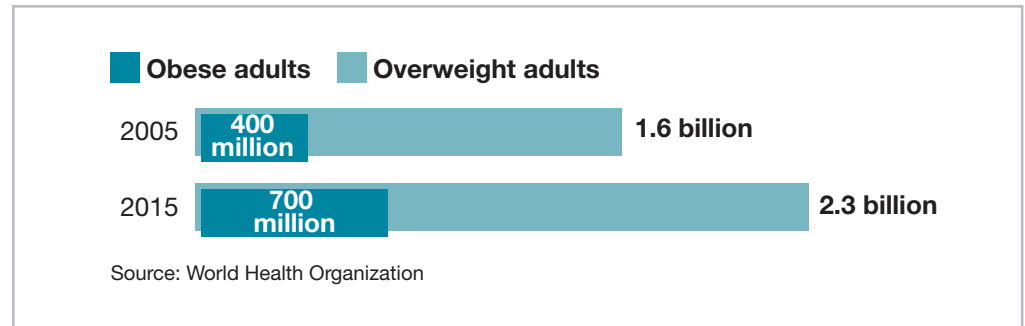


Graphic by Julie Snider for  
The Downey Obesity Report



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According to the  
World Health Organization,  
between 2005 and 2015,  
1 billion people worldwide will  
become overweight  
or obese – 3 people  
per second.

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## How do you define obesity?

Obesity is a global pandemic and a major health concern because of its premature mortality and extensive comorbidities. Obesity is a common, complex, multifactorial disease with a high degree of heritability. Between 25 and 40% of persons with obesity have a parent who is obese.

### There are several significant facts to bear in mind when discussing obesity:

Every individual inherits a certain number of fat cells or adipose tissue. Obesity requires (a) a large number of fat cells or (b) a large volume in each fat cell or (c) both. Adipose tissue continues throughout the lifespan. Weight loss, including surgically-induced weight loss, does not remove fat cells. This is why weight regain is so common.

Individuals with obesity have significantly more fat cells than the non-obese, 23-65 billion compared to 37-237 billion for persons with obesity. Early onset obesity is associated with increase adipose cell number while adult obesity is associated with normal cell number.

There are two phases of life in which growth of adipose cells are likely to develop: very early, within the first few years of life, and between 9-13 years of age. Those who become very obese early in life are the ones who have nearly normal cell size but have the greatest increase in cell number, whereas those with onset of obesity between 9-13 have more change in cell size than cell number. Salans LB, Cushman SW, Weisman RE, Studies of human adipose tissue. Adipose cell size and number in nonObese and obese patients. J. Clin Invest. 1973 Apr' 52(4): 929-41)