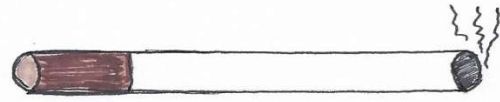


## 1. The Harmful Effects of Tobacco Use

### A. Did you know that . . .?

- Cigarettes have more than 600 ingredients; when burned, they create more than 7,000 chemicals, 69 of which are known to cause cancer and many are poisonous!
- Smoking causes one in five deaths (nearly 500,000/year) in the U.S.
- Smoking deaths per year are more than the combined causes from HIV/AIDS, illegal drugs, alcohol use, motor vehicle injuries and firearm-related injuries.
- Second-hand smoke causes over 40,000 deaths annually in the U.S.

### Tobacco smoke contains harmful chemicals!



**Methanol** - in rocket fuel  
**Nicotine** - an insecticide  
**Radon** - a radioactive gas  
**Methane** - a sewer gas  
**Arsenic** - in rat poison  
**Butane** - in lighter fluid  
**Cadmium** - in batteries  
**DDT** - banned insecticide

**Formaldehyde** - embalming fluid  
**Carbon Monoxide** - in car exhaust  
**Benzene** - in car exhaust fumes  
**Toluene** - an industrial solvent  
**Hydrogen cyanide** - a poison  
**Ammonia** - a cleaning agent  
**Acetone** - in paint stripper  
**Hexamine** - in lighter fluid

*These are just a few of the harmful chemicals in tobacco smoke!*

Drawing courtesy of Teresa E Johnson, DDS

### B. General Health Effects & Risks of Smoking

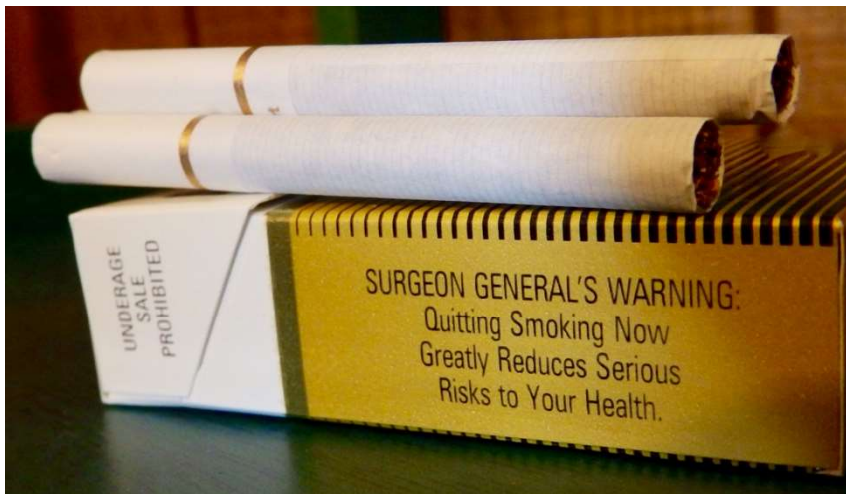


Photo courtesy of Teresa E Johnson, DDS

**Cancers of the:** *mouth and throat, esophagus, trachea, bronchus, lung, liver, stomach, pancreas, kidney and ureter, bladder, colon, rectum, cervix, and acute myeloid leukemia.*

**Chronic Diseases such as:** *periodontal disease, stroke, blindness, cataracts, coronary heart disease, aortic aneurysm, peripheral vascular disease, pneumonia, asthma, bronchitis, emphysema, hip fracture, and reproductive effects in women, including reduced fertility.*

**Diseases Caused by Second-Hand Smoke:** Sudden Infant Death Syndrome (SIDS), respiratory symptoms, impaired lung function, lower respiratory illness, lung cancer, coronary heart disease, low birth weight, nasal irritation, middle ear disease.

Information in sections 1A,B & C from: CDC Fact Sheet – *Health Effects of Cigarette Smoking*; and the U. S. Department of Health & Human Services. *The health consequences of smoking: a report of the Surgeon General, 2014*; and *The health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General, 2006*.

### Additional Health Effects

- Premature Death
- Type 2 Diabetes Mellitus
- Decreased Immune Function
- Delayed wound healing
- Decreased bone health, weaker
- Rheumatoid arthritis
- Premature hair loss and graying
- Premature skin wrinkles
- Body odor
- Taste & smell disturbances and alterations
- High blood pressure
- Coughing, shortness of breath, increased mucous production
- Men: Erectile dysfunction, reduced sperm count, abnormal sperm cells, increased risk of birth defects
- Women: Increased risk of pregnancy complications such as preterm delivery, low birth-weight, stillbirth, SIDS

## C. Oral (Mouth) Adverse Consequences & Risks of Smoking and Chewing Tobacco

### Effects to Teeth & Gums

- Brown staining of teeth
- Inflamed gums (gingivitis)
- Receding gums (exposing roots)
- Periodontal disease and loose teeth, premature tooth loss
- Tooth decay, premature tooth loss



Gingivitis & Periodontal Disease  
Receding Gums & Staining

### Cancer & Pre-Cancer Conditions

- Cancers of the lip, tongue, floor of mouth, gums, other mouth areas
- Thickening of the soft tissues = white patches “leukoplakia” or “hyperkeratosis,” both potentially pre-cancerous changes



Cancer on the Ridge & Floor of Mouth



Cancer of the Gums



Cancer of the Lip



Gingivitis & Periodontal Disease  
Receding Gums & Staining



Nicotine Stomatitis – Palate



Delayed Healing



Black Hairy Tongue

Photos courtesy of Teresa E Johnson, DDS

## 2. The Great Benefits of Quitting Tobacco Use!

### Short Term Benefits of Quitting

- **Within 20 Minutes:** blood pressure lowers, heartbeat stabilizes, and hands & feet temperature return to normal
- **Within 8 Hours:** blood levels of carbon monoxide and oxygen return to normal, and mucus begins to clear in the lungs
- **Within 24 Hours:** risk of a heart attack decreases
- **Within 48 Hours:** improved sense of taste and smell, and nerve endings begin to repair
- **Within 3 Months:** improved circulation, breathing & immune system; and walking and physical activity become easier to do.

### Long Term Benefits of Quitting

- **Within 1 Year:** risk of coronary heart disease is halved to that of a smoker; coughing, fatigue and shortness of breath decrease; better able to handle mucus
- **Within 5 Years:** risk of stroke reduced to that of someone who never smoked
- **Within 10 Years:** lung cancer risk decreases to half that of a current smoker; decreased risk of mouth, throat, esophagus, bladder, kidney and pancreas problems/cancers
- **Within 15 years:** risk of coronary heart disease and risk of death becomes similar to someone who has never smoked

### Overall Rewards & Benefits of Quitting

- Improved Health & Sense of Well-being
- Feel better physically, and about oneself; improved self-esteem
- Perform better in physical activities and on the job (work) and at home
- Food tastes better (improved taste, smell)
- Improved appearance (such as reduced wrinkling/aging of skin, whiter teeth)
- Have healthier babies and children
- Set a good example for children, lessening their likelihood of beginning tobacco use
- Home, car, clothing, & self smell better
- Save significant money
- No inconvenience in finding a place to smoke (at work, out in public, at home)

Information in section 2 from: CDC's Fact Sheet - *Health Effects of Cigarette Smoking; and Everyday Health – Benefits of Quitting Smoking*, <http://www.everydayhealth.com/quit-smoking/guide/benefits>