

## Where does the childhood obesity take us?

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### Editorial

Childhood obesity is one of the most important health challenges of the 21<sup>st</sup> century [1]. The problem is global and involves virtually all countries, especially those with medium and low incomes. The World Health Organization (WHO) considers that children who are overweight or obese will also suffer from it in adult life, increasing the frequency of chronic diseases and presenting them at a younger age [1].

According to WHO, the number of overweight and obese children under 5 years, increased from 32 million in 1990 to 42 million in 2013, [2] and WHO itself defines childhood obesity as an imbalance between energy intake and spent, mainly by and increased in the consumption of diet with high caloric density and an increase of the sedentary life [3].

Mexico, one of the countries with the highest prevalence of overweight or obese children in the world, has launched initiatives in the media so that people are fed healthily, be physically activated and care for their health, but really are they being effective? Reviewing the number of overweight or obese, it seems that not.

We know that childhood obesity is a risk for chronic diseases such as hypertension, insulin resistance, dyslipidemias, type-2 diabetes, some cancers and unfortunately, these complications of obesity are being detected at a younger age. Could we have 30 years ago ever imagined detecting 10-year-old children with type-2 diabetes or arterial hypertension? I do not think so.

We know that obesity involves low-grade inflammation with increased Interleukin-6 or Necrosis Tumoral Factor-alpha and is influenced by the endocrine activity of white fat tissue, but also the role played by the intestinal microbiota and one of the paths that we must explore is the functioning of probiotics and prebiotics as an option to the management of obesity, modifying the intestinal metabolism [4-6].

Other strategies would be to implement more aggressive programs of compulsory physical activation in primary,

secondary and preparatory schools or to regulate the type of foods that are expended in the primary schools, where they are given preference to the industrialized foods with high density of calories and not those that are usually eaten at home; aggressive campaigns of food re-education encouraging the consumption of fruits and vegetables and the dish of good eating, among others.

We must give priority to research on the management of childhood obesity, giving priority to new paths to explore and that we can have better results than the campaigns implemented so far.

There is too much to do. Health organizations, governments at all levels and society through the parents of families should focus on activities that actually decrease the frequency of obesity, such as a real food re-education, favoring the consumption of fruits and vegetables, consume prebiotics and probiotics, significantly increase physical activity, limit the consumption of foods with high caloric density among others.

Being overweight or obese is everyone's problem. If we achieve a change, our childhood will thank you in adult life.

### References

1. <http://www.who.int/dietphysicalactivity/childhood/en/>
2. <http://www.who.int/end-childhood-obesity/facts/en/>
3. <http://www.who.int/mediacentre/factsheets/fs311/en/>
4. Turnbaugh PJ, Ley RE, Mahowald MA, et al. An obesity-associated gut microbiome with increased capacity for energy harvest. *Nature*. 2006;444:1027-31.
5. Fantuzzi G. Adipose tissue, adipokines, and inflammation. *J Allergy Clin Immunol*. 2005;115:911-9.
6. Fain JN, Madan AK, Hiler ML, et al. Comparison of the release of adipokines by adipose tissue, adipose tissue matrix, and adipocytes from visceral and subcutaneous abdominal adipose tissues of obese humans. *Endocrinol*. 2004;145:2273-82.

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