WHAT'S INSIDE

Eggs & Cholesterol: Getting to the Heart of the Matter ................................................................. 1
Shell Shock: Big Changes at the Egg Nutrition Center ................................................................. 2
Eggs Belong In Schools .................................................................................................................. 3
The Tidal Wave Shift Toward Cage-Free Eggs .............................................................................. 6

Credible Science, Incredible Egg

ENC is a credible source of nutrition & health science information & the acknowledged leader in research & education related to eggs.

DID YOU KNOW?
...eating 1 egg a day reduces risk of stroke by 12% and does not affect risk for coronary heart disease.

ABOUT ENC

EGGS & CHOLESTEROL: GETTING TO THE HEART OF THE MATTER

by LYNN COFER-CHASE, MSN, CLS, FAHA, FPCNA, FNLA

It is well-known that high cholesterol levels in our blood, particularly high low-density lipoprotein cholesterol (LDL-C) (i.e., the “bad” cholesterol) levels, increase our risk for heart disease, bypass surgery, etc. And it seems logical that eating animal foods that have atypically high amounts of cholesterol, such as egg yolks and organ meats, would worsen blood cholesterol levels thereby increasing our risk for heart attack.

Based on that assumption, back in 1961, American Heart Association (AHA) experts recommended that adults “should reduce intake of cholesterol”. By 1968, they set a 300 mg per day limit for patients known to have high cholesterol blood levels. By 2001, the National Cholesterol Education Program guidelines recommended that patients at high risk limit cholesterol intake to less than 200mg/day.

{ CONTINUED on Page 4... }
SHELL SHOCK: BIG CHANGES AT THE EGG NUTRITION CENTER

Egg Nutrition Center (ENC) is off to a fresh start! This year we’re striving to bring new information in innovative ways to keep health professionals up-to-date on the latest egg science. Below are some recent updates from ENC:

Nutrition Close-Up Makeover

The Nutrition Close-Up is now better than ever! It’s the same great content with a revitalized look. Stay tuned for more eggciting updates and new feature sections to explore.

Nutrition-Focused Egg Recipes

ENC’s new recipe page is now live! Check out the various recipe collections like Protein Powerhouse, Mediterranean, Put an Egg on It and Fueling Fitness to find delicious recipes for a variety of health and nutrition goals. All recipes feature eggs and other nutrient-dense foods like whole grains, fruits and veggies. Try a new recipe today!

A New Pecking Order

NEW EGG BOSS

Last November, Dr. Tia M. Rains was promoted to Executive Director of ENC. She joined the organization as the Senior Director of Nutrition Research and Communications in July of 2013. Since being at ENC, she has worked with a variety of universities and research institutions on over 50 studies. Tia looks forward to continuing to advance the understanding of the health benefits of eggs and bring these research results to health experts to benefit their patients and clients.

NEW EGGSPERT

ENC proudly announces our newest ‘chick,’ Registered Dietitian Allison Pigatto. Allison comes to ENC with expertise in school nutrition and a keen passion for the culinary arts. Read her editorial below reinforcing the value of having eggs on the lunch line.

EGGSTRA! EGGSTRA!

Research published in The American Journal of Clinical Nutrition shows that dietary cholesterol and egg intake are not associated with risk of dementia or Alzheimer’s disease. Rather, the study showed that eating eggs was actually associated with better performance in certain cognitive tests.

READ MORE HERE: http://bit.ly/2jomWrO

Eating eggs may improve cognitive performance
Eggs Belong in Schools

As the newest member of the ENC team, I am EGG-static about the work I get to be part of! My background is in school nutrition, a field that has undergone considerable change since the introduction of the Healthy, Hunger Free Kids Act of 2010. This legislation, which included updated requirements for the National School Lunch Program (NSLP), aimed to align the meals served in schools with those recommended by the Dietary Guidelines for Americans (DGAs).

As of 2012, 31 million students were served lunch each day through funding provided by NSLP. These meals met strict nutrition guidelines requiring fruits, vegetables, whole grains, and limited calories, sodium and saturated fat. Despite criticism around certain aspects of NSLP, it is undeniable that students today have better access to foods recommended in the DGAs than ever before.

