

Why \$4.99 Costco Chicken Is a Massive Problem

Analysis by [Dr. Joseph Mercola](#)

✓ Fact Checked

July 07, 2023

STORY AT-A-GLANCE

- › Costco sells rotisserie chicken for \$4.99 and will go to great lengths to maintain this ultralow price. The company opened its own poultry CAFO in Fremont, Nebraska, to have better control over the size of the broilers
- › There are steep, hidden costs to CAFO chicken, including environmental costs, human health costs and ethical considerations
- › Current-day CAFO chickens contain more fat than protein and have lower amounts of omega-3 fats and higher omega-6 than they used to. Previous research has linked diets high in omega-6 to a rise in obesity
- › Another significant hazard linked to CAFO chicken is the spread of antibiotic-resistant disease, specifically urinary tract infections (UTIs), including drug-resistant UTIs, which are on the rise
- › Studies have conclusively demonstrated that a majority of UTIs are caused by exposure to contaminated chicken; American, Canadian and European studies have all confirmed close genetic matches between drug-resistant E. coli collected from human patients and those found on poultry

Editor's Note: This article is a reprint. It was originally published October 29, 2019.

If you live in the U.S. and frequent Costco, you're probably familiar with their \$4.99 rotisserie chicken. It's one of the standard items Costco sells that pull in repeat customers. As reported by CNN:¹

"The chickens have become almost a cult item. 91 million were sold last year, double the number from a decade earlier. They have their own Facebook page with nearly 13,000 followers. So Costco is willing to go to extreme lengths to keep its chickens at \$4.99."

However, as with all foods raised in **concentrated animal feeding operations** (CAFOs), this cheap fare comes with steep, hidden costs. CAFOs are a primary contributor to several problems, including environmental pollution and antibiotic-resistant disease.

The fact that Costco is willing to go to great lengths to keep the price of its chicken at rock bottom means the problems associated with its CAFOs are likely to only get worse. As reported by CNN in 2019,² Costco was planning on opening its very own poultry complex in Fremont, Nebraska, which will allow it to "control the production process from farm to store."

One of the stated reasons for Costco's decision to invest in its own poultry operation is because they're having trouble procuring the right size broilers. Rotisserie chickens need to be right around 6 pounds, and many CAFO chickens today can go as high as 7 or 8 pounds,³ which are too large for the rotisserie.

Chicken Farming Isn't What It Used To Be

Critics have rightfully pointed out that Costco's move to open a 400,000 square-foot chicken CAFO in Nebraska will have negative repercussions for the environment. When interviewed by CNN, Randy Ruppert, a Fremont environmental activist, pointed out the facility will produce toxic runoff such as ammonia and nitrates.

He rightfully refers to it as "degenerative farming," which it is. CNN also highlights the unfair contract agreements involved. A vast majority of American chicken farmers work under a contract system that shifts the financial risks to the farmers while providing them with few benefits.

Contract farmers are responsible for building and maintaining the barns, while the companies supply the chicks and feed and set all the rules. As noted by Robert Taylor,

Professor Emeritus of agricultural economics at Auburn University, this type of contract "essentially makes the farmer an indentured servant" or "chicken house janitor."⁴

As reported in a 2018 article⁵ in *The Atlantic*, a chicken farmer will typically need to take out a large loan, often in excess of \$1 million, to build the facilities. They must then raise the chickens according to the chicken company's rules. Once the chickens are fully grown, they're sent off to the chicken company's processing facility for slaughtering, packaging and distribution.

For all of the work the farmer does, he or she may only be paid 5 to 6 cents per pound of meat, and he has virtually no say at all in how they raise, feed or care for the chickens. Jonathan Buttram, president of the Alabama Contract Poultry Growers Association, told *The Atlantic* that in these contract relationships:⁶

"The company has 99-and-a-half percent control over the grower ... I'll list what they tell you: what time to pick up the chickens, what time to run the feed, what time to turn the lights off and on, every move that you make. Then, they say we're not an employee – we are employees, but they won't let us have any kind of benefits or insurance."

In 2001, former chicken farmer Alton Terry contracted with Tyson Foods to raise chickens, after taking out a \$500,000 loan to build houses for the chickens. After a couple of years, Tyson told Terry to purchase more equipment, which he refused.

Terry believes the company gave him sick chicks the year after that, then canceled his contract. With no other chicken companies in town, Terry couldn't find another customer to buy his chickens, essentially putting him out of business.

