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**BBC**

**Newcastle team claims green tea cuts dementia risk**

**Word Count = 306 (round to 310)**

**Sentence Count = 15 (including title)**

Regularly drinking green tea could protect the brain against Alzheimer's and other forms of dementia, according to scientists at Newcastle University.

The study showed chemicals created when the tea is digested help prevent the degeneration of brain cells.

Similar research has hinted the beverage could also help protect against some forms of cancer.

The Alzheimer's Research Trust said diet and lifestyle were important in assessing the risks of the disease.

The study is published in the academic journal Phytomedicine.

'Diet and lifestyle'

Project leader Dr Ed Okello, from the university's School of Agriculture, Food and Rural Development, said: "We found when green tea is digested, the resulting chemicals are actually more effective against key triggers of Alzheimer's development than the undigested form of the tea.

"In addition, we also found the digested compounds had anti-cancer properties, significantly slowing down the growth of tumour cells we were using in our experiments."

Lab experiments used tumour cell which were exposed to varying concentrations of different toxins as well as digested green tea compounds.

The digested chemicals protected the cells, preventing the toxins from destroying them, according to the team.

Dr Okello added: "There are many factors which have an influence on diseases such as cancer and dementia like a good diet, plenty of exercise and a healthy lifestyle.

"But I think it's fair to say that at least one cup of green tea every day may be good for you and I would certainly recommend it."

Rebecca Wood, chief executive of the charity Alzheimer's Research Trust, said: "These results are at a very early stage, so we can't make the leap of assuming that green tea can protect people from dementia.

"Diet and lifestyle almost certainly plays a part in every person's Alzheimer's risk."

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| Daily Record  January 6, 2011, Thursday  DAILY CUPPA THAT STOPS CANCER;  GREEN TEA ALSO HALTS DEMENTIA  **BYLINE:** Jeremy Armstrong  **SECTION:** NEWS; Pg. 20  **LENGTH:** 196 words  GREEN tea can protect against dementia and cancer, scientists have discovered.  Regularly drinking freshly brewed cups of the ancient Chinese remedy is effective against the "key triggers" of some diseases, they found.  The tea's ingredients were shown to have "anti -cancer" properties, which slowed the growth of tumour cells in experiments at Newcastle University.  They were also effective on Alzheimer's disease and other causes of dementia, the study in the journal Phytomedicine said.  More than one million are expected to suffer from dementia in Britain by 2020 - and there is no known cure.  Dr Ed Okello's team used a "dummy" digestive system developed at the Scottish Crop Research Institute in Dundee to reproduce the impact of tea being absorbed into the body.  They now want to identify compounds for use in medicines.  Dr Okello said: "If drinking tea every day can help, perhaps we should all increase our consumption."  Two compounds are known to play a role in the development of Alzheimer's - hydrogen peroxide and a protein called beta-amyloid.  Earlier studies show compounds called polyphenols, present in black and green tea, bind with toxic chemicals to protect brain cells.   |  | | --- | | http://www.lexisnexis.com/uk/nexis/images/s.gif | | http://www.lexisnexis.com/uk/nexis/images/s.gif | |

**SUBJECT:** DEMENTIA (91%); DISEASES & DISORDERS (90%); CANCER (90%); CENTRAL NERVOUS SYSTEM DRUGS (90%); RESEARCH (90%); SCIENCE & TECHNOLOGY (90%); ALZHEIMER'S DISEASE (90%); SCIENCE NEWS (90%); TEA (90%); HERBAL MEDICINE (79%); CROP RESEARCH (78%); CANCER DRUGS (78%); BRAIN (73%); RESEARCH INSTITUTES (73%); AMINO ACIDS PEPTIDES & PROTEINS (70%); TOXIC & HAZARDOUS SUBSTANCES (50%)  
  
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* [The Guardian](http://www.guardian.co.uk/theguardian), Thursday 6 January 2011

**Green tea could help ward off dementia, scientists show**

Chemicals produced during digestion may protect brain against Alzheimer's and cancer, say Newcastle University researchers



Regularly drinking green tea could protect the brain against forms of [dementia](http://www.guardian.co.uk/society/dementia) including Alzheimer's, a study published today shows.

