

SEPTEMBER 2024

Childhood obesity is a global epidemic affecting nearly 381 million children. It poses significant implications for heart health and overall well-being. This article briefly explains the effect of childhood obesity on heart health, its long-term complications, factors that contribute to childhood obesity, and the treatment approach to address this issue.

### TREATMENT METHODS:



**1. Behavioral and Lifestyle Modification:** *altering long-term habits, typically eating or physical activity, and maintaining the new behavior*



**2. Low-Fat Diet:** *food where 30% or less of the calories come from fat*



**3. Psychological Therapy:** *treatment of mental or emotional disorder or of related bodily ills by psychological means*



**4. Surgical Intervention:** *act of surgery or operating on a patient*



**5. Regular Monitoring and Follow-Up:** *ongoing gathering information on all aspects of the patient's care*



## CHILDHOOD OBESITY AWARENESS AS ADULTS, WHY SHOULD WE CARE?

### Childhood Obesity and

Childhood obesity often leads to obesity in adulthood, which is tied to a range of chronic conditions, including heart disease, stroke, and certain types of cancers. The encouraging news is that we have the power to prevent



### Your Heart Health

this. By addressing this issue now, we can stop these health implications from becoming a reality, giving us hope for a healthier future.

Addressing childhood obesity is not just about children's well-being; it's about our collective future. By ensuring children lead healthy lifestyles, we can improve their academic performance, social skills, and emotional health. More importantly, preventing childhood obesity can significantly reduce the economic burden on the healthcare system. The cost of treating obesity-related conditions is high. Still, by avoiding obesity, we can save resources and improve the overall health of our society, giving us a sense of responsibility and motivation to act.

WHY CHOOSE US?

A MED-TECH COMPANY COMMITTED TO ENHANCING PATIENT CARE IN HOSPITALS, OFFICES, AND HOME-BASED MEDICAL FACILITIES BY DELIVERING HEALTHCARE PROVIDERS WITH INNOVATIVE SOLUTIONS.

# OBESITY AWARENESS

continued

## What Is the Impact of Childhood Obesity on Heart Health?

Childhood obesity disrupts the metabolic balance of the body, which leads to multiple problems that damage the heart and blood vessels over time.

These include:

- **Hypertension:** Children with excess weight are at high risk of developing **hypertension** (high blood pressure). Excessive pressure of blood-on-blood vessels can damage these vessels. The vessels become blocked and prevent the blood flow to the heart, which can increase the risk of heart disease and stroke.
- **Dyslipidemia:** Childhood obesity often interferes with lipid metabolism, which gives rise to a condition called dyslipidemia. **Dyslipidemia** is elevated LDL cholesterol (bad cholesterol) and is the most common risk factor for causing atherosclerosis and heart disease. Having elevated levels of bad cholesterol lead to plaque build-up in blood vessels, which blocks the blood vessels and decreases the blood flow to the heart, thus increasing the risk of heart attack.
- **Insulin Resistance:** Childhood obesity often leads to insulin resistance, strongly linked to cardiovascular risks. If they are having elevated insulin levels and chronic hyperinsulinemia, common in obese children, this leads to the development of type 2 diabetes, further increasing the risk of cardiovascular complications.
- **Inflammation and Oxidative Stress:** Obesity induces inflammatory responses and oxidative stress, both of which contribute to the risk of developing heart disease. Children with extra weight have increased inflammatory markers such as C reactive proteins, oxidative stress markers and cytokines. These factors eventually lead to cardiovascular diseases.



## About Us?

**Heart disease** is a serious health concern that causes more fatalities than any other disease.

An Electrocardiogram (ECG) is a non-invasive diagnostic test that measures the electrical activity of the heart and can help detect heart abnormalities, such as heart damage or abnormal heart rhythms. ECG is one of the most reimbursed tests because it does a great job at finding early signs of heart disease. **Dr. Nasiff** has developed diagnostic tools that are **highly regarded** in the medical community.

- **Cardiac Structural and Functional Changes:** Childhood obesity can cause structural and functional changes in the heart. Children with excess weight often have left ventricular hypertrophy (thickening of the wall of the lower left heart chamber), which decreases the heart's efficiency in pumping blood. Eventually, the heart fails to pump blood. If these changes are not addressed, they can lead to heart failure.
- **Sleep-disordered Breathing and Obstructive Sleep Apnea:** Children that are obese have an increased risk of obstructive **sleep apnea** and developing sleep-disordered breathing. Children with obstructive sleep apnea exhibit echocardiographic evidence of cardiac abnormalities, which further underscores the impact of obesity on heart health.

