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Subject: STAN Bulletin: 23rd Edition: 13-August-2012

Smoking & Tobacco Abstracts & News

**STAN Bulletin
23rd Edition
13-August-2012**

In the News:

- Australia: [Future Fund under pressure for determination to invest in tobacco](#)
- Indonesia: [MATA: Civil society coalition calls on government to withdraw tobacco conference support](#)
- NZ: [Imperial Tobacco: Free cigarettes for office staff & workers spark inquiry](#)
- Taiwan: [Anti-smoking group calls for higher cigarette tax, says tobacco control battle being lost](#)
- UAE: [The National: Editorial: Marketing the facts about smoking risk; Ban no threat to profits](#)
- UK: [Guardian: Comment: Plain cigarette packaging would help kick smoking habit; Reduce appeal: Audio: Review en](#)
- UK: [BAT: Nicoventures: Big Tobacco bets on e-cigarette future; Push for alternatives](#)
- US: [Pittsburgh Post-Gazette: Editorial: Stale smoke: Tobacco industry is up to its old tricks \[MMWR: NYTS\]](#)

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- Am Heart J - Gopal: US: Health, Aging & Body Composition: Smoking exposure & heart failure risk in older adults
- Am Ind Alsk Native Ment Health Res - McKennitt: US: Cultural Sensitivity, Smoking Intentions & Aboriginal Children
- Am J Med Sci - Pelegrino: Brazil: Smoking Effects on Airway & Systemic Inflammation Profiles in COPD Patients
- BMC Res Notes - Smith: US: NY: Tobacco sales in pharmacies: attitudes, knowledge & beliefs
- Br J Cancer - Kroll: UK: Million Women Study: Drinking, smoking & haematological malignancy subtypes
- Br J Psych - Krishnadas: UK: Scotland: Nicotine dependence & illness severity in schizophrenia
- CC&C - Schoj: Argentina: Smoke-free environments: age, sex & educational disparity in 25 cities
- Cancer Epidemiol - Eilstein: France: Lung & breast cancer mortality among women: Future trends
- Curr Oncol - Touyz: Tobacco & health: with or without pictures, nothing redeems smoking
- EJPH - Bacigalupe: Spain: Basque Country: Inequalities in smoking prevalence, initiation & cessation: 1986-2007
- Eur Resp J - Comer: COPD: Airway epithelial cell apoptosis & inflammation in smokers & non-smokers
- Front Mol Neurosci - Feduccia: Neuronal nicotinic acetylcholine receptors, alcohol & nicotine addictions
- Front Synaptic Neurosci - Goriounova: Adolescent nicotine exposure & adult prefrontal cortical synaptic plasticity
- High Blood Press CV Prev - Giudice: Italy: Lifestyle-related risk factors, smoking status & CVD
- Hum Reprod - Fariello: Smoking & functional aspects of sperm & seminal plasma protein profiles in varicocele
- JPHMP - Unrod: US: FL: Cancer Center Outdoor Smoking Ban: Employee & Patient Attitudes & Smoking Behavior
- JSAD - Kvaavik: Norway: Impulsivity, education & smoking initiation & cessation among young adults
- MMWR - Arrazola: US: Current Tobacco Use Among Middle & High School Students, 2011
- PLoS One - Oba: Japan: Cessation Increases Short-Term Type 2 Diabetes Risk Irrespective of Weight Gain
- Radiat Res - Egawa: Japan: Atomic Bomb Survivors, Radiation, Smoking & Lung Cancer by Histological Types
- Reg Tox Pharm - Marano: RJRT: Arsenic exposure & tobacco consumption: Biomarkers & risk assessment
- Thyroid - Männistö: Finland: Smoking & Early Pregnancy Thyroid Hormone & Anti-Thyroid Antibody, 1986 Cohort
- Tob Induc Dis - Okada: Japan: Current smoking status & overt albuminuria in female patients with type 1 diabetes
- WV Med J - McCave: US: WV: Smoking during pregnancy: retrospective analysis of adolescents

Abstracts:

Effects of aging and smoking on carotid intima media thickness in HIV-infection

[AIDS](#). 2012 Aug 7. [Epub ahead of print]

[Fitch KV](#), [Looby SE](#), [Rope A](#), [Eneh P](#), [Hemphill L](#), [Lee H](#), [Grinspoon SK](#).

Abstract

OBJECTIVES:

To investigate the effects of aging and smoking on carotid intima-media thickness (cIMT) among patients with and without H

METHODS:

Data from a community sample of HIV-infected and HIV-uninfected participants were analyzed. Carotid intima-media thickness measured via carotid ultrasound and smoking history was obtained via patient interview.

RESULTS:

Data on 166 male and female participants with stable HIV-infection and 152 healthy HIV-uninfected participants were analyzed. Among the HIV-infected and HIV-uninfected participants, a significant association was observed between age and cIMT [$r=0.39$, $P<0.0001$ (HIV), $r=0.39$, $P<0.0001$, (non-HIV)], and between smoking burden and cIMT [$r=0.42$, $P<0.0001$ (HIV), $r=0.24$, $P<0.0001$ (non-HIV)]. In multivariate regression modeling among all participants (HIV and non-HIV), a significant three-way interaction was observed between age, smoking burden, and HIV status with respect to cIMT ($P<0.010$), controlling for gender, race and traditional cardiovascular disease (CVD) risk factors, such that increased cIMT was associated with increased smoking burden and age to a greater degree among HIV-infected vs. HIV-uninfected participants. Among HIV-infected participants a significant interaction between smoking burden and age with respect to cIMT was seen ($P=0.027$), controlling for race, gender, CVD risk factors, immunologic function and antiretroviral therapy use.

CONCLUSION:

A significant interaction between HIV, age and smoking on cIMT was observed, suggesting that HIV-infection modifies the relationship of age and smoking on cIMT in this population. These findings emphasize the need to encourage smoking cessation in this population, due to its deleterious effect on subclinical atherosclerosis in older HIV-infected patients.

