

FAQs



The NuVal® System

Q: What is the NuVal® Nutritional Scoring System?

A: The NuVal® Nutritional Scoring System is a food scoring system that allows you to see – at a glance – the nutritional value of the food you buy.

Q: What does a NuVal® Score tell me?

A: The NuVal® System scores food on a scale of 1 to 100. The higher the NuVal® Score, the better the nutrition.

Q: Is the NuVal® System a diet?

A: No, it is a food scoring system that allows you to understand and compare the nutritional value of the foods you buy and consume. It is a tool you can easily use while shopping to make more nutritious food choices. The NuVal® System is not a diet or substitute for a doctor's advice about health conditions.

Q: Are NuVal® Scores different for adults and children? Men and women?

A: The same NuVal® Scores pertain to everyone over the age of two years old. The System is based on the federal Dietary Guidelines for Americans, which are published jointly by the Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA). The Guidelines provide authoritative advice for people two years and older about how good dietary habits can promote health and reduce risk for major chronic diseases. Since the Dietary Guidelines for Americans exclude infants and toddlers under the age of two, so does the NuVal System.

Q: How does the NuVal® Nutritional Scoring System benefit consumers like me?

A: Our easy-to-use scoring system helps you cut through the clutter of nutrition information so you can make decisions about food quickly, easily, and with confidence. Should you buy the rotisserie chicken or the chicken pie? Is yogurt more nutritious for you than cottage cheese? These are the decisions that the NuVal® System can help you make – in seconds – as you're walking down the supermarket aisle.

How the System Works

Q: How does the NuVal® Nutritional Scoring System work?

A: The NuVal® Nutritional Scoring System summarizes the overall nutritional value of food. It uses the Institute of Medicine's Dietary Reference Intakes (quantitative reference values for recommended intakes of nutrients) and the Dietary Guidelines for Americans (advice from the Department of Health and Human Services and the U.S. Department of Agriculture about how good dietary habits can promote health and reduce risk for major chronic diseases) to quantify the presence of more than 30 nutrients – including vitamins, minerals, fiber, and antioxidants; sugar, salt, trans fat, saturated fat, and cholesterol. The system also incorporates measures for the quality of protein, fat, and carbohydrates, as well as calories and omega-3 fats. The NuVal System also takes into account how these nutrients influence health based on broadly accepted and published scientific literature.

Q: How is a NuVal® Score calculated?

A: The NuVal® Nutritional Scoring System takes more than 30 different nutrients and nutrition factors into account when developing a Score, making it a very robust food rating system. The nutrient content of a food is processed through a complex algorithm developed through a rigorous process by a team of twelve nutrition and medical experts. Boiled down to its simplest description, here is how the NuVal® Nutritional Scoring System works:

- Nutrients with generally favorable effects on health are placed in the numerator, where higher values increase the NuVal® Score.
- Nutrients with generally unfavorable effects on health are placed in the denominator, where higher values decrease the NuVal® score.

In addition to the numerator and denominator nutrients, the algorithm takes into account other key factors that measure the quality and density of nutrients, as well as the strength of their association with specific health conditions.

For example, trans fat has a very strong association with heart disease, a highly prevalent and serious condition. Therefore, the algorithm assigns a "weighting coefficient" to trans fat which substantially lowers the Score of foods containing it. Those weighting coefficients are determined by the prevalence, severity, and strength of association with health conditions.

The quality of macronutrients (fats, proteins, carbohydrates) is another key factor in the overall equation. Fat quality, protein quality, carbohydrate quality, and glycemic load (a measure of carbohydrate quality) are among the "universal adjustors" that can move a NuVal Score higher or lower. The higher the quality, the higher the Score.

Foods with higher nutrient density -- a significant amount of vitamins and minerals, but relatively few calories -- also receive extra credit and higher Scores. The greater a food's "trajectory" toward numerator nutrients (generally favorable) and away from denominator nutrients (generally unfavorable), the higher the Score.

Q: What specific nutrients and factors go into a NuVal® Score?

