

PureRXO

## Sodium Restriction and Hypertension



Salt restriction is a common dietary recommendation for individuals with hypertension despite the fact that there are well-known heterogeneous responses to dietary salt intake. Varying degrees of salt sensitivity exist with modest reductions of intake in some individuals resulting in an immediate decrease in blood pressure while others are salt resistant.

The question has been raised as to whether dietary sodium restriction is universally beneficial. It has been suggested that there is a need to distinguish between individuals who would respond to sodium restriction versus those who do not, but there are no available symptomatic assessments or standardized genotypic analyses to provide the clinician with data they need to tailor the dietary recommendation to reduce sodium to their patients.

Specific gene variants associated with salt sensitivity have been identified; however, translation to the clinical setting is lacking. Common genetic variants of the kallikrein-kinin system have been explored with relationship to salt sensitivity. It was determined that genetic variants of the

bradykinin receptor B2 gene (BDKRB2) and the endothelin converting enzyme 1 gene (ECE1) were significantly associated with salt sensitivity in 1,906 Han Chinese subjects. In addition to the genetic variants, Rebholz et al. has indicated that salt sensitivity of blood pressure may be influenced by environmental factors such as degree of physical activity, yet another factor to consider in a personalized approach to blood pressure reduction.