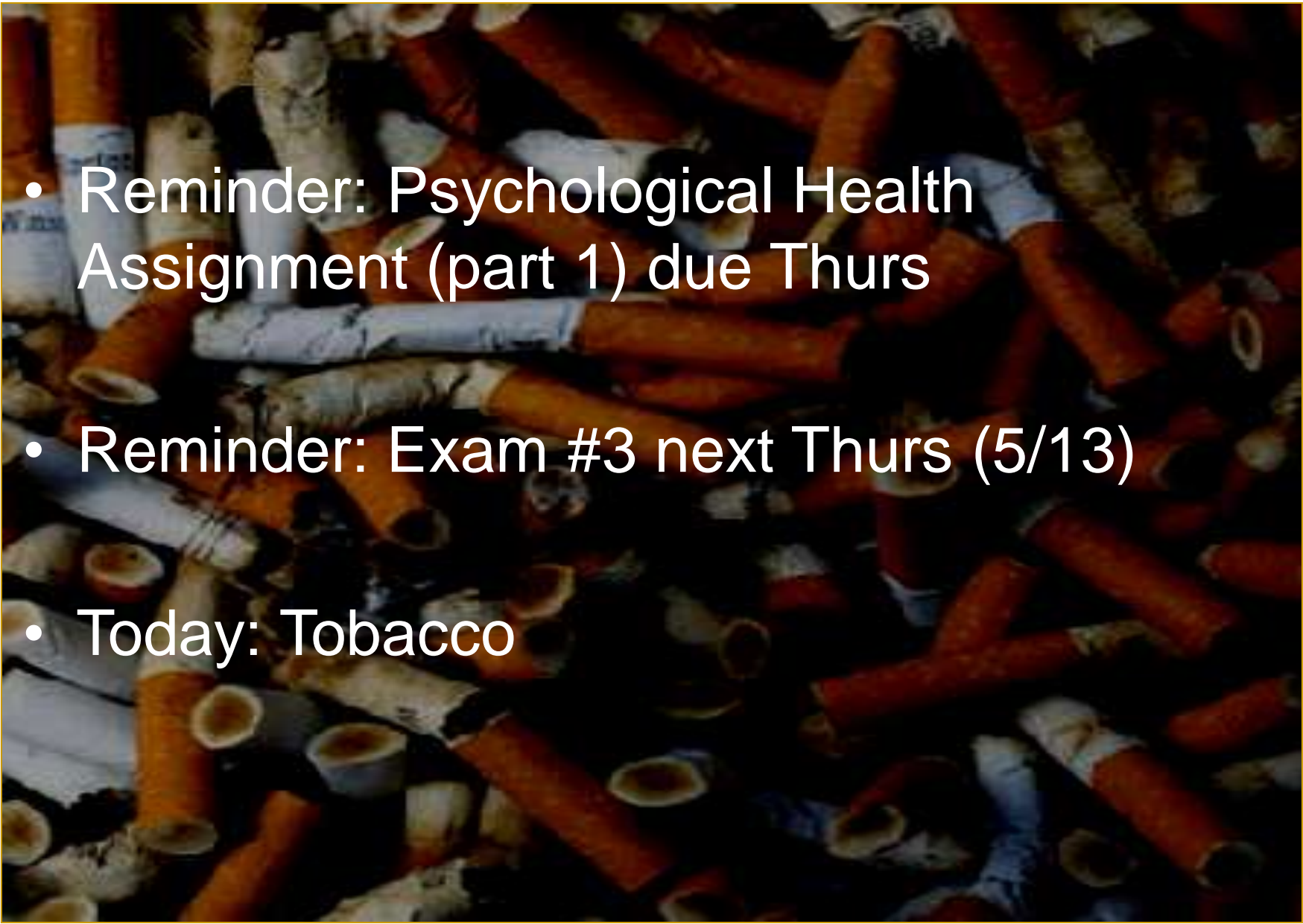


- 
- Reminder: Psychological Health Assignment (part 1) due Thurs
 - Reminder: Exam #3 next Thurs (5/13)
 - Today: Tobacco

Tobacco

- Processed from leaves of plant in genus *Nicotiana*
- Can be smoked, chewed, or sniffed

