

WEIGHT & HEALTH
A 2014 Scientific Update:
Separating Rhetoric from Reality

Jon Robison PhD, MS.

THE “WAR ON OBESITY”

Historical Context


U.S. NEWS & WORLD REPORT

“Obesity has replaced vitamin deficiency diseases as the #1 nutrition problem in the United States today”

NEW YORK TIMES

*“Overweight:
America’s #1 Health Problem”*

NATIONAL INSTITUTES OF HEALTH

*“Normal Americans are now so heavy
that their weight is inducing  excessive
mortality”*

“For the rest of the decade, these dire warnings continued unabated. Scientists were unequivocal. Overweight shortened life. Dieting and weight reduction lengthened it.” ‘Pleasingly plump’ was not just unfashionable, it was deadly.”

AND MORE RECENTLY...

“When you look at obesity, what I call the terror within, a threat that is every bit as real to America as weapons of mass destruction...”

U.S. Surgeon General Dr. Richard Carmona

& MORE RHETORIC...

“The steady rise in life expectancy during the past two centuries may soon come to an end...obesity may shave up to 5 years off the average life spans in the coming years.”

Olshansky et. Al, NEJM, 2005, 352:1138-1145

THE REALITY...

*“These are just back-of-the-envelope,
plausible scenarios. We never meant for
them to be portrayed as precise.”*

Obesity: An Overblown Epidemic, Scientific American, June, 2005

THE OBSESSION

- ◆ Unique Confluence of Social, Economic & Political Factors
- ◆ Diet-Pharmaceutical-Industrial Complex
- ◆ Fashion, Cosmetic, Fitness, Media
- ◆ Medical Establishment / Government

PUBLIC HEALTH CALAMITY?

The Premise

- ◆ **Overweight** leads to premature death
- ◆ Overweight increases risk for disease
- ◆ Weight loss improves health / longevity

BODY MASS INDEX (BMI)

(weight in kilograms divided by height in meters squared)

- ◆ “Normal” Weight = 18.5-24.9
- ◆ “Overweight” = 25-29.9
- ◆ “Obese” = 30 or greater

LATEST BMI GUIDELINES

All adults with a BMI of 25 or higher are considered at risk:

64% of adult population

100 million Americans

BMI TREATMENT GUIDELINES

- ◆ Below 25 -
- ◆ 25 - 29.9 - diet, exercise, b.mod.
- ◆ ≥ 30 - above plus drugs
- ◆ ≥ 40 - above plus surgery

BODY MASS INDEX

- ◆ Does not predict percent body fat
- ◆ Does not predict fitness
- ◆ Does not predict blood pressure
- ◆ Does not predict mortality or morbidity

BODY MASS INDEX

- ◆ Does not take into account gender
- ◆ Does not take into account ethnicity
- ◆ Does not take into account age
- ◆ Does not take into account muscle mass

<u>NAME</u>	<u>BMI</u>	<u>WEIGHT STATUS</u>
George W. Bush	26.3	Overweight
Will Smith	27	Overweight
Yao Ming	27.7	Overweight
George Clooney	29	Overweight
Johnny Depp	29.8	Overweight
Matt LeBlanc	30	Obese
Tom Cruise	31	Obese
Shaquille O'Neil	31.6	Obese
Arnold Schwarzenegger	33	Obese

BODY MASS INDEX

“Although BMI is a generally convenient measure, it lacks a theoretical foundation and may be compromised by ethnic, cultural or lifestyle differences”

BODY MASS INDEX

Do You Believe in
Fairies, Unicorns or the BMI?



Stanford University
Dr. Keith Devlin
The “Math Guy” on NPR

BODY MASS INDEX

“Since the entire sorry saga of the BMI was started by a mathematician - one of us - I think the onus is on us, as the world’s experts on the formulation and application of mathematical formulas, to start to eradicate this nonsense and demand the responsible use of our product.”

AMA - BODY MASS INDEX

“Given the existing limitations of BMI to diagnose obesity in clinical practice, it is unclear that recognizing obesity as a disease, ...will result in improved health outcomes. The disease label is likely to improve health outcomes for some individuals, but may worsen outcomes for others.”