A: The following nutrients and nutrition factors are used in determining a food's NuVal® Score

- Nutrients considered to have generally favorable effects on health:
 - Fiber
 - Folate
 - Vitamin A
 - Vitamin C
 - Vitamin D
 - Vitamin E
 - Vitamin B12
 - Vitamin B6
 - Potassium
 - Calcium
 - Zinc
 - Omega-3 fatty acids
 - Total bioflavonoids
 - Total carotenoids
 - Magnesium
 - Iron
- Nutrients with generally unfavorable effects on health
 - Saturated fat
 - Trans fat
 - Sodium
 - Sugar
 - Cholesterol
- Additional entries
 - Protein quality
 - Fat quality
 - Glycemic load
 - Energy density

Q: How did you determine what nutrients to use?

A: Nutrients for inclusion in the NuVal® Nutritional Scoring System were selected based on their established relevance to public health as reported and published by the scientific community. For more detailed information on the inclusion of each nutrient, and a bibliography of sources upon which each decision was based, please contact us at experts@NuVal.com.

Q: Where does the nutrient data you use in the scoring process come from?

A: For packaged foods, the NuVal® Nutritional Scoring System uses the information on the nutrition facts panel on the food's packaging, as well as the ingredients list. We manually scan the on-package nutrient fact panel and ingredients list, from which a nutrient content profile is generated and processed through the ONQI® algorithm (our scoring engine).

For foods without labels (non-packaged) – such as produce, seafood, and meat – the NuVal® Nutritional Scoring System uses a nutrient database from a respected research arm of a major university which is used by both government agencies and academia and contains all of the nutrients needed for our computations. Their data is obtained primarily from the USDA Nutrient Data Laboratory and supplemented by food manufacturers' information and data from scientific literature.

Q: How does the NuVal® Nutritional Scoring System compare to other nutrient profiling systems?

A: The NuVal® Nutritional Scoring System has a powerful combination of five very important characteristics:

- **Simple** — The NuVal System provides comprehensive nutritional information in one simple number between 1 and 100.
- **Inclusive** — NuVal Scores cover all kinds of food – from apples to chips and store brands to national brands – not just products from specific manufacturers.
- **Convenient** — NuVal Scores are right where you shop – on shelf tags throughout the store – so you can compare overall nutrition the way you compare price.
- **Objective** — The NuVal System was developed independently by a team of nutrition and medical experts and funded by Griffin Hospital. No retailers or manufacturers were involved.
- **Value-focused** — NuVal Scores help you get the most nutrition for your money by allowing you to compare price and nutrition – side-by-side on the same tag.

The Science

Q: What factors contribute to how a food’s nutrition quality is scored?

A: The ONQI® algorithm considers more than 30 different nutrients and nutrition factors, including:

Numerator Nutrients: Nutrients considered to have generally favorable effects on health are placed in the numerator, where higher values increase the NuVal® Score.

- Fiber
- Folate
- Vitamin A
- Vitamin C
- Vitamin D
- Vitamin E
- Vitamin B12
- Vitamin B6
- Potassium
- Calcium
- Zinc
- Omega-3 fatty acids
- Total bioflavonoids
- Total carotenoids
- Magnesium
- Iron

Denominator Nutrients: Nutrients with generally unfavorable effects on health are placed in the denominator, where higher values decrease the NuVal® Score.

- Saturated fat
- Trans fat
- Sodium
- Sugar
- Cholesterol

In addition to the numerator and denominator nutrients, the NuVal System takes into account other key factors that measure the quality and density of nutrients, as well as the strength of their association with specific health conditions.

For example, trans fat has a very strong association with heart disease, a highly prevalent and serious condition. Therefore, the NuVal System assigns a "weighting coefficient" to trans fat which substantially lowers the Score of foods containing it.

Those weighting coefficients are determined by the prevalence, severity, and strength of association with health conditions.

The quality of macronutrients is another key factor in the overall equation. Fat quality, protein quality, carbohydrate quality, and glycemic load (a measure of carbohydrate quality) are among the "universal adjustors" that can move a NuVal® Score higher or lower. The higher the quality, the higher the Score.

