

Key Nutritional Messages for Indian Egg Consumers



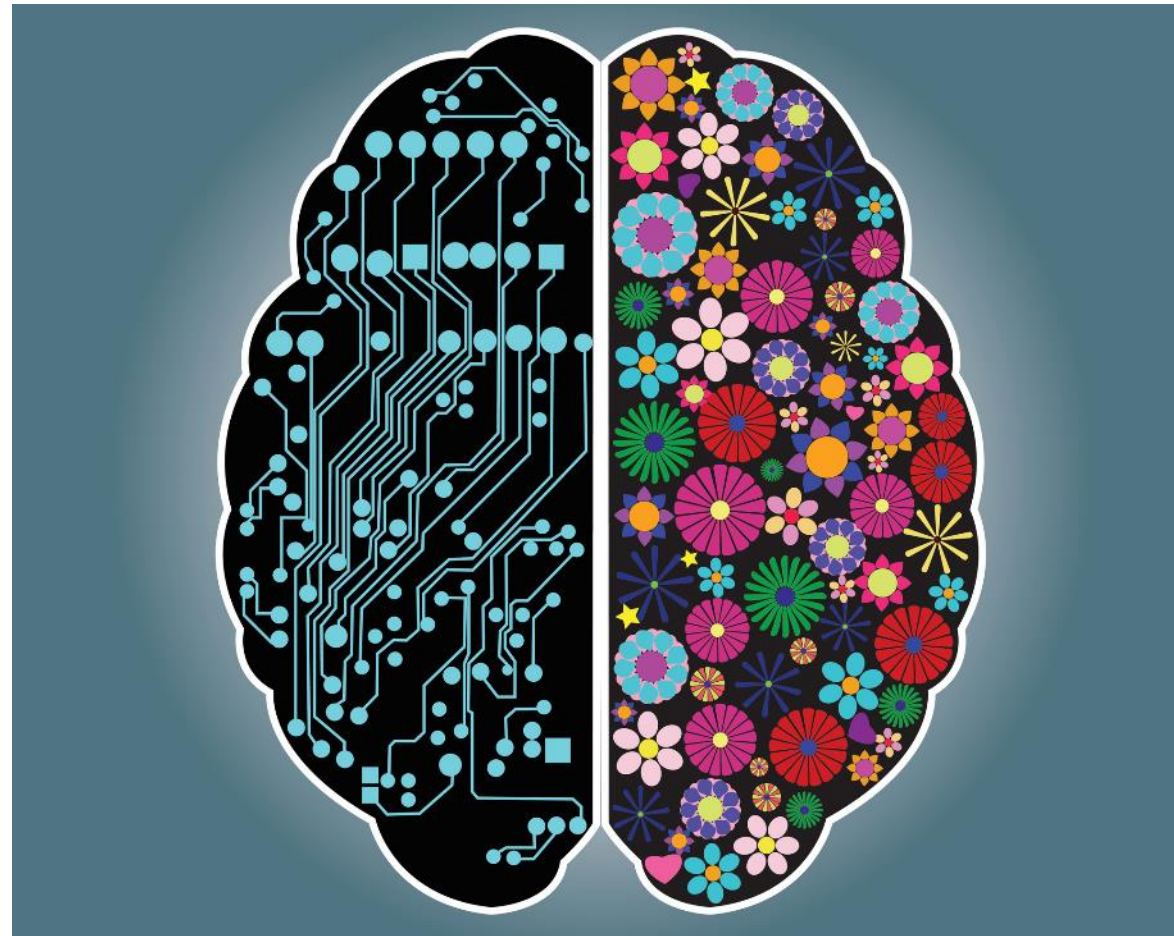
Kalpana Beesabathuni
Global Lead – Technology & Entrepreneurship
Sight and Life

Kindly sponsored by



Consuming eggs is an experience | nutrition must appeal to logic and emotion

Logical
Analytical
Counting
Nutrients
Weight/Volume of food
“I think....”



Creativity
Intuition
Emotion
Taste
Color
Aroma
Texture
“I feel....”

Food brands define nutrition as payoffs/benefits – functional & emotional



FMCG brands position 'Nutrition' as

- Functional payoffs - 'purity/ best quality', 'no preservatives', 'fortification', 'organic/natural'- or 'nourishment', and
- Emotional payoffs - 'wholesomeness', 'nurturance' and 'healthy indulgence', 'fresh'

Food brands | growth, strength, protection, energy, all-round development | balance taste & health

TALLER
STRONGER*
SHARPER**

Horlicks

CLINICALLY PROVEN

Claim based on a study conducted in school age children in 2002-11 and published in Journal of Nutrition on complementary micronutrient fortification via fortified biscuits. Claim based on a recommended daily serve of 2 cups (50g). * "Stronger": More muscle and greater bone density. ** "Sharper": Improved attention concentration.

Cadbury Bourn Vita

TANA KI SHAKTI
MAMA KI SHAKTI

ProHEALTH Vitamins

Abbott PediaSure ADVANCE+

COMPLETE NUTRITION TO HELP KIDS GROW

37+ NUTRIENTS

CLINICALLY PROVEN GROWTH*

with VITAL NUTRIENTS to Help Support

- ✓ Catch-up Growth
- ✓ Immunity
- ✓ Cognitive Function
- ✓ Lactose Free
- ✓ Gluten Free*

FOOD FOR SPECIAL DIETARY USE
Food for supporting catch-up growth

Net Weight: 400 g

Vanilla Delight FLAVOUR

BRITANNIA

Eat Healthy. Think Better

Maggi Taste Bhi Health Bhi™

ACTIVE PROTEIN BOOST
4 HOURS SUSTAINED ENERGY™

20g PROTEIN

MAX PROTEIN ACTIVE

HONEY LEMON BAR

5g FIBER | 21 VITAMINS | 4h ENERGY


NO PRESERVATIVES + NO ARTIFICIAL SWEETENER



Food brands that stand out | appealing packaging and images



Food brands that make cooking fun, easy, anytime of the day



MAGGI Noodles Recipes

MAGGI Noodles recipes you just can't resist!

MAGGI Noodles is always a constant companion. Enjoy Cheese MAGGI Noodles, Paneer MAGGI Noodles, Egg MAGGI Noodles, Veg MAGGI Noodles that add a twist of flavour and yumminess to your everyday MAGGI Noodles.

Recipes 21



Food social marketing | the role of government and the food regulator



Eat Right India

सही भोजन. बेहतर जीवन.

