Effects of Tobacco

All Systems
• Smoking is the leading cause of death. Period. Smoking kills more than twice the total number killed by AIDS, alcohol, motor vehicles, homicide, illegal drugs, and suicide combined.
• Over 4000 chemicals, 42 of which are known carcinogens (including arsenic, lead, cobalt, cadmium, formaldehyde, cyanide, ammonia bromide (a toilet cleaner), and DDT)
• Nicotine is a class I insecticide
• Reduces lifespan of smokers an average of 14 years.
• 1 of 3 smokers will die as a direct result of smoking. All smokers will suffer reduced health and life quality.
• Smoking can kill you in 24 different ways….it’s not just the lungs that are affected.
• 400,000 smokers die each year in the US. An additional 38,000 to 68,000 die from secondhand smoke each year. Over 6 million US children under 18 today will die from smoking.
• Oxidation throughout the body: smoking increases number of circulating oxidants (which kills cells and alters genetic material, likely causing cancer), and thus increases the body’s consumption of antioxidants (A,C,E). To make matters worse, smoking blocks nutrient absorption of C and E (the very antioxidants the body needs). Thus, smoking causes oxidant levels to significantly outnumber antioxidant levels.

Nervous System
• Increases stress: a smokers post-cigarette ‘relaxed’ state is the same as a nonsmokers normal state. Smoking is not a relaxant.
• Addiction from altered dopamine receptors: the number and depth of dopamine receptors in the brain’s pleasure centers declines, thus reducing capacity for pleasure and forming an addictive neural pattern.
• Doubled risk for Alzheimers Disease and dementia
• Decrease sense of smell
• Hearing and vision loss, including cataracts.

Reproductive System
• Impotence: nicotine reduces nitric oxide (which is THE chemical responsible for erection), increases ET-1 (which causes vasoconstriction), thickens artery walls thru increased plaque production, and increases clot formation. Erection is all about blood supply. Marlboro man probably has blood clots in his penis. Smoking is the #1 physical cause of impotence, and increases the risk of it by 50%. If you don’t want erections, smoke (and drink).
• Decreased fertility rates: smoking reduces sperm count and motility in males and fertility rates for both males and females. Reduces likelihood of conception by 30%, not counting impotence issue.
• Premature menopause
• Breast cancer: 2x risk with 10 cig/day and 5x risk with 15 cig/day
• Reduced effectiveness of oral contraceptives (the pill)
• Effects on fetus include altered brain chemistry in regards to pleasure and pain regions (child will likely cry more), decreased oxygen supply, reduced development (lower body weight) due to decreased blood flow to placenta…. Increased risk of Sudden Infant Death Syndrome (SIDS), spontaneous abortions, stillbirths, cleft palettes and lips, respiratory disorders, leukemia, ADD, etc,

Endocrine System
• Reduces estrogen levels (thus increasing risk for osteoporosis and disrupting female cycle, including irregular periods and earlier menopause)
• Alters hormonal regulation of body weight and fat distribution
• Increases risk of several endocrine diseases, including diabetes, the symptoms of which are worsened by smoking
• Doubles risk of pancreatic cancer (80% death rate within 1 year)
• Arsenic in cigarettes is an endocrine disruptor.

