



# Live Smart Texas Webinar Series: Misconceptions about Obesity

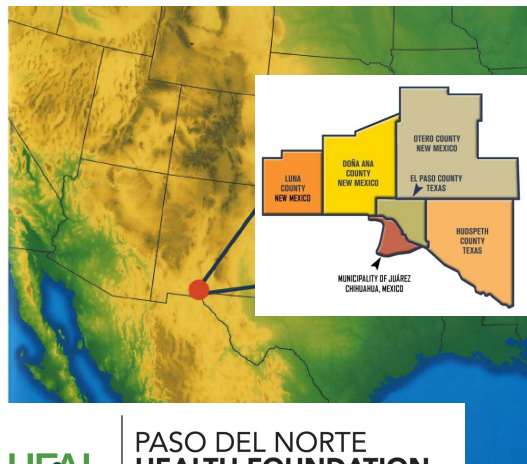
Leah Whigham, PhD, FTOS  
Executive Director, Paso del Norte Institute for Healthy Living  
Associate Professor, University of Texas at El Paso



## Paso del Norte Region of the United States and Mexico



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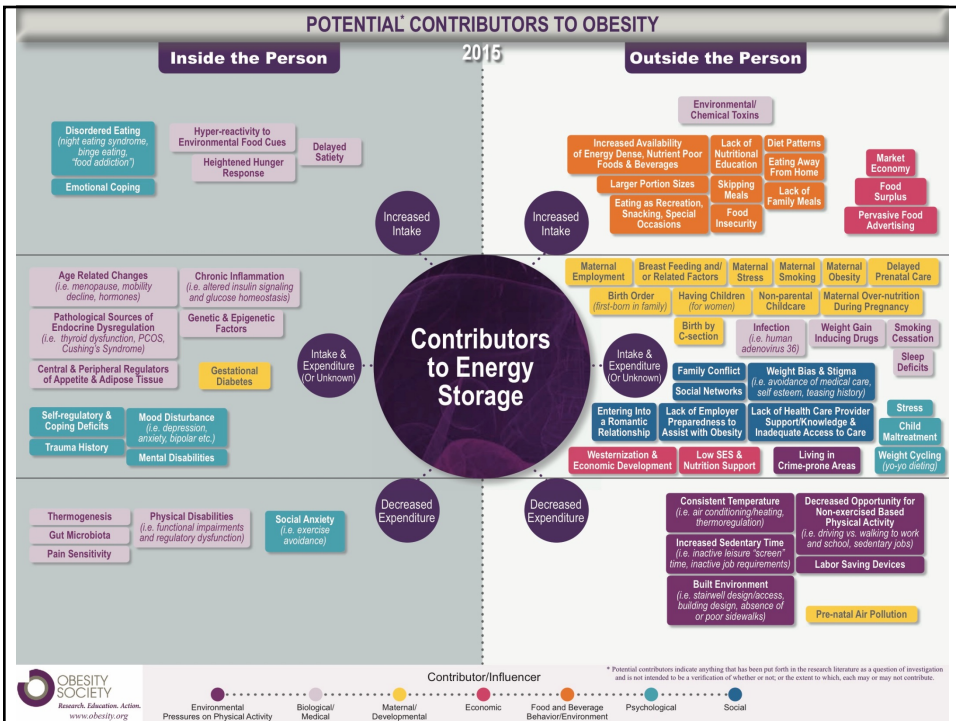
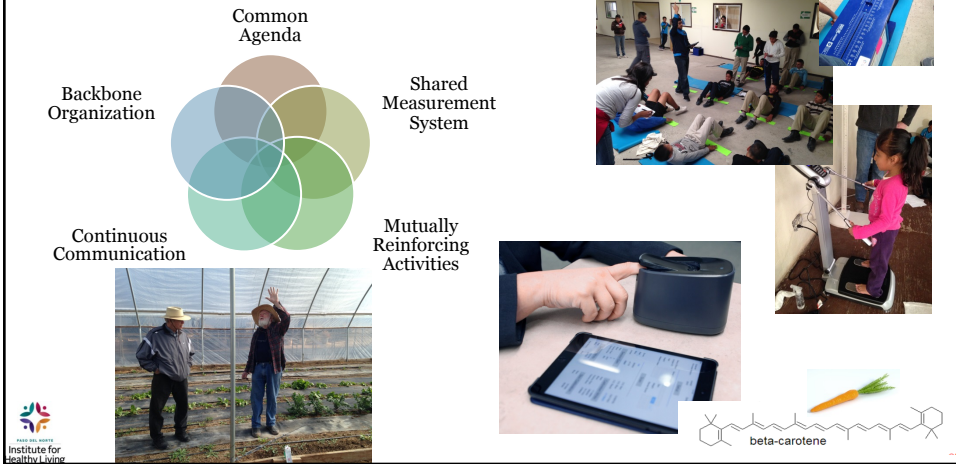