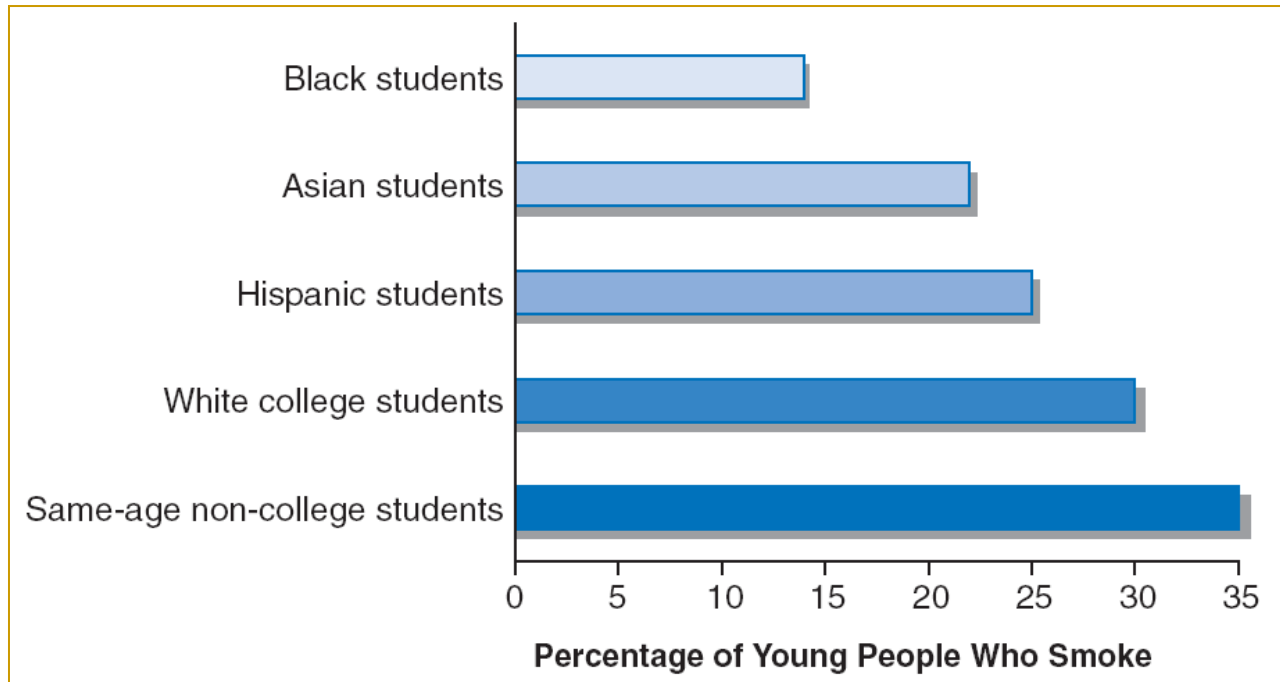


Smoking in the U.S.

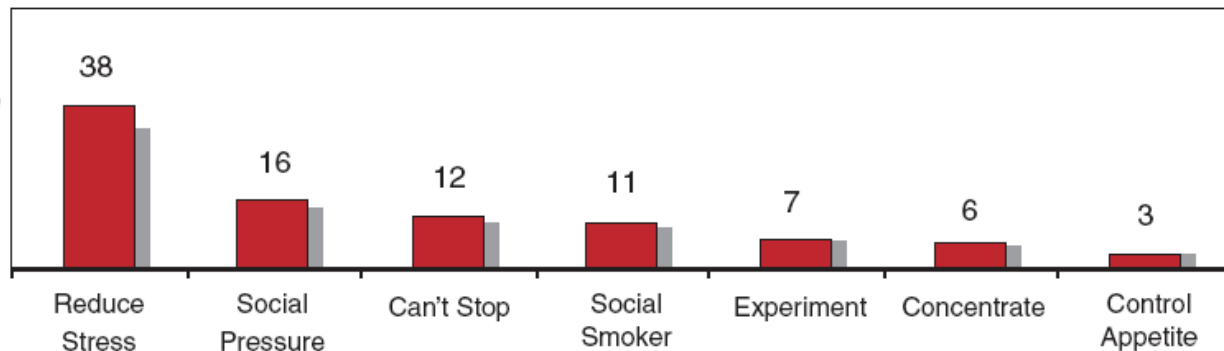
- ~20% of adults smoke (more men than women); numbers are falling
- ~20% of high school students and 6% of middle school student smoke; numbers are rising
- >90% of smokers start before age 23



Smoking on Campus



Why Students Say They Smoke (Percent)



RCC is a non-smoking campus!

- As of Fall 2009, no smoking is allowed on campus



How much does smoking cost?



