

Malignant Mesothelioma and the Cancer-Fighting Power of Blue Green Algae (ENERGYbits®)

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A new study on **spirulina (ENERGYbits) and cancer** may have implications for people undergoing treatment for malignant pleural mesothelioma. A pair of Chinese food scientists say they have evidence that this blue-green algae may help the body fight malignancies.

Doctors Zhujun Wang and Xuewu Zhang of the South China University of Technology in Guangzhou isolated and tested compounds found in spirulina on five major types of cancer, including lung cancer, a cancer with some similarities to [malignant mesothelioma](#).

Breaking Down Blue-Green Algae (ENERGYbits/SKINNYbits)

Spirulina is a cyanobacterium or blue-green algae that is cultivated as a dietary supplement and as a whole food. It is rich in plant proteins and contains other vitamins and minerals.

To test whether spirulina has the potential to help in the treatment of cancers such as [pleural mesothelioma](#), the researchers started by extracting the whole proteins through a process called hydrolysis.

The proteins were then broken down into individual **polypeptides**, the building blocks of proteins, and each polypeptide was tested on five types of cancer cells, including liver, colon, gastric, breast and lung.

Although mesothelioma tumor cells were not among the cells tested, the impact that spirulina proteins had on other cancers (especially lung cancer) suggests that they may have the potential to impact [mesothelioma survival](#), too.

Spirulina in Mesothelioma Treatment?

The scientists isolated 15 polypeptides in spirulina that had “**anti-proliferative**” activities on cancer cells. This means that the compounds slowed down the cells’ ability to divide and spread.

But perhaps most encouraging for mesothelioma patients is the fact that the team also isolated an **entirely new peptide** which showed its best inhibitory effect against the lung cancer cells.

While mesothelioma is not the same as lung cancer, it is considered a lung-related cancer. In the past, certain treatments used to fight lung cancer have also been shown to help improve mesothelioma outcomes.

Implications for Mesothelioma Patients

The Chinese study does not make dietary recommendations for people with mesothelioma or any other type of cancer.

However, the study does suggest that compounds found in spirulina may prove to be **valuable additions** to both food and medicine.

“These polypeptides exhibited anti-proliferation activities on cancer cells, and low toxicity or stimulatory activity on normal cells, suggesting that they are promising ingredients in food and pharmaceutical applications,” states the report in a recent issue of *Food and Function*.

Mesothelioma patients are advised not to make changes to their diets without first talking with their oncologist.

Source:

Wang, Z and Zhang, X, “Inhibitory effects of small molecular peptides from spirulina (arthrospira) platensis on cancer cell growth”, November 19, 2015, Epub ahead of print

Summary



Article Name

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Description

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