However, as the 2015 DGAs shifted to focus on overall healthy meal patterns, holes in the current school nutrition standards also became apparent. Many school districts have moved away from scratch cooking due to the complexity of the regulations around recipe development. And less nutritious foods - such as mozzarella sticks, cheeseburgers and hot dogs - have been reformulated to meet the nutrient restrictions. While the technical guidelines are being met, many students and teachers do not view the meals they’re being served as healthy.

In the coming years, I hope to see more whole, nutrient-dense foods – like eggs – offered in cafeterias. I think eggs are a great option for schools because they are nutritious, affordable and simple to prepare. Additionally, they contain nutrients that are important for cognitive development, such as lutein and choline, and can fit into an overall healthy meal pattern. At ENC, I hope to help eggs find their way to the lunch line.

REFERENCES

Although heart disease hasn’t changed, dietary recommendations related to the intake of dietary cholesterol have recently changed drastically from those in the past. Current recommendations are now based on science rather than assumption. Studies were designed to see if this logical assumption was indeed true. One study, called the Harvard Egg Study, was specifically designed to see if dietary cholesterol actually increased the risk of cardiovascular disease. Although there was a slight trend for blood cholesterol levels to increase with increased intake of dietary cholesterol, it was modest and appeared to vary from person to person.

Results led authors to conclude that “the earlier purported adverse relationship between dietary cholesterol and heart disease risk was likely largely over-exaggerated.”

By 2013, the American College of Cardiology (ACC) teamed up with experts from the AHA and agreed that recommendations should be based on evidence provided by scientific trial data. Hence, they decided to define levels of evidence for each and every recommendation. If no sufficient scientific study evidence was available, they would not formulate a recommendation. This led to the statement in the 2013 ACC/AHA Guidelines on Lifestyle Management...
to Reduce Cardiovascular Risk that “There is insufficient evidence to determine whether lowering dietary cholesterol reduces LDL-C”.

The 2015 Dietary Guidelines Advisory Committee could not find cause to state a quantitative limit on dietary cholesterol intake. Their report stated that “more research is needed regarding a dose-response relationship between dietary cholesterol and blood cholesterol levels.” Therefore, the 2015-2020 Dietary Guidelines for Americans dropped the previous recommendation to limit dietary cholesterol intake to 300 mg per day. The National Lipid Association’s (NLA) review of the scientific literature revealed only “modest effects” of dietary cholesterol on cholesterol levels. The NLA report included information from a controlled feeding study stating that “each 100 mg/day of dietary cholesterol raised LDL-C by an average of about 1.9 mg/dL.” Additionally “no association between dietary cholesterol or egg consumption (a large contributor to dietary cholesterol intake) and atherosclerotic cardiovascular disease risk in the general population” was found.

So does all this mean that if we eat 3 eggs per day like Emma Morano, who began doing so in childhood, we’ll also celebrate our 117th birthday? No. But, can we let go of our fear that eating eggs will increase our cholesterol levels and heart attack risk? That does appear to be the case.

A meta-analysis recently published in the Journal of the American College of Nutrition suggests eating one egg a day reduces risk of stroke by 12 percent and does not affect risk for coronary heart disease.

Authors went on to say that “Eggs are a relatively low cost and nutrient-dense whole food that provides a valuable source of protein, essential fatty acids, antioxidants, vitamins & minerals.” Enjoy that egg now…to your heart’s content!

REFERENCES
5. Eckel RH et al. Circ 2014;129:S76-S79

ENC contributed a chapter highlighting the nutritional benefits of eggs for the newly published book Achieving Sustainable Production of Eggs, published by Burleigh Dodds Science.
THE TIDAL WAVE SHIFT TOWARD CAGE-FREE EGGS

by KAREN BUCH, RDN, LDN

KEY MESSAGES

• As a result of major food companies announcing they will shift to cage-free eggs, it’s estimated that 45 percent of all eggs produced in the U.S. may be cage free within the next 10 years.

• Regardless of housing system, America’s egg farmers are committed to producing fresh, high-quality eggs and are committed to the health and well-being of their hens.