Chemicals in Cigarettes

- Naturally in tobacco: nicotine, tar, carbon monoxide
- 599 chemicals approved for use in manufacture of cigarettes which can transform into >5,000 when burned



- Acetanisole
- Acetic Acid
- Acetoin
- Acetophenone
- 6-Acetoxydihydrotheaspirane
- 2-Acetyl-3- Ethylpyrazine
- 2-Acetyl-5-Methylfuran
- Acetylpyrazine
- 2-Acetylpyridine
- 3-Acetylpyridine
- 2-Acetylthiazole
- Aconitic Acid
- dl-Alanine
- Alfalfa Extract
- Allspice Extract,Oleoresin, and Oil
- Allyl Hexanoate
- Allyl Ionone
- Almond Bitter Oil
- Ambergriis Tincture
- Ammonia
- Ammonium Bicarbonate
- Ammonium Hydroxide
- Ammonium Phosphate Dibasic
- Ammonium Sulfide
- Amyl Alcohol
- Amyl Butyrate
- Amyl Formate
- Amyl Octanoate
- alpha-Amylcinnamaldehyde
- Amyris Oil
- trans-Anethole
- Angelica Root Extract, Oil and Seed Oil
- Anise
- Anise Star, Extract and Oils
- Anisyl Acetate
- Anisyl Alcohol
- Anisyl Formate
- Anisyl Phenylacetate
- Apple Juice Concentrate, Extract, and Skins
- Apricot Extract and Juice Concentrate
- 1-Arginine
- Asafetida Fluid Extract And Oil
- Ascorbic Acid
- 1-Asparagine Monohydrate
- 1-Aspartic Acid
- Balsam Peru and Oil
- Basil Oil
- Bay Leaf, Oil and Sweet Oil
- Beeswax White
- Beet Juice Concentrate
- Benzaldehyde
- Benzaldehyde Glyceryl Acetal
- Benzoic Acid, Benzoin
- Benzoin Resin
- Benzophenone
- Benzyl Alcohol
- Benzyl Benzoate
- Benzyl Butyrate
- Benzyl Cinnamate
- Benzyl Propionate
- Benzyl Salicylate
- Bergamot Oil
- Bisabolene
- Black Currant Buds Absolute
- Borneol
- Bornyl Acetate
- Buchu Leaf Oil
- 1,3-Butanediol
- 2,3-Butanedione
- 1-Butanol
- 2-Butanone
- 4(2-Butenylidene)-3,5,5-Trimethyl-2-Cyclohexen-1-One
- Butter, Butter Esters, and Butter Oil
- Butyl Acetate
- Butyl Butyrate
- Butyl Isovalerate
- Butyl Phenylacetate
- Butyl Undecylenate
- 3-Butylidenephthalide
- Butyric Acid]
- Cadinene
- Caffeine
- Calcium Carbonate
- Camphene
- Cananga Oil
- Capsicum Oleoresin
- Caramel Color
- Caraway Oil
- Carbon Dioxide
- Cardamom Oleoresin, Extract, Seed Oil, and Powder
- Carob Bean and Extract
- beta-Carotene
- Carrot Oil
- Carvacrol
- 4-Carvomenthenol
- 1-Carvone
- beta-Caryophyllene
- beta-Caryophyllene Oxide
- Cascarilla Oil and Bark Extract
- Cassia Bark Oil
- Cassie Absolute and Oil
- Castoreum Extract, Tincture and Absolute
- Cedar Leaf Oil
- Cedarwood Oil Terpenes and Virginiana
- Cedrol
- Celery Seed Extract, Solid, Oil, And Oleoresin
- Cellulose Fiber
- Chamomile Flower Oil And Extract
- Chicory Extract
- Chocolate
- Cinnamaldehyde
- Cinnamic Acid
- Cinnamon Leaf Oil, Bark Oil, and Extract
- Cinnamyl Acetate
- Cinnamyl Alcohol
- Cinnamyl Cinnamate
- Cinnamyl Isovalerate
- Cinnamyl Propionate
- Citral
- Citric Acid
- Citronella Oil
- dl-Citronellol
- Citronellyl Butyrate
- itronellyl Isobutyrate
- Civet Absolute
- Clary Oil
- Clover Tops, Red Solid Extract
- Cocoa
- Cocoa Shells, Extract, Distillate And Powder
- Coconut Oil
- Coffee
- Cognac White and Green Oil
- Copaiba Oil
- Coriander Extract and Oil
- Corn Oil
- Corn Silk
- Costus Root Oil
- Cubeb Oil
- Cuminaldehyde
- para-Cymene
- 1-Cysteine
- Dandelion Root Solid Extract
- Davana Oil
- 2-trans, 4-trans-Decadienal
- delta-Decalactone
- gamma-Decalactone
- Decanal
- Decanoic Acid
- 1-Decanol
- 2-Decenal
- Dehydromenthofuro lactone
- Diethyl Malonate
- Diethyl Sebacate
- 2,3-Diethylpyrazine
- Dihydro Anethole
- 5,7-Dihydro-2-Methylthieno(3,4-D) Pyrimidine
- Dill Seed Oil and Extract
- meta-Dimethoxybenzene
- para-Dimethoxybenzene
- 2,6-Dimethoxypheno
- lDimethyl Succinate
- 3,4-Dimethyl-
- 1,2 Cyclopentanedione
- 3,5- Dimethyl-
- 1,2-Cyclopentanedione
- 3,7-Dimethyl-1
- ,3,6-Octatriene
- 4,5-Dimethyl-3-Hydroxy-
- 2,5-Dihydrofuran-2-One6,
- 10-Dimethyl-5,9-Undecadien-2-One
- 3,7-Dimethyl-6-Octenoic Acid
- 2,4 Dimethylacetophenonealpha
- para-Dimethylbenzyl Alcoholalpha,
- alpha-Dimethylphenethyl Acetate