“ Reduce **Salt, Sugar & Fat** in your daily diet. Start from today... ”

#AajSeThodaKam
#EatRightMovement
FSSAI

fssai Eat Right India
Healthy. Safe. Fortified.
Let Us FSSAI Know The Ministry of Health and Family Welfare

Eat local
Eat seasonal
Eat variety

www.fssai.gov.in

fssai Eat Right India

+F Dekha Kya?

Eat fortified foods with added vitamins and minerals for your daily needs

- Iron, Vitamin B12, Folic Acid: Fight Anaemia, Wheat Flour & Rice
- Vitamin A, Vitamin D: Prevents night blindness, Supports strong bones, Oil & Milk
- Iron, Iodine: Fights Anaemia, Normal growth and brain development, Double Fortified Salt

No change in taste, smell, appearance, cooking and storage methods

www.fsrc.fssai.gov.in

FORTIFIED Food Fortification Resource Centre
Set up by FSSAI with Support from TATA TRUSTS

WHEN IT COMES TO **FOOD**, JUST REMEMBER THE **+F RULE**

Look out for the **+F** Logo

When you buy fortified rice, wheat flour, edible vegetable oil, salt, and milk

For more information, visit www.fsrc.fssai.gov.in

@fsrc_fssai | fsrc.fssai.gov.in | @fsrc_fssai | @fsrc_fssai



Growing Triple Burden of Malnutrition| the role of government and the food regulator

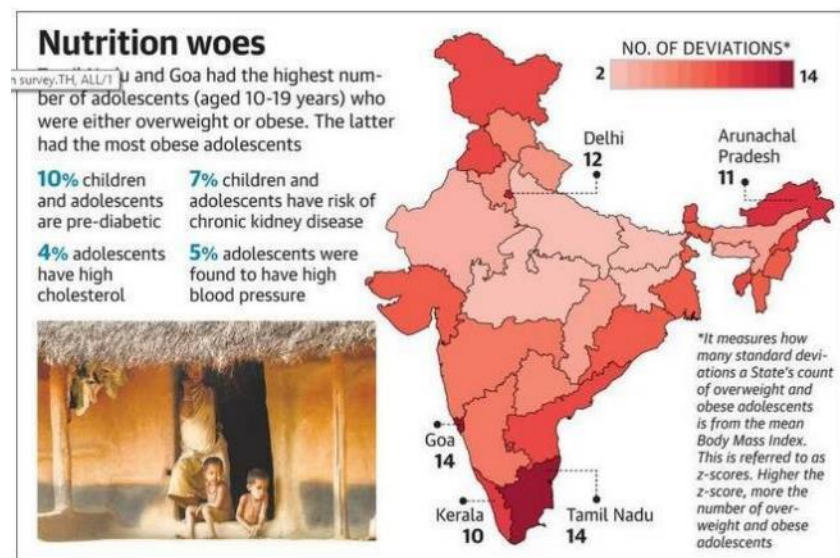
Home > India > Is India under Serious Threats of Triple Burden of Malnutrition?

India Policy

Is India under Serious Threats of Triple Burden of Malnutrition?

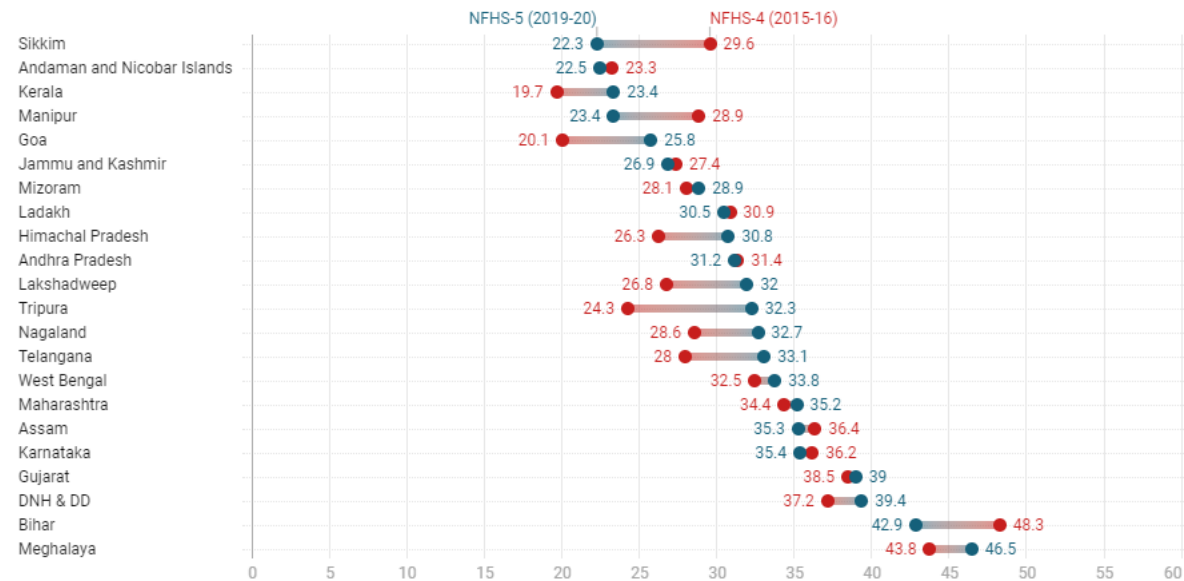
According to the World's Children Report of 2019 published by the UNICEF, the unhealthy eating habits and diets with modern processed food have led to various non-communicable diseases caused by lack of nutrition. This has become a significant threat to public health in general. The National Family Health Survey since 1992 has shown the trends of mortality, morbidity, immunization, nutritional status and maternal health status through its various rounds survey.

By TPT Bureau | Agencies - January 30, 2021



Change in proportion of stunted children by states/UTs of India, 2015-16 to 2019-20

Percentage of children age 0-59 months who are short (low height) for their age as per the WHO norms



Red and blue circles, respectively, denote the values in the years of 2015-16 and 2019-20. Chart includes states and UTs surveyed in the first phase of NFHS-5.

Chart: Authors - Source: NFHS-5 (2019-20) and NFHS-4 (2015-16) - Created with Datawrapper

India May Be Reversing Decades Of Progress On Child Nutrition, New Govt Data Show

India could be seeing an increase in child undernutrition, reversing decades of gains, early data from the just-released first phase of the latest National Family Health Survey (NFHS) show. On the positive side, more infants could be receiving immunisations.

