

# Good nutrition related to type 2 diabetes in indigenous children report example

[Health & Medicine](#), [Diabetes](#)



Type 2 diabetes is increasingly becoming prevalent form of a disorder among children. This is largely driven by lifestyle factors that could lead to increased body weight, just like in the case of adults. Genetic and family factors, environmental factors like maternal gestational diabetes and intrauterine retardation in growth and lack of physical activities during adolescents and childhood have resulted in an increase, in the levels of insulin resistance that are considered crucial in the pathogenesis of type 2 diabetes among the young. Type 2 diabetes is linked to microvascular diseases with an indication of greater nephropathy risks as opposed to retinopathy; this may result to early cases microvascular diseases.

All over the globe, the incidences of diabetes and its rates of prevalence is very higher among the indigenous population when it is compared to the general population. The high rate of health outcomes among the indigenous population is linked to lifestyle changes, genetic susceptibility and colonization. The nutritional habits of the indigenous people have radically changed, with the flow of information, the indigenous people have been exposed to a lifestyle that they were not used, and this is adversely affecting their health. They have been, for example, been exposed to junk foods that are rich in saturated fats. This has the effect of making them obese and at risks of type 2 diabetes.

Poor nutrition is associated with various health problems and the prevalence of several diet related disease like diabetes. Nutrition-related behaviors can negative affect the health of an individual. The unhealthy nutritional habits that affect the health of an individual includes high consumption of fats and sugar and the regular intake of energy dense and junk foods. Good nutrition

is very important in the promotion of good health. There is a very high relationship between chronic disease and nutrition. Type 2 diabetes, is a cumulative result resulting from high fat consumption and the emergence of a sedentary lifestyle. Good nutrition is particularly very important during childhood and adolescents. Poor nutrition in young children often increases the risk of type 2 diabetes. Indigenous populations are affected by conditions associated with poor nutrition as type 2 diabetes. Indigenous people are often less likely to take food that is consistent with the dietary regulation and hence likely to suffer from nutrition-related disorders. The nutrition of indigenous people is considered worse than for those living in the cities. Among the indigenous populations, food is expensive and less varied (Angel, A., & International Conference on Diabetes and Cardiovascular Disease, 2001).

Type 2 diabetes is a major cause of death and ill-health among indigenous children. The onset of this type of diabetes occurs at an early age than in the general population. The high prevalence of type 2 diabetes and the risk factors among the indigenous populations has been researched and documented. Modification of diet and the reduction of the dietary intake of fats, refined total energy and carbohydrates and enhanced physical activity can assist in correcting the cases of metabolism that is associated with type 2 diabetes. Lifestyle modification forms the foundation of health programs and young people are particularly required for the primary prevention of diabetic risk factors.

Diabetes is a chronic disease that is characterized by high levels of glucose or hyperglycemia in both fed and fasting state. Diabetes 2 type is caused by

deficient production of insulin and resistance to the actions of insulin. Type 2 diabetes is common among children and often results in several complications which include coronary heart disease, kidney problems, stroke and lower limb complications (Angel, A., & International Conference on Diabetes and Cardiovascular Disease, 2001).

Type 2 diabetes is caused by insulin resistance and by the failure of the beta cells to manufacture sufficient insulin that is enough to overcome the resistance. This type of diabetes results from the interaction between the environmental factors like limited or lack of exercise, nutrition and obesity and genetic factors. Genetic factors include the capacity of the pancreases to manufacture insulin and to overcome other environmental factors that can meet the demands of the body. Indigenous people have in the past been living with a hunter and gatherer lifestyle, and they were active in moving around in search for food. This enabled them to store much energy that enabled them to survive on scarce food. There have been changes with the current nutritional circumstance. Many indigenous people often live on their food reserves because they perform tasks that are less fishing and taunting and the foods that are exposed to are rich in calories, carbohydrates and fats. This results in high prevalence of obesity that can translate to higher rates of type 2 diabetes. This will appear like that for any given cases or rates of obesity, they will be a high likelihood that they will experience various cases of type 2 diabetes. This has been the case with the indigenous population; they have been proved to have high genetic susceptibility to the type 2 diabetes. This is largely due to the rapid changes in their immediate nutritional environment (Australia Institute of Health and Welfare, 2012).

