

What's in Your Tobacco?



Tobacco is grown and cured in a variety of ways. Then it is blended to achieve different taste and strength characteristics, depending on the product. Most tobacco is sold in the form of cigarettes. American cigarettes are blended from two of three types of tobacco: Virginia and Burley. Virginia tobacco is grown in many parts of the world, including the State of Virginia. Burley tobacco, a harsher tobacco that is sun- and sugar-cured, is grown in Maryland and Kentucky and in other parts of the world. The tobacco leaf itself starts out with more than just nicotine; it also contains nicotianine, and tobacco acid, plus mineral acids, which can comprise up to 27% of the leaf's chemical content. Those mineral acids include hydrochloric, sulphuric, phosphoric, citric, acetic, oxalic, pectic, and ulmic acids.

Smoked and smokeless tobaccos have different levels of nicotine, free nicotine, and other carcinogens. The actual nicotine content in tobacco varies from 0.2% to 5%. Since nicotine is addictive, this can be manipulated in the growing and curing process to increase the amount of nicotine in any form of tobacco product.

And Then There Are the Additives...

Depending on how the tobacco will be used, additives are involved. Additives are put into the tobacco and into the paper wrapped around it, if the tobacco is to be smoked as cigarette. Additives include such things as flavoring (for instance, menthol for cigarettes and cherry or honey for pipe or smokeless tobaccos). Glycerol is added to prevent the tobacco from crumbling. Salts are added to smoking tobacco to make it burn more evenly. Some additives are used to increase the shelf life of the product. The U.S Government approves 599 additives for use in cigarette manufacture alone, and tobacco companies confirm this. However, these ingredients are approved as additives for food. The burning of many of these substances actually changes their properties into deadly poisons.

Since the manufacture and sale of tobacco products is not regulated by the Food and Drug Administration, tobacco companies do not have to release the exact ingredients of their products. However, research on the chemical content of smoke released from burning tobacco indicates that over 4,000 chemical compounds are released in cigarette smoke, and 60 of these are known carcinogens. Although pipe and cigar smokers don't usually inhale, side-stream (the smoke that wreathes around the smoker and others) carries many of these same carcinogens, so exposure is almost as deadly.

44 Toxic or Carcinogenic Substances Found in Tobacco Smoke

- ammonia
- carbon monoxide
- nicotine
- nitric oxide
- hydrogen cyanide
- mercury
- tar
- toxic trace metals such as nickel, lead, cadmium, chromium, arsenic, and selenium
- tobacco-specific nitrosamines
- aromatic amines
- benzo-a-pyrene
- volatile carbonyls like formaldehyde and methyl-ethyl-ketone
- 10 selected basic semi-volatiles, such as pyridine and quinoline
- 11 phenolic compounds
- 13 selected volatiles like toluene and styrene

(Source: http://www.netdoctor.co.uk/smoking/chemicalfactory_00508.htm)

What's in Your Tobacco?, cont.

Some of those chemical names are familiar—and what are they doing there? Ammonia? Ammonia is found naturally in cured tobacco products, but there is some evidence that ammonia is added to tobacco because its presence adds to the “buzz” caused by nicotine. Carbon monoxide is particularly deadly, attacking the blood’s capacity to carry oxygen throughout the body. Cyanide? Mercury? Arsenic? Lead? Nickel? Oh, yes. Tar. Well, we’ve heard of that. Cigarette companies usually put the nicotine and tar levels on their products. Tar is also deadly. It is the sticky brown substance that turns lungs from pink to black and literally destroys the cilia (hair-like fibers) in the lungs that help keep the lungs clean of pollutants. The others? All known carcinogens.

Other studies have released information on a radioactive isotope present in tobacco smoke called Polonium 110, a substance similar to lead. Ongoing studies indicate that long-term exposure to this radioactive carcinogen through smoking or secondhand smoke can lead to lung cancer.

It's All Pretty Scary

Few smokers know of these studies revealing tobacco smoke’s harmful chemicals, and many who do keep on smoking. Some continue to smoke even through major tobacco-related illnesses. The body chemistry is actually altered to accommodate as best as possible the constant intake of nicotine, tar, ammonia, carbon monoxide, cadmium, mercury, etc., and stopping smoking is painful physically and mentally. So, tobacco continues to be a lethal (and legal) drug, not just for its nicotine and tar but also for all the unpronounceable and unmentioned additives and chemical compounds.

For more information on the chemical content of tobacco, please visit:

<http://healthfully.org/tobacco/id5.html>

<http://quitsmoking.about.com/cs/nicotineihaler/a/cigingredients.htm>

http://www.netdoctor.co.uk/smoking/chemicalfactory_00508.htm