

このページを [日本語](#)

で表示

[翻訳](#)[英語では無効にする](#)[オプション ▼](#)

Whole Eggs Raise Levels of This Valuable Hormone

Views 12732

Posted on: Thursday, August 3rd 2023 at 3:45 pm

Written By: [GreenMedInfo Research Group \(/gmi-blogs/gmi%20research%20group\)](#)

This article is copyrighted by GreenMedInfo LLC, 2023

Visit our Re-post guidelines ([/greenmedinfocom-re-post-guidelines](#))



Are you eating egg whites as a lean protein source? Eating whole eggs may be healthier and lead to greater benefits bodywide, including boosting levels of an important hormone.

In recent decades, egg whites -- in everything from egg-white omelets to smoothies -- have been promoted as the ultimate healthy protein choice. But while it's true that egg whites provide lean protein -- about 3.6 grams (g) in one large egg white^[i] -- eating the whole egg provides nearly double that amount,^[ii] along with a plethora of additional nutrients, from healthy fats, lutein and zeaxanthin to choline, selenium and B vitamins.

"The removal of the yolk is often promoted for improved health when multiple eggs are consumed," researchers with the University of Illinois at Urbana-Champaign explained. "This [is] an unsubstantiated belief related to the cholesterol and fat content of the egg yolk. The yolk is nutrient dense and contains ~40% of the total protein contained in the egg and its

yolk is nutrient dense and contains 10% of the total protein contained in the egg, and its removal seems counterproductive for meeting protein recommendations."^[iii]

In fact, if you only consume egg whites, you could be missing out on valuable benefits, including a boost to your testosterone levels and muscular strength, along with a reduction in body fat.

Whole Eggs Vs. Egg Whites During Resistance Training

Among young men engaging in **resistance training (/therapeutic-action/exercise-resistance-training)** (RT), whole eggs were superior to egg whites as a post-workout snack, according to research published in the Journal of Strength and Conditioning Research.^[iv]

Thirty individuals consumed either three whole eggs or six egg whites immediately after resistance training -- three sessions per week for 12 weeks. The whole egg group enjoyed more fitness gains, including greater change in lean body mass and improvements in testosterone and strength. According to the study:^[v]

"Postexercise whole egg ingestion increases knee extension and handgrip strength, testosterone, and reduces body fat percentage compared with postexercise egg white ingestion, despite no group differences in muscle mass, in resistance-trained young males. Whole eggs consumption may be preferable during RT programs geared toward the improvement of muscular strength and body fat percentage."

Past research has shown that eating whole eggs after resistance exercise led to greater stimulation of myofibrillar protein synthesis compared to eating egg whites, even though the protein content was matched.^[vi] The team recommended against the common practice of discarding the yolk when consuming eggs, noting:^[vii]

"The yolk is nutrient dense and may contain a variety of important bioactive compounds such as lipids, micronutrients, antioxidant carotenoids, and microRNAs. The removal of the yolk and its associated nutrients from eggs may limit the stimulation of muscle protein synthesis rates as well as overall human health."

Whole Eggs Boost Testosterone Levels

A little talked about benefit of eating whole eggs is their potential to **elevate testosterone levels naturally (/blog/five-evidence-based-ways-boost-testosterone)**. Testosterone levels **decline with age (/disease/low-testosterone)**, with bioavailable levels falling about 2% to 3% per year in adult men.^[viii]

The Journal of Strength and Conditioning Research study found that the men consuming three whole eggs after resistance training increased testosterone levels by 2.4 ng/ml, while the egg white group only increased levels by 0.7 ng/ml. It's possible that the additional cholesterol consumed from the whole eggs is involved, since testosterone is synthesized from cholesterol.^[ix]

That being said, the main protein in eggs is albumin, and research also shows consuming egg albumin significantly improved testosterone levels compared to a McDonalds meal of two breakfast sandwiches (sausage, egg and cheese) and two hashbrowns.^[x] For those still worried about the cholesterol in whole eggs, research shows it's beneficial for your heart.

In a study that examined the association between egg intake and 10-year risk of cardiovascular disease, consuming one to three eggs per week was associated with a 60%

lower risk of developing cardiovascular disease, while consuming four to seven eggs per week was associated with a 75% lower risk.^[xi]

Notable Nutrients in Egg Yolks

There's much more to protein when it comes to reasons to consume eggs, and the yolk in particular. If you exclude the yolk when eating eggs, you're missing out on the following notable nutrients:

- **Phospholipids** -- One egg yolk contains about 6 g of lipids, 30% of which are phospholipids, which are linked to anti-inflammatory effects.^[xii] One study of individuals with metabolic syndrome found that eating three whole eggs per day reduced tumor necrosis factor-alpha, an inflammatory biomarker, but egg substitute did not.^[xiii] Consuming whole eggs also led to a significant drop in C-reactive protein levels, a measure of inflammation, in overweight men.^[xiv]
- **Choline** -- Egg yolks are rich in choline, which many Americans do not consume enough of.^[xv] In addition to playing a major role in healthy fetal development, choline is involved in metabolism, cell structure and neurotransmitter synthesis, and deficiency may be involved in liver disease, atherosclerosis and neurological disorders.^[xvi]
- **Lutein and zeaxanthin** -- These carotenoids are found in the retina, where they help filter damaging blue light and sunlight, reducing the risk of **age-related macular degeneration (/disease/eye-disease-age-related)**. In adults ages 60 and over, consuming one whole egg per day for five weeks significantly increased lutein and zeaxanthin concentrations.^[xvii]

Looking for more reasons to include whole eggs in your diet? Our **egg research database (/substance/egg)** includes dozens of abstracts showing why whole eggs are good for you, for conditions ranging from diabetes to obesity, and more.

