

## TOBACCO

Presented by
Huntsman Cancer Institute
Patient & Public Education





### TOBACCO KILLS

- Each year tobacco kills
  - About 440,000 people in the United States
  - Approximately 5 million people worldwide
- Secondhand smoke kills
  - About 43,000 people in the United States each year





### Tobacco Hurts Our World

There is a direct correlation between tobacco production and deforestation.





### Tobacco Hurts Our World

Tobacco causes pollution.









### Tobacco Hurts Our World





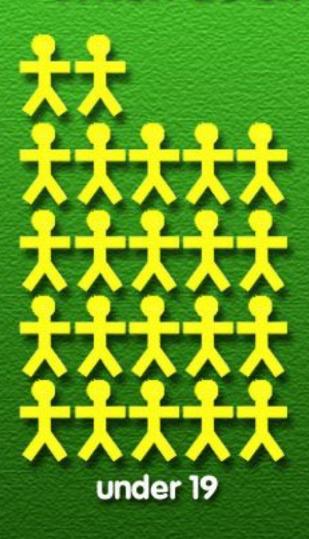
#### HUNTSMAN CANCER INSTITUTE UNIVERSITY OF UTAH

## TOBACCO AND TEENS

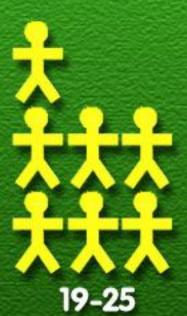
- Average age to start smoking is 12 years.
- More than 4,000 kids try smoking every day.
- Only takes 1-3 cigarettes to become addicted.
- Most (2 out of every 3) teen smokers want to quit, only 1% are successful.



### When do smokers start smoking?



2/3 of smokers began smoking regularly before they were 19.





**SOURCE: New Mexico Department of Health** 



### HEALTH PROBLEMS: LUNG CANCER



- 1 out of 3 smokers will die from smoking
- 4000 chemicals in tobacco smoke
  - At least 60 of them are known to cause cancer



