

## **Metabolic Diseases and Obesity among City People**

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### **Abstract**

Rapid urbanization, sedentary lifestyles, bad food habits, and changing socioeconomic situations have all contributed to the rise of obesity and metabolic diseases as serious public health concerns in urban populations. A number of metabolic problems, including diabetes mellitus, hypertension, cardiovascular disease, and dyslipidemia, are associated with the abnormal buildup of fat in the body, which is a hallmark of obesity. The increasing incidence of metabolic diseases and obesity in urban populations as a result of a combination of environmental, behavioral, and biological variables. The effects on metabolic health of city living, which include less exercise, more processed and calorie-heavy food consumption, stress, insomnia, and reliance on technology. We also talk about how genetic susceptibility, insulin resistance, hormonal imbalance, and altered lipid metabolism are major biological factors that contribute to obesity-related illnesses. How excess body fat lowers overall physiological functioning and disturbs normal metabolic processes; this, in turn, is linked to obesity and chronic diseases.

**Keywords** Obesity, Metabolic Disorders, Urban Population, Insulin Resistance, Lifestyle, Nutrition

### **Introduction**

Especially in metropolitan areas, obesity and metabolic diseases have emerged as major public health concerns worldwide. Obesity and related metabolic illnesses have seen a meteoric rise in prevalence due to a confluence of factors including changing lifestyles, fast urbanization, industrialization, and technological improvement. Excessive fat storage, or obesity, is associated with a host of health problems and an increased chance of developing chronic diseases. Disorders of metabolism include metabolic syndrome, diabetes mellitus, high blood pressure, heart disease, dyslipidemia, and other similar problems. These illnesses have recently grown in importance as leading causes of death and disability in contemporary urban populations. Dietary habits and levels of physical exercise have been greatly impacted by city life. Unhealthy eating habits have grown in popularity due to the proliferation of processed meals, fast food, calorie-heavy diets, and sugary drinks. Also, metabolic health has taken a hit due to sedentary lifestyles brought on by things like desk jobs, reliance on technology, lack of exercise, and excessive screen time. Additional risk factors for obesity and related illnesses include stress, disturbed sleep habits, pollution, and mental health issues common in urban areas. Consequently, metabolic illnesses, which impact both physical and mental health, are becoming more common in metropolitan populations. Several biological systems impact metabolism and bodily functioning, and obesity is strongly linked to them. A key component in the onset of Type 2 Diabetes Mellitus, excess body fat can throw off hormonal balance,

change lipid metabolism, and add to insulin resistance. Not only does adipose tissue store fat, but it is also an active endocrine organ that affects hunger, glucose management, and cardiovascular health through the release of hormones and inflammatory compounds. Individuals' susceptibility to metabolic diseases and obesity is a complex interplay of hereditary susceptibility, environmental factors, and lifestyle choices. Obesity and metabolic illnesses have become more common in metropolitan settings, affecting both adults and children. Obesity and its consequences lower quality of life and put a heavy strain on healthcare systems, according to public health surveys. The correlation between obesity and inactivity and several health problems is becoming stronger and stronger. These include diabetes, hypertension, heart disease, fatty liver disease, sleep apnea, and fatty liver. It is crucial to raise awareness and prevent metabolic disorders early on because these conditions typically develop slowly and go undetected until serious consequences occur. In order to reduce obesity and improve metabolic health, preventative healthcare and lifestyle change have become crucial techniques. Reducing the risk of metabolic disorders can be achieved through a combination of measures, including a balanced diet, regular exercise, stress management, good sleep habits, and public health education. The prevention of obesity-related disorders and the promotion of healthy urban lifestyles are two goals that healthcare organizations and governments around the world are working hard to raise awareness about.