In a June 2023 follow-up to Costco's plans, *Forbes* reported that Costco had signed 15-year contracts with their chicken farmers, to match the length of the loans they took out to run the business. They also had implemented other measures to ensure the growers earned profits for their efforts.⁷

The Hidden Cost of Cheap Chicken

The hidden costs of cheap factory farmed chicken can be divided into three primary categories, all of which are hidden from the public, even though we are ultimately the ones paying these hidden costs:⁸

- **Environmental costs** — CAFOs are notorious for producing massive amounts of offensive waste that disturbs and pollutes the local ecosystem. Were chicken companies to pay for the prevention or cleanup of this pollution, the price of chicken would be significantly higher.
- **Human health costs** — Besides the health ramifications suffered by those who happen to live near a CAFO and are exposed to the environmental contamination caused by these factory farms, CAFO chicken is also taking a hidden toll on your health when you eat it, in several different ways:
 - The nutrition is inherently inferior — A study^{9,10} by the American Pastured Poultry Producers Association, which compared the nutrient value of pastured chickens with the USDA's National Nutrient Database for Standard Reference values for CAFO chicken, found pasture-raised chickens contained:
 - 406.8% more vitamin E (1.86 IUs per 100 grams compared to 0.367 IUs)
 - About half the fats of CAFO chicken (saturated, monounsaturated and polyunsaturated)
 - An average omega-3-to-6 ratio of 1-to-5, which is near ideal, compared to the USDA's value of 1-to-15¹¹
 - CAFO chickens are contaminated with antibiotics, which can raise your risk for antibiotic-resistant infections — According to a September 2019 global trend report^{12,13} in the journal Science, antibiotic resistance in bacteria known to transmit from animals to humans has nearly tripled since 2000. In chickens, the proportion of antibiotics with rates of resistance exceeding 50% increased from 0.15 to 0.41 between 2000 and 2018.

- They're also frequently contaminated with other drugs, including some with known toxic effects in humans.
- CAFO chicken is notoriously high-risk for foodborne illness, and bacterial contamination has been specifically linked to the rise in drug-resistant urinary tract infections (UTIs), which I'll discuss further below.
- **Ethical costs** – Research has shown that chickens are not only quite smart, they experience suffering just as animals higher up in the food chain. As reported by the Cornucopia Institute:¹⁴

"Chickens have nervous systems similar to ours, and when we do things to them that are likely to hurt a sensitive creature, they show behavioral and physiological responses that are like ours."

"When stressed or bored, chickens show what scientists call "stereotypical behavior," or repeated futile movements, like caged animals who pace back and forth."



CAFO Chickens Are Loaded With Harmful Fats

Over the past decade, questions have been raised about the possibility that CAFO chickens are contributing to the ever-expanding waistlines of Americans. As noted in a 2012 Huffpost contributor article¹⁵ by Kathy Freston:

"Virtually all commercially-available chickens now have what many call the 'obese gene,' which makes birds gain weight quickly to speed up production from birth to slaughter.

That, combined with no exercise and a constant supply of high-energy (caloric) food, makes today's chicken the opposite of lean: The amount of fat in modern chicken may be five or even 10 times what it used to be, according to a UK-based study¹⁶ ..."

The study¹⁷ Freston cites, published in the Public Health Nutrition journal in 2010, found that modern CAFO chickens not only have more fat than protein, but also have lower amounts of omega-3 fats and higher omega-6 than they used to.

They found the omega-6-to-omega-3 ratio was as high as 9-to-1, whereas government health guidelines recommend a ratio of about 2-to-1. What's more, modern broilers were found to have far higher levels of the omega-3 fat DPA than DHA. In earlier analyses, chickens used to have more DHA than DPA.

Omega-6-Rich Diets Linked to Obesity

Omega-3 fats are essential polyunsaturated fats (PUFAs) your body needs for a wide variety of functions, including proper cell division and function of cell receptors, muscle activity, cognition and heart health. The importance of animal-based omega-3s is detailed in my book "[Superfuel: Ketogenic Keys to Unlock the Secrets of Good Fats, Bad Fats, and Great Health.](#)"

Omega-6 fats, on the other hand, are overabundant in the modern diet, and most of it is oxidized, which adds to the problem.

You only need around 1 to 2 grams of omega-6 linoleic acid per day, ideally from plant seeds and tree nuts, whereas optimal levels of marine omega-3 fats are around 3 to 4 grams per day, which can be obtained from small fatty fish such as [anchovies](#), [sardines](#), herring, wild-caught salmon or krill oil. As concluded by the authors of that Public Health Nutrition study:¹⁸

"Traditional poultry and eggs were one of the few land-based sources of long-chain n-3 fatty acids, especially DHA, which is synthesized from its parent precursor in the green food chain.

