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The Controversy Over Added Hormones in Meat and Dairy

by Amanda Barrett, MA

So, what is this debate all about? Why do some people suspect hormonal additives are unhealthy? Are their suspicions founded? There is a lot of conflicting information about what additives may be in our dairy and meat products and what effect they have on us. It can be confusing to sort through all the noise. The truth is, there may not be clear answers, so how should you choose your food?

Hormones are present in all animal products whether or not the animals have been treated with hormone supplements.

The US Food and Drug Administration (FDA) and a joint committee of the Food and Agricultural Organization and World Health Organization (FAO/WHO) state that the amount of these hormones that make it into food products is safe for eating. Hormones and steroids are given to livestock to help improve the production of dairy and beef. Some hormones that may be used in dairy cows include:

> Recombinant bovine growth hormone (rBGH)— to promote milk production (may also see it as bovine somatotropin [BST])
> Estrogen, testosterone, and progesterone—steroid hormones added to promote growth and production.

Beef cattle are often given steroid additives to increase growth and development. Common steroids include:

> Natural steroids like estradiol, testosterone, and progesterone
> Man-mad steroids from compounds

These additives have proven benefits for increasing milk and meat production, but it does not come without controversy.

We know high levels of hormones can cause problems in the human body but can hormones we ingest really in meat and dairy alter our hormone levels? Concerns come from two different issues. The first is how much of these additives we absorb when we consume dairy or meat products. Do these additives simply pass through our digestive system or does our body absorb them? How much remains in products after processing?

The second concern is how these steroids or hormones affect the human body. Some hormones are specific to cattle, other are similar to hormones found in humans. Do they all impact levels of

human hormones?

The FDA's monitors all food products and have stated that the hormones are safe, but many argue that is not the case. Below are some of the arguments from both sides:

Recombinant Bovine Growth Hormone (rBGH)

Critics of rBGH argue that milk from treated cows contains higher levels of this hormone than milk from non-treated cows. However, the FDA concluded that there is not evidence that a biologically active form is absorbed. Also, the bovine growth hormone is not active in humans. If this is true, even if it was absorbed by humans, it would not be expected to affect health.

Insulin-like Growth Factor-1 (IGF-1)

IGF-1 is naturally present in both cattle and humans. It plays an important role in milk production, bone growth, and cell division. Since it occurs in both, it is assumed that humans can absorb extra IGF-1 from milk. It is possible that higher levels of IGF-1 in the blood may be associated with an increased risk of some cancers, but no evidence has proven a link. The same connection has been made to estrogen levels and risk of breast or ovarian cancer, although again, no evidence is present at this time.

Some argue that rBGH causes higher levels of IGF-1 in milk. The FDA, however, has reported that there is similar amounts of IGF-1 in milk from cows treated with rBGH as there is in milk of untreated cows.

Antibiotics

Cows treated with rBGH reportedly have higher incidence of infections in the udder (mastitis). These infections are treated with antibiotics. Like in humans, high use of antibiotics can create a resistance to certain bacteria making treatment difficult. It is unknown if the antibiotics used to treat the mastitis create harm in humans.

General additive concerns

With beef cattle, the arguments are similar. One organization points to evidence associating women who eat meat during pregnancy with sons who have low sperm counts. The FDA argues that residues of additives in beef are negligible in comparison to levels that occur naturally both in cows and humans.

Authorities also point out that steroid hormone levels in beef, whether from treated animals or not, are far lower than those found in eggs or milk. Additionally, these levels are dwarfed by high levels of plant estrogens—or phytoestrogens—present in soybeans, wheat germ, cabbage, broccoli, and many other vegetables. Phytoestrogens act like estrogen on the body.

Remember that no evidence has made a solid connection with either side of this argument. Many store chains and buyers will not use dairy or beef from farms using extra hormones. Some countries have banned their use because of the harm that it may do to the animals, not humans.

Until more rigorous research is done, some might prefer to err on the side of caution. Among authorities that do advise caution, most say that pre-pubescent children are at greatest risk. Pregnant women may also want to use caution. Here are some tips if you want to keep treated products off your or your family members' plate:

> Buy certified organic meat and meat products—Organic animals can only be fed 100% organic feed and cannot be given antibiotics or growth hormones. It is also safe to buy imported European meat products, as added growth hormones are banned in the EU.

Buy rBGH-free or certified organic milk and dairy products—Organic dairy farms do not allow the use of rBGH, and other companies that do not use rBGH often include this information on the label. It is also safe to buy imported European and Canadian cheeses and other dairy products, as rBGH is banned in these countries.

Resources:

The Organic Farming Research Foundation

http://www.ofrf.org

US Food and Drug Administration

http://www.fda.gov

Canadian resources

Dietitians of Canada

http://www.dietitians.ca

Health Canada

http://www.hc-sc.gc.ca

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Last reviewed October 2014 by Michael Woods, MD