

# Young people and the tightrope of healthy living

Their preference for fast foods and limited exercise are placing strain on the health of more and more young people, says Prof Faadiel Essop, Chair of the Department of Physiological Sciences and leader of Stellenbosch University's Cardio-Metabolic Research Group.



Recent studies by my research team among South African students - including Maties - have made me come to the alarming conclusion: By the age of 25, an increasing number of young people already show a higher-than-expected risk for so-called 'old age' diseases such as diabetes and heart disease.

Poor lifestyle choices and increased environmental stressors such as psychosocial stress and pollution are regrettably part of modern-day living, and influence not only the health of working parents and other adults, but also of their children.

To ensure that our families stay hale and hearty, we need to make deliberate, balanced lifestyle choices by managing our stress, getting enough sleep and exercise, and adopting a healthy diet. This quest for balance and moderation is nothing new, and is entrenched in major belief systems, ancient traditions and philosophical musings.

Likewise, the well-being of individual cells and organisms depends on a constant internal environment referred to as 'homeostasis'. However, organisms are sometimes unable to maintain homeostasis, leading to cellular dysfunction and the onset of diseases.

In my research group, we focus on how the lifestyle choices of contemporary society can alter homeostasis and influence the development of diabetes and cardiovascular diseases. These conditions - often

preventable - are triggered by metabolic risk factors such as abdominal obesity, high blood pressure and increased glucose and fat levels in the blood.

My research team found that too much fatty acids and sugar in the blood are bad for the heart, as they either kill off heart cells or limit the amount of energy the heart produces. These conditions may result in poor contractile functioning and heart failure. It also interferes with insulin's ability to reduce sugar levels in the blood, thereby contributing to the development of diabetes. However, it is not all doom and gloom, since we have discovered several molecular targets to be used for diagnostic and therapeutic purposes, and which could one day ensure suitable treatment being available at clinics.

However, prevention is ultimately better than cure. Unfortunately, treading the tightrope of healthy living in the 21<sup>st</sup> century is an arduous task, as many options dished up to us are sometimes unrealistic or difficult to implement.

For example, the great wealth disparities within the global economy, together with production for profit and related consumerism, translate into environmental imbalances in terms of healthy living, including stress, nutritional excess and sedentary lifestyles. The increasing number of such 'bigger picture' external stressors can disrupt our internal homeostasis, leading to the onset of diabetes and heart disease.

Within this context, our fast-food culture has made it easy to grab a bite to eat. However, these are not necessarily the healthiest options, especially not for children. Added to that, young people are becoming more and more sedentary, and often engage in limited sport activities once they leave the school benches.

How, then, do we deal with this? Families should adopt a more proactive attitude and strongly encourage younger people to embrace a balanced approach in terms of various lifestyle choices. It may seem a tough act, but can certainly be pulled off with the appropriate mindset and levels of commitment - for their health's sake. [m](#)

## How parents can help foster healthy living among young people

- Advocate a philosophy of moderation in all spheres of life as a virtue.
- Encourage an active lifestyle by joining your child in physical activities.
- Empower your children to self-regulate and to manage their own time between being a couch potato and getting some exercise.
- Promote a balanced diet. Beware of including too much refined carbohydrates in meals.
- Don't sweat the small stuff - a positive attitude is good for the heart!