## Chemicals in Cigarettes



Ammonia



Acetone



Arsenic



Cadmium



Benzene



Cresol



Nicotine



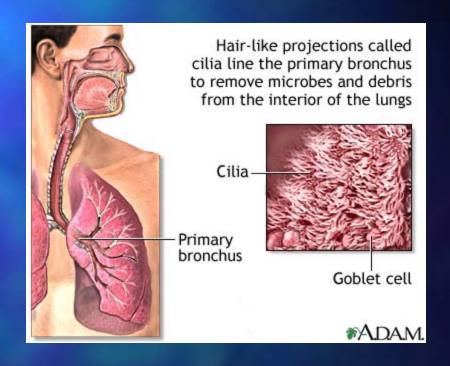
Formaldehyde

Caffeine Dehydromenthofurolactone Food Starch Modified Isoamyl Octanoate Pyruvic Acid Acetic Acid (Vinegar) Acetone (Nail Polish Remover) Formaldehyde (Preserver of bodies, tissue, and fabric) Calcium Carbonate Diethyl Malonate Isoamyl Phenylacetate Raisin Juice Concentrate Acetophenone Camphene Diethyl Sebacate Furfuryl Mercaptan Isobornyl Acetate Rhodinol 4-(2-Furyl)-3-Buten-2-One Rose Absolute and Oil 6-Acetoxydihydrotheaspirane 2-Acetyl-3- Ethylpyrazine 2-Acetyl-5-Methylfuran Cananga Oil 23-Diethylpyrazine Wild Cherry Bark Extract Capsicum Oleoresin Dihydro Anethole Galbanum Oil Isobutyl Alcohol Rosemary Oil Wine and Wine Sherry Caramel Color 57-Dihydro-2-Methylthieno(34-D) Pyrimidine Genet Absolute Isobutyl Cinnamate Rum Xanthan Gum Caraway Oil Dill Seed Oil and Extract Gentian Root Extract Isobutyl Phenylacetate Rum Ether 34-Xylenol meta-Dimethoxybenzene Geraniol Isobutyl Salicylate Rye Extract 3-Acetylpyridine Carbon Dioxide Yeast 2-Isobutyl-3-Methoxypyrazine 2-Acetylthiazole Aconitic Acid dl-Alanine Carbon Monoxide (Car Exhaust Fumes) para-Dimethoxybenzene Geranium Rose Oil Sage Sage Oil and Sage Oleoresin Zinc (Metal) Cardamom Oleoresin Extract Seed Oil and Powder alpha-Isobutylphenethyl Alcohol 26-Dimethoxyphenol Salicylaldehyde Carob Bean and Extract Dimethyl Succinate Geranyl Butyrate Isobutyraldehyde Sandalwood Oil Yellow Alfalfa Extract beta-Carotene 34-Dimethyl-12-Cyclopentanedione Geranyl Formate Isobutyric Acid Sclareolide Allspice Extract Carrot Oil 35- Dimethyl-12-Cyclopentanedione Geranyl Isovalerate dl-Isoleucine Silicon (Metal) 37-Dimethyl-136-Octatrien Geranyl Phenylacetate alpha-Isomethylionone Silver (Metal) Carvacrol And Oil Allyl Hexanoate 4-Carvomenthenol 45-Dimethyl-3-Hydroxy-25-Dihydrofuran-2-One Ginger Oil and Oleon 2-Isopropylphenol Skatole 610-Dimethyl-59-Undecadien-2-One Smoke Flavor Allyl Ionone Almond Bitter Oil Ambergris Tincture beta-Caryophyllene 37-Dimethyl-6-Octenoic Acid 1-Glutamine Jasmine Absolute Concrete and Oil Snakeroot Oil beta-Caryophyllene Oxide Cascarilla Oil and Bark Extract 24-Dimethylacetophenone cerol Kola Nut Extract Sodium Acetate Labdanum Absolute and Oleoresin Ammonia (Floor/Toilet Cleaner) Ammonium Bicarbonate Ammonium Hydroxide alphapara-Dimethylbenzyl Alcohol Sodium Benzoate Cassia Bark Oil Sodium Bicarbonate alphaalpha-Dime Cassie Absolute and Oil Lauric Acid Sodium Carbonate Ammonium Phosphate Dibasic Ammonium Sulfide Castoreum Extract Tincture and Absolute 23-Dim Lauric Aldehyde Sodium Chloride Amyl Alcohol Cedar Leaf Oil 25-Din Lavandin Oil Sodium Citrate Amyl Butyrate Amyl Formate Amyl Octanoate Cedarwood Oil Terpenes and Virginiana ar Gu Lavender Oil Sodium Hydroxide 26-D Dime delta gam para Ethy Ethy Ethy Ethy Ethy Ethy Ethy Lead (Metal) Cedrol Solanone Celery Seed Extract Solid Oil And Oleoresin Lemon Oil and Extract Spearmint Oil alpha-Amylcinnamaldehyde Amyris Oil Stearic Acid (Candle Wax) Cellulose Fiber Lemongrass Oil Chamomile Flower Oil And Extract 1-Leucine Styrax Extract Gum and Oil Angelica Root Extract Oil and Seed Oil
Anise Chicory Extract Levulinic Acid Sucrose Octaacetate Licorice Root Fluid Extract and Powder Chocolate Sugar Alcohols Anise Star Extract and Oils Cinnamaldehyde Sugars Anisyl Acetate Anisyl Alcohol Anisyl Formate Cinnamic Acid Tagetes Oil Linalool Cinnamon Leaf Oil Bark Oil and Extract Linalool Oxide Tannic Acid Anisyl Phenylacetate Cinnamyl Acetate Linalyl Acetate Tartaric Acid Apple Juice Concentrate Extract and Skins Apricot Extract and Juice Concentrate Cinnamyl Alcohol ma-Hexalac Linden Flowers Tea Leaf and Absolute Lovage Oil And Extract Cinnamyl Cinnamate xamine (Barbecue Lighter) alpha-Terpineol 1-Arginine Arsenic (Rat Poison) Asafetida Fluid Extract And Oil Terpinolene Cinnamyl Isovalerate Hexanal 1-Lysine Cinnamyl Propionate Ethyl Hexanoic Acid Mace Powder Extract and Oil Terpinyl Acetate Ascorbic Acid 1-Asparagine Monohydrate 1-Aspartic Acid Citral Ethyl F 2-Hexen-1-OI Magnesium (Metal) 5678-Tetrahydroquino: 1559-Tetramethyl-13-Oxa Citric Acid Ethyl Hept 3-Hexen-1-OI Magnesium Carbonate 2345 and 3456-Tetrame