

## Smoking one pack of cigarettes each day can cause 150 DNA mutations in single year

Smoking a pack of cigarettes a day causes an average of 150 mutations a year in lung cells, according to a new study that identifies specific ways smoke exposure damages DNA.

The research...analyzes and compares tumors, providing the first accurate measure of the devastating genetic damage smoking inflicts not only in lungs but also in other organs not directly exposed to smoke.

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Although [researchers] saw the largest number of genetic mutations in lung tissue, other parts of the body also displayed changes in DNA, helping explain how smoking causes various types of cancer.

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“Before now, we had a large body of epidemiological evidence linking smoking with cancer, but now we can actually observe and quantify the molecular changes in the DNA due to cigarette smoking,” [said Ludmil Alexandrov of the Los Alamos National Laboratory, one of the study’s main co-authors.]

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In other affected organs, the study shows smoking a pack a day causes an estimated average of 97 mutations in each cell of the larynx; 39 in the pharynx; 23 in the mouth; 18 in the bladder; and six mutations in every cell of the liver each year.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Smoking a pack a day causes 150 DNA mutations a year: study](#)**