AMA - BODY MASS INDEX

- ◆ Encourage doctors to have conversations with patients at risk of obesity
- ◆ Provide impetus for health insurers to cover both those conversations and subsequent weight-loss interventions

PUBLIC HEALTH CALAMITY?

The Premise

- ◆ Overweight leads to premature death
- ◆ Overweight increases risk for disease
- ◆ Weight loss improves health / longevity

OBESITY KILLS?

“Obesity is the second leading cause of preventable death in the United States, exceeded only by cigarette smoking ...and it contributes to 300,000 deaths annually in the United States.”

Manson, NEJM 1996;335:659

OBESITY KILLS?

*“Actual Causes of Death
in
The United States”*

McGinnis, JAMA 1993;270(18):2208

CAUSES OF DEATH - U.S. 1990

Tobacco	400,000
Diet/Activity Patterns	300,000
Alcohol	100,000
Microbial Agents	90,000
Toxic Agents	60,000
Firearms	35,000
Sexual Behavior	30,000
Motor Vehicles	25,000

McGinnis, JAMA 1993;270(18):2208

OBESITY & MORTALITY

“For overweight and obesity combined, our estimate was 25,814 excess deaths”

OBESITY & MORTALITY

American Changing Lives Study

“ When socioeconomic and other risk factors are controlled for, obesity is not a significant risk factor for mortality; and...for those 55 or older, both overweight and obesity confer a significant decreased risk of mortality. ”

CREATING THE EPIDEMIC

Tues. June 16, 1998: Overweight =

BMI \geq 27.3 for women, \geq 27.8 for men

Wed. June 17, 1998: Overweight = BMI \geq 25

**RESULT: 30 million people woke up
overweight on Wednesday !**

OBESITY EPIDEMIC ??

BMI CHANGES - MOST RECENT DATA

- ◆ 1999 – 2012 - Females - **No change**
- ◆ 2003 – 2012 – Males – **No change**
- ◆ 1999 – 2008 – kids & teens – **No Change***
- ◆ 2008 – 2011 – kids 2-4 – **Slight Decrease**

* except heaviest boys 6-19

PUBLIC HEALTH CALAMITY?

The Premise

- ◆ ~~Overweight leads to premature death~~
- ◆ Overweight increases risk for disease
- ◆ Weight loss improves health / longevity

WEIGHT & DISEASE

- ◆ Associated with increased disease risk
- ◆ Confounding factors reduce or eliminate the association
- ◆ Fitness, activity, SES, weight cycling, nutrient intake, etc.

WEIGHT LOSS & DIABETES?

- ◆ Improvements are usually seen in the first few days before much weight is lost
- ◆ Improvements can deteriorate even if weight loss is maintained
- ◆ Weight loss is rarely maintained

WEIGHT LOSS & DIABETES?

Numerous studies have shown that these so called 'weight-related' health problems can be treated effectively with lifestyle interventions without significant weight loss and in individuals who remain markedly 'obese' by traditional medical standards.

PUBLIC HEALTH CALAMITY?

The Premise

- ◆ ~~Overweight leads to premature death~~
- ◆ ~~Overweight increases risk for disease~~
- ◆ ~~Weight loss improves health / longevity~~

WEIGHT LOSS & HEALTH

“...The ultimate goal of diets is to improve people’s long-term health, rather than to reduce their weight.

Our review of randomized controlled trials of the effects of dieting on health finds very little evidence of success in achieving this goal.”

WEIGHT LOSS & HEALTH

“If diets do not lead to long-term weight loss or long-term health benefits, it is difficult to justify encouraging individuals to endure them.”

WEIGHT LOSS & HEALTH

- ◆ Exaggerated effects of weight on health
- ◆ NO evidence of wt. loss sustainability
- ◆ FIRST, DO NO HARM !

“IN THE NAME OF HEALTH”

Over the last hundred years medicine has promoted a wide variety of potentially dangerous and sometimes lethal diets, drugs, and surgeries to help people reduce their weight “in the name of health.”

