



Nurses are Concerned With Artificial Growth Hormones in Dairy Products

Recombinant Bovine Growth Hormone (rBGH), also known as recombinant Bovine Somatotropin (rBST), has been used in dairy production in the U.S. since 1994. It is a synthetic, genetically engineered growth hormone injected into cows on 10-15% of dairy farms in the U.S. to increase milk production.

Milk and other dairy products are likely to have been produced, in part or in whole, with the use of rBGH unless they have been labeled as organic or produced without artificial growth hormones. (Organic, by definition, is rBGH-free.) Due to consumer demand, more and more dairies throughout the U.S. are committing to producing their milk and other dairy products without this artificial hormone.

As patient advocates, nurses all over the nation have started to encourage their patients and the health care facilities where they work to choose rBGH-free dairy products. They are also purchasing these products for themselves and their families.

Why Nurses Recommend rBGH-Free Dairy Products

- **The American Nurses Association adopted a resolution in June 2008 calling for healthier food in health care, including the elimination of rBGH in dairy production.**
- **Increased harmful health effects in dairy cows.** Cows injected with rBGH have higher rates of 16 harmful medical conditions, including mastitis (udder infections), chronic diarrhea, reduced pregnancy rates, and lower birth weight of calves. ^{i ii iii} Its use is opposed by the Humane Society of the U.S., Animal Protection Institute & Humane Farming Association.
- **rBGH increases antibiotic use in animals and risk of antibiotic resistance in humans.** Use of rBGH causes increased rates of mastitis in cows, leading to increased use of antibiotics. This contributes to higher levels of antibiotic resistant bacteria in food, air, soil and water, thus elevating the risk of antibiotic resistance in humans, a major concern in health care. ^{iv v}
- **Potential cancer risk to humans.** Although there is no proof that rBGH use increases the risk of cancer in humans, significant scientific data point in this direction. Dairy cows treated with rBGH produce milk with greater levels of insulin-like growth factor (IGF-1). Studies indicate that elevated levels of IGF-1 increase the risk of cancer in humans. ^{vi vii viii ix x} Initially, the FDA and other organizations that follow its lead believed that dietary IGF-1 was destroyed during digestion in the gastrointestinal tract. More recent studies indicate that most IGF-1 survives digestion and may be absorbed when ingested with casein, the main protein in milk. ^{xi xii xiii} Even though naturally occurring IGF-1 levels are much higher than the additional amounts that may be obtained from dietary sources, small increases may nevertheless increase cancer risk. Choosing rBGH-free dairy products is an easy way to avoid consuming higher levels of IGF-1.
- **Use of rBGH is banned in more than 30 countries.** The use of rBGH has been banned in Canada, Australia, New Zealand, Japan and all 27 nations of the European Union. The main food safety body of the United Nations, Codex Alimentarius, has concluded twice that there is no consensus that rBGH is safe for human consumption.

What Nurses Can Do

Use the Nurses' rBGH Toolkit at: www.noharm.org/us/nurses/rBGH

- 1. Educate yourself & other nurses with the Nurses' Toolkit on rBGH.** You'll find scientific studies & other important information from Health Care Without Harm in the Nurses' Toolkit on rBGH.
- 2. Ask your hospital (or nursing home or school) to purchase rBGH-free dairy products** and join other hospitals and institutions around the country in doing so. Use the template for a letter in the Toolkit to write to the food service director at your institution. Download the rBGH-free purchasing guide and share it with your food service director.
- 3. Educate your patients.** Ask them to read the "Know Your Milk" brochure and watch the video from the Oregon Physicians for Social Responsibility's Campaign for Safe Food.
- 4. Educate the public and other hospital staff.** Hold a facility training and download or request materials to handout at nurses' meetings, health fairs and other events.
- 5. Purchase organic or rBGH-free dairy products** and encourage your family and your patients to do the same. A state-by-state listing of rBGH-free dairy products is available in the Toolkit. .
- 6. Send Dannon and Yoplait a postcard asking them to provide rBGH-free yogurt.** Download these postcards from the online Nurses' Toolkit to share with other nurses and friends. To receive pre-printed postcards, visit: www.oregonpsr.org and click on the Campaign for Safe Food.
- 7. Start a green team or food committee at your hospital or health care facility** to address these and many other environmental health and healthy food concerns.
Visit: www.healthyfoodinhealthcare.org

Scientific Studies Related to rBGH Use in Dairy Production

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- ⁱⁱ Doochoo L. et al, Report of the Canadian Veterinary Medical Association expert panel on rBST, section 7.
- ⁱⁱⁱ Freedom of Information summary for Posilac®, FDA, November 1993, Section 6-j.
- ^{iv} Broom D. et al, Report of the European Union Scientific Committee on Animal Health and Animal Welfare on Aspects of the Use of Bovine Somatotropin, <http://europa.eu.int>.
- ^v Kronfeld D., Recombinant bovine somatotropin and animal welfare, *Journal of the American Veterinary Medical Association*, June 1, 2000, 216(11):1719-1720.
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- ^{vii} Giovannucci E. et al, A prospective study of plasma IGF-1 and binding protein-3 and risk of colorectal neoplasia in women, *Cancer Epidemiology, Biomarkers & Prevention*, 2000, 9:345-349.
- ^{viii} Hankinson S. et al, Circulating concentrations of insulin-like growth factor 1 and risk of breast cancer, *Lancet*, May 9, 1998, 351(9113):1393-1396
- ^{ix} Moschos S. and Mantzoros C., The Role of the IGF System in Cancer: From Basic to Clinical Studies and Clinical Applications, *Oncology*, Nov. 4, 2002, 63(4):317-332
- ^x Yu H. and Rohan T., Role of the Insulin-Like Growth Factor Family in Cancer Development and Progression, *Journal of the National Cancer Institute*, Sept. 20, 2000, 92(18):1472-1489.
- ^{xi} Anderle P. et al, In Vitro Assessment of Intestinal IGF-1 Stability, *Journal of Pharmaceutical Sciences*, Jan. 2002, 91:1
- ^{xii} Kimura T. et al, Gastrointestinal absorption of recombinant human insulin-like growth factor-1 in rats, *Journal of Pharmacology and Experimental Therapeutics*, 1997, 283:611-618.
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