

FIVE THINGS TO KNOW ABOUT ...

Intravascular contrast media for imaging in breastfeeding women

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Breastfeeding mothers may be advised to interrupt breastfeeding after undergoing an imaging procedure with contrast

Breastfeeding mothers who require intravascular iodinated or gadolinium-based contrast for an imaging procedure may be advised to interrupt breastfeeding and discard their breast milk for 24 to 48 hours after exposure to the contrast media. However, this recommendation, even if it is listed on product labels, is not evidence-based.¹

Interruption of breastfeeding for 24 to 48 hours may not be a completely benign intervention

Breastfeeding has many known benefits. The interruption of breastfeeding may cause difficulties such as breast refusal upon resumption.²

Less than 1% of the maternal dose of contrast media is excreted into breast milk

Nearly 100% of the small amount (1%) of iodinated and gadolinium-based contrast media that would be excreted into breast milk is cleared from the maternal bloodstream in 24 hours.^{1,3,4} Although studies of clearance and excretion of contrast media in breastfeeding women are limited by small sample sizes, the results have been consistent.



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Less than 0.01% of the maternal contrast dose is absorbed from the gastrointestinal tract of the breastfed infant

The level of contrast agent absorbed by the infant (0.01% of the maternal dose) is less than 1% of the levels of agents administered to neonates during imaging procedures.^{1,3,4} These studies are also limited by small sample sizes; however, the results are consistent.

Guidelines recommend that it is safe to continue breastfeeding after medical imaging with intravascular iodinated or gadolinium-based contrast

Although there are no controlled trials to directly examine the safety of breastfeeding after imaging with contrast because of ethical considerations, the evidence on excretion and absorption suggest that it is safe for mothers to continue breastfeeding.⁵ Interruption is a choice for the informed parent.

References

1. Webb JA, Thomsen HS, Morcos SK. The use of iodinated and gadolinium contrast media during pregnancy and lactation. *Eur Radiol* 2005;15:1234-40.
2. Newman J. Breastfeeding and radiologic procedures. *Can Fam Physician* 2007;53:630-1.
3. Nielsen ST, Matheson I, Rasmussen JN, et al. Excretion of iohexol and metrizoate in human breast milk. *Acta Radiol* 1987;28:523-6.
4. Kubik-Huch RA, Gottstein-Aalame NM, Frenzel T, et al. Gadopentetate dimeglumine excretion into human breast milk during lactation. *Radiology* 2000;216:555-8.
5. Administration of contrast media to breastfeeding mothers. In: *Manual on contrast media, version 7*. Reston (VA): American College of Radiology; 2010. p. 61-2. Available: www.acr.org/SecondaryMainMenuCategories/quality_safety/contrast_manual/FullManual.aspx (accessed 2012 Apr. 13).

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