

# **Duck Eggs Versus Chicken Eggs – How Do They Compare?**

Analysis by Dr. Joseph Mercola

Fact Checked

October 22, 2022

#### **STORY AT-A-GLANCE**

- Duck eggs are about 50% larger than chicken eggs, but their yolk is much larger close to double that of the yolk in chicken eggs
- > Duck eggs contain about 30% more protein than chicken eggs, along with more fat, including beneficial omega-3
- > Compared to chicken eggs, duck eggs are also a richer source, ounce per ounce, of vitamins A and D, iron, folate and choline
- > Duck eggs also have a thicker shell and inner membrane, which keeps them fresher longer than chicken eggs; they have a similar taste and texture to chicken eggs, but with a richer, more earthy flavor
- > The healthiest eggs are those that come from a healthy animal one that is allowed to live its life according to nature, eating its natural diet and spending time outdoors with room to roam daily

Pastured eggs are an excellent source of nutrition — one that's been enjoyed for about 6 million years.<sup>1</sup> Long ago, people would simply find eggs in nests in the wild and eat them raw. Later, those in ancient Egypt and China became the first to keep hens, providing the people with a steady source of this near-perfect food.

By the 1900s, U.S. farmers were accustomed to raising laying hens and selling extra eggs at farmers markets. However, as demand grew, egg-laying became

commercialized, leading to large-scale operations in the 1960s that have continued through today.

The average American now eats about 245 eggs each year, which is down from a high of 404 eggs per person in 1945.<sup>2</sup> Unfortunately, eggs that come from concentrated animal feeding operations (CAFOs) are not as nutritious as those from hens left to roam freely, not to mention the ethical issues raised by the industry's inhumane treatment.

One option is to seek out chicken eggs from local farmers who are still raising hens the "old-fashioned" way. Another is to seek out eggs from other species that have not yet become commercialized the way chickens have. Ducks are among them. It must be noted that ducks, too, are sometimes raised in CAFOs in deplorable conditions, but not to the same extent as chickens.

## Which Are Healthier – Duck Eggs or Chicken Eggs?

The healthiest eggs are those that come from a healthy animal – one that is allowed to live its life according to nature, eating its natural diet and spending time outdoors with room to roam daily. So in order to compare apples to apples – or in this case eggs to eggs – we'll be comparing pastured duck eggs to pastured chicken eggs.

Assuming both the duck or chicken laying the egg is raised on pasture, duck eggs have a slight upper hand, nutritionally speaking. Duck eggs are about 50% larger than chicken eggs, but their yolk is much larger — close to double that of the yolk in chicken eggs.<sup>3</sup> They contain about 30% more protein than chicken eggs, along with more fat, including more beneficial omega-3.<sup>4</sup>

Compared to chicken eggs, duck eggs are also a richer source, ounce per ounce, of vitamins A and D, iron, folate and choline.<sup>5</sup> Choline helps keep your cell membranes functioning properly, plays a role in nerve communications, prevents the buildup of homocysteine in your blood (elevated levels are linked to heart disease) and reduces chronic inflammation.

According to a study published in the journal Nutrients, only 8% of U.S. adults are getting enough choline.<sup>6</sup> Among egg consumers, however, more than 57% met the adequate intake levels for choline, compared to just 2.4% of people who consumed no eggs.

In fact, the researchers concluded that it's "extremely difficult" to get enough choline unless you eat eggs or take a dietary supplement. Consuming duck eggs, with their larger yolks and greater choline content, would make it even easier to get enough choline each day.

Other reasons why those in the know prefer duck eggs to chicken eggs include their richer, creamier texture, courtesy of their lower water content, larger yolk and higher fat content. Duck eggs also have a thicker shell and inner membrane, which keeps them fresher longer than chicken eggs.<sup>7</sup> And should you happen to drop one, the thick shell means there's a chance it won't break, which is unlikely with a chicken egg.

Ducks may even be the preferable species for egg-laying, as they need to eat less than a chicken does in order to lay one egg. Plus, they tend to lay eggs year-round, unlike chickens. From the perspective of fifth generation chicken keeper Lisa Steele, ducks are also the hardier of the two species, and far lower maintenance:<sup>8</sup>

"Ducks are great foragers if you can allow them some time on grass and will rival your chickens in how many insects, worms, slugs and bugs they will eat ... Ducklings have a far lower mortality rate, not being susceptible to Mareks, Avian flu, or Coccidiosis like baby chicks. Ducks are also ... cold-hardy, more heat-tolerant, healthier overall, not as susceptible to parasites, and don't destroy your lawn or landscaping nearly as much."

#### **How Does Their Taste Compare?**

Duck eggs have a similar taste and texture to chicken eggs, but with a richer, more earthy flavor.<sup>9</sup> Some might describe them as "gamey" or even fishy. An analysis

published in Poultry Science went so far as to state, "The fishy taint restricts the development of the duck egg industry to some extent."<sup>10</sup>

The fishy odor in duck eggs is result of the accumulation of trimethylamine (TMA) in the yolk, which, according to researchers with the University of Saskatchewan in Canada "is produced by the bacterial fermentation of choline in the lower gut."<sup>11</sup> Many people enjoy cooking with duck eggs nonetheless. Steele states that duck eggs are better for baking, producing fluffier results. Further, she adds:<sup>12</sup>

"Duck eggs are just as versatile as chicken eggs for cooking and can be cooked and eaten any way you would cook chicken eggs. Just be sure not to overcook them. Their low water content can make them rubbery if they're fried or scrambled too long. Cook them just until the whites are no longer watery and you should be fine."