<http://journals.lww.com/aidsonline/pages/articleviewer.aspx?year=9000&issue=00000&article=98850&type=abstract>

Cigarette smoking exposure and heart failure risk in older adults: The Health, Aging, and Body Composition Study

[Am Heart J.](#) 2012 Aug;164(2):236-42.

[Gopal DM](#), [Kalogeropoulos AP](#), [Georgiopoulou VV](#), [Smith AL](#), [Bauer DC](#), [Newman AB](#), [Kim L](#), [Bibbins-Domingo K](#), [Tindle H](#), [Tang WW](#), [Kritchevsky SB](#), [Butler J](#).

Abstract**BACKGROUND:**

Although there is evidence linking smoking and heart failure (HF), the association between lifetime smoking exposure and HF risk in older adults and the strength of this association among current and past smokers is not well known.

METHODS:

We examined the association between smoking status, pack-years of exposure, and incident HF risk in 2,125 participants from the Health, Aging, and Body Composition Study (age 73.6 ± 2.9 years, 69.7% women, 54.2% whites) using proportional hazard

RESULTS:

At inception, 54.8% of participants were nonsmokers, 34.8% were past smokers, and 10.4% were current smokers. During follow-up (median 9.4 years), HF incidence was 11.4 per 1,000 person-years in nonsmokers, 15.2 in past smokers (hazard ratio [HR] for nonsmokers 1.33, 95% CI 1.01-1.76, $P = .045$), and 21.9 in current smokers (HR 1.93, 95% CI 1.30-2.84, $P = .001$). After adjustment for HF risk factors, incident coronary events, and competing risk for death, a dose-effect association between pack-years of exposure and HF risk was observed (HR 1.09, 95% CI 1.05-1.14, $P < .001$ per 10 pack-years). Heart failure risk was not modulated by years of exposure in current smokers. In past smokers, HR for HF was 1.05 (95% CI 0.64-1.72) for 1 to 11 pack-years, 1.23 (95% CI 0.82-1.83) for 12 to 35 pack-years, and 1.64 (95% CI 1.11-2.42) for >35 pack-years of exposure in fully adjusted models ($P < .05$ trend) compared with nonsmokers.

CONCLUSIONS:

In older adults, both current and past cigarette smoking increase HF risk. In current smokers, this risk is high irrespective of years of exposure, whereas in past smokers, there was a dose-effect association.

<http://www.sciencedirect.com/science/article/pii/S0002870312003699>

Also:

Prior smoking status, clinical outcomes, and the comparison of ticagrelor with clopidogrel in acute coronary syndromes—Insights from the PLATelet inhibition and patient Outcomes (PLATO) trial

<http://www.sciencedirect.com/science/article/pii/S0002870312003833>

Does a Culturally Sensitive Smoking Prevention Program Reduce Smoking Intentions among Aboriginal Children Pilot Study

[Am Indian Alsk Native Ment Health Res.](#) 2012;19(2):55-63. doi: 10.5820/aian.1902.2012.55.

[McKennitt DW](#), [Currie CL](#).

Abstract

The aim of the study was to determine if a culturally sensitive smoking prevention program would have short-term impacts on smoking intentions among Aboriginal children. Two schools with high Aboriginal enrollment were selected for the study. A grade 4 classroom in one school was randomly assigned to receive the culturally sensitive smoking prevention program. A grade 4 classroom in the second school received a standard smoking prevention program delivered in this jurisdiction. Children in each classroom tested pre- and post-intervention to measure attitude changes about smoking. There was a significant reduction in intentions to smoke among Aboriginal children who received the culturally sensitive smoking prevention program. The small overall sample precluded a direct comparison of the efficacy of the culturally sensitive and standard programs. The present findings suggest that a smoking prevention program that has been culturally adapted for Aboriginal children may reduce future smoking intentions among Aboriginal grade 4 students. Further research is needed to determine the extent to which school smoking prevention programs adapted to respect the long-standing use of tobacco in Aboriginal cultural traditions may be more effective than standard programs in reaching Aboriginal youth.

<http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/CAIANH/journal/Documents/Volume%2019/19%20McKennitt%20Culturally%20Sensitive%20Smoking%20Prevention%2055-63.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Effects of Active Smoking on Airway and Systemic Inflammation Profiles in Patients with Chronic Obstructive Pulmonary Disease

[Am J Med Sci.](#) 2012 Aug 7. [Epub ahead of print]

[Pelegriño NR](#), [Tanni SE](#), [Amaral RA](#), [Angeleli AY](#), [Correa C](#), [Godoy J](#).

Abstract**BACKGROUND:**

The markers that characterize local and systemic inflammation in chronic obstructive pulmonary disease (COPD) remain unclear. We do their correlations with smoking status and presence of disease. The aim of this study was to assess markers of inflammation in the peripheral blood and airways of current smokers without COPD, of current smokers with COPD and of ex-smokers with COPD.

METHODS:

In this study, 17 current smokers with COPD (mean age: 58.2 ± 9.6 years; mean forced expiratory volume in 1 second [FEV₁] ± 15.9%), 35 ex-smokers with COPD (mean age: 66.3 ± 7.3 years; mean FEV₁: 47.9 ± 17.2%) and 20 current smokers without COPD (mean age: 49.1 ± 6.2 years; mean FEV₁: 106.5 ± 15.8%) were evaluated. Spirometry findings, body composition and serum/induced sputum concentrations of tumor necrosis factor α (TNF-α), interleukin (IL)-6, IL-8 and IL-10, together with serum

reactive protein (CRP) levels, were assessed.

RESULTS:

Serum TNF- α concentration was higher in all current smokers than in ex-smokers with COPD. In current smokers without COPD, serum CRP level was lower than in ex-smokers with COPD and significantly lower than in current smokers with COPD. Sputum TNF- α concentration was higher in current and ex-smokers with COPD than in current smokers without COPD. Multiple regression analyses showed that serum TNF- α was associated with active smoking, and serum CRP and sputum TNF- α were associated with COPD diagnosis.

