THE OBESITY EPIDEMIC

EXPLAINING THE OBESITY AND DIABETES EPIDEMIC

The Obesity Epidemic

Disclaimer

We hope you enjoy reading this eBook, however we do suggest you read our disclaimer. All the material written in this document is provided for informational purposes only and is general in nature.

Every person is a unique individual and what has worked for some or even many may not work for you. Any information perceived as advice by must be considered considering your own particular set of circumstances.

The author or person sharing this information does not assume any responsibility for the accuracy or outcome of your use of the content.

Every attempt has been made to provide well researched and up to date content at the time of writing. Now all the legalities have been taken care of, please enjoy the content.

Introduction

This document discusses causes and consequences of obesity. It is not meant to be in any way judgmental. However, statistics are presented that provide evidence of the negative effects of obesity, including developing type 2 diabetes.

Hopefully, readers who are concerned about their health can view this discussion objectively, and use it to motivate themselves to making healthier lifestyle choices, for their life's health.

Almost 80 to 90% of obese individuals are diagnosed with diabetes. This statistic displays a clear link between obesity and diabetes. Many studies have shown that being obese markedly increases an individual's risk for type 2 diabetes.

Health professionals are aware that obesity is the main driving force behind the development of type 2 diabetes.

If bingeing or overeating becomes a habit, the person not only risks becoming obese, but pre-diabetic. This is when the person develops a condition called insulin resistance, which leads to having persistently high blood glucose concentrations, a sign of diabetes.

Unfortunately, binge eating and over-eating has become for many a daily habit, rather than an occasional occurrence.

Plus, the increase in the number of fast food restaurants worldwide is staggering. There are more than 33,000 McDonald outlets in 119 different countries, serving more than 68 million customers every day.

Is it any wonder there is a worldwide obesity and diabetes epidemic?

Obesity – It’s Not Just Physical

The adverse effects of obesity go far beyond one's physical aspect, as it can have negative effects on a person's emotional and social well-being.

While the physical consequences of obesity are obviously discomforting, its emotional effects are even more painful and difficult to treat or heal.

In the United States alone, the rate of discrimination against people who are obese is increasing at an alarming rate. Obese employees have been labeled as being lazy, sloppy and less competent, compared to their non-obese peers.

In colleges and other educational institutions, obese students have received negative comments from their school mates. They may also experience rejection, humiliation and biased reactions from their teachers and school community.

The increased risk of psychological problems occurs and their self-esteem suffers, which causes emotional problems to appear.

Depression

Children who are obese are more likely to be diagnosed with clinical depression than children of average weight.

Loneliness is another prevalent psychological problem among children and adults. Being the object of ridicule and wanting to hide is what leads to their loneliness. Studies have shown that obese or overweight women and teenage girls are at a higher risk of suffering from loneliness.

Loneliness and depression makes it harder to lead an active life. Their isolation and sedentary ways sets up a vicious cycle which leads to even more weight gain and increases their risk for many illnesses.

Their loss of energy and happiness to enjoy life deprives them of many opportunities, such as the opportunity to exercise and de-stress.

Emotional Eating

Many of us, regardless of our body size, may turn to emotional eating as a way of coping with stressful situations. Binge eating can become a problem, as emotional eating is what many people do in times of stress. They turn to food for comfort.

Needless to say, people who are obese are more likely to succumb to emotional eating, and this stress-induced eating can lead to additional weight gain and so the vicious cycle continues, until something is done to halt the problem.

Possible Causes of Obesity

We usually link obesity to overeating and inactivity. This is certainly the most common cause, so let's not hide that fact, however, there are other contributing factors to obesity, which include the following.

Genetics

If one or both of your parents are obese, then genetics seems to dictate one's likelihood to become obese. This does not mean that you are predestined to become obese. You can determine your own destiny.

Recent studies indicate that genetics may not play as big a part as has been previously claimed, and that unconscious learned behavior may be a stronger factor than genes.