### **Changes in Lifestyle Patterns and Urbanization**

As more and more people leave rural areas for urban ones, new communities spring up and old ways of life are updated; this phenomenon is known as urbanization. Rapid urbanization in the last several decades has had a profound impact on people's way of life, food habits, work habits, and social conduct. Though urbanization has made many things easier to go around, such schools, hospitals, and jobs, it has also brought about a number of health problems linked to people's way of living. Among these problems, the unfavorable lifestyle changes brought about by city life have made obesity and metabolic diseases big concerns. The change from active to sedentary lifestyles is one of the most noticeable effects of urbanization. Farming, trekking, and other physical household chores were commonplace in traditional rural areas. Technology, automated transportation, desk employment, and screen time are becoming more integral to city life. People are not getting as much exercise and are not utilizing as much energy since they sit more at desks, use computers, watch TV, and use digital devices. Increased body fat, obesity, and metabolic diseases are direct results of an inactive lifestyle. In addition, people's eating habits and routines have been significantly affected by urbanization. People living in cities are more likely to rely on processed meals, fast food, sugary drinks, and calorie-heavy diets due to the hectic pace of city life. Many city dwellers do not get enough of the nutrients they need because they eat too many processed meals high in sugar, fat, and artificial additives. Excessive calorie consumption and nutritional imbalance have been exacerbated by the widespread availability of fast food and other changes in eating habits. These poor eating habits contribute significantly to the onset of metabolic syndrome, diabetes, high blood pressure, and cardiovascular disease. Additional negative effects of city life on metabolic health include stress and psychological strain. People living in cities typically deal with issues including work-related stress, financial strain, social isolation, traffic, and unpredictable sleep habits.

Overeating and fat storage can result from changes in appetite regulation brought on by elevated cortisol levels and hormonal imbalances brought on by chronic stress. Metabolic dysfunction and obesity-related illnesses are worsened by lack of sleep and mental health problems. While progress in technology and modern living has many positive aspects, it has also diminished opportunities for physical activity. There is now less need to exert oneself physically for mundane tasks because of online services, automated systems, elevators, and digital entertainment. The prevalence of childhood obesity and early metabolic problems is being exacerbated by the fact that young people in urban areas spend more and more time engaging in sedentary recreational activities like playing video games and using social media. There have been societal and environmental changes brought about by urbanization that have an impact on people's health. The dearth of green areas, pollution, overcrowding, and chances to engage in outdoor activities can all work against people's motivation to exercise and have a negative effect on their health. There is a lack of education on the need of a good diet and preventative healthcare, which contributes to the widespread promotion of poor lifestyle habits in many urban areas. In spite of all these problems, there are chances for urbanization to make healthcare more accessible and raise health awareness. People living in cities typically have easier access to things like gyms, doctors, healthy eating programs, and new medical technology. Reducing the burden of obesity and metabolic illnesses can be achieved by the effective implementation of public health programs that promote physical activity, good food, and lifestyle modification. Obesity and metabolic problems have become more common as a result of the ways people live their lives, which has been greatly impacted by urbanization. Living in an urban environment can have a detrimental impact on metabolic health due to sedentary behavior, bad eating habits, stress, and reliance on technology. In order to lessen the health hazards associated with fast urbanization and guarantee healthier urban populations, it is crucial to promote healthy lifestyle behaviors, such as balanced nutrition, frequent exercise, and public health awareness.

### **Mental Health Issues and City Health Concerns**

One of the biggest threats to people's physical and mental well-being in today's metropolitan environments is psychological stress. People living in cities are more likely to experience high levels of stress due to factors such as greater financial strain, increased social isolation, increasingly fast-paced lifestyles, increasingly competitive workplaces, and rapid urbanization. Your mental and physical health might take a hit if you let stress, which is your body's reaction to difficult or demanding situations, go on for too long. Numerous urban health issues, including as obesity, metabolic disorders, cardiovascular illnesses, anxiety, depression, and impaired immune function, are exacerbated by persistent psychological stress, according to scientific research. People in urban areas are frequently subjected to constant psychological pressure. Conditions that amplify emotional strain and mental exhaustion include long working hours, academic competition, traffic, job uncertainty, overcrowding, noise pollution, and social expectations. Living in an urban setting often results in less opportunity to relax and more social isolation, in contrast to more traditional ways of life that included greater social support networks and physical exercise. Because of this, a lot of people have problems with their general health, including chronic stress, insomnia, and emotional instability. There are a

