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## **Olive oil acid 'cuts cancer risk'**

**Scientists in Chicago say they have uncovered why a Mediterranean diet rich in olive oil seems to cut the risk of developing breast cancer.**

The key is an ingredient of olive oil called oleic acid, they say.

Northwestern University laboratory tests on breast cancer cells showed the acid sharply cut levels of a gene thought to trigger the disease.

Cancer charities said the study, in *Annals of Oncology*, was interesting, but more research was needed.

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**Professor Tim Key**

The researchers found that oleic acid cut levels of a gene called Her-2/neu, which occurs at high levels in over a fifth of breast cancer patients and is associated with highly aggressive tumours with a poor prognosis.

Not only did oleic acid suppress activity of the gene, it also boosted the effectiveness of a breast cancer drug called herceptin, which has helped to prolong the lives of many patients.

Lead researcher Dr Javier Menendez said: "Our findings underpin epidemiological studies that show that the Mediterranean diet has significant protective effects against cancer, heart disease and ageing."

## Caution urged

Dr Menendez said it might be possible to delay or prevent herceptin resistance in breast cancer patients carrying high levels of the rogue gene by including olive oil in their diet.

However, he stressed that lab results did not always translate into clinical practice.

Professor Tim Key, deputy director of Cancer Research UK's epidemiology unit, in Oxford, said: "The only established diet-related risk factors for breast cancer are obesity and alcohol.

"Some previous studies among women have suggested that Mediterranean-style diets might be associated with a lower risk, but the data are not consistent and there is currently no strong direct evidence that olive oil can reduce breast cancer risk.

"This new research shows interesting effects of olive oil on breast cancer cells under laboratory conditions, but much more work will be needed to determine whether this is of any importance for breast cancer in women."

Antonia Bunnin, of the charity Breakthrough Breast Cancer, agreed that it was not yet clear which dietary factors influenced the chance of developing breast cancer.

"More research is needed but the potential of oleic acid to alter the expression of certain genes associated with aggressive tumours - and increase the effectiveness of herceptin - is interesting.

"We look forward to further research in this area."

<http://news.bbc.co.uk/2/low/health/4154269.stm>