Cardiovascular System
• Adverse Lipid Profile: Nicotine increases bad fats (LDL, cholesterol, triglycerides) and decreases good fats (HDL) in bloodstream, resulting in blood vessel narrowing and thus an increased risk for stroke, heart disease, and heart attack.
• Atherosclerosis: Nicotine and other cigarette chemicals cause plaques to form on blood vessel walls, reducing blood flow and elasticity. Just 30 minutes of exposure to 2nd-hand smoke reduces elasticity of coronary vessels in nonsmokers.
• Thrombosis: highly increased rate of clot formation. Sudden death is 4 times more likely to occur in a smoker than a nonsmoker for this reason.
• Blood vessel constriction: smoking decreases nitric oxide (which expands vessels) and increases ET-1 (which contracts vessels), thus constricting vessels. Consider: plaques plus clots plus constriction….
• Increased heart rate and BP: a heart that is working harder is a heart that tires faster. Increased pressure damages organs where blood is filtered (e.g. kidneys).
• Reduced oxygen carrying capacity of blood due to carbon monoxide adhering to hemoglobin
Respiratory System
• Bronchospasm: irritated airways tighten
• Increased Phlegm Production: Normally, mucus traps chemical and toxic substances, and the cilia, along with coughing, clears this mucus from the lungs. Tobacco paralyzes cilia and increases mucus production.
• Persistent Cough: In smokers, increased mucus production plus no help from cilia leaves coughing as the only means of clearing the lungs.
• Decreased Physical Performance: In smokers, bronchospasm plus increased phlegm production equals airway obstruction, which results in poor physical performance.
• Pneumonia: swelling of inner lining of lungs, resulting in accumulation of fluid deep in the lungs, much to the delight of common bacteria that smokers are already more susceptible to without cilia activity. Also Chronic Obstructive Pulmonary Disease (COPD), including emphysema and bronchitis.
• Lung cancer

Lymphatic / Immune System
• Otitis Media: second-hand smoke significantly interferes with normal clearing mechanism in middle ear (behind ear drum), resulting in infections and possible hearing loss. Common in children of smokers.
• Sinusitis: smoking paralyzes cilia that line the sinuses and keep it clean, resulting in swelling and infection, which leads to fever, sore throat, bad breath, running nose, etc.
• Rhinitis: paralysis of cilia in nose results in swelling and infection. Effects are immediate and long-lasting.
• Influenza: smokers have it more often, more severely, and for longer periods of time.

Skeletal System
• Increased risk for rheumatoid arthritis and osteoporosis. Reduced rate of healing of broken bones

Integumentary System
• Decreases skin elasticity (wrinkled skin), Hair loss, Gray hair

Muscular System
• Reduced Physical Performance due to decreased levels of blood, oxygen, and nutrients
• Increased Low Back Pain due to reduced fluid in Intervertebral discs

Digestive System
• Gastrointestinal Reflux Disease: Smokers secrete a less basic Base to neutralize stomach acid, thus the stomach is damaged by the acid. Additionally, the muscle between the stomach and esophagus doesn’t stay closed on smokers, resulting in more damage to the esophagus. Heartburn, acid regurgitation,
• Peptic ulcer disease: decreased protective mucus secretion in smokers combined with decreased (healing) blood supply in smokers results in painful ulcer (hole) development in the stomach.
• Cancer of esophagus and stomach
• Peridental disease: tooth and bone loss, decreased blood supply, and impaired immune response in smokers results in infections of the gums and mouth.
• Halitosis (bad breath)
• Decreased micronutrient absorption: Smoking interferes with absorption of nutrients, particularly Vit C, E, and folic acid.
• Increased risk for colon cancer

Urinary System
• Kidney Damage: increased BP damages kidney
• Smoking is #1 cause of bladder cancer

Smoking effects summary
• Cancer: Everywhere (research finds Lung, Colon, Stomach, Esophagus, Cervical (2x), Oral, Pharynx, Larynx, Pancreas (2x), Kidney, Bladder (#1), Breast (5x), Liver)
• Impotence, reduced sperm count and motility, reduced fertility, damage to fetus, decreased estrogen, early menopause, osteoporosis
• Oxidation and shortage of antioxidants
• Constricted, thickened, clotted arteries with reduced elasticity (thrombosis and atherosclerosis). Increased bad fats and reduced good fats in blood.
• Heart disease, heart attack, high blood pressure
• Emphysema, bronchitis, pneumonia, persistent cough, influenza, sinusitis, rhinitis, bronchospasm
• Ear infections, catarracts, loss of smell sense, decreased skin elasticity (wrinkles)
• Ulcers, reflux disease, heartburn, peridental disease, decreased micronutrient absorption, halitosis
• Reduced physical performance, reduced rate of healing, increased rate of injury, rheumatoid arthritis
• Alzheimers, addiction, stress, endocrine disruption
• 4000 chemicals including arsenic, cyanide, formaldehyde, lead, and DDT
• Reduced lifespan (14 years). 2nd hand smoke hurts others. Friends watch you die.