By Rukmini S | 13 Dec, 2020

ICDS & Mid-day Meal Scheme: "Give them eggs," announced Justice H.L. Dattu, former chief justice of India and the recent chairman of the National Human Rights Commission



Food brands solutions for the rising epidemics in India | cardiovascular, obesity & diabetes



HELPS REDUCE CHOLESTROL in 30 days

SCIENTIFICALLY PROVEN

Nature's Finest ActiHeart

RICH IN OMEGA-3
Helps fight inflammation and maintain normal blood cholesterol

IDEAL OMEGA-6 TO OMEGA-3 RATIO*
As per Indian Council of Medical Research (ICMR)

HIGH MUFA
Helps lower oil absorption in food

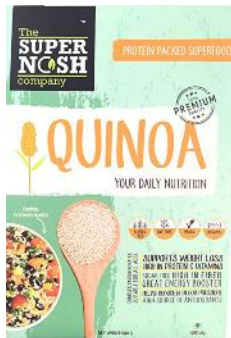
GAMMA ORYZANOL
Reduces bad cholesterol

VITAMINS A, D & E
Support overall nutrition

POWER OF 5 WARRIORS



Heart health claims: usually very explicit - "Heart" or "cardiac" in the name; clinical terms to cue more seriousness



Only the good stuff.

Chia Seeds

Flax Seeds

Almonds

Whole Grains

Yoga Bar

SUPER MUESLI

0% ADDED SUGAR

82% NUTRISOURCE

PROBIOTIC PREBIOTIC



WHY WE NEED 'FIT INDIA MOVEMENT'

Indians shy away from physical activity

54% Indians are physically inactive

Less than 10% engage in recreational physical activity

Burdened with diseases

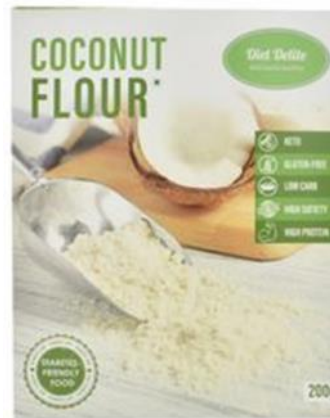
Obesity 13.5cr	Diabetes 7.2cr	Thyroid disorders 4.2cr	Hypertension 8cr	Cardiovascular disease 5.5cr
--------------------------	--------------------------	-----------------------------------	----------------------------	----------------------------------------

Source: Indian Council of Medical Research (ICMR), News reports

ILLUSTRATION: RAM

Weight management claims: low on carbs, high in dietary fibre and protein, goodness and top quality

Diabetes-friendly claims: lays emphasis on consumer not missing out on good nutrition', lack of sugar and fiber and emphasized



Food brands | 2020 – the year of immunity and health as top priorities



Food brands | the new kid on the block | plant proteins ride the vegetarian & save the planet wave



What about the eco-friendly eggshell or the pulp pack egg trays??



Eco-friendly egg packaging

- Washable and reusable plastic trays to transport and store eggs.
- Environmentally friendly pulp packs for customer.

 **K E T O**
CULTURE
SUGAR-FREE DARK CHOCOLATE

Made by farmers of India

Keto
LIFESTYLE

 **VEGAN**
CULTURE
SUGAR-FREE DARK CHOCOLATE

Now Chocolates Are A Guilt Free Super Food !

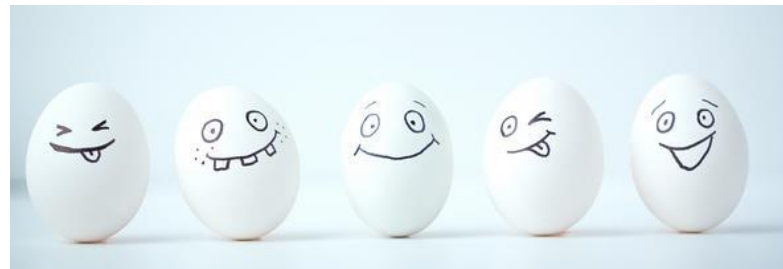
Zero Sugar - All Natural - No Artificial Sweetener - Vegan - Soy & Gluten Free -
PCOS & Diabetic Friendly

An egg has every good element that food brands claim | “taste bhi health bhi”

Eggs provide at least 13 different vitamins and nutrients

Eggs are packed with high-quality protein and 13 vitamins and minerals that are essential to human growth and development.

Eggs are highly nutritious.

