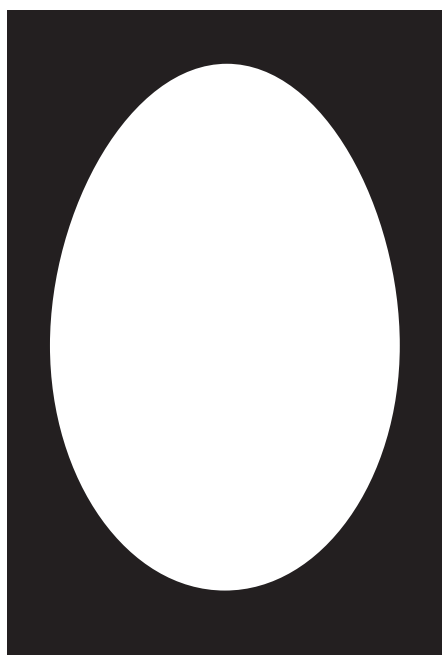


# Eggs and Health Promotion

Edited by Ronald Ross Watson



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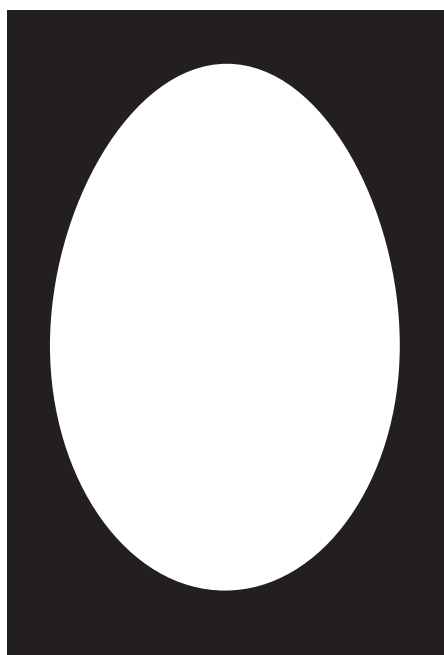


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# Preface

For millennia humans have used eggs as key parts of their diets. As the incubation materials for new birds, they contain a great variety of nutrients and materials needed to sustain both life and growth. Recent work suggests that birds may be descended from dinosaurs, meaning that eggs have promoted life for millions of years. The role of eggs as natural sources of vitamins, proteins, fats, and other nutrients is well-known, so this book reviews the myths and misconceptions about eggs. It discusses the fats and lipids in eggs, the nutrients in eggs, eggs' role in health promotion, and the lack of significant risks of eating eggs. The role of eggs in American diets and health is defined. A major focus is on the roles of cholesterol, oxidized lipids, and fats in health promotion. These range from new evidence that eggs have little effect on heart disease to their use in infant food to reduce disease. New research is examined about enhancing lipids in eggs, including vitamin E, to promote human health. A variety of other lipids and fats in eggs are investigated for benefits to health.

Eggs contain fats and cholesterol, important components of cells and needed for life. Some groups have associated high serum levels of these materials with risk of heart disease, while others have linked increased incidence of premature death with low levels. This has led to questions about the benefits of eggs as a food and nutrient source. This controversy is the subject of several chapters in this book. A key hypothesis chapter describes the use of eggs in health promotion and disease prevention.

Recent research shows that eggs often contribute to health by providing essential fatty acids and lipids in cell membranes while contributing little to serum lipids and the risk of heart disease. This book contains some medical hypotheses articles covering such potential roles as eggs as protein sources to build strength in athletes. The general aim of these chapters is to provide up-to-date research on the role of eggs in the health of Americans—for example, how egg consumption benefits women, infants, and the elderly.

A major theme is the use of eggs, with modified nutrient levels and constituents, as an easy and effective method for improving human nutrition. Some authors review the use of eggs from specially fed chickens to provide nutrients to prevent and treat some diseases. Eggs are a mechanism to introduce high levels of carotenoids to Americans, who traditionally eat only 30 percent of the recommended intake. Eggs are also being tested for transporting human immune products into people in a safe and painless manner.



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Breeding improved hens for better egg production has been scientifically promoted by H.B. Wallace and Hy-line International for more than 63 years. Such programs and companies stimulated this book and its reviews of eggs in health. The encouragement and support of Mr. H. B. Wallace and Wallace Research Inc. was vital to the book's conception and publication. Mr. H.B. Wallace and the Wallace Research Foundation have encouraged studies of the role of nutrition in health in Dr. Watson's laboratory for 22 years. Such research has led to the compilation of recent advances by experts, yielding a dozen books edited by Ronald Ross Watson. He greatly appreciates this stimulation and support, including funding for the editing and preparation of this book. Appreciation is also expressed to Bethany Stevens for her work as an office assistant in getting the manuscripts together.



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