

Radiocontrast media and breastfeeding

X-rays, MRIs, CAT scans, Intravenous Pyelogram (IVP), ultrasound, mammograms, etc. do not affect breastfeeding. Barium is sometimes used as a contrast agent; it is not absorbed orally and thus does not affect breastfeeding.

Sometimes radiocontrast dyes are used to aid the imaging - these dyes do not require that mom interrupt breastfeeding.

"Although most package inserts for these products suggest that nursing mothers postpone breastfeeding their babies for 24 hours after use, research indicates that this is not necessary (Kubik-Huch 2000; Rofsky 1993; Nielson 1987; Fitz-John 1982). In Medications and Mothers' Milk (2002), Dr. Thomas Hale explains that 'Although under usual circumstances iodine products are contraindicated in nursing mothers (due to ion trapping in milk), these products are unique in that they are extremely inert and do not release free iodine... They are virtually unabsorbed after oral administration' (Hale, p. 480). In mothers who have used these agents while breastfeeding, no effects have been reported in their nursing babies (Kubik-Huch 2000; Nielson 1987). These preparations are also used in children for diagnostic purposes."

From: Mohrbacher N, Stock J. *The Breastfeeding Answer Book*. 3rd Revised Edition. Schaumburg, Illinois: La Leche League International; 2003:508.

"Because of the very small percentage of iodinated contrast medium that is excreted into the breast milk and absorbed by the infant's gut, we believe that the available data suggest that it is safe for the mother and infant to continue breastfeeding after receiving such an agent... Review of the literature shows no evidence to suggest that oral ingestion by an infant of the tiny amount of gadolinium contrast agent excreted into breast milk would cause toxic effects. We believe, therefore, that the available data suggest that it is safe for the mother and infant to continue breastfeeding after receiving such an agent."

From: American College of Radiology Committee on Drugs and Contrast Media. Administration of Contrast Medium to Breastfeeding Mothers. *ACR Bulletin*. Oct 2001;57(10):12-13.

"Contrast medium is not appreciably deionated. In addition, the absorption of hydrophilic contrast medium is minimal when it is given orally for imaging studies of the gastrointestinal tract. Since no toxicity is known in full-term infants even after the direct administration of contrast medium, the use of these compounds by breastfeeding women appear to pose no risk to their infants."

From: Ito S. Drug therapy for breast-feeding women. *N Engl J Med*. Jul 13, 2000;343(2):118-26. See particularly "Iodine-Containing Contrast Medium and Antiseptic Agents" on p. 123-124.

Contrast dyes & radiopaque agents approved by the AAP for use in breastfeeding mothers *			
Generic name	Trade Name	Pregnancy Risk Category**	Lactation Risk Category**
Diatrizoate	-	-	NR
Fluorescein	-	C	L3
Gadopentetic (Gadolinium)	-	C	L2
Iohexol	Omnipaque	B	L2
Iopanoic acid	Telepaque	D	L2
Metrizamide	Amipaque	B	L2
Metrizoate	Isopaque	B	L2

* American Academy of Pediatrics Committee on Drugs. Transfer of drugs and other chemicals into human milk. *Pediatrics*. Sep 2001;108(3):776-89.

** Hale TW. *Medications and Mothers Milk*. 11th Edition. Amarillo, Texas: Pharmasoft Publishing; 2004.

Lactation Risk Categories	Pregnancy Risk Categories
L1 (safest)	A (controlled studies show no risk)
L2 (safer)	B (no evidence of risk in humans)
L3 (moderately safe)	C (risk cannot be ruled out)
L4 (possibly hazardous)	D (positive evidence of risk)
L5 (contraindicated)	X (contraindicated in pregnancy)
NR: Not Reviewed. This drug has not yet been reviewed by Hale.	

References:

Riordan J. *Breastfeeding and Human Lactation*. 3rd ed. Boston and London: Jones and Bartlett; 2004:159-161.

Hale TW. *Medications and Mothers Milk*. 11th Edition. Amarillo, Texas: Pharmasoft Publishing; 2004.

Mohrbacher N, Stock J. *The Breastfeeding Answer Book*. 3rd Revised Edition. Schaumburg, Illinois: La Leche League International; 2003:508, 609-612.

American College of Radiology Committee on Drugs and Contrast Media. Administration of Contrast Medium to Breastfeeding Mothers. *ACR Bulletin*. Oct 2001;57(10):12-13.

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Kubik-Huch RA, et al. Gadopentetate Dimeglumine Excretion into Human Breast Milk during Lactation. *Radiology*. 2000;216:555-558.

Hylton NM. Suspension of Breast-feeding following Gadopentetate Dimeglumine Administration (Editorial). *Radiology*. 2000;216:325-326.

Rofsky NM, Weinreb JC, Litt AW. Quantitative analysis of gadopentetate dimeglumine excreted in breast milk. *J Magn Reson Imaging*. Jan-Feb 1993;3(1):131-2.

Nielsen ST et al. Excretion of iohexol and metrizoate in human breast milk. *Acta Radiol*. Sep-Oct 1987;28(5): 523-6.

FitzJohn TP, Williams DG, Laker MF, Owen JP. Intravenous urography during lactation. *Br J Radiol*. Aug 1982;55(656):603-5.