Ethyl Hexanoate cis-3-Hexen-1-YI Acetate Malic Acid Citronella Oil Balsam Peru and Oil dl-Citronellol Ethyl Isovalerate 2-Hexenal Malt and Malt Extract Bay Leaf Oil and Sweet Oil Citronellyl Butyrate Ethyl Lactate 3-Hexenoic Acid Beeswax White Beest Juice Concentrate Benzaldehyde Benzaldehyde Glyceryl Acetal Benzoic Acid Benzoin Citronellyl Isobutyrate Ethyl Laurate trans-2-Hexenoic Acid Maltol Civet Absolute Ethyl Levulinate cis-3-Hexenyl Formate Maltyl Iso Clary Oil Ethyl Maltol Hexw-2-Methylbutyrate Cloroform (Anasthetic) Ethyl Methyl Phenylglycidate etate Clover Tops Red Solid Extract Ethyl Myristate cohol ho ho Benzophenone Benzyl Alcohol Benzyl Benzoate Benzyl Butyrate Benzyl Cinnamate Cocoa Shells Extract Distillate And Powder Ethyl Octadecanoate Coconut Oil Ethyl Octanoate Coffee Ethyl Oleate Ethyl Palmitate Cognac White and Green Oil Benzyl Salicylate Copaiba Oil Copper (Metal) Coriander Extract and Oil Bisabolene al Var Black Currant Buds Absolute Corn Oil z-C did der cto Borneol Bornyl Acetat Buchu Leaf 13-Butanedi 23-Butanedi 2-Tridecanone 1-Penten-3-One 2-Tridecenal ra-Methoxyphenyl)-2-Butanone 1-Butanol Triethyl Citrate 355-Trimethyl -1-Hexanol 1-(para-Methoxyphenyl)-2-Propanone Butane (Lic Methoxypyrazine paraalphaalpha-Trimethylbenzyl Alcohol 4(2-Butenyli Butter Butte Butyl Acetat l-3 lbe gu tb Methyl 2-Furoate 4-(266-Trimethylcyclohex-1-Enyl)But-2-En-4-One Methyl 2-Octynoate 266-Trimethylcyclohex-2-Ene-14-Dione Butyl Butyr beta-Ionone Methyl 2-Pyrrolyl Ketone 266-Trimethylcyclohexa-13-Dienyl Methan Butyl Butyry 4-(266-Trimethylcyclohexa-13-Dienyl)But-2-En-4-One Methyl Anisate alpha-Irone Butyl Isoval Butyl Pheny 226-Trimethylcyclohexanone Methyl Anthranilate Isoamyl Acetate 235-Trimethylpyrazine Isoamyl Benzoate Methyl Benzoate Butyl Undec 3-Butylidene Butyric Acid Isoamyl Butyrate Methyl Cinnamate 1-Tyrosine Fennel Sweet Oil Isoamyl Cinnamate Methyl Dihydrojasmonate delta-Undercalactone Cadinene Cadmium ( Methyl Ester of Rosin Partially Hydrogenated Fenugreek Extract Resin and Absolute Isnamyl Formate Isnamyl Hevannate gamma\_Lindecalactone Fig Juice Concentrate Methyl Isovalerate Undecanal Isoamyl Isovalerate Napthalene Orris Concrete Oil and Root Extract Pine Needle Oil Pine Oil Scotch Phenethyl Isobutyrate 2-Undecanone beta-Napthy cid (52%) Phenethyl Isovalerate Palmarosa Oil Pineapple Juice Concentrate 0-Undecenal Nerol Palmitic Acid Phenethyl Phenylacetate alpha-Pinene beta-Pinene Neroli Bigaro gamma-Octalactone Parsley Seed Oil Phenethyl Salicylate D-Piperitone Valencene Nerolidol Nicotine (Insectiside, Drug - more addictive than Heroin) Octanal 1-Phenyl-1-Propanol Patchouli Oil Piperonal Valeraldehyde Octanoic Acid omega-Pentadecalactone 3-Phenyl-1-Propanol Pipsissewa Leaf Extract Valerian Root Extract Oil and Powder Nitrobenzene (Gasoline Additive) 23-Pentanedione 2-Phenyl-2-Butenal Plum Juice 1-Octanol Valeric Acid Nitrous Oxide Phenols (Disinfectant) gamma-Valerolactone 2-Octanone 4-Phenyl-3-Buten-2-OI Potassium Sorbate Nona-2-trans6-cis-Dienal 3-Octen-2-One 4-Pentenoic Acid 4-Phenyl-3-Buten-2-One 1-Proline Valine 26-Nonadien-1-OI 1-Octen-3-Ol 2-Pentylpyridine Pepper Oil Black And White Phenylacetaldehyde Propenylguaethol Vanilla Extract And Oleoresin gamma-Nonalactone Phenylacetic Acid 1-Octen-3-YI Acetate Propionic Acid Vanillin 2-Octenal Peppermint Oil 1-Phenylalanine Propyl Acetate Veratraldehyde Nonanoic Acid Octyl Isobutyrate Peruvian (Bois De Rose) Oil 3-Phenylpropionaldehyde Propyl para-Hydroxybenzoate Vetiver Oil Nonanone Petitgrain Absolute Mandarin Oil and Terpeneless Oil 3-Phenylpropionic Acid Oleic Acid Propylene Glycol Vinegar trans-2-Nonen-1-OI Vinyl Chloride (Makes PVC) Olibanum Oil alpha-Phellandrene 3-Phenylpropyl Acetate 3-Propylidenephthalide 2-Nonenal Opoponax Oil And Gum 2-Phenenthyl Acetate 3-Phenylpropyl Cinnamate Prune Juice and Concentrate Violet Leaf Absolute Nonyl Acetate Orange Blossoms Water Absolute and Leaf Absolute 2-(3-Phenylpropyl) Tetrahydrofuran Walnut Hull Extract Phenenthyl Alcohol Pvridine Nutmeg Powder and Oil Orange Oil and Extract Pyroligneous Acid And Extract Phenethyl Butyrate Phosphoric Acid Oak Chips Extract and Oil Wheat Extract And Flour Origanum Oil Phenethyl Cinnamate Pimenta Leaf Oil

