

Scientists have identified more than 150 chemicals in marijuana smoke and tar. Marijuana smoke contains cancer-causing chemicals such as benzopyrene, which occurs 70 percent more in marijuana smoke than in tobacco smoke. Examinations of human lung tissue exposed to continuous marijuana smoke in laboratory testing show precancerous cellular change. In laboratory tests, the tars from marijuana smoke produce tumors when applied to animal skin. These studies suggest that prolonged marijuana use causes cancer. Through studies like these, scientists have learned that exposure to marijuana smoke interferes with the work of white blood cells. White blood cells in lung tissue remove debris from the lungs. When exposed to marijuana smoke, these cells cannot remove bacteria and other debris. Smoking marijuana significantly reduces lung functions. Marijuana users increase their chance of contracting respiratory problems such as laryngitis, pharyngitis, bronchitis, asthma-like conditions, cough, hoarseness, and dry throat. Narconon, Georgia- <http://www.atlantarecoverycenter.com/Marijuana.htm>

Marijuana increases the heart rate and decreases blood pressure. Frequently, users report an abnormally low blood pressure while standing. Individuals with angina and other cardiovascular problems increase the danger of heart attacks when they smoke marijuana. Like tobacco smoke, marijuana smoke binds with hemoglobin decreasing the oxygen flow to the body. This causes a marijuana smoker to become breathless from exertion. This also increases the risk of heart attack. Narconon, Georgia- <http://www.atlantarecoverycenter.com/Marijuana.htm>

When a person inhales marijuana smoke into the lungs, THC enters the blood stream rapidly through metabolism and through tissue absorption. THC reaches the brain rapidly within as little as 14 seconds after inhalation. THC binds to proteins in the blood and remains stored in the body fat tissues. Narconon, Georgia- <http://www.atlantarecoverycenter.com/Marijuana.htm>

Also, marijuana smoke contains 50 percent to 70 percent more carcinogenic hydrocarbons than tobacco smoke does and has the potential to cause cancer of the lungs and respiratory tract. Marijuana smoke is commonly inhaled deeper and held longer than is tobacco smoke, increasing the lungs' exposure to carcinogens. Aug. 25, 2006 - [Mayo Clinic](#)

With regard to the carcinogenic potential of marijuana, it is noteworthy that the tar phase of marijuana smoke contains many of the same carcinogenic compounds contained in tobacco smoke, including polycyclic aromatic hydrocarbons, such as benz[a]pyrene, which was recently identified as a key factor promoting human lung cancer. [...] Preliminary findings suggest that marijuana smoke activates cytochrome P4501A1, the enzyme that converts polycyclic hydrocarbons, such as benz[a]pyrene, into active carcinogens. Mar. 1997 - [Donald P. Tashkin, MD](#)

### **Polycyclic Aromatic Hydrocarbons**

- **Tar** - a mixture of dangerous chemicals
- **Arsenic** - used in wood preservatives
- **Benzene** - an industrial solvent, refined from crude oil
- **Cadmium** - used in batteries
- **Formaldehyde** - used in mortuaries and paint manufacturing
- **Polonium-210** - a highly radioactive element
- **Chromium** - used to manufacture dye, paints and alloys
- **1,3-Butadiene** - used in rubber manufacturing
- **Polycyclic aromatic hydrocarbons** - a group of dangerous DNA-damaging chemicals
- **Nitrosamines** - another group of DNA-damaging chemicals
- **Acrolein** - formerly used as a chemical weapon
- **Hydrazine** - a very toxic chemical used mainly in rocket fuel