The U.S. egg industry is a thriving $10 billion dollar a year industry, producing about 75 billion eggs annually. Sixty percent of the eggs produced are used directly by consumers while remaining eggs are used by the foodservice industry or turned into egg-containing products. The average American consumes 268 eggs a year.¹

More than 160 major companies have announced that they will shift to cage-free eggs, most by the year 2025, including McDonald’s, Subway, Wendy’s, Disney, Campbell Soup, Mondelēz International, ConAgra, Starbucks, Kellogg, General Mills, Nestle, Kroger, Walmart, Albertsons and dozens of other grocery retail chains. Some industry experts predict 45 percent of all eggs produced in the U.S. may be cage free within the next 10 years.

Why the Shift to Cage-Free?

Many of today’s consumers want to know more about their food than ever before, including where it comes from, how it was raised and under what conditions. In addition, they are willing to convey expectations and “cast votes” through their purchasing decisions and how they choose to spend their food dollars. As of March 2016, consumer demand for cage-free eggs represented just 5.5 percent of all eggs purchased.² Concerns for animal welfare and food safety are commonly cited as reasons behind the trend.³ But what does the scientific research show? A 2015 study found cumulative hen mortality in cage-free housing was approximately double that of conventional and enriched colony housing.⁴

Animal Welfare

In the 1920s and 1930s, hens were largely raised in backyard farming systems with manual processes for egg collection and cleaning. Since then, the commercial egg industry has taken great strides to improve living conditions and overall health of hens resulting in larger, more productive flocks. In the 1940s, scientists in California determined use of indoor caging systems produced healthier hens with decreased mortality rates. In response, farms across the country built new facilities with cage-style housing.¹

Today, concerns about the impact of conventional cage-confinement on animal welfare have prompted a closer look at how to improve the living space for hens to allow for more natural bird behaviors (such as perching, scratching, dust bathing and nesting) while maintaining the safety and sustainability of the flocks.

Food Safety

During the past 50 years, the U.S. egg industry has achieved significant advances in resistance to disease through selective breeding, reinforced
by good sanitation and vaccination. Preventing food-borne illness related to egg consumption is a continuing priority for egg farmers. However, determining the impact of hen housing on egg safety and hen health is complex due to the variables involved. Risk of bacterial contamination among eggs laid in cages versus cage-free environments is unclear. Some studies suggest cage-free eggs offer reduced risk, while other published research contradicts this notion.

How Do Housing Systems for Egg-Laying Hens Compare?

American egg farmers are committed to producing fresh, high-quality eggs and are committed to the health and well-being of their hens. Housing systems today vary, but all ensure the hens are provided with adequate space, nutritious feed, clean water, light and fresh air. The following handout compares cage-free with various other housing systems. Find it on the ENC website at the URL below.

Will Cage-Free Eggs Cost Consumers More?

The Coalition for Sustainable Egg Supply estimates it will cost a farmer 36 percent more to run a cage-free farm. Increased feed costs are also anticipated due to the increased energy needs of more mobile cage-free hens. Inevitably, these increased production costs are expected to lead to higher consumer prices for eggs and processed foods made with eggs, particularly if conventional egg farming ceases to exist in the future. On the positive side, should this occur, eggs will remain one of the most affordable natural sources of protein available.

Many of today’s consumers want to know more about their food than ever before, including where it comes from, how it was raised and under what conditions.

REFERENCES

2. 2016 USDA National Retail Report; Friday July 8 (average pricing comparisons within continental United States)
WHAT'S INSIDE

Eggs & Cholesterol: Getting to the Heart of the Matter .................................1

Shell Shock: Big Changes at the Egg Nutrition Center ..............................2

Eggs Belong In Schools ........................................................................3

The Tidal Wave Shift Toward Cage-Free Eggs ........................................6

UPCOMING EVENTS

MAR 19
Oldways Supermarket Dietitian Symposium
Scottsdale, AZ { MARCH 19-21 }

MAR 30
Illinois Academy’s Spring Assembly
Illinois Academy of Nutrition and Dietetics
Oak Brook, IL { MARCH 30-31 }

APR 6
ACSM’s Health & Fitness Summit & Expo
American College of Sports Medicine
San Diego, CA { APRIL 6-9 }

is a quarterly publication produced by the Egg Nutrition Center (ENC) that presents up-to-date reviews, summaries and commentaries on nutrition for health promotion and disease prevention, including the role of eggs as part of a nutritious and healthful diet. ENC accepts article submissions from health professionals. Opinions expressed by the authors may not be those of ENC. Some authors are compensated for their articles.