Immediate Effects of Nicotine

- Triggers release of neurotransmitters (eg. dopamine) and hormones (eg. adrenaline)

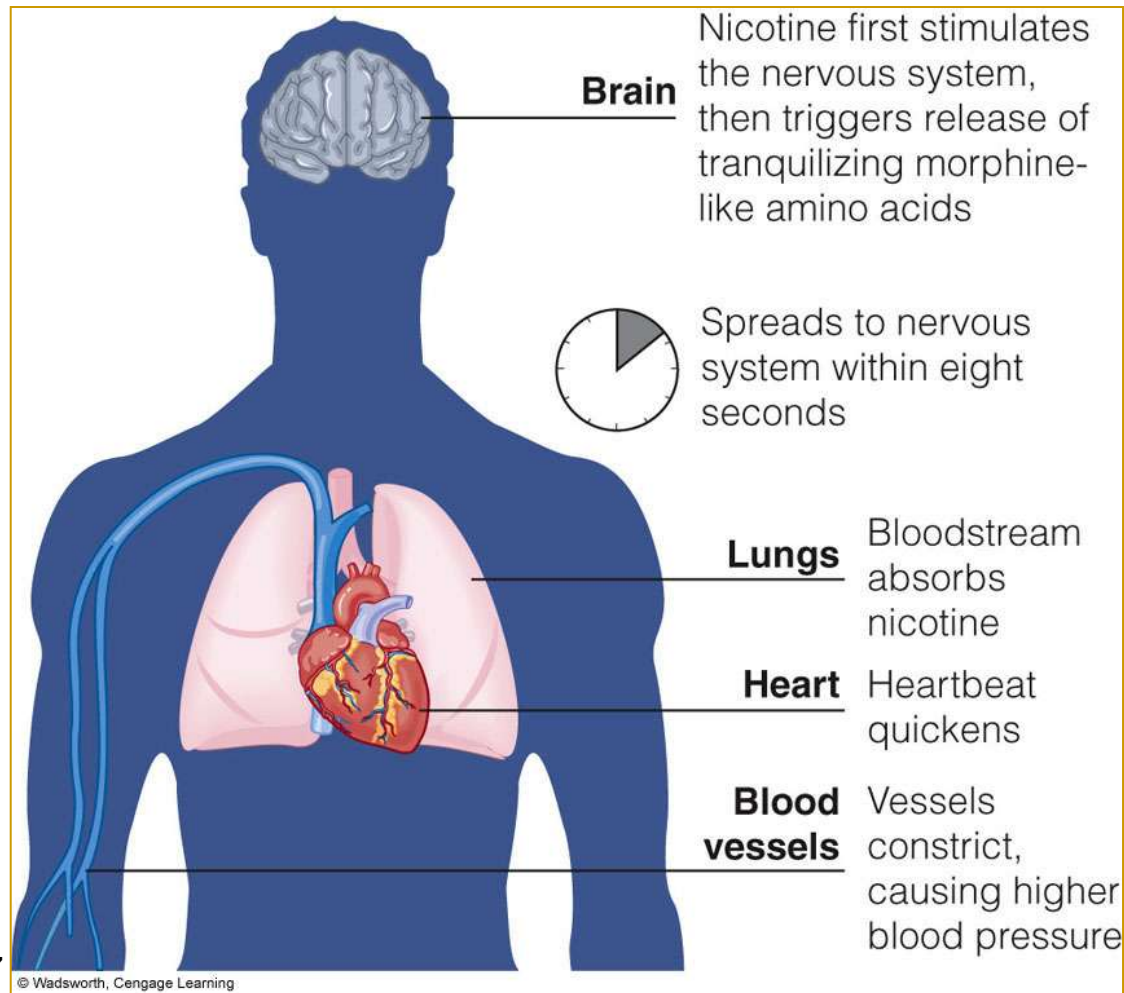


Fig 12.7, pg 357

Tobacco produces tar as it burns

- Made up of hundreds of chemicals – some poisonous, some carcinogenic
- Settles in lungs, damages cilia and mucus