Many attitudes to food, including volume, dependence, and number and timing of meals are laid down early in life. This conditioning can be very hard to overturn.

Hormones

One of the discovered causes of being obese is due to a leptin deficiency or leptin resistance. Leptin is a hormone that sends signals to the brain's hypothalamus. These signals are to let you know that the body has had enough, and it's time to stop eating.

A deficiency of this hormone increases one's risk of becoming obese. In many cases, individuals do not have problems with a leptin hormone production, however, their brain has become resistant to the signals.

Unfortunately, this resistance occurs due to continual and repeated overeating. The suppressed response to feeling full then promotes further overeating. This condition is called leptin resistance and is also one of the most common contributory factors to obesity.

Slow Metabolism

Women have been found to have a higher tendency to gain weight compared to men. This is because women have less muscle than their male counterparts, and muscles burn more energy (calories) than any other tissues in the body.

Aging also slows down a person's metabolism. This is when a reduction of caloric intake and increased physical activity becomes important if weight is to be maintained rather than increased.

It's easy to see when a person doesn't. They continue to eat as much as they did when they were younger and were more active. This is when the middle-age spread sets in and obesity can occur.

Physical Inactivity

Obesity occurs when there is an energy imbalance in the body. Although there may be other factors involved, when a person takes in more calories than their body needs for energy, the excess will be stored as fat.

This a biological survival mechanism that served our ancestors well, but works against us today.

Therefore, if a person eats more than they need and sits all day, they are not giving their body the chance to burn any unwanted calories. This lifestyle will contribute to obesity.

Studies have shown that physical inactivity in adolescence is a strong predictor of obesity in adulthood.

Medications

There are medications that cause people to gain weight and some of these include antidepressants, anticonvulsants, diabetes medications, corticosteroids and oral contraceptives.

The reason why these medications cause weight gain may vary from one person to another. It is important that you consult your doctor if you notice yourself starting to gain weight while taking any medications.

Mental Health Problems

Stress, anger, depression, anxiety and boredom may lead an individual to become obese. This can be the cause for becoming obese, and/or the person may already have a weight problem and then experience these emotional health disorders. This means that these conditions can be both a cause and a symptom of obesity.

Obesity Linked to Excessive TV Watching

There are several studies which provide strong evidence about the significant link between obesity and television viewing.

TV Ads and Children's Unhealthy Eating Habits

Children who spend too much time in front of the television have a greater tendency to consume more high-fat, high-sodium foods along with sugar-laden beverages. Advertisements play a big part.

While they are snacking, bad habits develop, and their appetite for healthy foods tend to reduce. Unfortunately, most of the advertisements seen during children's TV programming are all unhealthy snacks.

Research reveals that for many families, 40% of children's caloric consumption comes from unhealthy fats and sugars from sweet foods and fizzy drinks.

TV Viewing and Adult Obesity

There are studies which have shown that excessive TV watching not only affects children and adolescents, it increases the obesity risk among adults. Too much TV has been linked to several chronic diseases that are common among overweight and obese individuals.

According to the findings from the Nurses' Health Study, for every two hours women spend on TV time, there is a 23% risk increase of obesity and a 14% higher risk of having diabetes. The risk of early death increases by up to 13%.

Some experts are undecided as to whether it's the unhealthy food advertisements swaying people’s eating habits, or simply the length of physical inactivity that largely contributes to obesity.

Irrespective of which may be the main cause, there is no doubt that excessive television means watching a barrage of junk food ads and contributes greatly to physical inactivity and sleep deprivation, all of which act negatively on the TV viewer's physical and mental being.

Obesity Impacts in the Workplace

The impact of obesity in the workplace cannot be ignored. Statistics show that workers who are obese have been found to have a greater tendency to file a compensation claim than workers who are of a recommended body weight.

A study conducted in the USA showed that obese workers filed twice as many compensation claims, incurred a ten-fold increase in the number of workdays lost, indemnity claims and medical claims.