In view of the obesity epidemic, chickens that provide several times the fat energy compared with protein seem illogical. This type of chicken husbandry needs to be reviewed with regard to its implications for animal welfare and human nutrition."

Another study,¹⁹ published in 2013, highlighted evidence linking diets high in omega-6 to a rise in obesity. According to this paper:

"Exposure of the developing fetus/neonate to a typical Western diet increases their risk of obesity and metabolic disorders throughout the life-course, creating an intergenerational cycle of metabolic disease.

In Western countries, this epidemic of metabolic disease has coincided with a marked increase in the intake of omega-6 polyunsaturated fatty acids (omega-6 PUFA), leading to suggestions that the two may be causally related.

Recent studies have emphasized the proadipogenic properties of the omega-6 PUFA, and provided evidence that rodents fed on diets with omega-6 PUFA contents similar to the typical U.S. diet (6-8% energy) have an increased fat mass.

Importantly, recent studies have shown that perinatal exposure to a high omega-6 PUFA diet results in a progressive accumulation of body fat across generations."

CAFO Chicken Linked to Drug-Resistant UTIs

Yet another significant hazard linked to CAFO chicken is the spread of antibiotic-resistant disease, specifically drug-resistant urinary tract infections (UTIs), which are on the rise.²⁰

UTIs affect anywhere from 25%²¹ to 50%^{22,23} of women over the course of their lifetime. A study²⁴ published in the journal *Open Forum Infectious Diseases* in 2017 noted hospitalization rates for UTIs in the U.S. rose by 52% between 1998 and 2011 – a direct result of increasing antimicrobial resistance.

In the past, recurrent UTIs were thought to be caused by reinfection by the same pathogen,²⁵ but research^{26,27,28} published in the *Journal of Molecular Biology* suggests this pattern has changed.

The reason UTIs tend to have such a high recurrence rate in postmenopausal women is because the infection can be caused by several different pathogens, including *Escherichia coli* (E.coli), *Klebsiella pneumoniae*, *Proteus mirabilis*, *Enterococcus faecalis* and *Staphylococcus saprophyticus*.²⁹

Of these, about 80% to 90% are caused by E.coli.^{30,31} Conventional wisdom has maintained UTIs are primarily caused by a transfer of naturally-occurring E. coli via sexual contact with an infected individual and/or the transfer of fecal bacteria from your anus to your urethra by poor personal hygiene. However, more recent studies have conclusively demonstrated that a majority of UTIs are actually caused by exposure to contaminated chicken.³²

Importantly, factory farmed chickens are the source of most antibiotic-resistant UTIs – a problem that can be traced back to the routine use of antibiotics for growth-promotion purposes, which has allowed resistance to develop.

Many Studies Have Identified CAFO Chicken as Source of UTIs

Drug-resistant E. coli strains from supermarket meat were matched to strains found in human E. coli infections as early as 2005.³³ Research^{34,35} published in 2006 confirmed that humans could develop antibiotic resistance by eating poultry treated with antibiotics.

Bacteria from conventional chicken, and those who ate such chicken, were found to be more prone to developing resistance against Synercid (generic names: quinupristin and

dalfopristin³⁶), a strong antibiotic used to treat vancomycin-resistant *Enterococcus faecium*.³⁷

In short, handling and/or eating antibiotic-treated chicken can cause you to develop resistance to the last lines of defense currently available in the modern medicine cabinet – a steep price for inexpensive meat.

American, Canadian and European studies^{38,39,40} published in 2012 all confirmed close genetic matches between drug-resistant *E. coli* collected from human patients and those found on poultry (chicken and turkey).

More recently, a study⁴¹ published in the journal *mBio* in 2018 found 79.8% of chicken, pork and turkey samples purchased from large retail stores in Flagstaff, Arizona, were contaminated with *E. coli*. The researchers also tested blood and urine samples from people who visited a major medical center in the area, finding *E. coli* in 72.4% of those diagnosed with a UTI.

In particular, a strain of *E. coli* known as *E. coli* ST131 showed up in both the meat samples (particularly poultry) and the human UTI samples. Most of the *E. coli* in the poultry was a variety known as ST131-H22, which is known to thrive in birds. This specific strain was also found in the human UTI samples.

"Our results suggest that one ST131 sublineage – ST131-H22 – has become established in poultry populations around the world and that meat may serve as a vehicle for human exposure and infection," the researchers noted, adding that this *E. coli* lineage is just one of many that may be transmitted from poultry and other meat sources to people.