Tobacco smoke also contains carbon monoxide

- Interferes with hemoglobin's ability to carry oxygen and impacts nervous system



Smoking greatly increases risk of heart disease and stroke



- Heart attack is leading cause of death for smokers
- Smoking increases BP, increases LDL, decreases HDL, increases plaque
- Increased risk with oral contraceptives

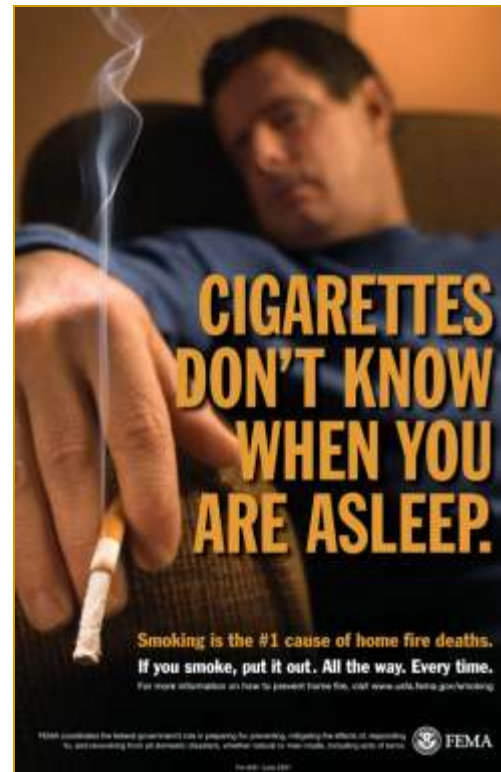
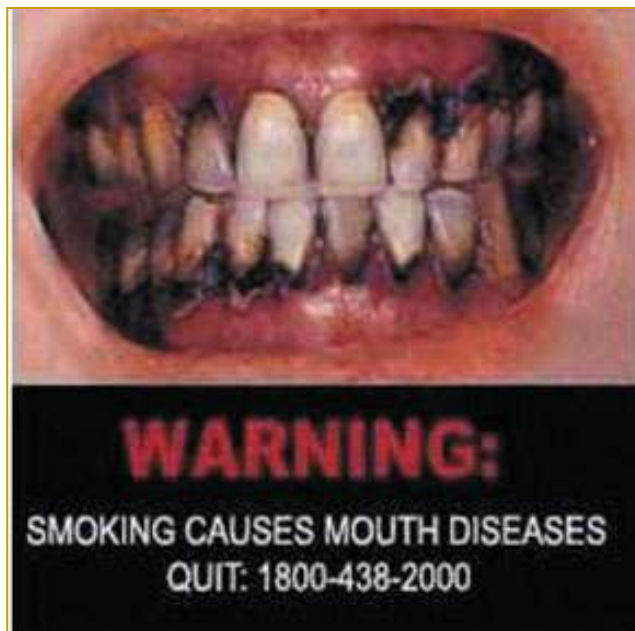
Smoking is linked to many kinds of cancer

- 30% of all deaths from cancer
- >80% of cases of lung cancer
- Genetics and smoke work together



Other smoking-related issues

- Gum disease, tooth loss, ulcers, erectile dysfunction, fires, high-frequency hearing loss



Other forms of tobacco: Cigars

- Basically, large unfiltered cigarettes
- Much more tobacco per cigar but are not usually inhaled = less risky
- Mouth, throat, esophageal cancer risk same as cigarettes



Other forms: Smokeless tobacco



- Includes snuff, chewing tobacco
- Same effects, addictions, carcinogens as cigarettes
- Mouth cancers are common!

Second-Hand Smoke

- Smoke from a smoldering cigarette contains 2x as much nicotine and tar, 5x as much CO, 50x as much ammonia!



Quitting is tough but worth it!

- 70% want to quit, 4-7% succeed each year
- Decreased risk of heart disease within a year; after 20 years – normal risk of cancers



How to quit...

- RCC offers classes and individual stop-smoking counseling – contact Health Services (951-222-8151)



How to quit...

- BRAINSTORM: Name 3 possible approaches to quitting smoking
- List and describe 4 types of nicotine replacement therapy