The most common form of diabetes among the indigenous populations is the type 2 diabetes. The type 2 diabetes is often common among individuals that are below 18 years including adolescents. With the changes in lifestyle, childhood obesity is becoming an epidemic and the main reason for the rise of type 2 diabetes in children is obesity. Many indigenous children are obese and this has translated to the several numbers of types 2 diabetes among the children. This is a common problem among young indigenous children, and this has also been linked to metabolic syndrome and most of the children who are below 20 years, who are overweight, suffer from metabolic syndrome and if the current rate obesity among children is left to continue, it will at long last develop into type 2 diabetes. In the current time, there appears to be a period of latency between obesity and type 2 diabetes and this may be on the rise among indigenous children and adolescence that are obese. Children are developing several diseases that are related to obesity that was common with adults. These are linked to the changes in lifestyle such as spending much time watching television, consumption of high fat snacks with limited physical activities (Narayan, 2011).

The high prevalence of type 2 diabetes among indigenous children and adolescents may be due to the increasing cases of childhood obesity, particularly central obesity. There is a direct relationship between childhood obesity and the growth of insulin resistance in early adulthood. The indigenous community was colonized, and this colonization had negative effects on the community's health and well-being. The indigenous community is considered as the unhealthy group in Canadian and Australian society. This is due to their change from hunter-gatherer and active lifestyle

to a sedentary lifestyle which is predominantly western and urban. This has had a continuous and serious health effects particularly type 2 diabetes that has become prevalent among indigenous children.

The mostly used diet of the indigenous population is rich in more energy, and that contains large quantities of fats, salt and refined carbohydrates. Their diet is poor on certain nutrients such as retinol, vitamin E, other vitamins, folate and fiber. This is an indication that the risk of type 2 diabetes in this community will probably develop among adolescents and during childhood (Watson, 2013).

Most of the causes of health related problems among the indigenous populations are nutrition-related like type 2 diabetes. These diseases are exacerbated by intake of foods that rich in saturated facts and refined carbohydrates and can be protected by regular physical exercise and taking of food rich in fiber, fruits and vegetables. Majority of indigenous children take few rations and quantities of fruits and vegetables and drank whole milk. Indigenous people in remote areas are more likely to take whole milk as compared with non- indigenous people. These children also sedentary and did practice low level of exercise. This is a common behavior among the indigenous populations. Indigenous people in Canada and Australia have a high likelihood of being obese when compared with non-indigenous ones. Indigenous children, just like the entire indigenous community are undergoing rapid cultural changes that include nutrition transition, whether over nutrition or undernutrition. The health-related diseases should be understood in the context of this modification in their lifestyle. This is worsened by their limited access to relevant health services and to

traditional foods as well as food insecurity (Rosenthal, 2009).

The nutritional status of most indigenous people is largely influenced by social and economic disadvantages and environmental factors. Poor nutrition is considered common and a risk factor for obesity and overweight and type 2 diabetes. According to National Health and Medical Research Council, most of the indigenous children reported not to have taken fruits and vegetables on a regular basis. They do not usually take fruits and vegetables daily when compared with non-indigenous population. This is linked to the prevalence of type 2 diabetes among children. The level of intake of fruits and vegetables was also different for indigenous people living in non-remote and remote areas. This is blamed on the lack of availability and poor accessibility of vegetables, and fruits in those areas. The young indigenous children living in remote areas do not take the recommended number of fruits and vegetables and this exposes them to lifestyle diseases like type 2 diabetes. Most of the children from indigenous backgrounds also take whole milk including the cream and few of them take milk with reduced fat or skim.

Unhealthy dietary habits in children and adolescents compromise the health and development of the children and expose them to risks of type 2 diabetes. Most of the disease burden among the indigenous people is because of excessive consumption of energy dense but nutrient poor foods. These unhealthy food habits include insufficient consumption of fruits, vegetables and whole grain. This makes type 2 diabetes and obesity a risk factor among these segment of the population (Dunning, 2014).

## Recommendations

Because the indigenous people are not exposed to information, the government should spend much time in educating them on important nutritional guidelines. The government should run out recommended programs that should be implemented at homes and schools about recommended daily intake of nutrients. The government should also encourage weight control mechanisms including promoting physical activity among the young.

## References

- Angel, A., & International Conference on Diabetes and Cardiovascular Disease. (2001). *Diabetes and cardiovascular disease: Etiology, treatment, and outcomes*. New York, NY [u. a.: Kluwer Acad./Plenum Publ.
- Australian Institute of Health and Welfare. (2012). *A picture of Australia's children 2012*. Canberra: Australian Institute of Health and Welfare.
- Dunning, T. (2014). *Care of people with diabetes: A manual of nursing practice*. Chichester, West Sussex: Wiley Blackwell
- Narayan, K. M. V. (2011). *Diabetes public health: From data to policy*. Oxford: Oxford University Press.
- Rosenthal, M. S. (2009). *The Canadian type 2 diabetes sourcebook*. Mississauga, Ont: J. Wiley & Sons Canada
- Watson, R. R. (2013). *Nutrition in infancy: Volume 1*. Totowa, N. J: Humana.