CONCLUSIONS:

Smoking is associated with higher systemic inflammation in patients with COPD. Current findings also support the hypothesis that smoking and COPD have different effects on the regulation of airway and systemic inflammatory processes.

<http://journals.lww.com/amjmedsci/pages/articleviewer.aspx?year=9000&issue=00000&article=99262&type=abstract>

Tobacco sales in pharmacies: a survey of attitudes, knowledge and beliefs of pharmacists employed in student experiential and other worksites in Western New York

[BMC Res Notes](#). 2012 Aug 6;5(1):413. [Epub ahead of print]

[Smith DM](#), [Hyland AJ](#), [Rivard C](#), [Bednarczyk EM](#), [Brody PM](#), [Marshall JR](#).

Abstract

BACKGROUND:

Pharmacies are venues in which patients seek out products and professional advice in order to improve overall health. However, the continued sale of tobacco products in pharmacies in the United States continues to present a challenge to pharmacists, who are becoming increasingly more involved in patient health promotion activities. This study sought to assess Western New York (WNY) area pharmacists' opinions about the sale of tobacco products in pharmacies and pharmacists' opinions on their role in patient smoking cessation.

METHODS:

Participants responded to two parallel surveys; a web-based survey was completed by 148 university-affiliated pharmacist preceptors via a list based sample, and a mail-based survey was completed by the supervising pharmacist in 120 area pharmacies via a mail-based sample. The combined response rate for both surveys was 31%. Univariate and bivariate analyses were performed to determine any significant differences between the preceptor and supervising pharmacist survey groups.

RESULTS:

Over 75% of respondents support legislation banning the sale of tobacco products in pharmacies. Over 86% of respondents prefer to work in a pharmacy that does not sell tobacco products. Differences between preceptor and supervising pharmacist survey groups were observed. Action regarding counseling patients was uncommon among both groups.

CONCLUSIONS:

Pharmacists support initiatives that increase their role in cessation counseling and initiatives that restrict the sale of tobacco products in pharmacies. These data could have important implications for communities and pharmacy practice.

<http://www.biomedcentral.com/1756-0500/5/413/abstract>

<http://www.biomedcentral.com/content/pdf/1756-0500-5-413.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Br J Cancer advance online publication, August 9, 2012

M E Kroll, F Murphy, K Pirie, G K Reeves, J Green and V Beral

Abstract**Background:**

Previous research suggests associations of lower alcohol intake and higher tobacco consumption with increased risks of haematological malignancy. The prospective Million Women Study provides sufficient power for reliable estimates of subtype associations in women.

Methods:

Approximately 1.3 million middle-aged women were recruited in the United Kingdom during 1996–2001 and followed for death, emigration and cancer registration until 2009 (mean 10.3 years per woman); potential risk factors were assessed by questionnaire. Adjusted relative risks were estimated by Cox regression.

Results:

During follow-up, 9162 incident cases of haematological malignancy were recorded, including 7047 lymphoid and 2072 myeloid cancers. Among predominantly moderate alcohol drinkers, higher intake was associated with lower risk of lymphoid malignancy, particularly diffuse large B-cell lymphoma (relative risk 0.85 per 10 g alcohol per day (95% confidence interval 0.75–0.96)), follicular lymphoma (0.86 (0.76–0.98)) and plasma cell neoplasms (0.86 (0.77–0.96)). Among never- and current smokers, higher cigarette consumption was associated with increased risk of Hodgkin lymphoma (1.45 per 10 cigarettes per day (1.22–1.72)), mature malignancies (1.38 (1.10–1.73)) and myeloproliferative/myelodysplastic disease (1.42 (1.31–1.55)).

Conclusion:

These findings confirm and extend existing evidence for associations of subtypes of haematological malignancy with two core exposures in women.

<http://www.nature.com/bjc/journal/vaop/ncurrent/abs/bjc2012333a.html>

Related coverage:

Smoking Raises Risk of Leukemia in Women, Researchers Say - Bloomberg News

<http://www.bloomberg.com/news/2012-08-09/smoking-raises-risk-of-leukemia-in-women-researchers-say.html>

Nicotine dependence and illness severity in schizophrenia

[Br J Psychiatry](#). 2012 Aug 9. [Epub ahead of print]

[Krishnadas R](#), [Jauhar S](#), [Telfer S](#), [Shivashankar S](#), [McCreadie RG](#).

Abstract**BACKGROUND:**

Reasons for the increased prevalence of cigarette smoking in schizophrenia are unclear. Studies assessing clinical symptoms have sampled heterogeneous populations, with discrepant findings.

AIMS:

To examine the relationship between clinical features, social adjustment and nicotine dependence in a geographically defined population of people with schizophrenia.

METHOD:

Cross-sectional clinical study of 131 people with schizophrenia in Nithsdale, Scotland.

RESULTS:

Smokers were younger, mostly males and three times more likely to be unemployed. Those with severe nicotine dependence had greater scores on the positive subscale of the Positive and Negative Syndrome Scale (PANSS), and were prescribed higher antipsychotic. Those with mild-moderate dependence had greater scores on the PANSS negative subscale. Greater symptom severity was associated with poorer social adjustment. Psychopathology and social adjustment were similar in quitters and

CONCLUSIONS:

Our findings indicate an association between nicotine dependence, clinical symptoms and social adjustment in schizophrenia. Although causal links cannot be inferred, identifying the relationship between nicotine dependence and psychopathology may have some value in the management of smoking in schizophrenia. Further longitudinal studies are required to explore this relation

<http://bjp.rcpsych.org/content/early/2012/08/07/bjp.bp.111.107953.abstract>

Smoke-free environments: age, sex, and educational disparity in 25 Argentinean cities

[Cancer Causes and Control](#), Online First, 31 July 2012

[Veronica Schoj](#), [Lorena Allemandi](#), [Oscar Ianovsky](#), [Manuel Lago](#) and [Mariela Alderete](#)

Abstract

Background

There is scarce evidence of secondhand smoke (SHS) and disparity in developing countries. We evaluated the relationship between socio-demographic variables and secondhand smoke-related factors in Argentina.

