive option for diagnostics and outpatient procedures, sometimes by an enormous margin.

Freestanding diagnostic centers are alternative places to obtain services such as lab studies, X-rays and MRIs, often at a fraction of the cost charged by hospitals. Private imaging centers are not affiliated with any particular hospital and are typically open for Monday through Friday business hours, as opposed to hospital radiology centers that require round-the-clock staffing.

Hospitals often charge higher fees for their services to offset the costs of their 24/7 operations. Hospitals also may charge exorbitant fees for high-tech diagnostics, like MRIs, to subsidize other poorly reimbursed services. And, hospitals are allowed to charge Medicare and other third-party insurers a "facility fee," leading to even more price inflation.

So, if you do find that you need an MRI, don't be afraid to shop around. With a few phone calls to diagnostic centers in your area, you could save up to 85% over what a hospital would charge for the same service.

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