Duck eggs do tend to be pricier than chicken eggs, coming in around \$6 to \$12 a dozen compared to \$2 to \$3 a dozen for chicken eggs, but remember they're considerably larger as well.<sup>13</sup>

## **Billions of Male Chicks Killed Annually for Egg Industry**

One of the many reasons to avoid eggs that come from CAFOs is the egg industry's routine killing of male chicks. Each year, more than 6 billion male chicks are killed worldwide, up to 300 million of them in the U.S.<sup>14</sup> The reasoning behind this abhorrent practice is at the root of what is wrong with corporate agriculture – egg-laying hens are bred to lay eggs, and nothing more.

Because males cannot produce eggs, and don't grow enough meat to make them useful for human consumption (as opposed to broiler chickens, bred to grow unnaturally large), they would cost more to raise than they would be "worth." With complete disregard for life, egg producers therefore "cull" the males, or kill them off, shortly after birth, sending them to be used as pet feed, livestock feed or simply filler for landfills.

A team of Israeli scientists have filed a concept patent that involves genetically engineering hens to pass on a lethality, or killer, gene to male embryos, which would eliminate them before they hatch.<sup>15</sup> The genetically engineered (GE) hen would pass the lethality gene — which is supposed to only be activated by blue light — onto all male embryos.

Once the eggs are laid, blue light would then be used to activate the lethality gene and kill all of the male embryos in-ovo, or in the egg. This will likely be presented as a more "humane" approach, but it comes with significant risks, including to the hen, because the lethality gene is likely to produce highly toxic protein.<sup>16</sup>

So, while it's clear that the practice of killing male chicks must end, this biotech "solution" could end up creating far more problems than it solves. Meanwhile, regenerative farmers have figured out that integrating hens and ducks into their ecosystems is the solution to raising eggs humanely, with superior nutrition, and in a way that restores the environment.

## How to Find the Healthiest Eggs

As mentioned, the healthiest eggs are those that come from healthy animals. It doesn't matter whether it's a chicken or a duck; what matters is that the animal was allowed to forage for its natural diet and spend time outdoors — not live its short life in an overcrowded cage, fed an unnatural diet of GE corn or soy.

Labels on egg cartons are not a reliable indicator of how the eggs were raised, however. Overall, cage-free and free-range labels say little to nothing about the conditions in which the chickens are raised. The "free-range" definition established by the U.S. Department of Agriculture applies to chickens only,<sup>17</sup> not their eggs.

As a result, the commercial egg industry is able to run industrial farm egg laying operations while still calling them "free-range" eggs, despite the fact that the birds' foraging conditions are far from natural. For the best quality eggs, from the most humanely-raised hens, the label you're looking for is "organic" and "pastured." Another element to keep in mind, though, is that organic certification is cost-prohibitive for many small farmers who may actually be raising their animals according to organic, free-range standards anyway. This is why your local farmers market is often the best source for fresh organic pasture-raised eggs, and is a great way to meet the people who produce your food. If you live in a rural area, you'll likely see signs for eggs for sale from small farmers around you.

If you live in an urban area, local health food stores can often provide you with information on high-quality local egg sources, whether they be chicken eggs or duck eggs. Ideally, visit the farm personally to see that the animals are getting proper nutrition and room to roam. To get an idea of what you're looking for in a superior egg producer, take a look at Joel Salatin's Polyface farm operation above. He's one of the pioneers in sustainable agriculture, raising eggs the right way.

About 90% of eggs raised in the U.S. come from CAFOs.<sup>18</sup> So if you'll be purchasing eggs from a grocery store, consult the Cornucopia Institute's organic egg scorecard first.<sup>19</sup> It ranks egg producers according to 28 organic criteria and can help you to make a more educated choice.

#### **Raise Your Own Backyard Birds**

For the freshest, healthiest eggs around, you might consider raising your own backyard chickens or ducks, though requirements vary widely depending on your locale. Many limit the number of birds you can raise or require quarterly inspections (at a cost) and permits, so check with your city before taking the plunge.

If you are so inclined, raising your own flock is by far your best egg sourcing option, and it's the route I've chosen to take. I had a chicken coop built for 20 chickens and I now have 17 hens. The key is what you feed them. I give them 1.5 pounds of two-day sprouted field peas and 1 cup of white rice that is cooked with the peas in an Instapot with 4 ounces of tallow. To that I add 1 ounce of our organic beef organ complex and 1.5 ounces of calcium carbonate and a mineral complex. I also feed them 8 ounces of barley. This produces eggs that are very low in linoleic acid (about 75% less). If you have the time and space to raise a few chickens and/or ducks, you'll be rewarded with fresh, healthy eggs right in your own backyard.

#### **Sources and References**

- <sup>1</sup> IncredibleEgg.org, Eggs Past and Present
- <sup>2</sup> USDA July 17, 2029
- <sup>3</sup> The Spruce Eats September 13, 2022
- 4, 5, 7, 8, 12, 13 Fresh Eggs Daily November 2019
- <sup>6</sup> Nutrients August 5, 2017
- <sup>9</sup> Tasting Table, Duck Eggs Vs. Chicken Eggs
- <sup>10</sup> Poultry Science October 1, 2019, Volume 98, Issue 10, Pages 5198-5207
- <sup>11</sup> Poult Sci. 2009 Apr;88(4):714-21. doi: 10.3382/ps.2008-00430
- <sup>14</sup> Vox April 12, 2021
- <sup>15</sup> Patentscope2.com, European Patent Office December 1, 2022
- <sup>16</sup> GM Watch May 25, 2022
- <sup>17</sup> USDA.gov Organic Livestock and Poultry Practices Final Rule January 2017 Q&A (PDF)
- <sup>18</sup> MOST Policy Initiative, Concentrated Animal Feeding Operations, Page 2
- <sup>19</sup> Cornucopia Institute, Organic Egg Scorecard