

## Tea Extracts Help Treat Damaged Skin In Cancer Patients

ScienceDaily (Dec. 1, 2006) — Tea extracts work as an effective treatment for patients who suffer from damaged skin following radiation treatment for cancer. Researchers show that this might partly be due to the anti-inflammatory properties of tea.

In a study published in the open access journal BMC Medicine, researchers show that tea acts at the cellular level, by inhibiting inflammatory pathways, to reduce inflammation. They also show that tea extracts reduce the duration of radiation-induced skin damage by up to 10 days in patients who received radiation treatment.

Frank Pajonk, from the University of California in Los Angeles, USA, and colleagues from the University of Freiburg, Germany, studied the effects of green tea and black tea extracts on patients who had been treated with radiotherapy, which can damage the skin. The authors then analysed the effects of the same tea extracts on human and mouse white blood cells in culture.

Pajonk et al. find that tea extracts reduce the duration of skin toxicity following radiotherapy by 5 to 10 days. Green tea extracts are more effective than black tea extracts in some patients. Pajonk et al. also show that tea extracts reduce the release of pro-inflammatory cytokines, such as IL-1beta, IL-6, IL-8, TNFalpha and PGE2, in human white blood cells in culture, with green tea having higher anti-inflammatory properties than black tea. Both black tea and green tea inhibit one major inflammatory pathway in mouse white blood cells.

Pajonk et al. add that tea's high content of polyphenols is likely to be responsible for its high anti-inflammatory activity, but that other pathways are probably involved in its clinical effectiveness.

*Adapted from materials provided by [BioMed Central](#), via [EurekAlert!](#), a service of AAAS.*

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