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We study the transformation that maps the h-vector of a standard graded algebra to that of its  $r$ -th Veronese subalgebra. We give an explicit combinatorial description of this transformation, and show that, if  $r$  is sufficiently large, then it maps nonnegative vectors to vectors whose generating polynomial has only real zeros. As consequences of these results we obtain that, if  $r$  is sufficiently large, then the numerator polynomial of the Hilbert series of the  $r$ -th Veronese subalgebra of a standard graded algebra, and the generating polynomial of the  $f$ -vector of the  $r$ -th edgewise subdivision of a simplicial complex, have only real zeros and are therefore log-concave and unimodal, and the h-vector of the  $r$ -th Veronese subalgebra of a Cohen-Macaulay standard graded algebra is componentwise monotonically increasing with  $r$ . This is joint work with V. Welker. (Received February 10, 2009)