Methods

We conducted a randomized telephone survey (2008/2009) in 25 Argentinean cities. We included a sample of 160 respondents per city stratified by sex and age. We used different generalized multivariate regression models with a confidence interval of 95 % for five outcome variables.

Results

We sampled 4,000 respondents, 52.2 % women, 36 % adolescents and young adults (15–29 years), 58 % ≥12 years of education and 72.6 % nonsmokers. Support to 100 % smoke-free environment legislation was higher in older than in younger respondents, OR = 1.5 (IC: 1.2–2.0), and in people with higher education levels, OR = 1.2 (IC: 1.1–1.4). Exposure to SHS was significantly lower in men than in women at home and in public places, IRR = 0.7 (IC: 0.5–0.9) and IRR = 0.8 (IC: 0.6–0.9), respectively. Older respondents reported lower exposure at home and in public places than adolescents and young adults, IRR = 0.6 (IC: 0.4–0.9), IRR = 0.4 (IC: 0.3–0.5), respectively. People with higher education levels had a higher level of exposure in indoor public places than less educated people, IRR = 1.1 (IC: 1.1–1.2). Knowledge of respiratory disease in children caused by SHS exposure was lower in men than in women, RRR = 0.3 (IC: 0.1–0.6). Perceived compliance was higher in men than in women, OR = 1.4 (IC: 1.1–1.7). People with higher education levels, OR = 1.2 (IC: 1.1–1.4). Older and more educated respondents were more empowered than younger and less educated people, OR = 1.5 (IC: 1.2–1.9) and OR = 1.2 (IC: 1.1–1.3), respectively. Reference groups for each variable were age: 15–29; education: ≤7 years; and sex: men.

Conclusions

This is the first study to explore socio-demographic variables regarding secondhand smoke in our country. Women and young people are more vulnerable to SHS-related factors in Argentina.

<http://www.springerlink.com/content/u7up1m27537767h8/>

Lung and breast cancer mortality among women in France: Future trends

[Cancer Epidemiol.](#) 2012 Aug 6. [Epub ahead of print]

[Eilstein D](#), [Eshai K](#).

Abstract

Estimates of mortality in future years are crucial for communication, prevention and anticipation related to the burden of disease for developing scenarios studying the effects of reducing environmental exposure. The aim of this study is to project observed mortality in France for lung and breast cancer among females to 2021. Projections of mortality rates are based on a Bayesian period-cohort model and a Poisson distribution. We used cancer mortality data from the French mortality register (period 1977-2006) and population data from population registers (estimated for 1977-2006 and projected for period 2007-2021 using five scenarios: largest, smallest, youngest, older, average population). Alternative models were tested (generalized additive model, negative binomial distribution). For the average population scenario, lung and breast cancer mortality rates age-standardized to the world population are respectively: 11.5 per 10(5) women (Credibility interval: 10.3-12.8) and 15.9 (14.4-17.6) in 2007-2011, 14.6 (11.7-18.1) and 11.6-18.0 in 2012-2016, 18.2 (12.6-26.0) and 13.3 (9.1-18.9) in 2017-2021. Projections show an ongoing increase for lung cancer and decrease for breast cancer mortality rates, which are expected to be equal in 2012-2016. Compared projections of these cancers using a similar method had not been done before. Aggressive prevention strategies targeting smoking among women are needed to control this fast growing epidemic of avoidable cancer. Planning of health care capacity for diagnosis and treatment of cancer among females is also necessary.

<http://www.sciencedirect.com/science/article/pii/S1877782112001051>

Letter to the Editor

Tobacco and health: with or without pictures, nothing redeems smoking

[Curr Oncol.](#) 2012 Aug;19(4):e229-31.

[Touyz LZ](#).

The Editor

Tobacco, derived from flue-cured leaves of *Nicotiana tabacum*, a herb native to South America, was introduced by Sir Walter Raleigh to Europe from the Americas in the 17th century. From about 1680, tobacco use became a global, common, and legal habit. Smoking, chewing, or snuffing all assumed to be innocent for more than 200 years. After World War II (1939–1945), huge increases in lung cancer among men were noted during 1945–1955, and in 1955, a Royal Surgeon General's report proved that tobacco was causally related to lung cancer in men. But tobacco leaves contain 2%–8% nicotine, and increased tobacco consumption is complicated by nicotine addiction.

A poisonous volatile alkaloid, nicotine at first stimulates (small doses) and then depresses (large doses) autonomic and motor junctions alike. It acts systemically on the central nervous system and on peripheral organs. It influences physiology by stimulating acetylcholine and by moderating neurotransmitters on autonomic ganglia, neural synapses, the adrenal medulla, and the synthesis of catecholamine. Accordingly, nicotine, because it affects central dopamine pathways, is regarded as a highly addictive drug. In high doses, it can be very disruptive, and it is often included in insecticides and fumigants...

People claim that tobacco and marijuana smoking have justified medical roles as calmatives and soothers of pain, discontinue nausea deriving from a variety of diseases and conditions. That argument is hollow. Therapeutically active substances are clearly accessible and, during use, can be prescribed with greater control of dose, reliability, and effectiveness than smoking as a vehicle can provide.

Financial interests promoting deceptive ideas are usually behind promotions of tobacco smoking or the use of any recreational drug. What is the best cure for smoking? Prevention. Don't start. See [Table 1](#) for a useful bibliography and some resources that help users with quitting and provide some guidelines for health care professionals...

CONCLUDING REMARKS

Used exactly as instructed by the manufacturer, tobacco is the only legal product guaranteed to cause illness and death. Since it is a drug business that also causes cancer, and the medical profession is left to sort out, salvage, treat, ameliorate, or cure the mess.

With or without pictures, nothing redeems smoking.

