

# Food Intolerance, Low Carb Diets and ALCAT Testing

By Fred Pescatore MD and Roger Davis Deutsch

## Food Intolerance and Weight Loss

Accurate identification of food sensitivities is vital to a successful weight loss and healthy eating program. Food sensitivities can cause sugar cravings by inducing a serotonin deficit in the brain chemistry. The sufferer will attempt to compensate for this deficit, and the resulting feelings of discomfort, by consuming refined carbohydrates. The insulin surge that follows will drive branch chained amino acids out of the blood thus allowing less competition for the simpler tryptophan molecule to cross the blood brain barrier where neurons will then convert it to serotonin. Fortunately, elimination of offending foods effectively restores neurological balance and curbs sugar cravings, thus alleviating discomfort and depression and making compliance with a low carb program much easier.

Inflammation is another impediment to weight loss and improvement in body composition. Inflammatory mediators from activated leukocytes can interfere with lipolysis. Recent studies have shown that neutrophil mediators, the toxic chemicals that white cells release in order to neutralize pathogens, like myeloperoxidase, are associated with cardiovascular disease. Other observational studies have shown that chronic activation of the innate immune system (that branch of the immune system associated with food intolerance) may underlie metabolic syndrome (cardiovascular disease, diabetes and obesity). Still other research has demonstrated that higher blood leukocyte levels are predictive of obesity.

## Low Carb Diets for Weight Loss and ALCAT Testing

Low carb diets have been proven to be effective tools for weight loss. While working at the Atkins Center and subsequently in private practice with The

Hamptons Diet, we found the best weight loss results were achieved when we also tested our patients for food sensitivities using the ALCAT test.

The benefit of a low carb diet is that the pancreas does not have to produce as much insulin since there is less blood glucose to transport into the cells. Refined carbs break down into simple sugars rapidly and soon saturate the muscle and liver cells' stores of glucose. The cells respond to this saturation by down regulating the expression of insulin receptors on their surfaces resulting in insulin resistance. The resulting high blood sugar levels cause a continued and even frantic inducement for the pancreas to produce even more insulin, which then promotes fat storage as triglycerides and also inflammation.

Fat consumption, on the other hand, induces a glucagon response. Unlike insulin, glucagon encourages the burning of fat. Research performed by Dr HP Himsworth in the 1930s was instrumental in leading to this discovery. He found that study subjects who consumed most of their calories from fat in the week leading up to a glucose tolerance test were least able to metabolize sugar.<sup>1</sup> It appears there is a mutually exclusive metabolic switching mechanism between insulin and glucagon. We can live without sugar (fat and protein can be used for energy) but we can't live without fat. Hence, it's the sugar that has to be greatly reduced in order to promote the utilization of fat stores while still maintaining vital metabolic and physiologic function.

## Evidence with ALCAT Testing

Although for years anecdotal evidence has clearly indicated that accurate identification of food intolerances has benefited weight and body composition, a randomized, controlled, 1996 study from Baylor Medical College showed that 98% of subjects following a diet based on the results of the ALCAT test experienced significant improvement in these parameters as measured by underwater displacement technology. They also, as a group, exhibited a significant reduction in sugar cravings and experienced more energy.<sup>2</sup>

We use the ALCAT test because it is the most accurate test for food intolerance. It is a whole blood, cellular, biological response assay, carried out on whole blood less than 30 hours after blood draw. As such, it most closely mimics what happens *in vivo* when foods or chemicals are consumed. Studies have shown a very high correlation of test results with

double-blind challenges under rigorous experimental conditions, for both foods and food additives. Clinical outcome studies on the ALCAT test have also shown that it benefits a wide range of health conditions such as migraine, fatigue, arthritis, rhinitis, asthma, IBS, attention deficit, hyperactivity and others.

It is easy to apply the results, but some people need guidance in understanding hidden sources of the offending foods, finding suitable substitutes for foods that must be eliminated, and determining the need for appropriate nutritional supplementation.

Because the nature of these reactions is mediated by the innate branch of the immune system, unlike a 'true' allergy, which is usually mediated by an IgE antibody mechanism, a form of 'specific' immunity, the reactions sometimes resolve as a person avoids the foods for a period of time, heals the gut integrity so as to form a better barrier to potential offending food components, and achieves better nutrition to support more effective liver detoxification. Re-testing after 3 to 6 months, or careful re-challenging with previously eliminated foods can help determine this.

Sensible and balanced low carb diets such as the Hamptons Diet are healthy and effective for weight loss. Individualized testing to determine specific food intolerances provides a significant enhancement.

## References

1. Himsworth HP. Diabetes mellitus: a differentiation into insulin-sensitive and insulin-insensitive types. *Lancet*. 1: 127-130. 1936.
2. Kaats GR et al. The Short Term Efficacy of the ALCAT Test of food sensitivities to facilitate changes in body composition and self-reported disease symptoms: a randomized controlled study. *The Bariatrician*. 1996.

## About the Authors

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Roger Davis Deutsch, co-author of the book *Your Hidden Food Allergies* are *Making You Fat: How to Lose Weight and Gain Years of Vitality* has tested over 100,000 people with the ALCAT test, and is a frequent lecturer on food intolerance and weight loss. He can be contacted via [RD@alcat.com](mailto:RD@alcat.com)