

A Review of the Antiviral Properties of Black Elder (*Sambucus Nigra* L.) Products

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Abstract

Black elder (*Sambucus nigra* L.) has a long ethnobotanical history across many disparate cultures as a treatment for viral infection and is currently one of the most-used medicinal plants worldwide. Until recently, however, substantial scientific research concerning its antiviral properties has been lacking. Here, we evaluate the state of current scientific research concerning the use of elderberry extract and related products as antivirals, particularly in the treatment of influenza, as well as their safety and health impacts as dietary supplements. While the extent of black elder's antiviral effects are not well known, antiviral and antimicrobial properties have been demonstrated in these extracts, and the safety of black elder is reflected by the United States Food and Drug Administration approval as generally recognized as safe. A deficit of studies comparing these *S. nigra* products and standard antiviral medications makes informed and detailed recommendations for use of *S. nigra* extracts in medical applications currently impractical. Copyright © 2017 John Wiley & Sons, Ltd.

Keywords: *Sambucus nigra*; antiviral; black elder; elderberry; influenza; review.

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