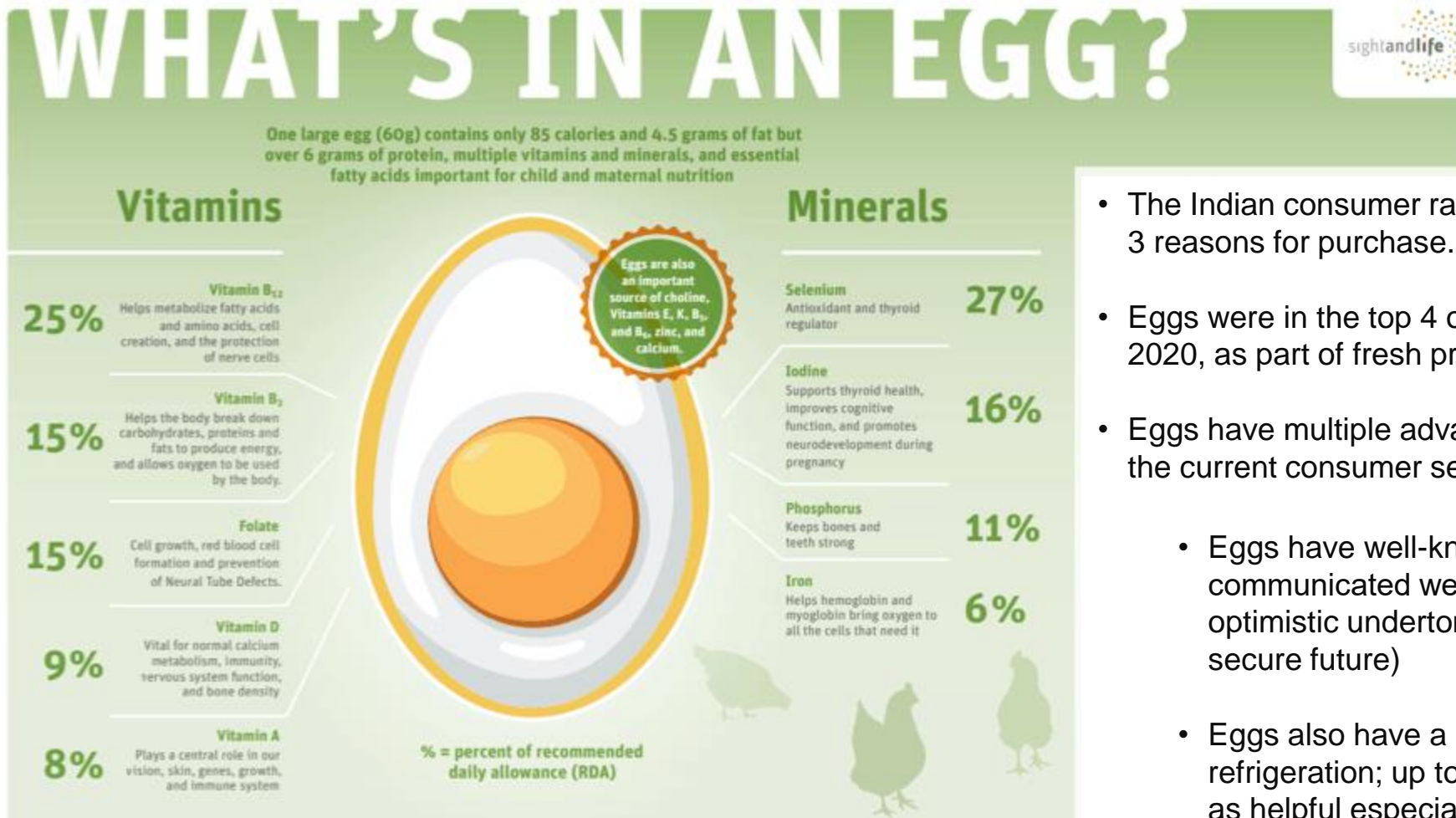


Eggs are among the healthiest and most nutritious foods on the planet and are often referred to as "nature's multivitamin" or "nature's first food."

Eggs are nutrient-dense.

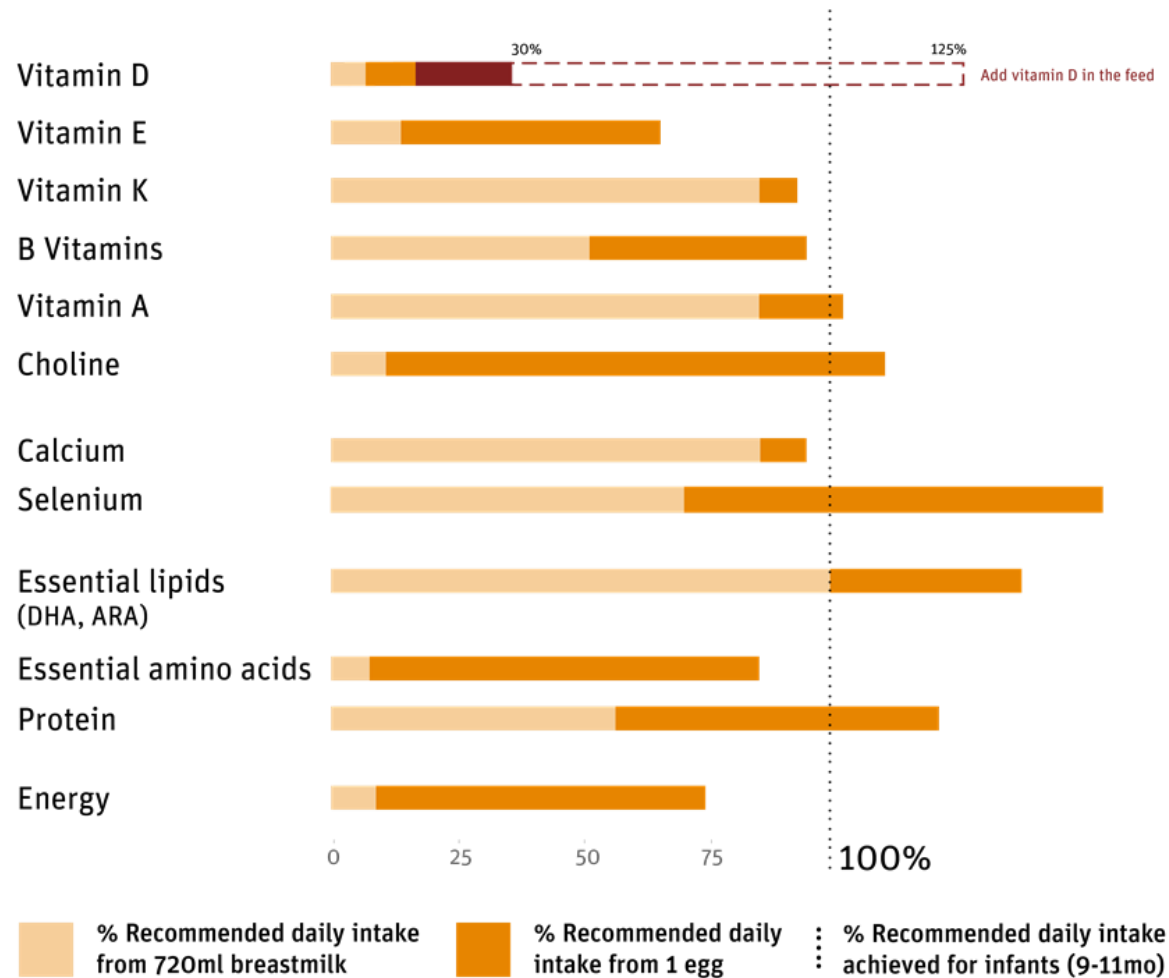
Eggs contain nutrients essential for good health.

An egg has every good element that food brands claim | “taste bhi health bhi”



- The Indian consumer rates the nutritive value of eggs in the top 3 reasons for purchase.
- Eggs were in the top 4 online food purchases in the first half of 2020, as part of fresh produce.
- Eggs have multiple advantages that can be appropriated given the current consumer sentiment and behaviour:
 - Eggs have well-known nutritive value. This can be communicated well in the “safety” space, but with optimistic undertones (safety/ protection, looking to a secure future)
 - Eggs also have a relatively longer shelf life (30 days with refrigeration; up to 15 days without), which can be seen as helpful especially in times of disrupted food chains

Eggs as first foods | growth, development, immunity | “taller, stronger, sharper”



Evidence

NUTRITION
REVIEWS

Special Article

Eggs: the uncracked potential for improving maternal and young child nutrition among the world's poor

Lora L Iannotti, Chessa K Lutter, David A Bunn, and Christine P Stewart

They've cracked it! An egg a day helps babies stay healthy: Daily consumption reduces chance of stunted growth or being underweight

MailOnline



An egg a day appears to help young children grow taller

Iannotti L, Luter CK, Stewart CP. *Nutr Rev* 2014 Jun;72(6):355-68.