Foods with higher nutrient density — a significant amount of vitamins and minerals, but relatively few calories— also receive extra credit and higher Scores. The greater a food's "trajectory" toward numerator nutrients (generally favorable) and away from denominator nutrients (generally unfavorable), the higher the Score.

Q: Could the Score for the same product change over time?

A: Yes. And these changes are likely to happen for two reasons.

The first is scientific advancement. As new research is conducted and the findings verified, it may require updates or revisions to the ONQI® algorithm that powers the NuVal® Nutritional Scoring System. The Scientific Advisory Board, which manages the ONQI algorithm, also will manage the process to update the ONQI algorithm as new public health implications are proven.

The second reason for changing scores is the reformulation of products. As manufacturers notify us of changes to their product ingredients lists, NuVal Scores will be revisited and updated accordingly. For example, until recently, many processed food products contained trans fat. The removal of trans fat, as well as other nutrient reformulations, can impact — sometimes greatly — the NuVal Score of a product.

Q: How often will scores be revisited to account for advancements in nutritional science?

A: As part of its responsibility to manage the ONQI® algorithm, the Scientific Advisory Board (SAB) will monitor research findings and advancements that may require revisions to the ONQI algorithm (which powers the NuVal® Nutritional Scoring System and is owned and managed by Griffin Hospital). The SAB has committed to reviewing the algorithm itself every two years to determine if it should be revised based on scientific advancements or re-approved in its current form.

Origins of the System

Q: Why was it developed?

A: The NuVal® Nutritional Scoring System was developed as a direct response to America's troubling health trends: rapidly rising rates of obesity and diabetes in both the adult and child populations, and increasing rates of heart disease in adults. A team of recognized nutrition and medical experts, led by Dr. David Katz of the Yale Prevention Research Center, advocated the development of an independent and simplified nutritional scoring system as a vehicle to improve public health. Funded by Griffin Hospital — a non-profit community hospital and teaching affiliate of the Yale University School of Medicine located in Derby, CT, and home to the Yale-Griffin Prevention Research Center — this team worked for two years to develop the patent-pending Overall Nutritional Quality Index (ONQI®) algorithm, which converts complex nutritional information into a single, easy-to-use score.

Q: Was the NuVal® Nutritional Scoring System developed for a specific retailer, manufacturer, or company?

A: No. The team that designed the ONQI® algorithm was entirely funded by Griffin Hospital, with a simple mandate guided by public health concerns, and without

support from manufacturers or other parties interested in promoting certain foods. Griffin Hospital then partnered with Topco Associates LLC to create a joint venture company, NuVal LLC, to bring the public health benefits of the ONQI algorithm to consumers through the NuVal® System. NuVal LLC has created programs for retailers and manufacturers wishing to make the NuVal System available to their customers.

Q: Who developed the NuVal® System and its underlying technology?

A: A team of recognized nutrition and medical experts from leading universities and health organizations drove the development of the ONQI® algorithm as a tool for improving public health in the face of America's troubling health trends.

Funded by Griffin Hospital, a non-profit community hospital and teaching affiliate of the Yale University School of Medicine, located in Derby, CT, and home to the Yale - Griffin Prevention Research Center, this team — led by Dr. David Katz — worked for two years to develop the Overall Nutritional Quality Index (ONQI®) algorithm, which powers the NuVal® Nutritional Scoring System.

Q: How was the expert development panel chosen?

A: Members of the Yale University-Griffin Hospital Prevention Research Center identified the relevant areas of expertise — from nutritional biochemistry to cardiovascular epidemiology — required to best inform the overall project. With the goal of establishing a panel of roughly 10-15 experts, the Prevention Research Center members identified candidates in each of the necessary disciplines based on their reputation, prior collaborative work, and contributions to scientific literature.