<http://www.current-oncology.com/index.php/oncology/article/view/848/982>

<http://www.current-oncology.com/index.php/oncology/article/view/848/952>

Note: Open Access. Full text PDF freely available from link immediately above.

Two decades of inequalities in smoking prevalence, initiation and cessation in a southern European region: 1986

[Eur J Public Health](#). 2012 Aug 8. [Epub ahead of print]

[Bacigalupe A](#), [Esnaola S](#), [Martín U](#), [Borrell C](#).

Abstract

BACKGROUND:

The smoking epidemic is still progressing in southern Europe. We aimed to analyse the magnitude and trend of social inequality in smoking prevalence, initiation and cessation in the Basque Country, a southern European region, from 1986 to 2007, determining patterns by sex and age.

METHODS:

This was a cross-sectional time trend study on the population aged >24 years using the Basque Country Health Surveys of 1992, 1997, 2002 and 2007. Age-adjusted prevalence of current and ever smoking and cessation were calculated, as were relative index of inequality and population-attributable risk by occupational social class and educational level. Relative risk of starting smoking was estimated using Cox proportional hazard regression models. Calculations were performed separately by sex and two age groups (25-44 years and >44 years).

RESULTS:

Men and young women in the Basque Country have evolved towards the last stage of the epidemic, with an increasing concentration of smoking in disadvantaged groups, by educational level, especially among the youngest population. In older women, smoking continues rising, especially among higher socio-economic groups, though differences between groups are diminishing. The relative risk of initiation and cessation inequalities as determinants of smoking inequalities differed considerably by age and sex.

CONCLUSION:

Inequalities in smoking prevalence widened from 1986 to 2007 in the Basque Country, especially among the youngest population. The changing pattern of these inequalities and the different roles of initiation and cessation dynamics need to be taken into account to improve the results of tobacco control policies and their effect on smoking inequalities.

<http://eurpub.oxfordjournals.org/content/early/2012/08/08/eurpub.cks104.abstract>

Airway epithelial cell apoptosis and inflammation in COPD, smokers and non-smokers

ERJ

Published online before print **August 9, 2012**

[DM Comer](#), [JC Kidney](#), [M Ennis](#) and [JS Elborn](#)

Abstract

We hypothesised that primary bronchial epithelial cells (PBECs) from subjects with COPD respond differently to *Pseudomonas aeruginosa* lipopolysaccharide (PA LPS) after cigarette smoke extract (CSE) exposure than PBECs obtained from smokers with airflow obstruction (SWAO) and non-smokers (NS).

PBECs from 16 COPD subjects, 10 SWAO and 9 NS were cultured at air-liquid interface. Cultures were incubated with CSE

stimulation with PA LPS. IL-6 and IL-8 were measured by ELISA and Toll-like receptor 4 expression by FACS. Activation of I was determined by western blotting and ELISA, and MAPK and caspase-3 activity by western blotting. Apoptosis was evaluated using Annexin-V staining and the terminal transferase-mediated dUTP nick end-labeling (TUNEL) methods.

Constitutive release of IL-8 and IL-6 was greatest from the COPD cultures.

However, CSE pre-treatment followed by PA LPS stimulation reduced IL-8 release from COPD PBECs, but increased it from SWAO and NS. TLR-4 expression, MAPK and NF- κ B activation in COPD cultures were reduced after CSE treatment, but not SWAO or NS groups, which was associated with increased apoptosis.

CSE attenuates inflammatory responses to LPS in cells from people with COPD but not those from non-smoking individuals those who smoke without airflow obstruction.

<http://erj.ersjournals.com/content/early/2012/08/09/09031936.00063112.abstract>

Neuronal nicotinic acetylcholine receptors: neuroplastic changes underlying alcohol and nicotine addictions

[Front Mol Neurosci](#). 2012;5:83. Epub 2012 Aug 3.

[Feduccia AA](#), [Chatterjee S](#), [Bartlett SE](#).

Abstract

Addictive drugs can activate systems involved in normal reward-related learning, creating long-lasting memories of the drug's reinforcing effects and the environmental cues surrounding the experience. These memories significantly contribute to the maintenance of compulsive drug use as well as cue-induced relapse which can occur even after long periods of abstinence. plasticity is thought to be a prominent molecular mechanism underlying drug-induced learning and memories. Ethanol and nicotine are both widely abused drugs that share a common molecular target in the brain, the neuronal nicotinic acetylcholine receptors (nAChRs). The nAChRs are ligand-gated ion channels that are vastly distributed throughout the brain and play a key role in neurotransmission. In this review, we will delineate the role of nAChRs in the development of ethanol and nicotine addiction. We will characterize both ethanol and nicotine's effects on nAChR-mediated synaptic transmission and plasticity in several key brain regions that are important for addiction. Finally, we will discuss some of the behavioral outcomes of drug-induced synaptic plasticity in animal models. An understanding of the molecular and cellular changes that occur following administration of ethanol and nicotine will lead to better therapeutic strategies.

[http://www.frontiersin.org/Molecular Neuroscience/10.3389/fnmol.2012.00083/abstract](http://www.frontiersin.org/Molecular%20Neuroscience/10.3389/fnmol.2012.00083/abstract)

Note: Open Access. Full text PDF freely available from link immediately above.

Nicotine exposure during adolescence alters the rules for prefrontal cortical synaptic plasticity during adulthood

[Front Synaptic Neurosci](#). 2012;4:3. Epub 2012 Aug 2.

[Goriounova NA](#), [Mansvelder HD](#).

Abstract

The majority of adolescents report to have smoked a cigarette at least once. Adolescence is a critical period of brain development during which maturation of areas involved in cognitive functioning, such as the medial prefrontal cortex (mPFC), is still ongoing. Tobacco smoking during this age may compromise the normal course of prefrontal development and lead to cognitive impairment later in life. In addition, adolescent smokers suffer from attention deficits, which progress with the years of smoking. Recent studies in rodents reveal the molecular changes induced by adolescent nicotine exposure that alter the functioning of synapses in the mPFC and underlie the lasting effects on cognitive function. In particular, the expression and function of metabotropic glutamate receptors (mGluRs) are changed and this has an impact on short- and long-term plasticity of glutamatergic synapses in the mPFC and on the attention performance. Here, we review and discuss these recent findings.