Eat the Egg, Not the Chicken

Historically, chickens were rather scrawny little birds that few thought to consume as a primary meal on a regular basis. The chicken we eat today bears almost no resemblance to the backyard chickens of old, as they've been specifically bred for meat.

The routine use of antibiotics for disease prevention and growth promotion played a pivotal role in this transformation. Unfortunately, chicken production in the U.S. has become an industry that places profits over just about everything else, including animal welfare and farmers' rights.

Overall, the evidence is clear: CAFO chicken is best avoided if you're concerned about your health, the environment and/or animal welfare. If you do want chicken now and then, I recommend making sure it's organically raised and pastured.

Organic, free-range chickens are allowed to engage in their natural behavior in a natural environment (outdoors), and can serve an important role in [regenerative agriculture](#) and holistic land management. The lack of stress and access to a natural diet, fresh air and sunshine make for healthier birds that don't need antibiotics.

Another option is to forgo the chicken meat and just eat the eggs — again making sure they're from hens raised organically on pasture. Keep in mind that when it comes to labels such as "free-range" and "natural," there are loopholes that allow the commercial egg industry to call eggs from their industrial egg laying facilities "free-range," so don't be fooled.

True free-range chickens and eggs come from hens that roam freely outdoors on a pasture, where they can forage for their natural diet, which includes seeds, green plants, insects and worms. If you live in an urban area, visiting a local farmers market is typically the quickest route to finding high-quality chicken and eggs.

Another alternative is to raise your own, if you have the space and local regulations allow it. Earlier this year I finally got my own chickens and now have seven birds that provide me with a steady source of eggs for my diet.

As a general rule, you can tell the eggs are pastured by the color of the egg yolk. Foraged hens produce eggs with bright orange yolks. Dull, pale yellow yolks are a sure sign you're getting eggs from caged hens that are not allowed to forage for their natural diet.

For store-bought eggs, be sure to check out [Cornucopia's organic egg scorecard](#) that rates 136 egg producers based on 28 organic criteria. According to Cornucopia, their report "showcases ethical family farms and their brands, and exposes factory farm producers and brands in grocery store coolers that threaten to take over organic livestock agriculture."

Sources and References

- [1, 2, 3, 4 CNN October 11, 2019](#)
- [5, 6 The Atlantic September 4, 2018](#)
- [7 Forbes. Inside Costco's Billion-Dollar Bet on \\$4.99 Rotisserie Chickens. June 9, 2023](#)
- [8, 14 Cornucopia Institute July 7, 2014](#)
- [9, 11 APPPA.org April 22, 2015 \(PDF\)](#)
- [10 APPPA Grit Issue 80](#)
- [12 Science September 20, 2019; 365\(6459\): eaaw1944](#)
- [13 Environment.princeton.edu October 9, 2019](#)
- [15 Huffpost May 11, 2012, updated July 11, 2012](#)
- [16, 17, 18 Public Health Nutrition March 2010; 13\(3\): 400-408](#)
- [19 Curr Opin Endocrinol Diabetes Obes. 2013 Feb;20\(1\):56-61](#)
- [20 Harvard Health Blog October 14, 2019](#)
- [21 Medscape July 19, 2018](#)
- [22, 25 Sultan Qaboos University Medical Journal 2013 Aug; 13\(3\): 359–367](#)
- [23 Western Journal of Medicine 2002 Jan; 176\(1\): 51–55](#)
- [24 Open Forum Infectious Diseases 2017 Winter; 4\(1\): ofw281](#)
- [26 Journal of Molecular Biology April 17, 2019 \[Epub ahead of print\]](#)
- [27 News Medical Life Sciences May 12, 2019](#)
- [28 Science Daily May 13, 2019](#)
- [29 Nat Rev Microbiol. 2015 May; 13\(5\): 269–284](#)
- [30 Danish Medical Bulletin 2011 Apr;58\(4\):B4187](#)
- [31 UCSF Health, UTIs](#)
- [32 Wired July 11, 2012](#)
- [33 The Atlantic July 11, 2012](#)
- [34 Journal of Infectious Diseases November 1, 2006; 194\(9\): 1200-1208](#)
- [35 Science Daily October 17, 2006](#)
- [36 RXList.com Synercid](#)
- [37 FDA.gov, Synercid Data Sheet](#)
- [38 Foodborne Pathogens and Disease July 3, 2012; 9\(7\): 625-631](#)
- [39 Clinical Infectious Diseases May 21, 2012; 55\(5\): 712-719](#)
- [40 Emerging Infectious Diseases March 2012; 18\(3\)](#)

- ⁴¹ Fairhaven Health. Can Chicken Cause Urinary Tract Infections?