## HEALTH PROBLEMS: IN LUNGS



- Tar affects the lungs by damaging cilia
- Cilia tiny hairs which help keep lungs clean
- When cilia is damaged, mucus, dust particles and bacteria cannot be cleansed from lungs
- Smoker's cough result of damaged cilia





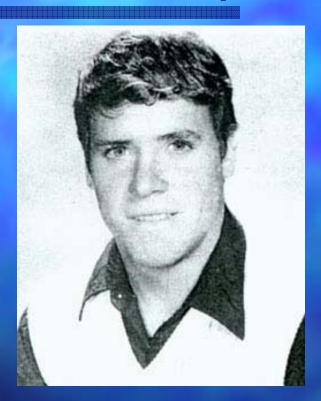
## HEALTH PROBLEMS: EIMPHYSEMA

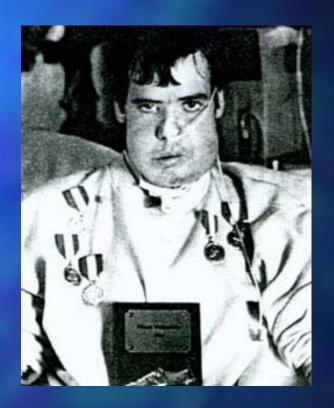


- Smoking affects the alveoli
- Alveoli tiny sacs in which air exchange takes place
- Alveoli are typically flexible
- Emphysema occurs when alveoli are damaged - no longer flexible - sometimes burst



## Dip Tobacco





Sean Marsee age 17, and age 19 just prior to his death.