Lutter CK, Iannotti LL, Stewart CP. The potential of a simple egg to improve maternal and child nutrition. *Matern Child Nutr.* 2018;14 Suppl 3(Suppl 3):e12678.

doi:10.1111/mcn.12678; Eggs in Early Complementary Feeding and Child Growth: A Randomized Controlled Trial, June 2017, *Pediatrics* 140(1):e20163459



Eggs for babies| fussy eaters, small stomachs | nutrient dense meals

Babies and Eggs: Everything You Should Know

@NewWaysNutrition

Eggs are a top allergen, so introduce them at the beginning of starting foods!

Introduce the whole egg, not just the yolk.

Serve it in a way that is easy for your baby to pick up.



It's okay to serve more than one egg in a meal!

Serve them throughout the week, but aim for variety in their diet instead of relying only on one main food.

Ways to Serve Eggs to Babies

@NewWaysNutrition



Scrambled



Hard boiled wedges



Hard boiled bitesize



Omelet style egg fingers



Fried bitesize



Fried finger size



Mashed hard boiled with greek yogurt

Eggs during pregnancy & lactation| two eggs a day



You are what your mother eats

“Eggs were one of the food groups, along with starchy staples, for which there are greater similarity of intake between mothers and children, compared with other food groups.”

Proportion of daily nutrient requirement provided by two 50g eggs during pregnancy and lactation

PREGNANCY	LACTATION
<5%	<5%
Niacin, Vitamins C, K, B1, ALA, I, Mn, Mg, K	Niacin, Vitamins C, K, B1, ALA, I, Mn, K
5 – 15 %	5 – 15 %
Vitamins E, D, B6, Folate, ALA, Zn, Ca, Cu, Fe	Vitamins E, D, B6, Folate, LA, Zn, Ca, Cu, Fe
15 – 25 %	15 – 25 %
Protein, Retinol, Fe	Protein, Pantothenic acid
> 25 %	> 25 %
Riboflavin, Pantothenic acid, Vitamin B12, Se, Choline, P	Riboflavin, Vitamin B12, Choline, P, Se

C K Lutter, L L Iannotti, C P Stewart. Sight and Life 30(2) | 2016

Consumption of DHA-enriched eggs in the third trimester increases gestational age by 6 days

Evidence

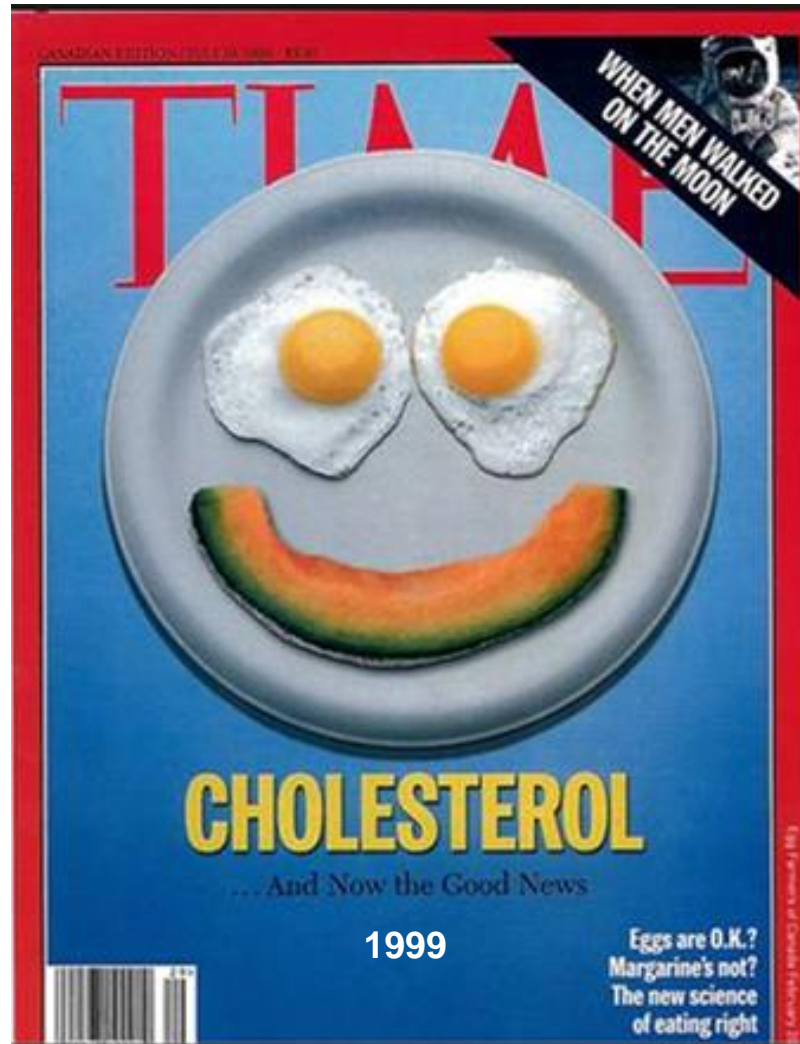
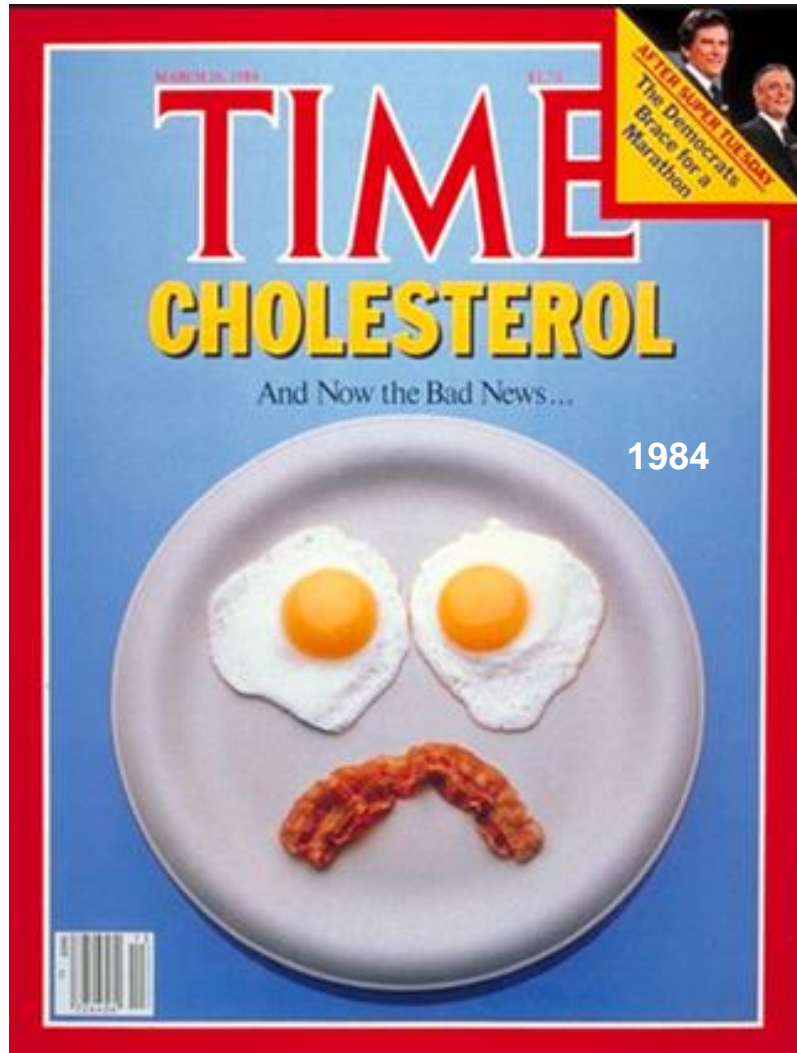
Cracking the Egg Potential During Pregnancy and Lactation

