

**Program:** Obesity

**Speaker:** David Allison, PhD, Dean of School of Public Health, Indiana University

**Introduced by:** Marty Meisenheimer

**Attendance:** 124

**Guests:** Roz Webb, Peter Iversen, Jim Stohler, Sherri Roizen

**Scribe:** Jerry Kurlander

**Editor:** Ed Nitka

It's about knowing. Rigorous science for understanding obesity, nutrition, aging and longevity.

1. What we think we know about obesity.
2. Obesity and longevity.
3. Rigorous science for obesity.

**Myths:** There are many beliefs that are held true despite substantial refuting evidence. Here are a few examples. Rapid weight loss is associated with poor long-term weight outcomes, breast-feeding is protective against obesity, physical education classes in school play an important role in reducing or preventing obesity, and sexual activity burns many calories that prevent obesity.

There are many presumptions yet unproven which are commonly associated with obesity. These include skipping breakfast, eating more fruits and vegetables, snacking and taking weight loss supplements.

Linus Pauling in 1958 pointed out the relationship between obesity and longevity in human beings.

The BMI is used in referring to obesity. This is a person's weight in kilograms divided by height in meters squared. This is used rather than a traditional height-weight chart. Overweight is generally referred to as a BMI of 27.3 or more for women and 27.8 or more for men. (Scribes note) There are charts which disclose years of life lost due to obesity. In midlife, increased BMI has been shown to be a risk factor for Alzheimer's disease and dementia, whereas this is not or to a lesser extent observed in later life. It has been shown that caloric restriction improves health and survival of Rhesus monkeys. It is very difficult to include humans in such studies. Caloric restriction's effect on lifespan also varies greatly with the genotype.

Adam Smith pointed out that science is the great antidote to the poison of enthusiasm and superstition. That of course is referring to rigorous science. Statistical knowledge and expertise must be taken very seriously in the study of obesity. So also must observer bias be religiously avoided in research.

A recent Swedish study suggested that lifestyle changes which reduce levels of obesity do not have an effect on the risk of death and heart attack. This is, of course, contradictory to conventional thinking. The study was done on more than 4000 genetically identical twin pairs.

Important points to remember regarding obesity include:

1. Obesity is associated with many causes of death.
2. Obesity seems to causally increase the risk of death from heart disease.

3. Among obese persons, losing weight by most currently recommended protocols seems to increase longevity.

Don't overlook the importance of going for a walk and getting some exercise.



David Allison, PhD