### Cancers

Mouth & Lips

Esophagus

Larynx (voicebox)

Kidney

Bladder

Cervix (women)

Head & Neck

Throat (windpipe)

Leukemia Lung Stomach

**Pancreas** 

## SOCIAL CONSEQUENCES Smokers Cough



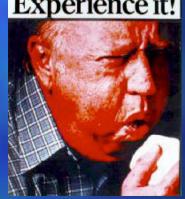
Smokers



Yellow Teeth



Kent III taste. Experience it!



Offensive Odor on Clothes, Hair, Skin



Yellow Fingers



Fast-Aging Skin



Gives off Secondhand Smoke that is a Danger to Others





## MONEY ISSUES: CIGARETTES

- Average cost of a pack of cigarettes in the U.S. = \$4.32
  - Lowest: \$3.43 (Missouri)
  - Highest: \$6.46 (Maine)
- One pack of cigarettes per day = \$30.24 per week
- Cost per year at one pack a day = almost \$1600
- Smokers pay more for life & health insurance
- Lose resale value on homes and cars
- Can even be fired or not hired for being a smoker

## NICOTINE IS AS ADDICTIVE AS HEROIN AND COCAINE

Nicotine enters blood in less than 7 seconds & creates a "buzz"



Tolerance to nicotine develops over time - need MORE CIGARETTES



Have another cigarette



Brain gets used to and dependent on nicotine

Quit Smoking – Wait it out, dependence on nicotine decreases

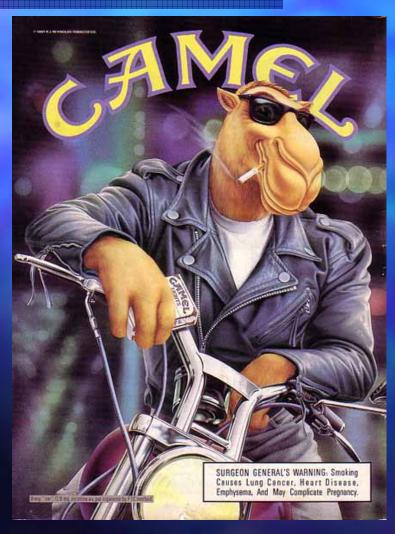


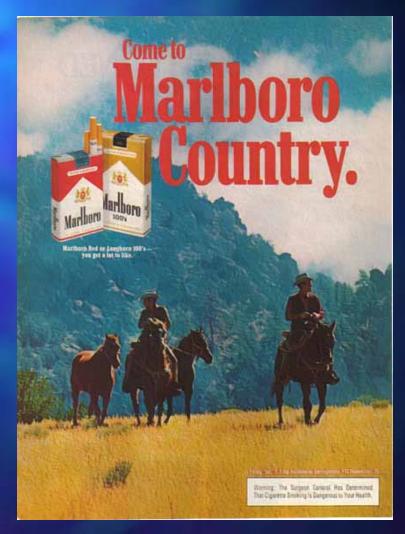
When nicotine levels drop, symptoms occur such as restlessness, anxiety, cravings, crabbiness, anger

