E-CIGARETTE FACTS AND MYTHS

**MYTH:** "E-CIGARETTE SMOKE IS A HARMLESS WATER VAPOR."

**FACT:** E-CIGARETTES HEAT A LIQUID MIXTURE TYPICALLY CONTAINING NICOTINE, FLAVORINGS, AND OTHER CHEMICALS INTO AN AEROSOL. THE AEROSOL TYPICALLY CONTAINS FORMALDEHYDE, ACETALDEHYDE, ACROLEIN, DIETHYLENE GLYCOL, NICKEL, CHROMIUM, LEAD (1,2). THESE CHEMICALS ARE SIMILAR TO THOSE FOUND IN REGULAR CIGARETTES.

**MYTH:** "E-CIGARETTES ARE SAFE."

**FACT:** E-CIGARETTE AEROSOL CONTAINS ULTRAFINE METAL PARTICLES (3), AND E-CIGARETTE LIQUIDS OFTEN CONTAIN FLAVORINGS SUCH AS DIACETYLY, WHICH WHEN INHALED CAN CAUSE "POPCORN LUNG" (AN IRREVERSIBLE LUNG DISEASE) (4). ADDITIONALLY, E-CIGARETTE USE IMPAIRS ARTERIAL BLOOD FLOW AFTER AS LITTLE AS JUST ONE E-CIGARETTE, SIMILAR TO CIGARETTE USE (5).

**MYTH:** "E-CIGARETTES ARE NOT MARKETED TOWARDS YOUTH."

**FACT:** DATA HAS SHOWN AN INCREASE IN USE OF E-CIGARETTES BY YOUTH. IN 2015, MORE HIGH SCHOOL STUDENTS USED E-CIGARETTES (16%) THAN REGULAR CIGARETTES (9%) (6). E-CIGARETTES ARE FREQUENTLY FLAVORED LIKE FRUIT AND CANDY, LIKE GUMMY BEAR, COTTON CANDY, AND BUBBLE GUM -- AND ARE PACKAGED AND PRICED LIKE CANDY.

**MYTH:** "E-CIGARETTES CAN HELP PEOPLE QUIT SMOKING."

**FACT:** THE COURTS HAVE RULED THAT THE U.S. FOOD AND DRUG ADMINISTRATION (FDA) CANNOT REGULATE E-CIGARETTES AS A SMOKING CESSATION DEVICE. INSTEAD, THE FDA HAS THE AUTHORITY TO REGULATE E-CIGARETTES AS A TOBACCO PRODUCT. THE EFFICACY OF E-CIGARETTES AS AN AID FOR SUSTAINED SMOKING CESSATION HAS NOT BEEN PROVEN (7).

**MYTH:** "SMOKING E-CIGARETTES DOES NOT LEAD TO SMOKING REGULAR CIGARETTES."

**FACT:** TEENS WHO ARE NOSMOKERS BUT WHO USE E-CIGARETTES ARE OVER THREE TIMES MORE LIKELY TO BE SMOKING REGULAR CIGARETTES ONE YEAR LATER, COMPARED WITH NONSMOKER TEENS WHO DID NOT USE E-CIGARETTES (8,9).

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1 California Department of Public Health, “Protect Your Family From E-Cigarettes: The Facts You Need to Know,” 2015.