

# 1-on-1 with Tieraona Low Dog, MD

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## HOW DO YOU DEFINE INTEGRATIVE MEDICINE?

The NCCAM (National Center for Complementary and Alternative Medicine at the National Institutes of Health) says that “Integrative medicine combines mainstream medical therapies and CAM (complementary and alternative medicine) therapies for which there is some high-quality scientific evidence of safety and effectiveness.” In other words, integrative medicine “cherry picks” the very best scientifically validated therapies from both conventional and CAM systems.

## WHERE DO YOU BELIEVE INTEGRATIVE MEDICINE IS HEADING AND WHY?

The increasing popularity of integrative medicine has been interesting to watch. The most recent survey from the Centers for Disease Control (CDC) showed that 62% of Americans are using some form of complementary medicine. Most Americans value their health and are looking for ways to give themselves an edge against heart disease, diabetes, osteoporosis, cancer, and other diseases that result in so much disability and death.

While the appropriate treatment of disease remains an important component of our role as physicians, integrative medicine places a high emphasis on prevention and healing. Contrary to popular thinking, it is not alternative medicine. Integrative medicine emphasizes the therapeutic relationship between the provider and the patient and uses the best of *evidence-based medicine* regardless of whether it is conventional or complementary. And it is becoming more and more difficult to identify the line between conventional and complementary medicine as the National Institutes

of Health, the Office of Dietary Supplements, the National Center for Complementary and Alternative Medicine, and the National Cancer Institute conduct research into the role of diet, lifestyle, and nutritional supplements for their beneficial role in preempting disease and maintaining health.

## WHY ARE PEOPLE USING COMPLEMENTARY MEDICINE?

Because, honestly, our health care system cannot meet the needs of our population, which is being crushed under the cost of care and an aging population that is plagued with chronic and often preventable disease. The Institute of Medicine (IOM) recently released a report on the status of health care in the United States that stated that health care today harms too frequently and fails to deliver its potential benefits routinely. “Between the care we have and the care we could have lays not just a gap, but a wide chasm.”

***Most Americans value their health and are looking for ways to give themselves an edge against heart disease and diabetes.***



Heart disease remains the leading cause of death for both men and women, yet the World Health Organization and other groups report that up to 80% of heart disease could be prevented by diet and lifestyle alone. Diabetes is on the rise, with more than 20 million Americans living with diabetes and another 54 million in the pre-diabetic state. We know conclusively that lifestyle supported by complementary interventions can prevent type 2 diabetes and many of the devastating complications that come with progressive disease. The key is to intervene early.

## CAN CHRONIC DISEASE BE PREVENTED?

There is an enormous body of evidence that supports the contention that many chronic diseases can be prevented, or at least substantially delayed. Thankfully, there are many prescription medications for the treatment of disease, but what about the individual who is not yet ready for a drug intervention but is clearly headed for trouble? This is when we have a real opportunity to reduce the burden of chronic disease through lifestyle, nutrition, and evidence-based dietary supplements. I believe that this is also the place that many botanical remedies will prove to have the most impact because of their mild therapeutic effects and gentler side effect profile. While most of our clinical trials are directed at studying herbal medicines as drugs for the treatment of disease, our research dollars would likely be better spent evaluating the use of these plants as preventive agents or for use in the pre-disease state. Basic science confirms that many plant compounds help reduce inflammation, prevent oxidative damage, and improve the function of the immune system.

## HOW DOES ONE LOOK AT THE EVIDENCE FROM MEDICINAL PLANTS?

Physicians often complain about the lack of large, randomized clinical trials for many of our traditional medicines, but one must look at the totality of the evidence, especially when it comes to herbal remedies. If a plant has been used by multiple cultures for hundreds, perhaps thousands, of years for a particular condition, this is a type of evidence. When that traditional use is supported by in vitro and animal research—that makes the evidence even stronger. When you add positive human clinical trials, even if they are small, you are probably looking at a real therapeutic effect. This is different from a pharmaceutical drug that lacks extensive human use and experience. Human beings have co-evolved with plants and are in many ways genetically predisposed to respond to phytochemicals.

Up until about 25 to 30 years ago, the study of botanical medicines had fallen outside the purview of many mainstream scientists, not in the least because these natural products cannot be patented. There has been no financial impetus to study these plants, so much of the scientific investigation has come from outside the United States. This situation is changing, though, now that NCCAM is funding basic science and randomized clinical trials of promising botanical remedies.

## WHAT IS HOMEOSTASIS?

A key tenet in integrative medicine is that the body is self-healing. I think good medicine should begin with the premise that the body can self-heal if given the proper tools. The body constantly strives for homeostasis, which is probably best described as a natural state of dynamic equilibrium. Disease occurs when that equilibrium is disrupted.

As physicians, we see this every day in practice. Most of our patients know when they're losing that balance; they use phrases like, "I don't feel good in myself," or "I just don't 'feel right.'" This is the place where integrative medicine is often at its best because these are the patients who are in that place that exists between being optimally

healthy and having clinically defined disease. This place is best described as the "pre-disease" state. If one can intervene during this time, it is more likely that the body can be restored to balance and health. Clearly, the prevention of heart disease and diabetes are 2 areas where lifestyle, nutrition, and natural products could go a long way toward reducing the burden of chronic disease.

## SO, IS INTEGRATIVE MEDICINE THE FUTURE?

The popularity of integrative medicine is growing. I am currently the Director of Education at the Program of Integrative Medicine at the University of Arizona. This program, less than 10 years old, started with a class of 4 doctors. We have now graduated more than 300 clinicians, many of whom have gone on to start programs at other academic centers. Prestigious institutions such as Harvard, Duke, the University of California at San Francisco, MD Anderson, Memorial Sloan-Kettering, and John's Hopkins have developed integrative medicine departments. This is no longer "alternative" patient care.

Clinicians must keep up to date with the evidence for integrative medicine so that they can provide their patients optimal care. Patients want to stay well and are asking for advice on nutrition, lifestyle, preventive medicine, and guidance when choosing natural products. Health care providers must be able to dialogue with patients about a variety of treatment options, including those presented by the patient who falls outside what was learned in his or her formal training. Evidence-guided medicine practiced within the framework of patient-centered care should be the desired goal of all physicians.

***The place that's being described as the "pre-disease" state is the place where integrative medicine and herbal supplements are at their best... for patients who are between being optimally healthy and having a clinically defined disease.***