## What Are the Long-Term Consequences of Childhood Obesity?

The consequences of childhood obesity are not limited to childhood only but also beyond childhood. It has a long-term impact on heart health. Studies have shown that adults who were obese as children may have a higher risk of developing CVD (cardiovascular disease) than those who were average weight as children.

## What Causes Childhood Obesity?

When children consume more calories than they need, their bodies store the additional calories in fat cells for future use. If their bodies do not use the stored energy, they produce extra fat cells and may become overweight or obese.

Obesity can be caused by several factors, which include:

- **Unhealthy Diet:** Consuming an excessive amount of processed foods, sugary drinks, and unhealthy fats while neglecting fruits, vegetables, and whole grains contributes to calorie imbalance and weight gain.

**Roger E. Nasiff**

**President & CEO  
Nasiff Associates, Inc.**



# OBESITY AWARENESS

continued



- **Physical Inactivity:** Participating in screen-related activities such as texting, gaming, playing computer games, and watching TV replaces physical activity and leads to insufficient calorie burning. Additionally, kids who watch TV frequently develop strong cravings for the unhealthy, high-calorie snacks promoted in advertisements.
- **Eating Habits:** Skipping meals, emotional eating, and unhealthy portions can disrupt eating patterns and lead to overconsumption.
- **Family Influence:** Family plays an important role in shaping eating habits. The shared preferences for unhealthy foods, and a lack of active playtime are significant. The whole family should be involved in promoting healthy habits to manage a child's weight and activity levels.
- **Family History:** Children with parents or siblings who have obesity are more likely to develop it themselves due to shared genetic predispositions.
- **Certain Medical Conditions:** Understanding how some medical conditions, hormone disorders, or low thyroid function can lead to weight gain through metabolic imbalances. Knowing this can help in early intervention and management.
- **Medications:** Certain medications, like **steroids** or anti-seizure medicines, can have weight gain as a side effect.

## What is the Treatment of Childhood Obesity?

Childhood obesity is a very complex concern that requires a multiple of approaches for treatment. The goal of treatment approaches is to address the underlying causes of obesity while promoting healthy weight management. The primary methods of treatment include:

### 1. Behavioral and Lifestyle Modification:

- Encouraging healthy eating habits by emphasizing whole foods, fruits, vegetables, and lean proteins while limiting sugary drinks, processed foods, and high-fat snacks
- Promoting regular physical activity and reducing sedentary behaviors such as excessive screen time

- Teaching children and families skills to modify eating behaviors, cope with stress without turning to food, and develop a positive body image

It involves the parents and caregivers creating a supportive environment that will promote regular physical activity and healthy eating habits.

### 2. Low-Fat Diet:

By adding whole foods, fruits, vegetables, lean proteins, and whole grains, you can reduce your intake of high-calorie, low-nutrient foods.

### 3. Psychological Therapy:

Children who are severely obese may experience significant mental health issues, such as attempted suicide or other depressive illnesses. These children might require individual or group therapy sessions to address these behavioral and emotional challenges associated with obesity.

### 4. Surgical Intervention:

Surgical intervention may involve bariatric surgery (weight loss surgery), which is performed on children who have not responded to other treatments and are at risk of severe health complications.

### 5. Regular Monitoring and Follow-Up:

Regular monitoring of progress is essential to track changes in weight, behavior, and overall health.

## Conclusion:

Childhood obesity represents a complex public health challenge with far-reaching implications for heart health and overall well-being. Knowing the link between childhood obesity and heart health is crucial to prevention and treatment strategies. Adults, such as parents, educators, healthcare providers, and policymakers, are pivotal in shaping environments and behaviors affecting children's health. By prioritizing childhood obesity, adults can help cultivate healthier future generations. By addressing the root causes of childhood obesity and promoting healthy lifestyles from an early age, we may reduce cardiovascular disease risks and enhance children's long-term health outcomes worldwide.



## Nasiff CardioResting™ System

The **CardioResting™ ECG** is the first complete and full-featured 12-lead PC based cardiology system. Our ECG is durable, reliable and easy to learn. Performs and manages tests while saving money and working with your existing equipment. Our system has a **Universal EMR Interface**, user-friendly with an unlimited database.