Obesity and Loss of Productivity

Although no-one wants to be discriminated against because of their weight, statistics support the claims that loss of productivity among obese workers is a real financial cost to employers.

One study revealed that the hidden costs in loss of productivity among obese workers has reached $73.1 billion per year. One reason for this is that obese workers file more sick days thereby affecting overall workplace productivity.

Many analysts believe that the indirect costs of obesity, such as increased compensation claims and lost workdays, can be greater than the direct medical costs.

Other Potential Problems in the Workplace

Moreover, many employers express their concerns regarding fears that obese workers may not be fully capable of performing the tasks assigned to them. This is the same reason why some experts suggest that obesity be labeled as a "disability".

In addition, some employers are also worried that hiring obese workers may hurt the image of their company. This may be very pronounced, for example, in a food industry or fitness industry.

Employers Combating the Impact of Obesity in the Workplace

Employers do possess some ability to implement measures that foster a healthier workforce by creating a health-conscious work environment. Some companies invest in creating a specific space in the workplace where employees can exercise and workout. Workplace pantries are also provided where only healthy foods are offered.

Obesity and Hedonic Hunger

Many people find themselves craving for another piece of chocolate cake, even though they may have just finished a huge meal.

Some will blame others' bingeing as being a lack of self-control, while some think it's just pure greed that's making a person eat more.

However, emerging studies are showing that it is more likely to do with hedonic hunger. Scientists believe that what a person eats and how much, is driven by two factors: the homeostatic system and the hedonic system.

Homeostatic System - Eating for Energy

The first driving force that controls hunger is the homeostatic system, which controls appetite according to how much is needed for energy. This homeostatic system functions according to the communication that takes place between the person's digestive system and the brain.

Whenever we feel that we are running out of energy, our body experiences the shakes and we feel hunger pangs. This is the homeostatic system at work, and it is

the trigger for real energy requirements. However, this system is not the main culprit for many people's increasing waistline.

Hedonic Hunger - Eating for Pleasure

The second driver which has the ability to override the homeostatic system is called hedonic hunger. This refers to the person's physiological response to triggers which mainly involves the "reward centers" of the brain.

When the hedonic system overrides the homeostatic system, we no longer eat to satisfy our energy needs. We eat for pleasure. Our modern, western “foodie” lifestyle more and more conditions us to this behavior. Food choices have become far more about taste and dining “experience” than they have about fueling our energy needs.

With the use of neuroimaging system, scientists have been able to see how the areas of the brain associated with "pleasure" suddenly light up when a person sees their favorite junk foods.

This reaction in the brain is similar to what experts see when an addict has access to their addiction. For example, when an alcoholic sees a bottle of alcohol or a drug addict has access to their drug of choice.

The Hedonic System in Action

Imagine a person sitting at a dinner table. They know they should be full because they have just eaten a huge meal, big enough to curb any appetite. However, in walks someone carrying a delicious cake and ice-cream. Their eyes light up and they feel extremely confident that their stomach can certainly still accommodate what they see!

This is one example of the brain's hedonic system taking control over the homeostatic system. Since the hedonic system is closely integrated with the brain's reward system the person's behavior at the dinner table is now being reinforced and motivated by what the brain's reward system considers desirable.

What the Hedonic System Considers Desirable

Unfortunately, what the brain's hedonic or reward system considers palatable or desirable is mostly made of unhealthy foods, loaded with sugar, salt and fats. It’s not the broccoli that the reward system usually wants!

The reward system considers foods that are calorie-dense and high-energy to be desirable. These are food qualities that delivered the most bang for the buck when food was scarce. Unfortunately, nowadays, scarcity is rarely a problem, and our brains are probably eons away from dealing appropriately with too much of a good thing at an unconscious level.

Understanding the Hedonic System

Understanding how the hedonic system functions gives us the opportunity to make better food choices and conscious decisions to avoid bingeing.

To stop hedonic hunger, keep healthy foods around you so that when hunger strikes it is easier for you to fight what your hedonic system dictates.

