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# Simply Brilliant Science: Creating Healthier Eggs for a Healthier You

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# Simply Brilliant Science: Creating Healthier Eggs for a Healthier You

By Kiyomi D. Deards

\* Originally posted at the [Scientific American Guest Blog](#) on June 7, 2011.



## Chickens in the Garden

When Omega Eggs (eggs containing Omega fatty acids) first appeared on the mass market in the early 2000s I had this bizarre image in my head of a semi-crazed scientist extracting the yolk with a giant syringe, swirling it about in a beaker with a neon blue solution to extract the bad fat, injecting it with Omega fatty acids and then pacing it carefully back inside the eggshell.

Of course my next thought was that would be a completely absurd and impossible way to go about making healthier eggs and I labeled the image as a flight of fancy. I dismissed the question of how Omega Eggs are produced as interesting but not a priority and went about my life.

10 months ago I started working at the University of Nebraska-Lincoln (UNL). The important thing to remember about UNL is that although it is a Research 1 institution it was chartered as a land grant university in 1869 under the [Morrill Land-Grant Colleges Act](#). Approved under the auspices of President Abraham Lincoln it was titled: “An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts”. For this reason UNL is dedicated not only to providing affordable traditional college degrees but also to research, development, and education regarding best practices in agriculture and food production.



## Eggs

My colleagues anxious to extol the virtues of my new university to me mentioned in passing that Omega Eggs were first sold at the [Dairy Store](#) on our East Campus. Omega Eggs have been available for purchase there since 1995. It turns out that Sheila Scheidler, then a poultry scientist with UNL, created a patented system (the university holds the patent and trade mark on Omega Eggs) to efficiently produce eggs high in Omega fatty acids.

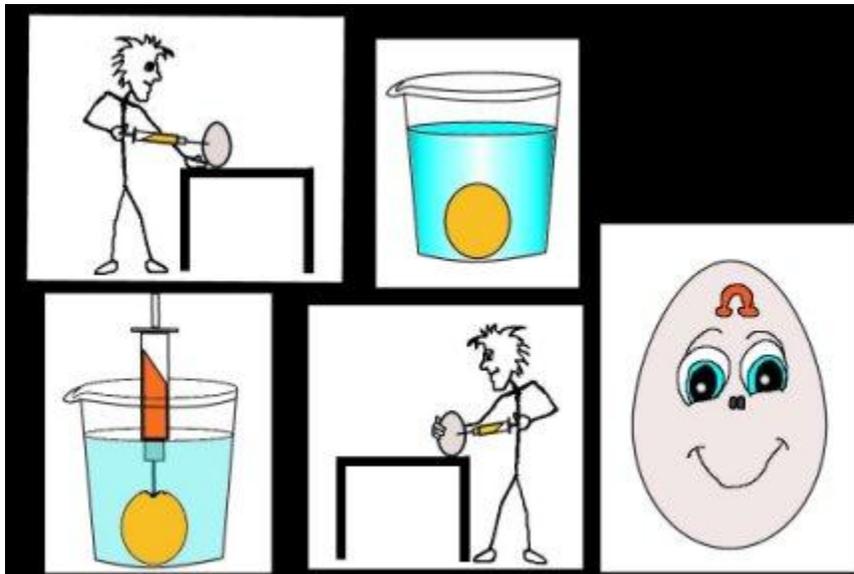
### **You Really Are What You Eat**

It turns out that the old saying you are what you eat is really true in the case of the chicken and then eggs. By altering the hens diets to include grains rich in Omega fatty acids such as flax seed (Omega 3 fatty acids), chickens are able to produce healthier eggs. Omega eggs have more omega fatty acids, lower cholesterol, and about half the fat of regular eggs. Two Omega Eggs have the equivalent amount of Omega fatty acids of one serving of salmon.

### [Omega Eggs v. Standard Eggs](#)

	Omega Egg	Standard Egg
	60g – 1 large	60g – 1 large
Calories	75	75
Total Fat	6 grams	6 grams
Saturated Fat	1.5 grams	2.2 grams
Polyunsaturated Fat	1.35 grams	.90 grams
n-6 Fatty Acids	750 mg	800mg
n-3 Fatty Acids	350 mg	60 mg
C18:3	250 mg	40 mg
C22:6	100 mg	20 mg
n-6:n-3 Ratio	2.6	13
Monosaturated Fats	2.8 grams	2.4 grams
Cholesterol	180 mg	210 mg

Not convinced? [Check out this study](#) by Nancy Lewis, (UNL professor of Nutrition Science), Sheila E. Scheidler (UNL professor of Animal Science), and Kim Schalch (a dietician in Lincoln, NE, formerly a UNL graduate research assistant at UNL).



### Bizzare Imaginings

In a controlled experiment researchers studied 25 volunteers (13 men and 12 women) with high cholesterol (and no other diagnosed health conditions). Volunteers were divided into three groups all of whom ate a self-selected diet. These groups were differentiated by their egg consumption: two Omega eggs per day six days, versus those who ate two regular eggs six days a week, and those who ate no eggs. The study looked at several factors but the really interesting thing was that there was that those eating Omega Eggs showed no increase in cholesterol while their serum triglyceride levels decreased by 14%. (High triglycerides are bad because they increase your risk of heart disease.)

One should, of course, eat all things in moderation; too much of anything is bad for you. But if you're a big egg fan like my husband, next time you're in the grocery store you might think about buying those Omega Eggs even though they cost more. They just might help you live longer, and they're a lot tastier than fish oil pills!

### Learn More:

[NebGuide G2032: Omega-3 and Omega-6 Fatty Acids](#)

(Learn about these important nutrients and foods rich in them.)

Published by University of Nebraska-Lincoln Extension, Institute of Agriculture and Natural Resources, written by Lisa D. Fanzen-Castle and Paula Ritter-Gooder

[Agreement Makes NU's Omega Eggs Available at Hy-Vee Stores in Seven States](#)

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