

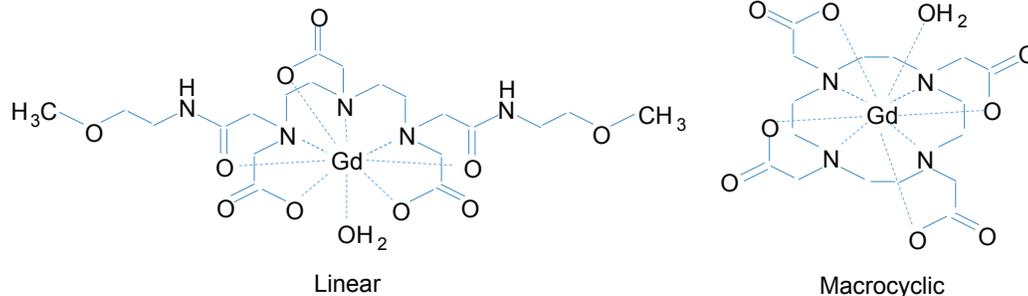
# What You Need to Know About MRI Contrast Agents

## What are MRI contrast agents?

Radiologists must be able to differentiate between various types of internal tissue in a patient's body. To assist in effectively seeing the internal tissues, a media known as 'contrast' comes into play. Contrast is introduced into the body during the imaging process, allowing for improved visibility of the areas of focus. The most commonly utilized contrasts are known as Gadolinium-based contrast agents (GBCAs).

## Let's talk science. Are there differences between GBCAs?

Yes, there are two key structural differences among GBCAs that impact how they metabolize in the human body. These contrast agents are classified as either "linear" or "macrocylic." To more clearly visualize what this means, have a look at the following comparison:



Linear contrast agents display a "chain-like" formation while macrocylic agents are identified by their "cage-like" formation. As you may imagine, the macrocylic configuration allows the centralized Gadolinium (Gd) to be more protected than the linear, and hence, less likely to break down (i.e. dissociate) in the body. With a reduction in dissociation, there is also a reduction in the side-effects. The risk from gadolinium administered agents remains extremely low, perhaps lower than any injected contrast agents for all modalities. Still, the protective "cage" of the macrocylics reduces this risk to the lowest possible level.

## What physicians and patients can expect from ProScan

Patient well-being is ProScan's number one priority. We endeavor to apply our long history of expertise in MRI safety and exemplary patient care towards improving the quality of life for our patients. Patients can take comfort in knowing that prior to an MRI, their personal medical history is reviewed by experienced technologists. It is our policy that contrast should only be given when necessary, and at the lowest dose possible to obtain a diagnosis. Moreover, when contrast is required, ProScan will implement the use of the safest agent, the macrocylic GBCA, Dotarem® (Guerbet<sup>1</sup>), which has shown no experimental evidence of Gadolinium retention.<sup>2</sup>

**To find out more about MRI Contrast Agents, please talk to your physician or call ProScan at 1-877-PROSCAN (776-7226)**

### References:

1. Guerbet. (05Oct2017). *Our Products: MRI*. Retrieved from: <http://www.guerbet.com/our-products/mri-contrast-agents.html>
2. Lee JY, Park JE, Kim HS, Kim S-O, Oh JY, Shim WH, et al. (31Aug2017). *Up to 52 administrations of macrocylic ionic MR contrast agent are not associated with intracranial gadolinium deposition: Multifactorial analysis in 385 patients*. PLoS ONE 12(8): e0183916.

## Key Facts:

- Patient well-being is ProScan's number one priority.
- ProScan reviews every patient's personal medical history to ensure there are no problems with performing an MRI with contrast.
- In over 1,000,000 cases, ProScan has never had any serious contrast-related issues.
- ProScan administers contrast only when necessary, and at the lowest dose possible.
- ProScan uses Dotarem® contrast agent which is the safest and most stable agent with the fewest side effects.

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