Taking personal control of what you eat and how much will probably be the single most important factor in your health for the rest of your life. Learning mindful eating may be the most empowering thing you ever achieve.

Obesity and Sugar

We know obesity and diabetes basically go hand in hand 80-90% of the time, however, we're now going to talk about 'sugar' in foods, rather than 'high blood sugar'.

The increased consumption of foods that contain HFCS - high fructose corn syrup - has become one of the most common culprits that contribute to obesity. The human body is not designed to process substances such as high fructose corn syrup.

HFCS deserves to receive a bad reputation, and it is slowly getting through to people that it is not a healthy substance, although it is an ingredient in the production of many foods. That's because it is tasty, addictive and cheap, although that cheapness may not be passed on to the final consumer! This is why manufacturers use it. Their products taste 'good' and people want more.

So, the cycle begins. HFCS and other refined sugars remain the main cause of obesity today, due to its accessibility and affordability.

Complex Carbs Versus Refined Sugar

Sugary foods and drinks are mostly produced from simple carbohydrates, which are composed of one or two sugar molecules, making them easier to digest. The person ingesting these simple carbs experiences the so-called "sugar rush". Not long after, they also experience a "sugar crash" so may look for another hit of refined sugar.

On the contrary, complex carbohydrates are made up of several long molecular chains that require a longer period of time to be digested. This means that as they are digested more slowly they are providing the body with a longer-lasting supply of energy, and a blood glucose spike is avoided.

These are the types of carbohydrates that we get from eating vegetables, whole grains and fruits. Consumption of vegetables and other foods that contain complex carbohydrates, along with protein and healthy fats, will help make the process of digestion and the release of energy be performed in a steady, longer lasting pattern, at rates the body can utilize.

The more refined and processed the carbohydrates, the faster and easier they can be digested, and the more likely they will cause sugar spikes. This is a big part of the reason why refined flours, sugar syrups and other foods made from simple sugars create so many kinds of health problems to our body, including obesity and diabetes.

The Human Body - Designed to Handle Only Small Amounts of Sugar

Our body is designed to handle only small amounts of sugar at any given time. If a person drinks a bottle of soda and eats a few donuts in one sitting, the body is over whelmed with more instant glucose than it can use.

The body must deal with this toxic overload within a very quick period of time, as this blood sugar overload is toxic to many of our body's systems.

Physical Activity Does Not Negate the Effects of Refined Sugar

HFCS and other refined sugars are present in many fast foods, which are offering no health benefit nutritionally at all. Although you may be active physically, and that may certainly help you get rid of some excess sugar in your body, it doesn't negate the adverse effects these refined sugars give.

For health's sake, avoid HFCS and other refined sugars whenever possible. They are not good for you!

Research shows that United States has the highest HFCS consumption per capita.

Although the jury is still out regarding the exact link between HFCS and obesity (because some experts say it is too difficult to measure or study the effects of HFCS in the body), there is no doubt that the prevalence of HFCS is one of the reasons why obesity and diabetes is increasing in this country.

Obesity and Depression

Does obesity cause depression or is it depression that causes obesity? The exact answer to this chicken and egg phenomenon still remains the subject of research by many experts. However, experts agree that obesity and depression do share a reciprocal link.

When Depression Leads to Obesity

A person who is depressed can easily turn to eating for comfort, which can lead to excess weight gain. Signs of depression include a lack of energy, loss of enthusiasm, and appetite disturbances. Depression sets in motion several immune system and hormonal changes that raise the risk of becoming obese.

Studies have confirmed that people who are diagnosed with depression gain weight faster than those individuals not suffering from depression.

When Obesity Leads to Depression

People classed as obese are more likely to experience low self-esteem, feelings of guilt and low self-worth. Being obese also subjects an individual to being in a

chronic stressful state, which can also lead to physiological dysfunction that can lead to depression, or compound the psychological causes.

