

# Beneficios del ejercicio físico en niños y niñas con sobrepeso y obesidad en Neiva - Huila, Colombia

## *Benefits of physical exercise in overweight and obese children in Neiva -Huila, Colombia*

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### **Abstract**

Childhood overweight and obesity are a worldwide problem, with alarming statistics, such pathologies affect the growth and development of boys and girls. It is considered that these conditions can be prevented through the promotion of physical exercise and a change towards a healthy diet in childhood, a fundamental stage where the essential foundations of healthy lifestyles are laid, which will directly and indirectly affect the physical, social, and emotional well-being for life

**Keywords:** Child development, physical exercise, obesity, overweight.

### **Resumen**

El sobrepeso y la obesidad infantil son un problema mundial, de estadísticas alarmantes, tales patologías afectan el crecimiento y desarrollo de los niños y las niñas. Se considera que estas condiciones pueden prevenirse mediante la promoción del ejercicio físico y el cambio hacia una alimentación sana en la infancia, etapa fundamental donde se sientan las bases esenciales de los estilos de vida saludable que incidirán de manera directa e indirecta en el bienestar físico, social y emocional por el resto de la vida.

**Palabras clave:** Desarrollo infantil, ejercicio físico, obesidad, sobrepeso.

## Introduction

According to the World Health Organization (WHO), childhood overweight and obesity are among the most serious problems of the 21st century; children with this condition tend to remain obese in adulthood and are more likely to suffer from non-transmissible diseases at an earlier age (1) that affect their quality and life expectancy (2).

The main cause of overweight and obesity is an energy unbalance between consumed and burned calories. Globally, there has been an increase in the intake of high-calorie foods that are rich in fats, sugars, refined flours and, in addition, there is a remarkable decrease in physical activity (3). The worldwide prevalence has almost tripled in recent years; in 2016, according to WHO estimations, more than 340 million children and adolescents were overweight and obese (4).

In Colombia, the tendency of overweight in children from 5 to 12 years of age increased from 18.8% in 2010 to 24.4% in 2015 and one in five adolescents (17.9%) is considered overweight (5).

In the department of Huila, according to the Food and Nutrition Monitoring System SISVAN (by its acronym in Spanish) records, 15.7% of children over 5 years of age are overweight; the municipalities above 19% were Hobo and Guadalupe with 23.5% and 21.7%, respectively. With obesity, the municipality with the highest number of cases is Villavieja with 15.18%, followed by Rivera with 9.45% and Neiva with 8.5% (6).

Although strategies have been established worldwide to prevent and reduce overweight and obesity, statistical data show that preventive measures must continue to be strengthened; therefore, international, and national government entities have established public policies aimed at meeting the objectives of sustainable development, specifically health and well-being.

On the other hand, due to the COVID-19 pandemic, sanitary measures were established at a national level to reduce the virus propagation. In Colombia, mandatory preventive isolation was declared as of March 25, 2020 (7), which led the population to close schools, sports scenarios,

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offices, among others. This isolation forced the entire population to be more sedentary, spend more hours on technological devices, and increase bad eating habits; all of which affected the health of Colombian children, who, after being quite active during their school days, became physically inactive for longer periods of time, causing them to become overweight or obese. In this context, we propose a review of the current situation of the benefits generated by a physical exercise program on overweight and obesity in schoolchildren who received their classes virtually.

### **Reflection**

With the preventive measures established by the national government, children had to adapt to confinement, the time spent in front of technological screens and sedentary lifestyles increased, becoming a risk for developing chronic non-communicable diseases and affecting their mental health (8). Therefore, it has been necessary to create strategies aimed at children to keep them active and, in the same way, to take advantage of ICTs in favor of healthcare professionals. Through remote guidance (9) it has been possible to implement physical exercise programs, allowing reliable evaluation and intervention, either individually or in groups.

Guided physical exercise is an effective, safe, economical and efficient method to combat this problem; different authors define it as a medicine to prevent chronic diseases, and in the case of infants, the so-called Pediatric Inactivity Triad -PIT (characterized by exercise deficit disorder, pediatric dynapenia and physical illiteracy) (10), as it brings multiple benefits to the whole organism, since it contributes to improve physical condition, reduces the risk of osteoporosis, improves the lipid profile, decreases insulin resistance, reduces anxiety and depression(11). Likewise, studies have shown that high-intensity intermittent training is effective in reducing obesity in children, specifically in waist circumference and BMI, in addition to increasing aerobic capacity, improving their health condition (12).

In children, physical exercise is of vital importance to help growth and development, promote physical abilities, increase bone mass and muscle mass, strengthen the immune system and the cardiopulmonary system (13).

There is a perception that in order to exercise one must have a large space or go to a gym, but with the isolation it was proven that multiple physical activities can be carried out at home. It is worth mentioning that in the case of infants, for adherence to exercise, the support and example of their parents is a key success factor (14).

As an example, in Neiva, Huila, a physical exercise program was carried out with 35 overweight and obese children between 8 and 12 years of age. Through remote guidance, anthropometric measurements and physical condition were evaluated; then the program was implemented for 10 weeks, 3 times a week with 60 minutes each session. The results of the program were positive in the reduction of overweight and obesity, as well as in the conditional capacities of the participants.

### **Conclusion**

Childhood overweight and obesity are a silent pandemic that can be prevented by establishing in childhood an adherence to physical exercise, which has an impact on present global health (for the benefits it brings in growth and development) and in the future (reduction of the probability of suffering from chronic non-communicable diseases), using technology through virtual platforms and active video games, for this, the support of parents who motivate children through their example is essential. Healthy children in the present, healthy adults in the future.

It is suggested to work together with parents, as well as to teach and raise awareness of the importance of good eating habits and the practice of exercise to prevent and intervene in childhood overweight and obesity.

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