“IN THE NAME OF HEALTH”

The use of corsets was advocated by the health establishment though it often resulted in constricted lungs, squeezed livers and bladders and dislocated stomachs.

“IN THE NAME OF HEALTH”

- ◆ 1890 - Corset
- ◆ 1893 - Thyroid Extract
- ◆ 1920 - Laxatives
- ◆ 1933 - Dinitrophenol
- ◆ 1937 - Amphetamine
- ◆ 1940 - Atropine
- ◆ 1940 - Digitalis

Ernsberger & Haskew,
Rethinking Obesity, 1987

“IN THE NAME OF HEALTH”

- ◆ 1957 - HCG
- ◆ 1964 - Total Fasting
- ◆ 1969 - Intestinal Bypass
- ◆ 1974 - Jaw Wiring
- ◆ 1977 - Gastric Bypass
- ◆ 1985 - Gastric Balloon
- ◆ 1990's - Fen-Phen, Redux, Meridia, Xenical

THE LEGACY OF FAILURE

Consequences of “The War”

- ↑ Eating disorders
- ↑ Disordered eating
- ↑ Body hatred
- ↑ Exercise addiction
- ↑ Exercise resistance
- ↑ Weight cycling
- ↑ Smoking
- ↑ Discrimination
- ↑ Shame & isolation
- ↑ Wasted resources

WASTED RESOURCES

40 Billion Dollars!

Could build 2.5 Habitat for Humanity homes for each of the 2.5 million homeless people in the U.S.

Marilyn Wann, Fat!So?, 1998

WASTED RESOURCES

2011 Update

- ◆ 60.9 Billion Dollars!
- ◆ 75 million dieters (2010)
- ◆ Typical dieter - 4 times per year

SHIFTING THE PARADIGM

Weight-Centered

Everyone needs to be thin for good health and happiness

Health-Centered

Thinness is not intrinsically healthy & beautiful, nor is fatness intrinsically unhealthy & unappealing

SHIFTING THE PARADIGM

Weight-Centered

People have different body shapes & sizes because they lack will power, eat too much & move too little

Health-Centered

People naturally have different body shapes & sizes

SHIFTING THE PARADIGM

Weight-Centered

Everyone can be happy, healthy and thin by dieting

Health-Centered

Dieting usually leads to weight gain, decreased self-esteem and increased risk for disordered eating

SHIFTING THE PARADIGM

Weight-Centered

GOAL



Weight loss

Health-Centered

GOAL



Improved health

WHY NOT?



SHIFTING THE PARADIGM

- ◆ The ill effects of weight on health have been greatly exaggerated
- ◆ The relationship of weight loss to health is questionable
- ◆ Weight loss is not a sustainable outcome for the vast majority of people

SHIFTING THE PARADIGM

- ◆ Health can be improved without weight loss
- ◆ There is growing evidence that promoting weight loss violates the principle of “first, do no harm.”
- ◆ The weight loss industry is really a weight-cycling industry

“HEALTHY WEIGHT”

Eating: non-restrictive, internally
directed (normal, intuitive, mindful)

Movement: reasonable, enjoyable,
sustainable

“HEALTHY WEIGHT”

- ◆ Not all people are currently at their most “healthy weight”
- ◆ Moving towards “normal” eating & physical activity will produce a “healthy weight”
- ◆ Focusing on weight loss leads to weight cycling and increased weight

HEALTH AT EVERY SIZE

- ◆ Self-Acceptance - feeling good about self

WEIGHT DISCRIMINATION

“Among all adults in the study, weight discrimination was more prevalent than discrimination due to ethnicity, sexual orientation and physical disability.”

“Among women, weight discrimination was even more common than racial discrimination.”

HEALTH AT EVERY SIZE

- ◆ Self-Acceptance - feeling good about self
- ◆ Movement - being comfortably active

FIT AND FAT!

“The often-cited ‘conclusive evidence’ that obesity decreases longevity comes from epidemiologic studies of BMI and mortality without adjustment for fitness.”

