

News





Everything you may know is indeed half true

Abstract

Most of people don't know how to eat a banana and most of researchers ignore the fundamental dogma of medical research; human's health.

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What if I tell you that all you read at the scientific nutritional journals is actually a lie? And how can a well trained scientist within nutrition and epidemiology field can actually accept that a 95% confidence interval derived from a statistical test, designed to serve mostly other purposes, is able to give an indication of individual's health? It is really remarkable that it took epidemiologists few decades before start analyzing people's nutritional habits and I can with certainty say that way of nutritional assessment went beyond expectations. But still studies are using methods which we are not sure of their validity within our study population but we have to duplicate them because other researchers are doing so. In such a way we have something to compare with in order not our results being just numbers. It is well established that bad nutritional habits are risk factor for many different health outcomes including modern's society's nightmare triad: Cardiovascular disease, Diabetes and Cancer.

To give an example on that just by following the nutritional epidemiology's achievements the past 3 decades it is probable that my housemate sitting all day to the next room eating chips will develop Diabetes Mellitus long before me who I ate my orange after returning from gym. If I was able to collect a sample of 1,000 "housemates" like that person and 1,000 "me" and study both groups for 25years on I would be quite sure about the result, 95% of the unhealthy group would probably develop Diabetes Mellitus by the age of 50 but it would be a 5% of each group that would have exactly the opposite effect. In percentage level 5% seems quite a good error to begin with but in population level that 5% in our case is 50 people and if someone is so ambitious to enlarge it at a pan European scale 35.5million people with perfectly healthy nutritional habits, following the guidelines of World health Organization will develop Diabetes Mellitus. How about that! You could accuse me for pseudo sample creation, for non realistic view of science, misuse of human's critic ability and argue that my assumptions are not covering any lifestyle factors, co existing diseases, environmental changes, sudden deaths from other causes, socio economical factors, psychological health, demographic data facts as well as genetic prodiathesic factors. That's exactly what I am trying to explain, it doesn't make almost any sense!

My assumption of my study population and all the made up story in the previous paragraph sums up the whole of nutritional epidemiology and why it is not possible to fully agree with the results in an individual level. Scientists are doing a great job developing helpful assessment tools of nutrition, body composition, biological markers and predisposing genetic factors playing a role to overall disease prevention but how can that affect healthcare providers? A study should be so massive with such striking results like "The 7 countries study" to actually change the way health providers handle their patients and trust me this is not happening so often. Under those circumstances people may think that our science has been already reached its limits since there is no more striking news on how a person should eat and exercise but this is the half truth. Of course we know a lot but it is up to us to discover how specific nutrients and not nutrition patterns affect the course of diseases and if all modern diseases aren't just due to evolutionary gap, but that's a story for an other time.

Conclusion

In conclusion epidemiologists use complicated statistical methods taking into account lot of different factors which may bias their results in population level to deliver the best possible prediction models of healthy living. Nutritionists on the other hand design food plans to achieve weight loss and trainers work into the core burning this fat down and keep body in shape. But here we are going to doctors to deal with the problems that we alone cannot prevent. Between statistical lies and everyday's truth stands unique human existence. Hence modern disease confrontation should be developed around personalized disease prevention. We must elaborate more on finding new techniques of individual health screening using methods already described by the nutrition epidemiology.

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Conflict of interest

The author declares no conflict of interest.