Benefits: gestational age, birthweight, birth length, growth & development

Choline, Selenium, DHA extremely important

The potential role of eggs to enhance concentration of key nutrients in breast milk - riboflavin, vitamin B6, vitamin B12, vitamin A, iodine, and selenium, choline and vitamin D

Eggs and Cholesterol | “*hearts love eggs*”



- Egg and/or dietary cholesterol intake is **not** associated with increased CVD risk.
- Egg intake addresses several nutrient inadequacies and can make important contributions to overall health across the life span.
- Dietary cholesterol and egg restrictions have now been removed from most national dietary recommendations.

Possible cardio-protective benefits of eggs | “hearts love eggs”



A heart healthy eating pattern is naturally low in saturated and trans fat, salt and added sugar and rich in wholegrains, fibre, antioxidants and unsaturated fats (omega-3 and omega-6).

“Moderate egg consumption is not associated with cardiovascular disease risk overall and is associated with potentially lower cardiovascular disease risk in Asian populations.”



Meta-analyses to date show a small but significant increase in HDL cholesterol with increasing cholesterol intake from eggs. The Heart Foundation and the American Heart Association recognise low HDL as a risk factor for coronary heart disease with higher levels suggested to be cardio-protective.

Eggs also provide nutrients that may be associated with protection from heart disease or its risk factors. For example, eggs provides folate and long chain omega-3 fatty acids, as well as arginine, a precursor to nitric oxide, which in turn plays a central role in endothelial function. They also contain the carotenoids lutein and zeaxanthin which have been associated with improved cardiometabolic health potentially by providing protection against lipid oxidation and inflammation.

Make eggs *diabetic-friendly essentials* | “no sugar, high protein”

No overall association between moderate egg consumption and risk of Type 2 Diabetes.

“People with type 2 diabetes need to keep their blood sugar levels stable. **Eggs can help!**”

“Research supports the inclusion of up to 12 eggs a week as part of a healthy diet in people with diabetes.”

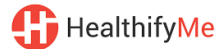


Eat eggs for weight loss | “high protein, high fiber, *low carb*”

Protein has been shown to contribute to greater feelings of satisfaction after eating and may therefore help people to stick to a weight loss diet for longer.

“Eating protein rich foods such as eggs at breakfast have benefits for weight loss.”

“Consuming eggs for breakfast increases satiety and results in lower energy intake during the remainder of the day.”



Covid-19 and Vitamin D deficiency| “vitamin D enriched eggs”

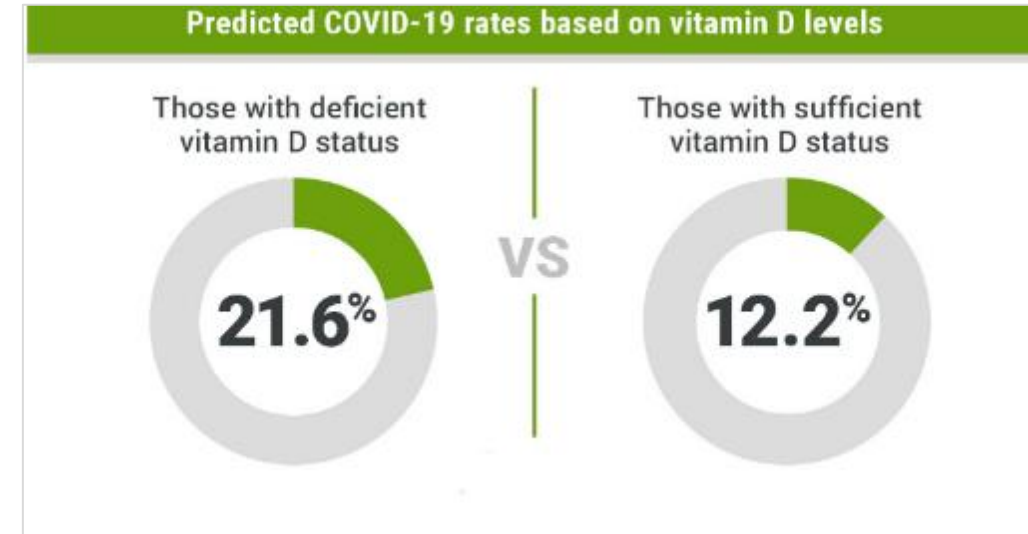
Vitamin D supports the normal function of the immune system.

Nearly, 500 million individuals are vitamin D deficient in India



Eggs are one of the few foods that naturally contain vitamin D.

