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An Urgent Need to Incorporate Evidence-Based Nutrition and Lifestyle Medicine Into Medical Training

Abstract: It is well established that evidence based clinical nutrition and lifestyle practices play a pivotal role in the prevention, treatment and potential reversal of various common chronic diseases. However, this area of science is under appreciated at all levels of medical education and training. Most medical schools and residency programs do not offer any organized training in nutrition and lifestyle medicine. Given recent data on the rising cost and loss of quality of life secondary to preventable causes, there is an absolute need for a drastic reform of the US medical education system.

Keywords: Nutrition; Lifestyle Medicine; Education

He who does not know food, how can he know the disease of man?

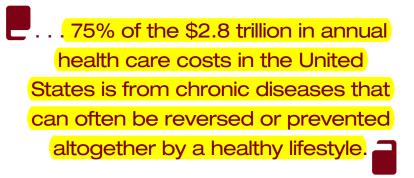
—Hippocrates

Data from the global burden of disease studies published in 2013 and 2018^{1,2} show that morbidity and chronic disability account for nearly half of the

US health burden. A recent publication suggests that 75% of the \$2.8 trillion in annual health care costs in the United States is from chronic diseases that can often be reversed or prevented altogether by a healthy lifestyle.³ In these same studies, it was also noted that dietary and lifestyle factors are the leading cause of disease. Despite overwhelming evidence, there is little emphasis on nutrition and

as a priority, the knowledge base, expertise, and experience that are required to practice lifestyle medicine with confidence are lacking.⁴⁻⁶

Koushik Reddy: Three years ago, as a practicing interventional cardiologist, when I realized the importance of evidence-based clinical nutrition, I had to resort to books written for nonprofessionals^{7,8} and read the scientific



lifestyle-related training in our medical education programs. The amount of nutrition and lifestyle-related education for medical professionals in training and in practice continues to be inadequate. Because of this, while nutrition and lifestyle-based approaches are perceived papers that are cited in the references sections of these book. The authors of these books became my "mentors by proxy." The past 3 years have been the most transformative in my medical career. Once I learned the power of clinical nutrition, I decided to put into practice in

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my personal and professional life. As I saw the benefits, I decided that this information and knowledge should be made available to as many people as possible. So I decided to talk to my patients, colleagues, friends, and family. I started doing a series of lectures. I started meeting on a regular basis with our primary care physicians, specialists, dieticians, and nurses to discuss the power whole food, plant-based nutrition in disease modification and risk reduction. I now suggest the whole food, plant-based approach to anyone who is seeking nutrition-related information from me.

By implementing these methods of learning and educating, I have seen tremendous success. Success in terms of disease modification, symptom regression, and overall risk reduction among my patients. I spend most of my clinical encounters discussing nutrition, lifestyle, and prevention. This pays off in ways that are lot more gratifying than some of the most complex coronary interventions I perform. Hence my saying, "I have a carrot and a stent. You pick."

Andrew Freeman: Nearly a decade ago, when I finished my training, like most trainees, I was an expert in the latest in standard Western medicine, diagnostics, imaging, therapeutics, and medications. I could treat the most severe disease nimbly, but I was not prepared for prevention and the concept of how lifestyle medicine could allow for a potential cure of the very diseases I was treating. Obviously, when damage is done, we must use the tools we have to repair it, but once the repair is made, the next step is allowing for true healing and this is where the combination of diet, exercise, and stress relief really come in. Even better is to prevent the damage to begin with! When I discovered the power of plant-based and minimally processed eating combined with exercise, stress relief, and connectedness, the results in my patients were astounding—for the first time in my career I took away medicines and watched high blood pressure, heart disease, and diabetes literally melt away. In the US medical education system, it

In the US medical education system, it takes anywhere between 15 and 17 years of post-high school education to be board

certified in interventional cardiology. During those years, we seldom receive didactic or clinical training in dietary and lifestyle-based approach to preventing, treating, and potentially reversing some of the chronic cardiac diseases that the society is burdened with.

One special study published in 2014 clearly establishes the importance of lifestyle medicine as it relates to coronary artery disease, the number one killer in America.⁹

At the Cleveland Clinic, Dr Esselstyn and his colleagues followed 198 consecutive patients with established coronary artery disease, interested in plant-based nutrition (elimination of dairy, fish, meat, eggs, added salt, oils, and sugar).

Of the 198 patients, 177 remained adherent and 21 patients were nonadherent to the plant-based lifestyle. At the end of 3.7 years of follow-up, only 1 out of the 177 adherent patients had a cardiovascular event, while 13 of the 21 nonadherent patients went on to have cardiovascular events.

As it was shown in the global burden of disease study, we in the 21st century are incurring disease burden, morbidity, and mortality due to food-borne diseases!

There is an urgent need to incorporate and integrate evidence-based clinical nutrition and lifestyle medicine into all areas of medical education and clinical practice. In fact, in a recent survey of about 1000 cardiologists, nearly 90% had little to no knowledge or education in day-to-day nutrition.¹⁰

We can and must do better. Current rates of disease burden and our established treatment programs are neither cost-effective nor efficient. We as physicians start our careers by taking the Hippocratic Oath. Hippocrates once asked, "He who does not know food, how can he know the disease of man?" For the all glory we seek in the name of Hippocrates, it is about time we put his words into practice.

Here is our plea to the American Medical Education System.—Make Food Great Again!

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Informed Consent

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Trial Registration

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