When Stress Leads to Obesity and Depression

With the aim of being able to discover the link between obesity and depression, some experts studied the association between the two by looking at it through a biological perspective.

This is when they found that the hormonal pathway called the Hypothalamic-Pituitary- Adrenal or HPA axis, serves as the route where the communication between the pituitary glands, adrenal glands and the hypothalamus takes place.

These three areas of the body have the responsibility of working together towards achieving a chemical equilibrium, especially when the body is experiencing some amount of stress.

This HPA axis releases cortisol which is a stress hormone that also plays a role in energy metabolism. Problems begin when the person is exposed to excess chronic stress, and as a consequence have sustained high cortisol levels in the body.

This circumstance increases the likelihood of fats accumulating around the person's midriff. This is part of the reason why exposure to too much stress makes an individual prone to suffer from not only depression but also obesity.

Obesity and Heart Disease

Most of us know that an overweight person puts strain on their heart, but how? Why is it that there is a close association between obesity and heart disease?

Firstly, a heavier person has more blood than a thinner person. If you would like to estimate your own volume of blood, it is approximately 7% of your bodyweight. The 'average' person has about 4 liters of blood.

Therefore, a larger body has more blood to pump around the body. As a person gains weight, their heart has to work harder. In order for it to do this, the heart doesn't only beat faster, it actually grows larger so that it becomes more capable of moving more blood as it beats.

Consequently, this increase in blood flow can eventually lead to high blood pressure which signals the onset of heart disease. Even if a person claims to have normal blood pressure, despite being overweight, this does not mean that their

heart hasn’t been affected by their excess weight. As the heart chambers of an overweight person grow larger its squeezing power tends to reduce. This reduced squeezing ability means the heart chambers can no longer empty out with every beat, therefore a pooling of blood can occur, which can lead to congestive heart failure.

Excess Body Fat Increases Risk of Many Diseases, Including Diabetes

If your excess weight is due to the accumulation of fats in your midsection, your risk for cardiovascular disease is higher.

A woman whose waistline is more than 35 inches and a man whose waist measurement is more than 40 inches, has a higher risk of developing cardiovascular disease.

Excess fat in the midriff can affect production of the hormone insulin, putting the person at a higher risk for developing diabetes. Diabetes is one of the many diseases that can seriously wreak havoc on the heart.

Excess fat does not only accumulate in the person's midsection – even though that may be the most visible display. There is much more of the iceberg below the waterline. If there is extra fat in the body, the possibility of developing high cholesterol problems is also increased.

This is the reason why many obese and overweight people have high levels of LDL cholesterol (the bad cholesterol) that clogs the arteries.

Obesity, Troponin T and Heart Attack

Researchers from Johns Hopkins University found that obese people who were not diagnosed with heart disease were still found to be experiencing cardiac damage, that naturally raises their risk of heart failure.

The findings of the research revealed that this was due to the presence of a protein called troponin T that signals injury in the heart muscles. As a person's BMI increased, so too did the amount of troponin T in the blood, thereby raising their risk for heart problems.

The risks are real and anyone who is overweight needs to take steps to lose excess fat for their heart health.

Obesity Linked to Dementia

Obesity can increase your risk of having dementia and a shortened lifespan, and there are plenty of studies to support this claim.

Obesity and Increased Risk for Dementia

Experts have discovered that obesity in middle age increases a person's risk of suffering from dementia later in life. One study showed that individuals who were obese at the age of 30, were at a higher risk of being diagnosed with dementia when they were older.

Although the exact process of how obesity contributes to the development of dementia remains unclear, several studies have already showed a few links.

Researchers from Oxford University discovered some evidence which indicate that the earlier in middle age a person's obesity occurs, the higher their risk for dementia becomes. This finding is alarming, as the number of middle aged individuals who are obese today is continually growing, which means that the cases of dementia will also increase in the coming years.