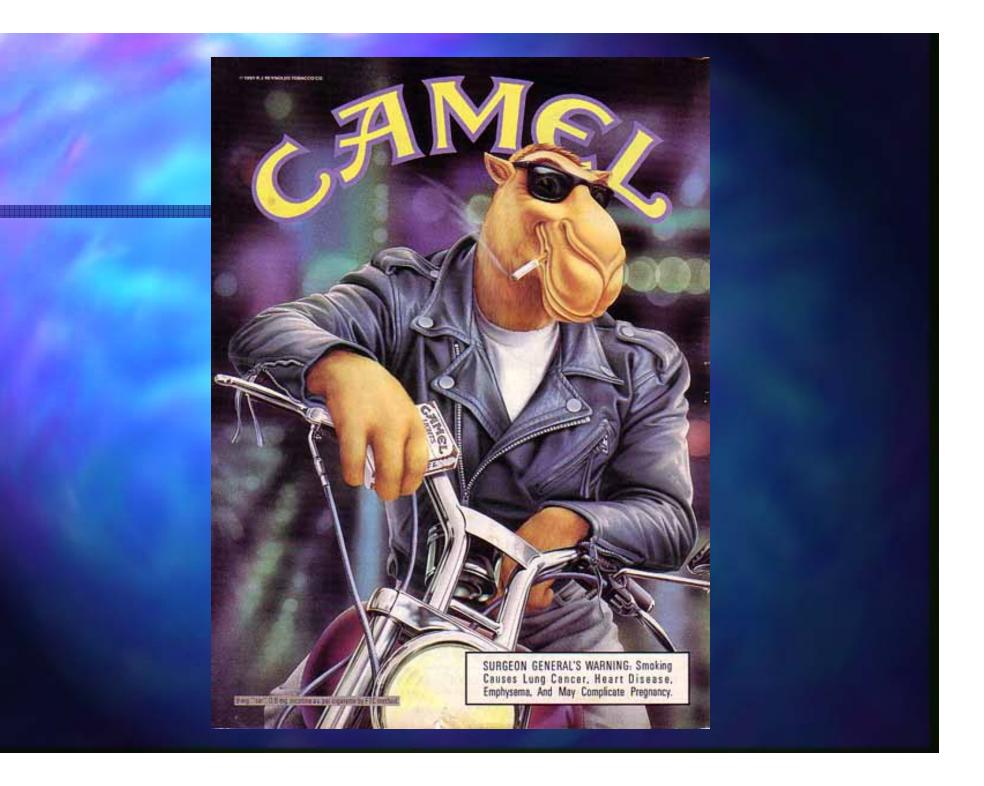


# Tobacco Advertising

## Have Tobacco Companies Ever Targeted Children?







## Come to lboro untry. Mariborn Red or Laughern 100's you get a let to like. Woming: The Surgeon Cameral Has Denomined. That Cigarette Smiking is Dangerous to Yout Health.

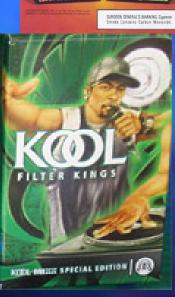
### Tobacco Master Settlement

- \$246 billion paid to 46 states over 25 years beginning in 1999
- Ban on use of cartoons
- Ban on use of tobacco-related gear
- Ban on sponsoring of events designed for youth (concerts, sports games, etc.)
- Tobacco companies required to create anti-smoking commercials

## Do Tobacco Companies Still Target Children?

















### **How Can I Reduce My Cancer Risk?**



Bryan Lee Curtis, then 33, holds son Bryan Jr., 2, in this March 29 photo. Curtis would die about two months later.

## Don't Smoke He wanted you to know



On the day of Bryan's death from Lung Cancer, June 3, wife Bobbie and son Bryan keep a bedside vigil. The recent photo of father and son is on the bed.

## What Can I Do If Someone I Care About Smokes?



- Let them know how you feel.
- Support and encourage them to quit. Even if they have tried many times.
- Avoid secondhand smoke. Try to protect yourself from breathing the smoke.
- Ask them to call 1-888-567-TRUTH to get help quitting.



### IT'S YOUR DECISION



You Know The Consequences

- Health
- Environment
- Social
- Financial
- The addiction cycle is not fun
- Tobacco companies target you to get you to try smoking

## DON'T RISK YOUR LIFE BY SMOKING OR CHEWING TOBACCO





Questions?? Call 1-888-424-2100