Contrast Materials

Contrast materials, also called contrast agents, media or solutions, are used to improve images of the inside of the body produced by X-rays, computed tomography (CT) and magnetic resonance (MRI) imaging.

When introduced into the body prior to an imaging procedure, contrast materials make certain structures or tissues appear different on the images than they would if no contrast material had been administered. A simple way to think about contrast material is to compare its use to turning on the lights on a Christmas tree; the tree looks very different with or without lights on.

Contrast materials enter the body in one of three ways:

- Swallowed
- Administered rectally
- Injected into a blood vessel (IV - intravenously or IA - intra-arterially)

Following the imaging examination, the material is absorbed by the body or eliminated through urine or bowel movements.

Imaging exams that use contrast materials

- CT exams (abdomen, chest, vessels (angiograms))
- X-ray exams of the GI (gastrointestinal) tract
- MRI exams of internal organs, brain, breast and vessels

Contrast materials are safe drugs; adverse reactions ranging from mild to severe do occur however they are very uncommon. While serious allergic reactions to contrast materials are rare, our imaging department is well-equipped to manage such reactions.

IV (intravenous) contrast and breast-feeding

Women who are breast-feeding should be aware that a tiny amount (less than 0.01%) of the contrast material received from an IV injection is passed into the milk and absorbed by the baby. There have been no reports of harmful effects from the contrast to the baby from breast-feeding therefore, you may continue to breast-feed normally. If you are still concerned about any potential harm to your baby, you can express your concern and discard the breast milk for 24 hours and feed your baby with stored breast milk or formula.
IV contrast material in the kidneys, ureters and bladder.

Contrast material (barium) swallowed during an upper GI study shows the stomach.

Angiogram image showing the vessels of the brain.