

Green tea extract may fight HIV

Green tea could form the basis of a new generation of HIV drugs, say experts.

Scientists in Japan have found a component of green tea can stop HIV from binding to healthy immune cells, which is how the virus spreads.

Their laboratory tests suggest a chemical called Epigallocatechin Gallate (EGCG) protects cells.

Writing in the *Journal of Allergy and Clinical Immunology*, the scientists said the discovery could lead to new treatments to fight the disease.

Key chemicals

Green tea is made up of a class of chemicals called catechins, the most abundant of which is EGCG.

It is believed that EGCG is responsible for green tea's health benefits. Previous studies have suggested it can protect against a range of diseases, including cancer and heart disease.

A drug form of EGCG for HIV infection might be a further development of these investigations

Dr William Shearer,
Baylor College of Medicine

Dr Kuzushige Kawai and colleagues at the University of Tokyo carried out tests to see if the chemical could help beat HIV.

They found that EGCG stopped the virus from binding to CD4 molecules and human T cells.

These are vital parts of the body's immune system. Usually HIV is able to sneak inside these cells and wipe them out.

The scientists said further research is needed to see if EGCG could be used in new anti-HIV drugs.

They said simply drinking green tea would not offer people protection from the virus.

The concentration of EGCG used in the laboratory tests are many times over the blood concentration that could be achieved by just drinking green tea.

But in an accompanying editorial, Dr William Shearer from Baylor College of Medicine in Houston, Texas, welcomed the findings.

"Molecular modelling of a drug form of EGCG for HIV infection might be a further development of

these investigations," he said.

Previous studies have also indicated this chemical may have a role to play in fighting HIV.

However, much further research is needed before the laboratory findings will lead to drugs for patients with HIV.

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