“Obese men and women who are fit are at no higher risk for CVD and all-cause mortality than their normal weight and fit counterparts.”

HEALTHY OBESE

“MHO individuals had a higher prevalence of coronary calcification than those with normal weight.”

“Adjustment for metabolic risk factors markedly attenuated this association, which was no longer statistically significant.”

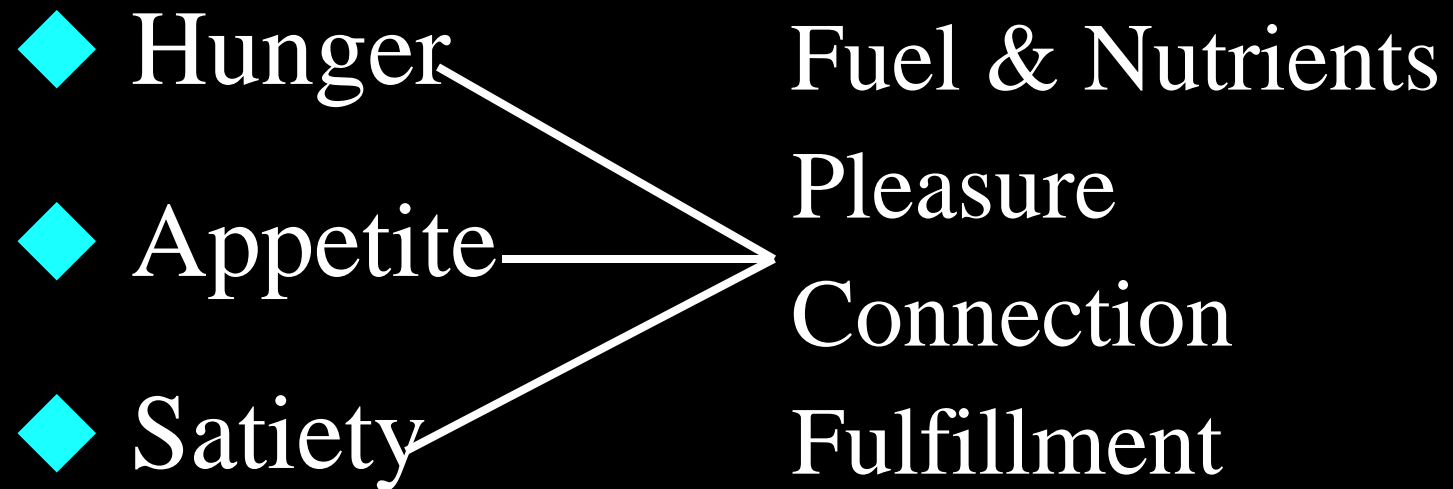
Chang, et. al, Metabolically healthy obesity & coronary artery calcification, JACC, 2014

HEALTH AT EVERY SIZE

- ◆ Self-Acceptance - feeling good about self
- ◆ Movement - being comfortably active
- ◆ Normal Eating - natural, relaxed eating

NORMAL EATING:

Based on internal cues:



NORMAL EATING

Is Being Able To:

- ◆ Eat when you are hungry and continue eating until you are satisfied.
- ◆ Choose food you like, eat it and truly get enough - not just stop eating because you think you should.
- ◆ Use some constraint on your food selection, but not miss out on pleasurable foods.

NORMAL EATING IS:

- ◆ Giving yourself permission to eat sometimes because you are happy, sad or bored, or just because it feels good.
- ◆ Three meals a day, or choosing to munch along.
- ◆ Leaving some cookies on the plate because you know you can have some again tomorrow, or eating more now because they taste so wonderful.

NORMAL EATING:

- ◆ Is overeating at times: feeling stuffed and uncomfortable.
- ◆ Is undereating at times and wishing you had more.
- ◆ Takes up some of your time and attention, but keeps its place as only one important area of your life.

NORMAL EATING:

Is flexible. It varies in response to your emotions, your schedule, your hunger and your proximity to food.

Ellyn Satter, *How To Get Your Kid To Eat...But Not Too Much*, 1987.

