

## How to Perform an Evidence-Based Nutrition/Lifestyle/Anti-Aging Assessment

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During my 24 years as a nutrition professor at Canadian Memorial Chiropractic College, I have taught students and practitioners how to conduct an evidence-based patient evaluation that leads to safe and meaningful nutrition, exercise and supplementation recommendations. My concern is that practitioners sometimes make recommendations of this nature without assessing all of the confounding variables critical to each individual's circumstances. This can result in advice that is not optimal for the patient, might even be dangerous in regards to drug-nutrient interactions or co-morbidity issues, and/or could place the patient at risk for a cardiac event or bleeding disorder.

From the standpoint of professional responsibility and liability, I strongly suggest that before you give advice pertaining to dietary modifications, exercise prescription and/or nutritional supplements, your recommendations be based upon the findings of an evidence-based assessment protocol. A proper evidence-based protocol includes the incorporation of the following factors, briefly highlighted below.

### Age

Age must be factored into the assessment due to the fact that after age 40, the body's aging clock triggers time bombs that go off at predictable points in our timeline. These increase vulnerability for congestive heart failure, high blood pressure, cancer, virulent infections, bone demineralization, cognitive decline, erosion of joint cartilage, prostate enlargement in men and menopausal symptoms in women. As such, it is appropriate to explain to patients how to counter these time bombs through the use of evidence-based anti-aging/disease-prevention supplements. As one example, we know that coenzyme Q<sub>10</sub> synthesis markedly declines by age 45-50, at which time it is in the patient's best interest to include CoQ<sub>10</sub> in their supplementation regime to prevent high blood pressure, congestive heart failure and possibly cancer.

### Gender

Gender is an important consideration for men because after age 40, the prostate gland increases conversion of testosterone to dihydrotestosterone (DHT), which is linked to prostate enlargement and prostate cancer - a condition reported to occur in at least one in nine men in North America in their lifetime. Studies demonstrate that a supplement combination of specific herbs and isoflavones can block the enzyme (5-alpha-reductase) that converts testosterone into DHT, thereby reversing early- and moderate-stage prostate enlargement and inhibiting important steps in prostate cancer development. For women, the combination of certain herbal agents can help reduce menopausal symptoms (at around age 50) and attention to other nutrients can help prevent osteoporosis, which affects many more women than men. Women simply need to be more aggressive than men in defending against bone loss from an earlier age.

### Assessment of Current Dietary Patterns

Before making recommendations about dietary modifications, the practitioner must first get a snapshot of the patient's current nutritional practices. They should at least assess intake of the following: saturated fat, trans-fats and cholesterol; fruit and vegetables; fiber; refined sugars; alcohol; artificial food additives (including nitrates - e.g., processed meats); protein; calcium; fried foods; and smoked, BBQ, charred or blackened meat or fish. They also should ask about established food allergies or gastrointestinal conditions (e.g., celiac disease, Crohn's disease, ulcerative colitis, active ulcer or GERD).

### Anthropometric Assessment

The patient's body mass index (BMI) and waist circumference are important indicators of their risk for premature heart disease, hypertension, lipid disorders, diabetes and, according to some reports, colon and reproductive cancers. A proper assessment of the patient's health status must address these anthropometric indices before an appropriate dietary and exercise program can be provided. In-office assessment and monitoring of these indices, along with a percentage-body-fat evaluation (if equipment is available) are important considerations when providing a program to overweight patients.

### Exercise Status

It is imperative to educate patients about the health and anti-aging benefits of aerobic, strength training and flexibility exercises, as well as provide them with a specific program to follow that is customized to their needs and capability. The practitioner must have knowledge of the patient's current exercise program (or lack thereof), and utilize a screening questionnaire, which will help identify patients who must see a physician or cardiologist for specialized testing prior to engaging in an exercise program.

### Identifying Signs and Symptoms of Nutrient Deficiencies

There are numerous changes to the skin, mouth, tongue and nails, along with easy bruising, lack of taste acuity, frequent colds and poor wound healing, which are indicators of existing nutrient deficiencies. For instance, red dots under the skin (petechial hemorrhage) are an early indicator of vitamin C deficiency. Lack of taste acuity often is an indicator of zinc deficiency, which also might involve poor wound healing, frequent colds or other signs of a weak immune system. Specific screening questions in this regard should be included in the patient work-up.

### Drugs and Lifestyle Practices Known to Deplete Specific Nutrients

The scientific literature provides information regarding mechanisms through which certain drugs reduce the status of certain nutrients in the body. For example, statin drugs, used to lower blood cholesterol, block the synthesis of CoQ<sub>10</sub>, as well as cholesterol. As such, physicians are advised to recommend 100 mg per day of CoQ<sub>10</sub> to patients on these medications. In many cases, this advice is not provided to the patient, which might increase the risk for congestive heart failure. Many other common medications deplete important nutrients, as do alcohol, caffeine, stress and aerobic exercise. A specific line of questioning involving nutrient-depleting drugs and other practices can help identify which nutrients are of greatest concern and help the practitioner enlighten the patient to the benefits of a high-potency multiple vitamin and mineral.

### Current and Recurring Health Conditions

Research reveals that established nutrition (and supplementation and exercise) protocols are important in adjunctive medical/chiropractic management of at least 60 different health conditions.

These specific nutrition and lifestyle interventions often are overlooked, or the practitioner may lack awareness of established measures that can assist in management of the condition(s). A comprehensive nutrition/lifestyle/anti-aging assessment must determine if the patient suffers from any of these conditions. My online questionnaire asks the patient about these conditions and provides doctors with the established nutrition and lifestyle protocols with which to counsel patients who report having any of these common health problems.

### Family History

In cases in which a patient has a first-degree relative with a history of colon cancer, breast cancer, prostate cancer, heart attack before age 60 or Parkinson's disease, the patient has an increased genetic risk for the same disease(s) depending on their gender for some conditions. However, research suggests more aggressive lifestyle strategies can help mitigate this genetic risk. In these cases, patients should be educated about the most appropriate evidence-based lifestyle practices to follow to help defend against the development of these conditions, along with the use of early detection practices.

### Contraindications

Prior to suggesting supplement recommendations or dietary advice, issues regarding known or plausible drug-nutrient interactions must be addressed, in addition to asking questions regarding specific health problems and status. For instance, pregnancy and breast-feeding demand special consideration, as does a history of organ transplant, liver or kidney disease, hemochromatosis or Wilson's disease, as well as other conditions.

### Specific Blood, Urine and Other Appropriate Tests

Once the above information is gathered and incorporated into a customized nutrition, exercise and supplementation program, the patient should then be instructed to ascertain baseline measurements of key longevity and health indicators from blood, urine and other tests appropriate for their age and gender. The chiropractor should acquire a copy of the patient's results and compare them against the ideal range for longevity in order to help the patient better understand their present health and longevity index.

In addition to in-office chiropractic care, chiropractic practitioners have an obligation, as holistic practitioners, to provide patients with individualized, evidence-based adjunctive lifestyle interventions to help them live a longer, quality-filled life, combat existing health problems and reducing onset of conditions they might be predisposed to for genetic reasons. To access a comprehensive assessment of this nature, visit [www.renaissance.com](http://www.renaissance.com) and click on the "Nutrition/Lifestyle/Anti-Aging Assessment for Health Professionals" link. There is no charge to take the assessment or to use this assessment with your own patients if you feel it will assist you in delivering a more evidence-based wellness service to your community.

JUNE 2008