References

[i] USDA, Egg, white, raw fresh <https://fdc.nal.usda.gov/fdc-app.html#/food-details/172183/nutrients> (<https://fdc.nal.usda.gov/fdc-app.html#/food-details/172183/nutrients>)

[ii] USDA, Egg, whole, cooked, hard-boiled <https://fdc.nal.usda.gov/fdc-app.html#/food-details/173424/nutrients> (<https://fdc.nal.usda.gov/fdc-app.html#/food-details/173424/nutrients>)

[iii] *The American Journal of Clinical Nutrition* December 2017, Volume 106, Issue 6, Pages 1401-1412 <https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub> (<https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub>)

[iv] *J Strength Cond Res.* 2021 Feb 1;35(2):411-419. <https://pubmed.ncbi.nlm.nih.gov/33306586/> (<https://pubmed.ncbi.nlm.nih.gov/33306586/>)

[v] *J Strength Cond Res.* 2021 Feb 1;35(2):411-419. <https://pubmed.ncbi.nlm.nih.gov/33306586/> (<https://pubmed.ncbi.nlm.nih.gov/33306586/>)

[vi] *The American Journal of Clinical Nutrition* December 2017, Volume 106, Issue 6, Pages 1401-1412 <https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub> (<https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub>)

[vii] *The American Journal of Clinical Nutrition* December 2017, Volume 106, Issue 6, Pages 1401-1412 <https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub> (<https://www.sciencedirect.com/science/article/pii/S0002916522026934?via%3Dihub>)

[viii] *Clin Interv Aging*. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2544367/>) 2008 Mar; 3(1): 25-44. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2544367/> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2544367/>)

[ix] *Human Kinetics Journal* September 9, 2021 <https://journals.humankinetics.com/view/journals/ijsnem/31/6/article-p514.xml> (<https://journals.humankinetics.com/view/journals/ijsnem/31/6/article-p514.xml>)

[x] *Nutrients*. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6950136/>) 2019 Dec; 11(12): 3059. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6950136/> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6950136/>)

[xi] *Nutrients*. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9783240/>) 2022 Dec; 14(24): 5291. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9783240/> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9783240/>)

[xii] *Human Kinetics Journal* September 9, 2021 <https://journals.humankinetics.com/view/journals/ijsnem/31/6/article-p514.xml> (<https://journals.humankinetics.com/view/journals/ijsnem/31/6/article-p514.xml>)

[xiii] *Journal of Clinical Lipidology* September-October 2013, Volume 7, Issue 5, Pages 463-471 <https://www.sciencedirect.com/science/article/abs/pii/S193328741300069X> (<https://www.sciencedirect.com/science/article/abs/pii/S193328741300069X>)

[xiv] *Nutrition & Metabolism* (<https://nutritionandmetabolism.biomedcentral.com/>) volume 5, Article number: 6 (2008) <https://nutritionandmetabolism.biomedcentral.com/articles/10.1186/1743-7075-5-6#> (<https://nutritionandmetabolism.biomedcentral.com/articles/10.1186/1743-7075-5-6>)


[xv] *Nutrients*. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6566164/>) 2019 May; 11(5): 1137. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6566164/> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6566164/>)

[xvi] *Nutr Rev*. 2009 Nov; 67(11): 615-623. (<https://www.ncbi.nlm.nih.gov/entrez/eutils/elink.fcgi?dbfrom=pubmed&retmode=ref&cmd=prlinks&id=19906248>) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2782876/> (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2782876/>)

[xvii] *The Journal of Nutrition* October 2006, Volume 136, Issue 10, Pages 2519-2524 <https://www.sciencedirect.com/science/article>

[/pii/S0022316622084723?via%3Dihub \(https://www.sciencedirect.com/science](https://www.sciencedirect.com/science/pii/S0022316622084723?via%3Dihub)

[/article/pii/S0022316622084723?via%3Dihub\)](https://www.sciencedirect.com/science/article/pii/S0022316622084723?via%3Dihub)

 (/gmi-blogs/GMI Research Group)

The GMI Research Group (GMIRG) is dedicated to investigating the most important health and environmental issues of the day. Special emphasis will be placed on environmental

health. Our focused and deep research will explore the many ways in which the present condition of the human body directly reflects the true state of the ambient environment.

Disclaimer: This article is not intended to provide medical advice, diagnosis or treatment. Views expressed here do not necessarily reflect those of GreenMedInfo or its staff.

Recommended Related Articles

