

# Obesity: A Measurable & Controllable Condition



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Obesity by definition is having a Body Mass Index (BMI) above 30. The BMI is simple, and calculated by the following formula:  $\text{weight (kg)} / (\text{height (m)})^2$ . This calculation has put more than 35% of Americans in the Obesity category. But it is not only a U.S problem: much of what the US is dealing with has already reached Europe, the Middle East and the rest of the “trying-to-be-modern” world. This includes us Lebanese. It is an energy-imbalance problem, where we are eating more calories than our body requires or can handle, and we Lebanese are already practicing more of this energy-imbalance protocol. Associated with an increased risk of Hypertension, Cardiovascular illnesses and type II Diabetes Mellitus, all of which are “sticky” chronic problems, obesity creates a headache for both the obese patient and the government that will provide health services for this patient.

**Obesity is mainly a lifestyle issue. It is not purely**



**genetically inherited which basically means: “you are what you eat”.** Foods that lead quickly to obesity are all the processed foods, “junk” foods, and sugared foods. These include processed cheese and meat products, burgers, pizzas and fried foods, heavy carbohydrate and sugared foods, as well as sugar-sweetened sodas/drinks. These foods overexcite our system and lead to excretion of a heavy dose of insulin from the pancreatic beta-cells. Insulin in turn takes all the extra calories in our body and converts them all to fat. Therefore, the continuous consumption of these types of foods, plus our sedentary lifestyles will lead to extra fat and a more tired pancreas! Welcome to obesity, diabetes and a lot of other associated illnesses.

Hormones that control hunger are the Leptin, Ghrelin and Adiponectin. Leptin leads to satiety which is the “No more please, I’m full” feeling. Its opposite is ghrelin. Adiponectin leads to energy expenditure, meaning it leads to glucose and fat breakdown. Genetic abnormalities in their genes (so far we know of these for Leptin) can lead to genetic reasons for obesity.

Consequences of obesity can be measured by the laboratory and radiology. Other than monitoring specific systems affected, such as the heart, liver, and kidneys, blood tests can also monitor the risk for diabetes, thyroid function, liver function and fasting lipids; cortisol serum and free cortisol in 24-hr urine to rule out Cushing’s (with additional chromosomal studies to rule out Cushing’s Syndrome and Prader-Willi Syndrome). Specific diet related tests for adiponectin and leptin can also be utilized. Radiology tests can look for osteoporosis/osteoarthritis risk, fatty liver through U/S, ECG for the heart function, and CT for adrenal or pancreatic lesions.

In Conclusion, obesity is a lifestyle issue, and should be resolved with diet and lifestyle conditioning before adulthood. However, for those adults who already are in the category, monitoring and managing their health to reduce illness is a must.

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