[http://www.frontiersin.org/Synaptic Neuroscience/10.3389/fnsyn.2012.00003/abstract](http://www.frontiersin.org/Synaptic%20Neuroscience/10.3389/fnsyn.2012.00003/abstract)

Note: Open Access. Full text PDF freely available from link immediately above.

Lifestyle-related risk factors, smoking status and cardiovascular disease

[High Blood Press Cardiovasc Prev.](#) 2012 Jun 1;19(2):85-92. doi: 10.2165/11632140-000000000-00000.

[Giudice R](#), [Izzo R](#), [Manzi MV](#), [Pagnano G](#), [Santoro M](#), [Rao MA](#), [Di Renzo G](#), [De Luca N](#), [Trimarco V](#).

Abstract

Background: Cardiovascular disease represents one of the most important causes of morbidity and mortality in highly developed countries and is known to be associated with some lifestyle-related risk factors (e.g. alcohol consumption, smoking status, physical activity, bodyweight). There is still incomplete information about their combined effect on cardiovascular risk in hypertensive patients with optimal pharmacological blood pressure control. **Aim:** The objective of this study was to evaluate the correlation between lifestyle behaviours, using a specific questionnaire, with development of cardiovascular disease in treated hypertensive patients. **Methods:** 617 hypertensive, non-diabetic participants (aged 53.1 ± 7.6 years, 44.9% male; mean age 53.1 ± 7.6 years) free of prevalent cardiovascular disease, cancer, liver cirrhosis and/or failure, chronic kidney disease more than grade 3 (glomerular filtration rate by the Modification of Diet in Renal Disease study $<30 \text{ mL/min/1.73 m}^2$) were analysed. Metabolic syndrome was defined according to the Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Treatment Panel III). Left ventricular hypertrophy was defined when left ventricular mass index was $>51 \text{ g/m}^2$. Carotid artery atherosclerosis was assessed as an increased intima medial thickness (IMT) by B-mode ultrasonography. IMT values between 0.5 and 1.3 mm were defined as 'thickening' and those $>1.3 \text{ mm}$ as 'plaque'. Assessment of smoking status, dietary and non-dietary risk factors was established by administration of a specific questionnaire. **Results:** In the initial population of examined patients, 329 were smokers and 288 were non-smokers. At baseline, the patients belonging to the smoking group were less often overweight than those belonging to the non-smoking group, showing a lower initial body mass index (BMI) [27.54 ± 4.0 vs 28.28 ± 4.3 ; $p < 0.029$], lower plasma levels of high-density lipoprotein cholesterol (HDL-C) [48.14 ± 12.6 vs $51.39 \pm 14.1 \text{ mg/dL}$; $p < 0.006$] and were more often affected by carotid artery atherosclerosis (93.9 % vs 86.1%; $p < 0.002$) than non-smoking patients. When analysed for dietary and other lifestyle-related risk factors, we found a higher prevalence of carotid atherosclerotic disease in patients consuming less than two meals per day than in those consuming more than two meals per day (96.6% vs 85.7%; $p < 0.001$), without any significant difference in the mean number of medications taken and in specific classes of medications. Total amount of cigarettes smoked was calculated as packs per year (39.14 ± 16.5 vs 20.81 ± 13.6 ; $p < 0.0001$) was higher in patients with a diagnosis of atherosclerotic disease of the carotid artery than in patients free of this disorder, whereas the average age at which people began smoking was lower (17.58 ± 6.3 vs 21.53 ± 10.2 years). In a binary model of logistic regression adjusted for BMI, HDL-C, smoking status and number of daily meals, only smoking status was confirmed to be strongly correlated to clinical evidence of carotid atherosclerosis ($p < 0.001$). **Conclusions:** In hypertensive patients, in optimal blood pressure control, smoking status has been shown to be independently associated with an increased maximum arterial intima medial thickness (IMT_{max}). In particular, an increase of the IMT was associated with the amount of cigarettes smoked (calculated as packs per year) and the average age at which people began smoking.

[http://adisonline.com/highbloodpressure/Abstract/2012/19020/Lifestyle Related Risk Factors. Smoking Status and.6.aspx](http://adisonline.com/highbloodpressure/Abstract/2012/19020/Lifestyle%20Related%20Risk%20Factors.%20Smoking%20Status%20and%206.aspx)

Effect of smoking on the functional aspects of sperm and seminal plasma protein profiles in patients with varicocele

[Hum Reprod.](#) 2012 Aug 3. [Epub ahead of print]

[Fariello RM](#), [Pariz JR](#), [Spaine DM](#), [Gozzo FC](#), [Pilau EJ](#), [Fραιietta R](#), [Bertolla RP](#), [Andreoni C](#), [Cedenho AP](#).

Abstract

STUDY QUESTION What are the effects of smoking on the functional aspects of the sperm, the levels of lipid peroxidation and the protein profile of seminal plasma in patients with varicocele? **SUMMARY ANSWER** In men with varicocele, smoking is associated with altered semen quality, decreased sperm functional integrity and seminal oxidative stress. Alterations in seminal plasma protein profiles are also present and may explain the altered semen phenotype. **WHAT IS KNOWN ALREADY** Varicocele is a major cause of male infertility. It reduces testicular blood renewal with a consequent accumulation of toxic substances. Thus, it can potentiate the toxic effects of environmental exposure to genotoxic substances such as those found in cigarette smoke. **STUDY DESIGN, SETTING AND DURATION** A cross-sectional study was performed in 110 patients presenting with varicocele to the Human Reproduction Section of the Sao Paulo Federal University (2006-2010). The patients were divided into a control group of non-smokers, a moderate smokers group and a heavy smokers group. **PARTICIPANTS/MATERIALS, SETTING AND METHODS** Semen parameters were analysed by standard methods. Sperm DNA integrity and mitochondrial activity were assessed by Comet assays and by 3,3'-diaminobenzidine deposition, respectively. The level of lipid peroxidation in semen was determined by malondialdehyde quantification. Proteomic studies were performed by 2D-electrophoresis and mass spectrometry. **MAIN RESULTS AND THE ROLE OF CHANGING** Both groups of smokers showed reduced semen quality in comparison with the control group. In the groups of smokers, sperm DNA integrity and mitochondrial activity were also decreased and lipid peroxidation levels were increased. Proteomic analyses revealed several proteins differentially expressed between the study groups. **LIMITATIONS AND REASONS FOR CAUTION** A study including non-smokers without varicocele is still warranted as these results apply only to smokers who present varicocele. **WIDER IMPLICATIONS**