The Institute for Healthy Living works to:

- Increase healthy eating and active living
- Provide a bridge between science and application that empowers individuals, families, organizations, and communities to build a culture of health.

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HEALTHY EATING & ACTIVE LIVING

# Collective Impact Model



## Misconceptions about Obesity

- **Myths**
  - Widely held beliefs but evidence exists to refute them
- **Presumptions**
  - Widely held beliefs that have neither been proven or disproven
- **Facts**
  - Things we know with reasonable confidence that can lead to practical implications for public health, policy, or clinical recommendations



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## Misconceptions about Obesity

- **Myths**
  - Widely held belief
- **Presumptions**
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- **Facts**
  - Things we know w practical implicati recommendations

*The NEW ENGLAND JOURNAL of MEDICINE*

SPECIAL ARTICLE

### Myths, Presumptions, and Facts about Obesity

Krista Casazza, Ph.D., R.D., Kevin R. Fontaine, Ph.D., Arne Astrup, M.D., Ph.D., Leann L. Birch, Ph.D., Andrew W. Brown, Ph.D., Michelle M. Bohan Brown, Ph.D., Nefertiti Durant, M.D., M.P.H., Gareth Dutton, Ph.D., E. Michael Foster, Ph.D., Steven B. Heymsfield, M.D., Kerry McIver, M.S., Tapan Mehta, M.S., Nir Menachemi, Ph.D., P.K. Newby, Sc.D., M.P.H., Russell Pate, Ph.D., Barbara J. Rolls, Ph.D., Bisakha Sen, Ph.D., Daniel L. Smith, Jr., Ph.D., Diana M. Thomas, Ph.D., and David B. Allison, Ph.D.



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**Small sustained changes in energy intake or expenditure will produce large, long-term weight changes**



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**Small sustained changes in energy intake or expenditure will produce large, long-term weight changes**

**Myth**



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## Small sustained changes in energy intake or expenditure will produce large, long-term weight changes

### Myth

The old 3500-kcal rule:  
weight alteration of 1 lb = 3500-kcal cumulative deficit or increment

The old rule predicts:  
↑ EE by 100kcal per day = 50lb over 5 years

New models:  
↑ EE by 100kcal per day = 10lb, and assumes no compensation



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## Eating more fruits and vegetables will result in weight loss



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# Eating more fruits and vegetables will result in weight loss

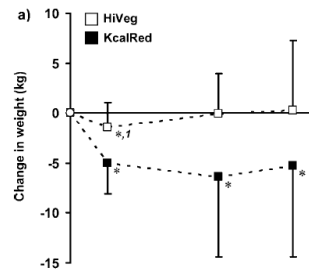
## Presumption



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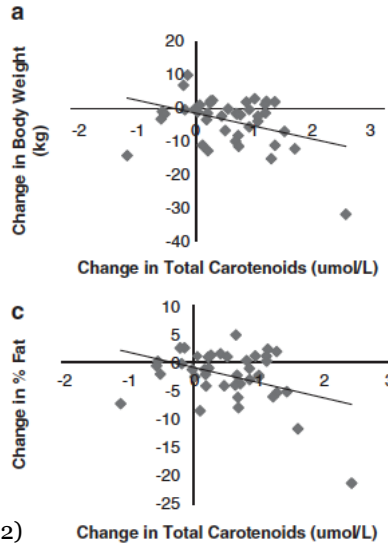
# Eating more fruits and vegetables will result in weight loss

## Presumption



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# Eating more fruits will result in weight Presumption



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Whigham, et al., Nutr Diab (2012)

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# The built environment influences the prevalence of obesity



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# The built environment influences the prevalence of obesity

## Presumption



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# The built environment influences the prevalence of obesity

## The Relationship Between Built Environments and Physical Activity: A Systematic Review

| Alva O. Ferdinand, JD, MPH, Bisakha Sen, PhD, Saurabh Rahurkar, BDS, MPH, Sally Engler, BA, and Nir Menachemi, PhD, MPH



