

Fat Chance Summary. 1hr.30mins

In this video Dr. Lusting pediatric endocrinologist talks about obesity and the physiology behind the chronic diseases that we have today.

Dr.Lusting demonstrated the diagramed data showing the prevalence of obesity among Americans which is 72mln, and 30% (which 57 million people) of them have some type of chronic disease such as CVD, diabetes, polycystic ovarian syndrome, NAFLD, hypertension, cancer, and Alzheimer. The treatment of all these diseases has an economic burden.

Further, as per Dr.Lusting, 20% of obese patients are metabolically stable, they have normal blood pressure, and normal glucose levels, meaning there is no expenditure. In contrast, 67 million(40-70% of normal-weight people) people of normal weight have metabolic dysfunction.

Here the conclusion is that the number of sick people with normal weight is more than obese sick people. So, Dr. Lusting argues that obesity is not a problem, the problem is metabolic syndrome.

He explains that 75 % of healthcare costs go to treat metabolic syndrome diseases such as diabetes, hypertension, lipid abnormalities, CVD, NAFLD, PCOD, cancer, and dementia.

Dr.Lusting points out that being in America is not a personal responsibility,

meaning that we can't blame an obese person for being fat, rather Dr.Lusting blames the institutions that surround us.

He says that obesity affects even newborns, so what is wrong? Is that the mother's diet? or Newbor's fault?

So, Dr. Lusting explains the reason behind epidemic obesity, which is caused by the dysregulation of hunger and satiety hormones.

Insulin is the main anabolic hormone that is responsible for storing extra nutrients by signaling the fat tissue, meanwhile, the fat cells release the hormone leptin which tells the brain to stop eating, so the brain can suppress hunger, resulting in decreased fat mass in adipocytes.

This negative feedback occurs in healthy people. In leptin resistance, the person gains weight, because of signaling issues. In other words, to say, the brain is less sensitive to leptin, as a result, the brain cannot tell the body to stop eating.

there could be various factors

- the brain has fewer leptin receptors
- leptin receptors aren't working properly
- less leptin is crossing the brain-blood barrier
- leptin gene mutations

But there are several potential mechanisms were established:

- **Inflammation:** Inflammatory signaling in your hypothalamus is likely an important cause of leptin resistance in both animals and humans.
- **Free fatty acids:** Having elevated free fatty acids in your bloodstream may increase fat metabolites in your brain and interfere with leptin signaling.
- **Having high leptin:** Having elevated levels of leptin in the first place may impact the ability of leptin to cross your blood-brain barrier.

However, Dr. Lusting explains that high levels of insulin in the blood which are stimulated by high levels of carbs in the diet. High carbohydrate intake mostly consists of fructose. As he said in the previous video " The Truth Bitter", 90% of foods on the shelves of grocery stores have fructose because it is a very cheap source of sugar which gives a very pleasant palatable taste. This video overviews fructose metabolism and how it causes obesity and metabolic diseases.