OF THE FINDINGS Patients with varicocele who are exposed to tobacco smoking present more important alterations to sperm quality and sperm functional integrity and show changes in the seminal plasma proteome. This suggests testicular, and possibly systemic, adverse effects of smoking.

<http://humrep.oxfordjournals.org/content/early/2012/08/03/humrep.des287.abstract>

Outdoor Smoking Ban at a Cancer Center: Attitudes and Smoking Behavior Among Employees and Patients

Journal of Public Health Management & Practice:
September/October 2012 - Volume 18 - Issue 5 - p E24–E31

Unrod, Marina PhD; Oliver, Jason A. MA; Heckman, Bryan W. MA; Simmons, Vani Nath PhD; Brandon, Thomas H. PhD

Abstract

Policies restricting indoor worksite tobacco use began being implemented more than a decade ago. More recently, the scope of these policies has been expanding to outdoors, with hospitals leading the trend in restricting smoking throughout their grounds. However, research on the effects such bans have on employees is scarce. The purpose of the current study was to examine the impact of a campus-wide smoking ban on employees and patients at a cancer center. Employees completed anonymous questionnaires during the months before ($n = 607$; 12% smokers) and 3 months after the ban implementation ($n = 511$; 10% smokers). Patients ($n = 278$; 23% smokers) completed an anonymous questionnaire preban. Results showed that 86% of nonsmokers, 20% of employees who smoke, and 57% of patients who smoke supported the ban. More than 70% of smokers planned or thinking about quitting at both time points and nearly one-third were interested in cessation services following the ban. Before the ban, 32% expected the ban to have a negative effect on job performance and 41% thought their smoking before and after work would increase. Postban, 22% reported a negative impact on job performance, 35% increased smoking before and after work, and 7% quit. Overall, these data revealed an overwhelming support for an outdoor smoking ban by nonsmoker employees and patients. Although a majority of employee smokers opposed the ban, a significant proportion was interested in cessation. Consistent with preban expectations, a lower proportion experienced negative effects postban. Findings suggest a need for worksite cessation programs to capitalize on the window of opportunity created by tobacco bans, while also addressing concerns about effects on job performance.

http://journals.lww.com/jphmp/Abstract/2012/09000/Outdoor_Smoking_Ban_at_a_Cancer_Center_Attitudes.17.aspx

Related PR:

Attitudes toward outdoor smoking ban at Moffitt Cancer Center evaluated

http://www.sciencecodex.com/attitudes_toward_outdoor_smoking_ban_at_moffitt_cancer_center_evaluated-96375

How do impulsivity and education relate to smoking initiation and cessation among young adults?

[J Stud Alcohol Drugs](#). 2012 Sep;73(5):804-10.

[Kvaavik E, Rise J.](#)

Abstract

Objective: This study examined the predictive value of impulsivity for starting and quitting smoking and whether education had an independent effect on smoking careers or moderated the impulsivity-smoking association. **Method:** Two waves of the cohort Young in Norway were used in the present study (third wave: 1999, age range: 19-32 years; fourth wave: 2005, age range: 25-32 years). Postal questionnaires were used for data collection. Subjects participating in 1999 and 2005 were eligible ($N = 2,562$). Smokers (daily smokers in 1999 and 2005) and nonsmokers (never smokers in 1999 and 2005), quitters (daily smokers in 1999 and 2005), and starters (never smokers in 1999, daily smokers in 2005) constituted the analytical sample (1,776 men and 1,786 women). The associations between self-reported impulsivity and education and smoking were investigated using logistic regression analyses. **Results:** The odds ratio (OR) for a 1-unit increase in the impulsivity score was 2.16 (95% CI [1.09, 4.30]) for smoking initiation, whereas the OR [95% CI] for low compared with high education was 2.55 (95% CI [1.36, 4.77]). Education, but not impulsivity, emerged as a significant determinant for smoking cessation compared with continued smoking. The OR for quitting smoking by low compared with high education was 0.61 (95% CI [0.42, 0.90]). Mutual adjustment for education and impulsivity did not change any of the results. The interaction term between impulsivity and education was not significantly related to smoking initiation. **Conclusions:** Because impulsivity emerged as important for smoking initiation regardless of educational level, it should be considered when planning and implementing smoking prevention programs for both low and high socioeconomic groups.