HEALTH AT EVERY SIZE

- ◆ Self-Acceptance - feeling good about self
- ◆ Movement - being comfortably active
- ◆ Normal Eating - natural, relaxed eating

HEALTH AT EVERY SIZE

◆ An End to Weight Prejudice -

Recognition that body shape, size and/or weight are not evidence of any particular way of eating, level of physical activity, personality, psychological issue or moral character; confirmation that there is beauty and worth in EVERY BODY.

Health for Every Body[®] The Program

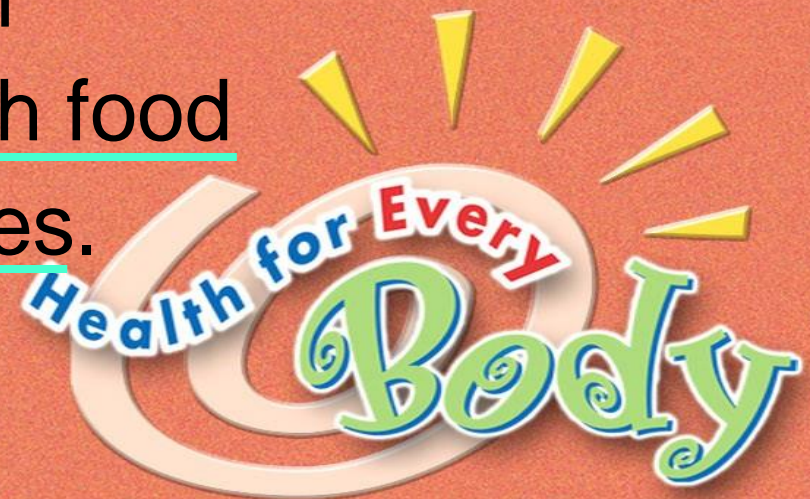
Health for Every Body[®] is an on-site, 10-week program based upon the principles of Health At Every

Size[®] (HAES[®])



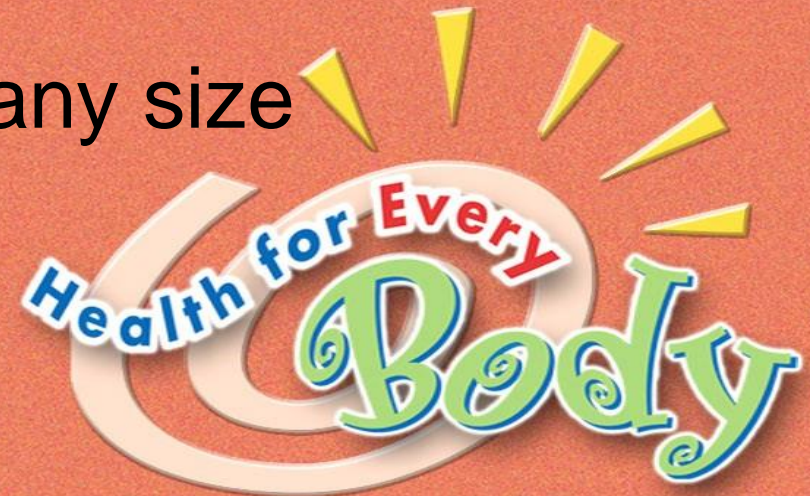
offering employees an alternative, evidence-based approach for

making peace with food
and their bodies.



Health for Every Body[®] 10 Weeks

1. Current research on dieting, weight & health
2. Examine the social & cultural pressures to be thin
3. Discuss the health consequences of body hatred
4. Improving body acceptance & self esteem
5. Pleasurable movement: Fit at any size



Health for Every Body[®] 10 Weeks

6. Reduce disordered eating - mindful, intuitive eating
7. Health benefits of relationships & social support
8. Managing stress, mindfulness, meaning & purpose
9. Improving health in presence of a chronic condition
10. Solidifying & protecting improvements

**Intrinsic
Relationships
Social Support
Evidence Based
Culture of Inclusion**



www.jonrobison.net

robisonj@msu.edu

salveopartners.com