Worried about 

**hormones in cattle?**

You don’t need to be!

Hormone implants are small, slow-release pellets placed under the skin in an animal’s ear to enhance production of natural hormones. Using hormone implants directs growth towards muscle and away from fat, which boosts growth rate and means less feed is needed for the animal to gain weight.²

All plants and animals have hormones naturally in their systems. Your body produces hormones no matter what you eat.²

The result is fewer resources are used to produce beef, with smaller impacts on the environment and your grocery bill.

Many common foods have higher amounts of hormones than beef produced with the use of hormone implants.³

<table>
<thead>
<tr>
<th>Food/supplement</th>
<th>Estrogen*</th>
<th>Servings of beef** (75 g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 g beef</td>
<td>1.1 ng</td>
<td>0.65</td>
</tr>
<tr>
<td>75 g beef</td>
<td>1.9 ng</td>
<td>1</td>
</tr>
<tr>
<td>75 g chicken</td>
<td>2.1 ng</td>
<td>1.1</td>
</tr>
<tr>
<td>75 g pork</td>
<td>2.5 ng</td>
<td>1.3</td>
</tr>
<tr>
<td>355 ml beer</td>
<td>15 ng</td>
<td>7.9</td>
</tr>
<tr>
<td>355 ml milk</td>
<td>51 ng</td>
<td>26.8</td>
</tr>
<tr>
<td>75 g cabbage</td>
<td>2025 ng</td>
<td>1,065.8</td>
</tr>
<tr>
<td>1 tbsp soybean oil</td>
<td>28,370 ng</td>
<td>14,931.6</td>
</tr>
</tbody>
</table>

Birth control pill: 20,000,00,000 ng* depending on brand

Compare those amounts to the amount of estrogen circulating in your body right now:⁶

- **Adult female:** 18,421.1 – 26,315.8
- **Adult male:** 12,814.1 – 17,119.5
- **Pre-pubertal girl:** 1,784.8 – 2,467.3
- **Pre-pubertal boy:** 598.2 – 897.3

The use of hormone implants is safe and regulated³

The use of hormone implants means fewer resources are used to produce beef:

- **11% MORE BEEF**
- **20% FEWER CATTLE**

**RESULTED FROM PRODUCTION PRACTICES LIKE THE USE OF HORMONE IMPLANTS BETWEEN 1977 AND 2007**³

**IF WE WERE TO RETURN TO TECHNOLOGY, WHILE MAINTAINING CURRENT PRODUCTION RATES, THE RESULTS WOULD BE …**

- **12% MORE CATTLE**
- **10% MORE LAND**
- **11% MORE FEED**
- **4% MORE WATER**
- **7% MORE FUEL**
- **10% MORE MANURE & GREEN HOUSE GASES**
- **8% MORE RETAIL BEEF PRICES**³

Researchers believe that increased body fat levels in young children, *not hormones in food, is one of the major causes of early onset puberty.*⁵

Birth control pills are effective because they contain hormones that are specially treated to protect them from being broken down by the acids and enzymes in your digestive system. Naturally occurring or implant hormones are not protected from digestion.²

Infant formula is a natural breast milk substitute which contains human hormones.²

Birth control pills are used effectively in millions of women worldwide without harm to human health.⁴

Researchers believe that increased body fat levels in young children, *not hormones in food, is one of the major causes of early onset puberty.*⁵

It's true that adding hormones make cattle grow faster, and more efficiently; this improves profitability for the producer.³

A financially sound industry fosters competition that keeps beef affordable, and the consumer and allows producers to invest in improvements for the future.³

So, whether you choose conventional or organic, delicious Alberta Beef is a safe part of a nutritious diet³

For references, more information about the beef industry, and beef recipes, please visit the consumer section of [www.canadabeef.ca](http://www.canadabeef.ca)

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1. Canada’s Food and Drug Act makes it law that hormone implants used must:
   1. Do what they are supposed to (be effective)
   2. Result in food products that are safe for people to eat on a regular basis
   3. Be safe for the animals

2. Hormone implants are small, slow-release pellets placed under the skin in an animal’s ear to enhance production of natural hormones. Using hormone implants directs growth towards muscle and away from fat, which boosts growth rate and means less feed is needed for the animal to gain weight.

3. The use of hormone implants means fewer resources are used to produce beef, with smaller impacts on the environment and your grocery bill.

4. Random sampling of final beef product is done by the Canadian Food Inspection Agency to ensure hormone levels are within the normal range.

5. No peer-reviewed scientific studies exist to indicate eating beef produced with hormone implants has any negative impact on human health.

6. The result is fewer resources are used to produce beef, with smaller impacts on the environment and your grocery bill.

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The use of hormone implants helps keep beef affordable, and the industry competitive and profitable³

**Whether you choose conventional or organic, delicious Alberta Beef is a safe part of a nutritious diet³**

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