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# Genetics play a large role, but heritability is not destiny



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# Genetics play a large role, but heritability is not destiny

## Fact



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**For overweight kids, programs that involve parents and the home setting promote greater weight loss or maintenance**



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**For overweight kids, programs that involve parents and the home setting promote greater weight loss or maintenance**

**Fact**



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**Setting realistic goals in obesity treatment is important because otherwise patients will become frustrated and lose less weight**



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**Myth**



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## Setting realistic goals in obesity treatment is important because otherwise patients will become

International Journal of Obesity (2005) 29, 1002-1005  
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www.nature.com/ijo

### SHORT COMMUNICATION

#### Weight loss goals and treatment outcomes among overweight men and women enrolled in a weight loss trial

JA Linde<sup>1\*</sup>, RW Jeffery<sup>1</sup>, RL Levy<sup>2</sup>, NP Pronk<sup>3</sup> and RG Boyle<sup>3</sup>



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## Setting realistic goals in obesity treatment is important because otherwise patients will become frustrated and lose less weight

### Myth

Women: less realistic goals associated with greater weight loss at 24 months.

Men: Goals not associated with participation or weight loss.



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## **Regularly eating breakfast (vs. skipping) is protective against obesity**



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## **Regularly eating breakfast (vs. skipping) is protective against obesity**

### Presumption



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## Regularly eating breakfast (vs. skipping) is protective against obesity

### Presumption

EJ Dhurandhar, Curr Opin Endocrinol Diabetes Obes. 2016 Oct;23(5):384-8:

“The act of eating breakfast, compared to skipping it, does not appear to have a large impact on body weight. ... specific strategies [size and type] ...may be required for a substantial effect on weight loss, and improving glycemic regulation may be an important reason to consume breakfast rather than skipping it.”



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## Large, rapid weight loss is associated with poorer long-term weight outcomes than is slow, gradual weight loss



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**Myth**



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**Large, rapid weight loss is associated with poorer long-term weight outcomes than is slow, gradual weight loss**

**Myth**

Astrup & Rossner, Obesity Reviews, 2000:

“In conclusion, an increased initial weight loss in obese patients produces a better long-term retention of the weight loss, providing that auxiliary therapy is supplied at least in the weight maintenance phase of the programme.”



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# Breast-feeding is protective against obesity



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# Breast-feeding is protective against obesity

## Myth



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## Breast-feeding is protective against obesity

### Myth

Although breast-feeding does not have anti-obesity effects in children, other positive health effects mean that it should be encouraged.

Consider that promoting breastfeeding for false reasons could have unintended consequences, and a more impactful use of resources might be to ensure women have choices and support to facilitate breastfeeding.



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## PE classes play an important role in reducing or preventing obesity



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Myth



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## PE classes play an important role in reducing or preventing obesity

Myth

Purpose of PE is not to decrease weight

Dobbins M, et al. 2013:

School-based physical activity interventions:

- ↑ duration of PA
- ↓ TV time
- ↑ fitness level
- ↑ MVPA



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**Early childhood is the period during which we learn exercise and eating habits that influence our weight throughout life**



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**Early childhood is the period during which we learn exercise and eating habits that influence our weight throughout life**

Presumption



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## Regardless of body weight or weight loss, increasing exercise increases health



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## Regardless of body weight or weight loss, increasing exercise increases health

### Fact

Exercise offers a way to mitigate the health-damaging effects of obesity, even without weight loss



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## Myth, presumption, or fact?

- Small sustained changes in energy intake or expenditure will produce large, long-term weight changes
- Eating more fruits and vegetables will result in weight loss
- The built environment influences the prevalence of obesity
- Genetics play a large role, but heritability is not destiny
- For overweight kids, programs that involve parents and the home setting promote greater weight loss or maintenance
- Setting realistic goals in obesity treatment is important because otherwise patients will become frustrated and lose less weight
- Regularly eating breakfast (vs. skipping) is protective against obesity
- Large, rapid weight loss is associated with poorer long-term weight outcomes than is slow, gradual weight loss
- Breast-feeding is protective against obesity
- PE classes play an important role in reducing or preventing obesity
- Early childhood is the period during which we learn exercise and eating habits that influence our weight throughout life
- Regardless of body weight or weight loss, increasing exercise increases health



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Leah Whigham  
pdnihl@utep.edu