number of intricate biological pathways that the neurological system and the endocrine system use to respond to psychological stress. The stress hormones adrenaline and cortisol are secreted by the body in response to stressful events. When the body detects an imminent threat, these hormones speed up the heart rate, blood pressure, and energy availability to deal with the situation. But when stress lasts for a long time, the body's cortisol levels stay high, which throws off metabolic balance, makes us hungry, and encourages fat to accumulate, particularly in the stomach area. In city dwellers, this procedure is a major cause of obesity and metabolic diseases. Eating habits and way of life decisions are influenced by stress as well. Overeating, emotional eating, smoking, excessive alcohol use, and decreased physical activity are some of the harmful coping techniques that many people resort to when they are psychologically pressed. When people in urban areas are under stress, they tend to reach for sugary drinks and processed foods, which are heavy in calories and contribute to their weight gain. Concurrently, mental and stress-related fatigue lessen the incentive to engage in physical activity and other good lifestyle choices, which in turn raises the likelihood of obesity and other chronic diseases. Another major issue for city dwellers is the correlation between mental health issues and heart disease. The likelihood of hypertension, cardiovascular disease, and stroke can be increased due to chronic stress's effects on inflammation, cholesterol metabolism, and blood pressure. Anxiety, sadness, gastrointestinal issues, disturbed sleep, migraines, and a lowered immune system are among symptoms that stress can amplify. Isolation, job stress, and reliance on technology are contributing factors in the rise of urban stress-related mental health issues. Psychological stress is a problem even for urban children and teenagers. In the formative years of a person's life, they may be particularly vulnerable to the detrimental effects of factors such as academic pressure, social media pressure, a lack of time spent outdoors, and stress at home. Youth anxiety, insomnia, and lack of physical activity are all exacerbated by the prevalence of excessive screen time and reliance on digital devices. Despite these obstacles, there is still hope for better urban health outcomes through stress reduction and preventative healthcare. Emotional and physical health can be improved by practices including regular exercise, yoga, meditation, mindfulness, healthy eating, sufficient sleep, and social support. The importance of public health awareness campaigns that highlight the need of maintaining a healthy lifestyle and mental wellness is growing in today's urban communities. Governments and healthcare systems alike are beginning to see mental health as an integral part of public health in general.

### **Conclusion**

Modern urban populations are increasingly at risk for obesity and metabolic illnesses as a result of fast urbanization, harmful lifestyle changes, and growing reliance on technology. Obesity, the study shows, is more than just a vanity problem; it is a complicated metabolic disorder with major health consequences such metabolic syndrome, diabetes mellitus, high blood pressure, heart disease, and hormonal imbalance. Worldwide, the incidence of obesity and metabolic illnesses has been steadily rising, and a large part of the blame may be laid at the feet of city dwellers and their sedentary lifestyles, poor eating habits, psychological stress, lack of exercise, and other environmental factors. The research provides more evidence that obesity-related disorders are influenced by biological pathways. These mechanisms include insulin resistance, altered lipid metabolism, hormonal disruptions, chronic inflammation, and hereditary

predisposition. A person's metabolic rate, quality of life, and the financial strain on healthcare systems are all negatively impacted by excess body fat. Because of their hectic lives, reliance on processed foods, lack of physical activity, unpredictable sleep schedules, and increased mental stress caused by contemporary living, urban populations are particularly at risk. Anxiety and depression have recently been recognized as major contributors to poor metabolic health among city dwellers. Emotional instability and unhealthy coping mechanisms like smoking, reduced physical activity, overeating, and financial hardships are brought on by technological dependence, social competition, financial struggles, and work pressure. Obesity and chronic metabolic illnesses are already more likely in those with these conditions. Urban living patterns have long-term effects on public health, and one such effect is the increasing incidence of lifestyle-related diseases and obesity in younger populations. Healthy lifestyle choices and efficient public health initiatives can greatly reduce the prevalence of obesity and metabolic diseases, despite these obstacles. Reduce your risk of obesity-related complications with a balanced diet, regular exercise, stress management, enough sleep, and preventive healthcare. The health of urban residents can only be improved by public health initiatives that raise awareness, educate about proper nutrition, increase access to healthcare, and propose government policies that encourage healthy lifestyle choices. Metabolic illnesses are now easier to diagnose, treat, and control because to technological developments and contemporary medical research. Biological, environmental, psychological, and lifestyle-related factors interact intricately in metropolitan populations to cause obesity and metabolic diseases. Everyone from individuals to healthcare providers to governments and society at large must work together to solve these health problems. Reducing the burden of obesity and enhancing general public health and well-being in modern cultures requires promoting healthier lifestyles, boosting understanding about preventive healthcare, and developing supportive urban environments.

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