A research conducted on more than 450,000 individuals admitted to hospital between the years 1999-2011 showed that obese people between 30 to 70 years of age were found to have a higher risk of succumbing to dementia compared to non-obese people in the same age bracket. The study followed these groups of

people for 12 years. It showed that those people who started becoming obese at the age of 30 were three times more at risk of developing dementia.

Obesity Leads to Other Factors that Contribute to Dementia Risk

Dr. Eric Karran of Alzheimer's Research UK stated that obesity also increases a patient’s likelihood of having diabetes and high blood pressure - conditions which are known to be contributory factors to the development of dementia.

Researchers have said that there is enough proof based on studies to show that lifestyle factors greatly contribute to increasing a person's risk for dementia. It is important to keep one's weight and blood pressure within a normal range, avoid cigarette smoking and stick to a regular exercise regimen to ensure that the brain remains healthy as a person ages.

The take-home message from all this research is that people should be pro-active, and if necessary make positive lifestyle changes in order to reduce their risk of dementia. Obviously, what is good for the heart is also good for the mind!

How Can Obesity Be Prevented?

Who says you can't prevent obesity? Research proves that even those people who are already obese can still overcome the condition and live a healthier life. There are many ways to prevent gaining too much weight and some of these are as follows:

Be Aware of Your Own "Food Traps"

Many people are prone to binge eating episodes, especially when they're faced with negative or stressful situations. This is why if you want to avoid gaining weight you should try to limit stress in your life.

There are two aspects to dealing effectively with stress – firstly, where possible, avoid or reduce exposure to those people/events/circumstances that cause you stress, and secondly, if that is not possible, to learn to better deal with those stressors.

Learning to lower your responses to situations that invoke a stress response (naturally, without drugs, prescription or otherwise) is one of the healthiest actions you will ever learn.

You can also keep a journal and write down what you eat, when, where and why.

This way, you will be able to keep track of the situations and foods that trigger your desire to binge. The more often you write in your journal the more obvious it will be for you to see patterns in your eating habits. As you look back on the pages of your journal it will become easier for you to plan ahead when faced with certain situations, and avoid being trapped in a seemingly irresistible urge to binge, and come up with strategies for you to take better control of your eating behaviors.

Consistency is Important

Consistency is key. No matter what the day is, whether it is a weekend or holiday, it is important to stick to your healthy eating habits. Resist the urge to binge, and avoid too many "cheat days". Otherwise, you risk losing focus on developing healthy, mindful eating behaviors.

Eat High Fiber Foods

There are many good reasons to eat high fiber foods. Yes, they're good for you, but they make you feel fuller for a longer period of time than many other foods.

A study revealed the consumption of foods which contain fermentable fiber enables the body to increase its intestinal glucose production. This is why you feel full, as it has been found to release hormones that signal satiety. This will then help ward off any urge to overeat. Of course, self-control and mindfulness is always required too.

Take the Time to Exercise

We all know exercise is important for a healthy mind and body, so it is recommended to spend at least thirty minutes exercising every day.

If this is too difficult, or you are too busy, there are ways to 'exercise' in a day, without allocating time to 'do it'.

You can take the stairs instead of the elevator, do errands on foot and park your car farther away from where you are meant to be. Don't drive around for 10 minutes looking for a closer park. Park 10 minutes away and walk.

Remember the basics – to reduce weight and prevent obesity all that is required is to make sure that every day your energy usage is greater than your energy consumption (foods consumed). This will stop the excess fats from accumulating and prevent you from gaining weight. Now that's a good thing!

Conclusion

Obesity and type 2 diabetes are preventable and reversible. Weight loss and positive lifestyle changes can largely prevent diabetes and other obesity-related diseases.

Engaging in moderate to intense physical activity for thirty minutes a day, most days of the week can lower a person's risk of developing diabetes by up to 40 to 60%.

Although there are many statistics and evidence provided in this eBook, the greatest thing to take away from it is that neither obesity or type two diabetes are unavoidable or irreversible.

Taking personal control of your health requires real effort, but is absolutely worth it, for both longevity and quality of life.