It could also play a vital role in protecting the body against [cancer](http://www.guardian.co.uk/society/cancer), the study in the journal Phytomedicine suggests.

Led by Ed Okello, the [Newcastle](http://www.guardian.co.uk/uk/newcastle) University team wanted to know if the protective properties known to be present in the freshly brewed form are still active once the tea has been digested.

Dr Okello, from the university's School of Agriculture, Food and Rural Development, said: "What was really exciting about this study was that we found when green tea is digested by enzymes in the gut, the resulting chemicals are actually more effective against key triggers of Alzheimer's development than the undigested form of the tea.

"In addition to this, we also found the digested compounds had anti-cancer properties, significantly slowing down the growth of the tumour cells which we were using in our experiments."

Digestion is a vital process which provides our bodies with the nutrients we need to survive. But nutrients are not necessarily absorbed into the body once food is digested.

"It's one of the reasons why we have to be so careful when we make claims about the health benefits of various foods and supplements," Okello said.

"There are certain chemicals we know to be beneficial and we can identify foods which are rich in them but what happens during the digestion process is crucial to whether these foods are actually doing us any good."

As part of the research, the Newcastle team worked in collaboration with Dr Gordon McDougall of the Plant Products and Food Quality Group at the Scottish Crop Research Institute in Dundee, who developed technology which simulates the human digestive system.

Two compounds are known to play a significant role in the development of Alzheimer's disease: hydrogen peroxide and a protein known as beta-amyloid.

Previous studies have shown that compounds known as polyphenols, present in black and green tea, possess neuroprotective properties, binding with the toxic compounds and protecting the brain cells.

When ingested, the polyphenols are broken down to produce a mix of compounds and it was these the Newcastle team tested in their latest research.

Carrying out the experiments in the lab using a tumour cell model, they exposed the cells to varying concentrations of the different toxins and the digested green tea compounds.

Okello explained: "The digested chemicals protected the cells, preventing the toxins from destroying the cells.

We also saw them affecting the cancer cells, significantly slowing down their growth.

"Green tea has been used in traditional Chinese medicine for centuries and what we have here provides the scientific evidence why it may be effective against some of the key diseases we face today."

The next step is to discover whether the beneficial compounds are produced during digestion after healthy human volunteers consume tea polyphenols.

Okello said: "There are obviously many factors which together have an influence on diseases such as cancer and dementia – a good diet, plenty of exercise and a healthy lifestyle are all important.

But I think it's fair to say that at least one cup of green tea every day may be good for you and I would certainly recommend it."

The Mirror

January 6, 2011 Thursday   
Eire Edition

TEA CHEERS;   
GREEN LEAVES FIGHT DEMENTIA  
  
**BYLINE:** JEREMY ARMSTRONG  
  
**SECTION:** NEWS; Pg. 21  
  
**LENGTH:** Word count = 229 (round to 230)

Sentence count = 11 (including title)

DRINKING green tea does you bags of good - it can help protect against Alzheimer's, dementia and cancer.

Regular fresh cuppas of the ancient Chinese brew are effective against the "key triggers" of disease, say scientists.

The tea's ingredients were also shown to have proven "anti-cancer properties" which slowed the growth of tumours, a team at Newcastle University has found.

Using a dummy digestive system they checked the tea's properties once absorbed by the body.

The aim was to identify compounds for use in medicines to fight the onset of dementia.

It will affect more than one million people in Britain by 2020. Dr Ed Okello, who led the research, said: "What was really exciting about this study was that when green tea is digested, the resulting chemicals are actually more effective against key triggers of Alzheimer's than undigested.

"We also found the digested compounds had anti-cancer properties, significantly slowing down the growth of the tumour cells used in our experiments."

He said the key compounds in green tea had been used in Chinese herbal medicines for the past 5,000 years.

Dr Okello added: "Dementia is more common in the Western world than in China and Japan, yet we have nothing to treat it with.

"If drinking tea every day can help, we should look at increasing our consumption."