

子供に対する予防教育により親のリスクが改善する

まず子供に：予防プログラムに参加した子供の親の方が心血管リスクが低い

Children First: Cardiovascular risk lower for parents who's children participate in prevention program

学校に通う子供を対象としたある集学的心血管予防プログラムにより親の心血管リスクが91%低下した、と2011年European Society of Cardiology学会で報告された。この研究のためにブラジルの私立学校の6~10歳の生徒197人およびその親323人が2つのグループに分けられた。コントロール群（親161人、平均年齢39歳）の生徒は書面による教育用教材を与えられた。介入群（親162人、平均年齢38歳）は同じ教材を支給され、心血管疾患予防に関する教育プログラムを毎週受けた。10年後に親達のフラミンガム心血管リスクを解析したところ、年間心血管疾患（CHD）リスクが10%以上であったのはコントロール群の9.3%（15人）であり介入群では6.8%（11人）であった。子供に対する教育プログラム後に介入群においては中等度/高フラミンガムCVDリスク群が91%減少した（CHD年間リスク>10%は1人）のに対し、コントロール群では13%の減少であった（CHD年間リスク>10%は13人）。

Full Text

A multidisciplinary cardiovascular prevention program directed at school age children in a Brazilian school reduced parents' cardiovascular risk by 91% according to a report presented at the 2011 European Society of Cardiology Congress.

"A multidisciplinary educational program in cardiovascular prevention directed at children of school age can reduce their parents' cardiovascular risk. Cardiovascular prevention could have more success focusing on children first, inducing healthier lifestyle habits in the whole family," said investigator Luciana Fornari, from the University of Sao Paulo, Brazil. The inspiration for this study, presented today at the ESC Congress 2011 in Paris, came with her motherhood, and the perception that her children could efficiently modify the family's habits with concepts that they have learned at school.

For the study, 197 children aged 6 to 10 years from a private school in the city of Jundiai (located about 60 km from Sao Paulo), and their 323 parents were divided into two groups. Children in the control group (which assessed of 161 parents with a mean age of 39 years) were provided with written educational material at the beginning and middle 2010. The material included information about benefits of healthy life style, such as a fat and sugar free nutrition, more physical exercises and avoidance of tobacco. Children in the intervention group (which assessed 162 parents with a mean age of 38 years) were issued with the same material and also exposed to a weekly educational program about cardiovascular prevention that aimed to teach, in different ways adapted to their ages, concepts of healthy nutrition, tobacco avoidance and the importance of physical activity.

The program included educational films and plays, and discussion about healthy lifestyles with the multidisciplinary team. The children were encouraged to write stories, draw and paint about what they had learned. Children also participated in practical cooking sessions where they learned to make and tasted healthy juices and sandwiches and could discuss with the nutritionists about the contents of different kinds of foods and how to make healthy choices. Parents and children could also take part in family bike rides and Olympic style events.

The program was delivered by a multidisciplinary team from Anchieta University, and included nurses, physical education teachers, physiotherapists, nutritionists, psychologists and primary teachers.

In both groups, investigators collected data from parents and their children at the beginning and end of 2010, including nutritional and exercise survey, measures of weight, height, waist circumference, arterial blood pressure and laboratory exams. From this data, investigators calculated the risk of parents experiencing cardiovascular heart disease over the next 10 years, according to the National Heart, Lung and Blood Institute's (NHLBI) Framingham Heart study.

When the investigators analyzed the parents' Framingham cardiovascular risk, they found that 9.3% of the control group (15 parents) and 6.8% (11 parents) of the intervention group had more than 10% year risk of cardiovascular heart disease (CHD) in the next 10 years. After the children's educational program, the intervention group had a reduction of 91% in the intermediate/high Framingham CVD risk group (1 parent with >10% year risk of CHD) compared with 13% reduction in the control group (13 patients with >10% year risk of CHD), $p=0.0002$.

So, prioritizing children first seems to be the right way towards cardiovascular prevention today.

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