Eggs can be enriched with vitamin D up to nearly half RDA through chicken feed.



Reference: Meltzer DO, et al. *JAMA Netw Open*. 2020;doi:10.1001/jamanetworkopen.2020.19722.

Eggs - A recovery food for Athletes




Athletes require very high protein content in their diet.


Eggs are a valuable source of high-quality protein for athletes.

Eggs provide a range of valuable nutrients in the diets of athletes including iron, vitamin B12 and folate, all required for healthy red blood cells that carry oxygen to the working muscles.

The Benefits of Eggs FOR ATHLETES



- Promotes muscle strength & recovery - Complete source of protein with all essential amino acids.
- Improves workout recovery and sleep quality - Source of magnesium.
- Helps maintain healthy performance weight - Fat-free and low calorie.



- Increases energy for sports performance - Great source of vitamins B1, B2 (riboflavin), B6, and B12.
- Keeps vision sharp - Rich in antioxidants lutein & zeaxanthin.
- Delays fatigue in endurance sports - High in choline.
- Reduces inflammation & joint pain - Source of omega-3 fats.

Rembrandt Foods

Eggs for Children and Adolescents | All-round growth and development



Many teenagers skip meals and have vitamin A, folate, iodine, iron and phosphorus deficiency.

“Eggs provide a nutritious start to a teenager’s day.

“Eggs provide essential nutrients and help boost the needs of growing teenagers.



Folate is essential for normal growth and development.

“One serve of eggs provides around a third of the recommended dietary intake of folate for children.



Vitamin A is essential for normal vision and contributes to normal immune function.

“One serve of eggs provides around half the recommended dietary intake of vitamin A for children.

Vitamin D is essential for normal bone and muscle structure and function.

“Eggs are an excellent source of vitamin D for children.”

Eggs for Elderly | “*taste bhi health bhi*”



The elderly need more nutrients with less food, helping their digestion.

Nutrient rich eggs- especially protein, vitamin D and omega-3, valuable to diet of the elderly.

Soft texture makes eggs suitable for the elderly.



Eggs contains carotenoids (lutein, zeaxanthin) that can lower risk of age-related macular degeneration (AMD) and can reduce the risk of cataracts and clouding of the eye covering which can accompany aging.

Considering the benefits of egg consumption for older people at risk of sarcopenia: Encouraging both those approaching older age and older people to include eggs more frequently, as part of a healthy, balanced diet and in addition to physical activity, could help them maintain their muscle strength and function, thereby preserving their functional capacity and reducing morbidity, mortality and healthcare costs associated with sarcopenia.

The Egg Renaissance

BIG U-TURN

Landmark research is drastically changing long-held ideas about egg consumption

2017

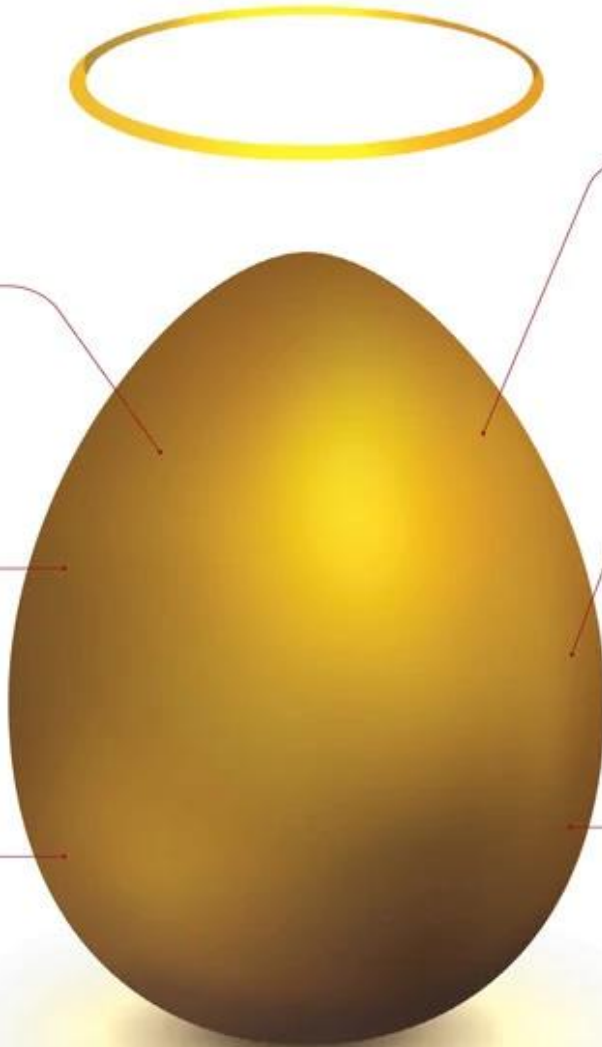
The PURE study, conducted since 2003 on 150,000 people from 18 countries; 29,298 from India. Largest study to find diets high in carbohydrates—and not fats—to be deadly. Exonerates eggs

2016

A high-cholesterol diet (or one egg a day) does not increase risk even in those genetically predisposed to heart disease (*American Journal of Clinical Nutrition*)

2015

The US department of agriculture and department of health and human services, revises its 40-year-old public health warning against the egg in the eighth edition of Dietary Guidelines for Americans, 2015–2020



2008

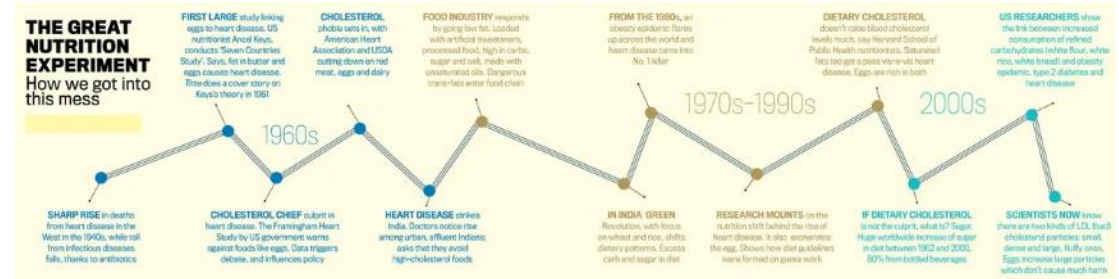
Saturated fat more likely to raise blood cholesterol than foods such as eggs, that are rich in cholesterol but low in saturated fat (*European Journal of Nutrition*)

