Lung Cancer 'Link to Lack of Sun'

BBC News

Lack of sunlight may increase the risk of lung cancer, a study suggests.
Researchers found lung cancer rates were highest in countries furthest from the equator, where exposure to sunlight is lowest.

It is thought vitamin D - generated by exposure to sunlight - can halt tumour growth by promoting the factors responsible for cell death in the body.

The University of California, San Diego study appears in the Journal of Epidemiology and Community Health.

Experts warn that exposure to sunlight is still the major cause of skin cancer - a disease which is on the increase around the world.

Lung cancer kills more than one million people every year around the globe.
The researchers examined data from 111 countries across several continents.

Cell glue
They found smoking was most strongly associated with lung cancer rates - accounting for up to 85% of all cases.

But exposure to sunlight, especially UVB light, the principal source of vitamin D for the body, also seemed to have an impact.

The amount of UVB light increases with proximity to the equator. The analysis showed lung cancer rates were highest in those countries furthest away from the equator and lowest in those nearest.

Higher cloud cover and airborne aerosol levels were also associated with higher rates of the disease.

Lead researcher Dr Cedric Garland said lung cancer, in common with many other forms of the disease, usually began in the epithelial cells that line the surface of the tissues in the organ.

Cancer results when cells start to divide in an uncontrolled fashion.
He said vitamin D stimulated the release of chemicals which, in combination with calcium, formed a glue-like substance which bind these cells tightly together, and put a brake on their division.

There was also evidence that vitamin D may also slow the progress of cancer once it develops.

Skin cancer risk
Dr Garland also stressed that moderate exposure to sunlight did not significantly raise the risk of the most serious form of skin cancer, melanoma.

He said the only form of skin cancer that was related to ordinary, moderate exposure to sunlight was squamous cell carcinoma, which killed far fewer people than lung cancer, and other forms of the disease which might also be prevented by moderate exposure to the sun.

Moderate exposure would be five to 15 minutes per day within two hours of midday, on mainly clear days, when season and temperature allow, with 40% of skin area exposed. A hat with a wide brim should be worn when in the sun for more than a few minutes, but sunscreen should be skipped during this period, as it prevents vitamin D synthesis.

Dr Kat Arney, of the charity Cancer Research UK, stressed that smoking was by far the biggest cause of lung cancer.

She said: "There is growing evidence that vitamin D could help to reduce the risk of some cancers, such as bowel cancer, but the link between vitamin D and lung cancer is still unclear.

"In this case, the researchers have not actually measured people's vitamin D levels, and there may be several other factors that need to be taken into account.

"These include differences in sun protection behavior in various countries, as well as differences in the way that cancer cases are registered.

"We know that vitamin D is essential for good health, but the time in the sun needed to get enough vitamin D is much less than the time it takes to tan or burn."