

Resveratrol and Green Tea May Prevent Skin Disorders

MONTREAL—Red wine's benefits are not only showing up in heart health but they're making their way to the epidermis. Reseveratrol, found in red wine; and epigallocatechin gallate (EGCG), a polyphenol found in green tea, may work synergistically to prevent skin disorders associated with aging, according to a recent French study (*PLoS One. 2010;23;5(9)*).

Using human skin tissue, researchers reported the presence of specific [(3)H]-resveratrol binding sites that are mainly located in the epidermis. Exposure of HaCaT cells to the nitric oxide free radical donor sodium nitroprusside (SNP) resulted in cell death which was reduced by resveratrol (EC(50)=14.7 μ M), and to a much lesser extent by the resveratrol analogue piceatannol (EC(50) =95 μ M) and EGCG (EC(50)=200 μ M).

"The protective action of resveratrol likely relates to its anti-apoptotic effect since at the same range of concentration it was able to reduce both the number of apoptotic cells as well as mitochondrial apoptotic events triggered by SNP," the researchers said. The results suggest resveratrol, by acting on specific polyphenol binding sites in epidermis, may be useful to prevent skin disorders associated with aging.