2011

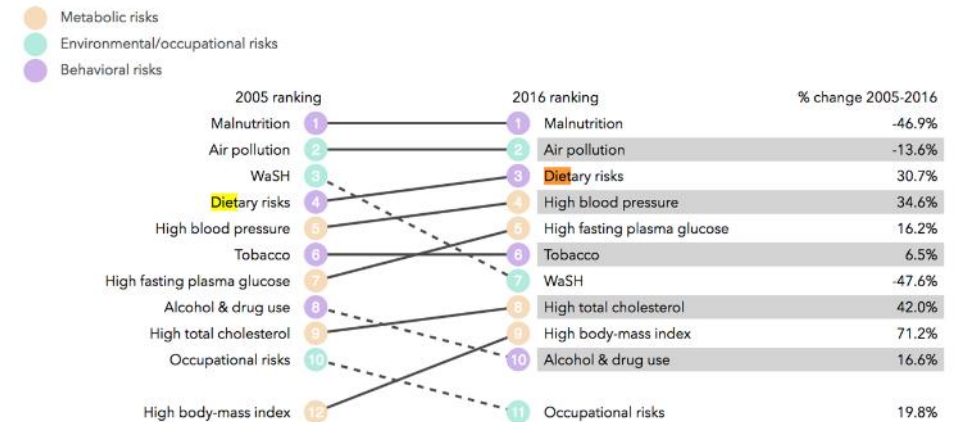
Eggs also contain antioxidant properties which help in the prevention of heart disease and cancer (*Food Chemistry*)

2012

Dietary cholesterol has a small impact on blood cholesterol levels for most people. Hard-boiled eggs may even help boost levels of good cholesterol (*Advances in Nutrition*)



What risk factors drive the most death and disability combined?



Top 10 risks contributing to DALYs in 2016 and percent change, 2005-2016, all ages, number



Consuming eggs is an experience | use evidence and emotion

Evidence

Aids growth

Improved heart health

Stable blood sugar levels

Better immunity

Satiety

Healthy weight management

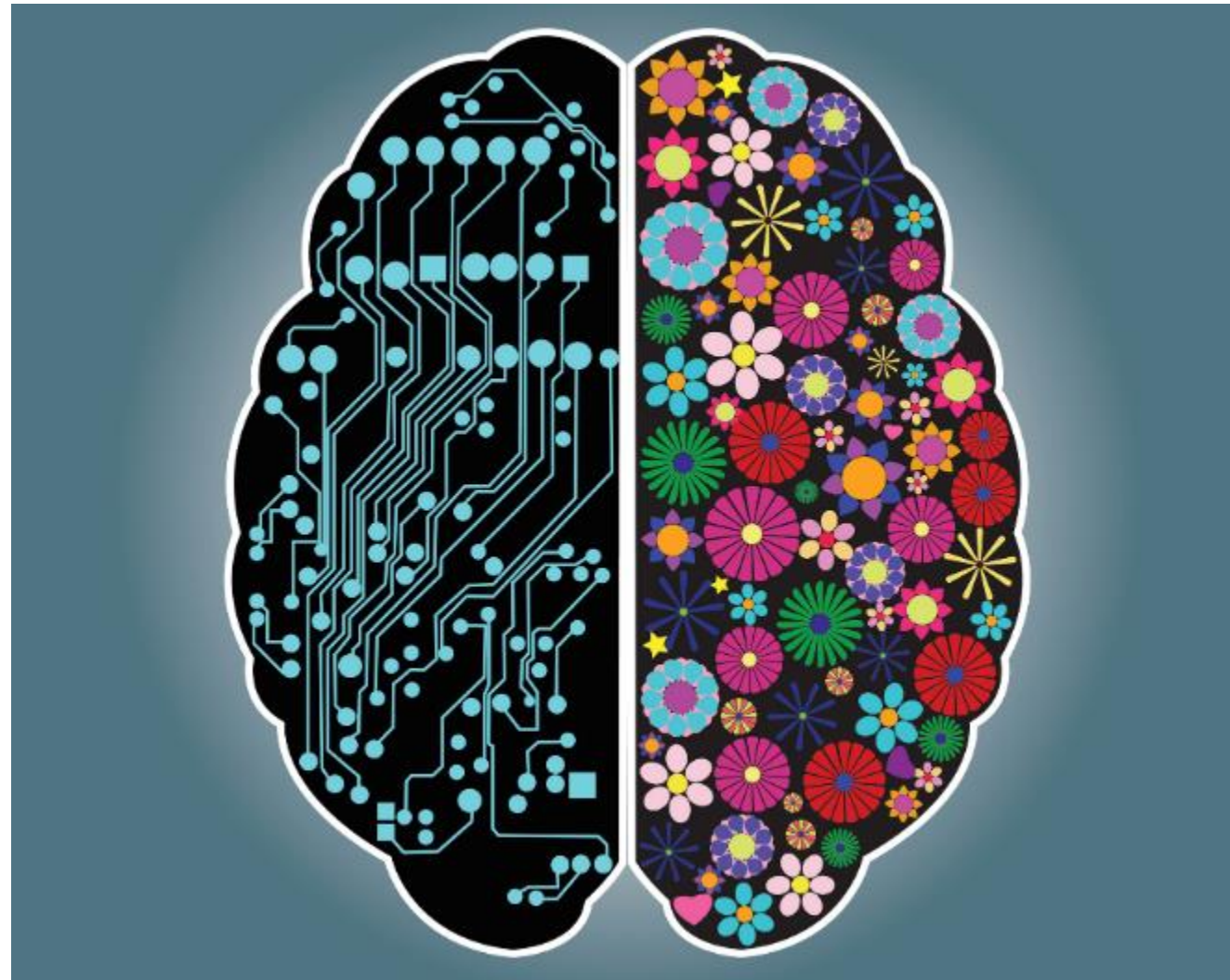
Better digestion

Healthy muscles/ reduces
inflammation and joint pains

Improves cognitive function

“naturally” packaged
planet-friendly packaging

“I think....”



Emotion

Tasty

Convenient

Easy to cook

Add it to any meal
any time of the day

Satisfaction

Fun

Wholesome

“I feel....”

International Egg Commission



TECHNICAL SEMINAR

INDIA

Any Questions?

Kindly sponsored by



MOBA

HOW TO *increase egg consumption* IN COLOMBIA?

Gonzalo
Moreno

President
Colombian Poultry Association
(Asociación Colombiana de Avicultura - ANAVI)