After a thorough selection process, the final panel of experts from leading North American universities and health organizations was convened. Its members included:

David L. Katz, MD, MPH, FACPM, FACP; ONQI Chair

Yale-Griffin Prevention Research Center

Expertise: general nutrition; preventive medicine; public health

Keith Ayoob, EdD, RD

Albert Einstein College of Medicine

Expertise: pediatric nutrition

Sonia Caprio, MD

Yale University School of Medicine

Expertise: pediatrics

Erick Decker, PhD

University of Massachusetts

Expertise: food science

Leonard Epstein, MD

University of Buffalo

Inventor of the Traffic Light Diet

Expertise: traffic light food labeling; weight control

David Jenkins, MD, PhD

University of Toronto

Inventor of the Glycemic Index

Expertise: nutritional biochemistry; diabetes; insulin metabolism; glycemic effects of food

Francine Kaufman, MD

University of Southern California
Past President of the American Diabetes Association
Expertise: pediatric endocrinology

Robert Kushner, MD

Northwestern University
Expertise: general internal medicine; dietary counseling; weight management

Ronald Prior, PhD

Arkansas Children's Nutrition Center, USDA National Human Nutrition Research Center (HNRC)
Expertise: nutritional biochemistry; micronutrients

Rebecca Reeves, PhD, RD

Baylor College of Medicine
Past President, American Dietetic Association
Expertise: general dietetics

Barbara Rolls, PhD

Pennsylvania State University
Author of Volumetrics
Expertise: appetite control; weight management; satiety

Sachiko St. Jeor, PhD, RD

University of Nevada
Expertise: cardiovascular disease; general dietetics

Walter Willett, MD, DrPH

Harvard University School of Public Health
Expertise: nutritional epidemiology

Q: Who is Dr. David Katz?

A: Dr. David L. Katz, MD, MPH, FACPM, FACP is Adjunct Associate Professor of Public Health at Yale University School of Medicine and a nationally recognized authority on nutrition, weight control, and the prevention of chronic disease. Dr. Katz led the scientific expert panel that developed the ONQI® (Overall Nutritional Quality Index) algorithm, which powers the NuVal® Nutritional Scoring System. Dr. Katz also is a member of the Scientific Advisory Board, which oversees the ongoing management of the ONQI algorithm.

NuVal® Scores in Stores

Q: Where can I find NuVal® Scores?

A: NuVal® Scores are displayed directly on shelf price tags and other in-store signage, so you can compare the nutritional value of products at a glance and as part of your regular shopping routine.

Sample NuVal Scores and related nutritional information are also available online at www.NuVal.com.

Q: Where does the NuVal® Score appear? On the product packaging? On the shelf?

A: In addition to our double-hexagon emblem, which bears the score of each product and appears on shelf tags next to the price, retailers will use banners, shelf-talkers, brochures, and other forms of in-store communication to educate consumers on the

NuVal® Nutritional Scoring System. Manufacturers may also license rights to include the NuVal Score on their product packaging.

Q: How do I use the NuVal® Nutritional Scoring System in stores?

A: It's easy to incorporate NuVal® Scores into your regular shopping routine. The NuVal System's double-hexagon emblem and 1-100 food score appears on shelf tags next to the price, so you can compare overall nutrition the same way you compare price. No more scouring nutrition labels; with NuVal Scores, you can see and compare food's nutritional value in a single number at a single glance.

NuVal Scores make it easy to find more nutritious alternatives – even in the salty snack aisle. When you want to buy more nutritious foods, simply look for those with higher NuVal Scores. And even if you don't buy the product with the highest Score, you have the nutrition information you need to make your decision quickly and easily.

Q: Where can I find a list of scored products?

A: We believe the best way to see and use NuVal® Scores is while you are shopping, so we are focused on putting as many Scores as possible on the shelves of grocery stores. To aid the shopping experience, we provide sample Scores and tips on how to use them at www.NuVal.com.

Q: How can I get information on the NuVal® Nutritional Scoring System and how to use it?

A: At www.NuVal.com you can get more information on all aspects of the NuVal® System – what it is, how to use it, who developed it, the science behind it – as well as FAQs and insights from nutrition experts.

Grocery stores feature the NuVal System and offer a broad range of educational in-store communications: Signage, brochures, FAQs, and nutrition educators, as well as Web-based information and promotions. Store managers and employees are also available to answer your questions about the NuVal® System and help you get started.