



Edward S. Horton, MD

Edward Horton is Professor of Medicine, Harvard Medical School and Senior Investigator at the Joslin Diabetes Center. He received his medical degree from Harvard Medical School in 1957. Following internship in surgery at Johns Hopkins Hospital and military service in Germany, he received residency/fellowship training in pathology at Dartmouth Medical School and in medicine and endocrinology at Duke University Medical Center. In 1967, he went to the University of Vermont College of Medicine, where he worked for 26 years as Director of Endocrinology and Metabolism and then as Chairman of the Department of Medicine. In 1993, he was appointed Professor of Medicine at Harvard Medical School and Medical Director of the Joslin Diabetes Center. Currently he is a Senior Investigator at the Joslin Diabetes Center. He has over 450 publications and is the

recipient of several awards, including the ADA Banting Medal for Distinguished Service, the ASCN Robert H. Herman Award, the Mizuno Award and Lectureship, the IDF John A. Galloway Award, the ADA Outstanding Physician Educator Award, the Endocrine Society Distinguished Physician Award, the ADA Albert Renold Award and the JK Lilly Award. He is past president of the American Diabetes Association and the American Society for Clinical Nutrition and served as Chairman of the National Diabetes Advisory Board.

Lessons Learned from the LookAHEAD Trial

Type 2 diabetes and obesity are increasing rapidly throughout the world. Approaches to the prevention and treatment of this dual epidemic have focused on the use of medications and programs of lifestyle modification (ILS) that include a healthy diet, weight loss and increased physical activity to improve glucose control and other CVD risk factors to reduce the development of long-term complications of diabetes.

The LookAHEAD Trial is comparing the effects of an ILS program with standard care (CON) on CVD events and other complications of diabetes in approximately 5000 overweight subjects with established type 2 diabetes. After one year of treatment, subjects lost an average of 8% of initial body weight and significantly increased their level of physical fitness compared to the CON group. They also achieved better glucose control, lower blood pressure and improved lipids. Despite some regain in weight, these benefits have been sustained over a period of at least 10 years. However, both the control and ILS groups have had relatively low rates of CVD events, with no significant differences between the two groups, although there was greater use of antihypertensive and lipid lowering medications in the CON group than in the ILS group. The ILS group also had marked improvements in obstructive sleep apnea, greater mobility and fewer co-morbidities compared to CON.

This study demonstrates that a program of ILS modification can be sustained for a significant period of time and has long term benefits in reducing several CVD risk factors and improving other co-morbidities.. However, in this study the long-term effects of an ILS program to decrease CVD events has not been demonstrated.

Learning objectives:

1. To understand the rationale, design and principal results of the LookAHEAD Trial
2. To evaluate the effects of an intensive lifestyle modification program on glycemic control in people with established type 2 diabetes mellitus.
3. To evaluate the effects of an intensive lifestyle modification program on cardio-vascular disease risk factors and cardiovascular outcomes in people with type 2 diabetes.
4. To evaluate the effects of an intensive lifestyle modification program on other obesity-related conditions in people with type 2 diabetes.