<http://www.jsad.com/jsad/article/How-Do-Impulsivity-and-Education-Relate-to-Smoking-Initiation-and-Cessation/4737.html>

Also:

Self-administered web-based timeline followback procedure for drinking and smoking behaviors in young adults

<http://www.jsad.com/jsad/article/SelfAdministered-WebBased-Timeline-Followback-Procedure-for-Drinking-and-/4740.html>

Current Tobacco Use Among Middle and High School Students — United States, 2011

MMWR Weekly

August 10, 2012 / 61(31);581-585

Tobacco use continues to be the leading preventable cause of death and disease in the United States, with nearly 443,000 occurring annually because of cigarette smoking and exposure to secondhand smoke (1). Moreover, nearly 90% of adult smokers begin smoking by age 18 years (2). To assess current tobacco use among youths, CDC analyzed data from the 2011 National Tobacco Survey (NYTS). This report describes the results of that analysis, which indicated that, in 2011, the prevalence of current tobacco use among middle school and high school students was 7.1% and 23.2%, respectively, and the prevalence of current cigarette use was 4.3%, and 15.8%, respectively. During 2000–2011, among middle school students, a linear downward trend was observed in the prevalence of current tobacco use (14.9% to 7.1%), current combustible tobacco use (14.0% to 6.3%), and current cigarette use (10.7% to 4.3%). For high school students, a linear downward trend also was observed in these measures (current tobacco use [34.4% to 23.2%], current combustible tobacco use [33.1% to 21.0%], and current cigarette use [27.9% to 15.8%]). Interventions that are proven to prevent and reduce tobacco use among youths include media campaigns, limiting advertising and other promotions, increasing the price of tobacco products, and reducing the availability of tobacco products for purchase by youths. These interventions should continue to be implemented as part of national comprehensive tobacco control programs and should be coordinated with Food and Drug Administration (FDA) regulations restricting the sale, distribution, and marketing of cigarette and smokeless tobacco products to youths...

From 2009 to 2011, among middle school students, no statistically significant declines were observed for any of the tobacco measures. Among high school students, overall declines in current kretek use were observed (2.4% to 1.7%) (Table). Among middle school students, current bidi use and current kretek use among females declined from 2.1% to 1.0% and from 1.9% to 0.8%, respectively; among non-Hispanic whites, current kretek use declined from 2.4% to 1.4%; among Hispanics, current cigarette use declined from 19.2% to 15.8%; and among non-Hispanic blacks, an increase in current cigar use (7.1% to 11.7%) was observed.

From 2000 to 2011, among middle school students, significant linear downward trends were observed for current tobacco use (14.9% to 7.1%), current combustible tobacco use (14.0% to 6.3%), and current cigarette use (10.7% to 4.3%) (Figure 1). Among high school students, significant linear downward trends were observed for current tobacco use (34.4% to 23.2%), current combustible tobacco use (33.1% to 21.0%), and current cigarette use (27.9% to 15.8%) (Figure 2)...

Reported by

René A. Arrazola, MPH, Shanta R. Dube, PhD, Martha Engstrom

...Although comprehensive tobacco control programs are effective in decreasing tobacco use in the United States, they remain underfunded (8). During 1998 to 2010 states have received a total of \$243.8 billion in tobacco settlement and cigarette excise revenues (8); however, only \$8.1 billion (2.8%) was dedicated to state tobacco control programs (8). Many states are facing budgetary cuts, resulting in near elimination of their tobacco control programs (8). Evidence indicates that low levels of tobacco control funding lead to low levels of media campaigns focusing on tobacco use prevention among youths (4), which might be a reason why current declines are occurring much more slowly than those observed during the period 1997–2003, which saw a 50% decline (9). Fully funding and implementing comprehensive tobacco control programs might have further impact on preventing and reducing tobacco use among youths. A combination of sustained funding at CDC-recommended levels (3), effective population-based strategies (e.g., price increases and smoke-free policies) (2), and enforcement of the Family Smoking Prevention and Tobacco Control Act (10) are needed to influence changes in social norms around cigarette and any other tobacco use among youths.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a1.htm>

<http://www.cdc.gov/mmwr/pdf/wk/mm6131.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Related coverage:

Study finds slowing drop in youth tobacco use

<http://www.reuters.com/article/2012/08/09/us-usa-health-tobacco-idUSBRE87813R20120809>

Gradual Drop in Youth Tobacco Use Continues, but Significant Problem Areas Remain

http://www.healthnewsdigest.com/news/Children_s_Health_200/Gradual_Drop_in_Youth_Tobacco_Use_Continues_but_Significant_Problem_Areas_Remain.shtml

Smoking Cessation Increases Short-Term Risk of Type 2 Diabetes Irrespective of Weight Gain: The Japan Public Health Center-Based Prospective Study

PLoS One. 2012;7(2):e17061. Epub 2012 Feb 13.

[Oba S](#), [Noda M](#), [Waki K](#), [Nanri A](#), [Kato M](#), [Takahashi Y](#), [Poudel-Tandukar K](#), [Matsushita Y](#), [Inoue M](#), [Mizoue T](#), [Tsugane S](#); [Japan Public Health Center-based Prospective Study Group](#).

Abstract

OBJECTIVE:

The effect of smoking cessation on the risk of diabetes has been reported previously. However, it is unknown whether the risk is influenced by weight gain and other potential risk factors.

METHODS:

The Japan Public Health Center-Based Prospective Study established in 1990 for Cohort I and in 1993 for Cohort II provided data on 25,875 men and 33,959 women were analyzed. The response rate to the baseline questionnaire was 80.9%, and 68.4% of the respondents participated both the 5- and 10-year follow-up surveys. Smoking cessation was noted during the initial five years. The development of diabetes was reported in the subsequent five years.

RESULTS:

An increased risk was observed among individuals who newly quit smoking compared with never smokers among men (odds ratio (OR)=1.42, 95% CI=1.03-1.94) and women (OR=2.84, CI=1.53-5.29). The risk of developing diabetes among male new quitters who gained 3 kg or more during the 5-year follow-up did not substantially differ from the risk among male never smokers with less than 3 kg of weight gain or no weight gain, while an increased risk was observed among male new quitters with less or no weight gain (OR=1.46, 95%CI 1.00-2.14). An insignificant increased risk was observed among male new quitters with a family history of diabetes compared with male never smokers with a family history of diabetes. The risk was more than twice as high for male new quitters who used to smoke 25 or more cigarettes per day compared with never smokers (OR=2.15, 95%CI: 1.34-3.47).

DISCUSSION:

An increased risk of diabetes was implied among individuals who quit smoking. However, the increased risk was not implied among those who gained weight over the 5-years of follow-up. Those who had major risk factors for diabetes or who smoked heavier cigarettes were at higher risk.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0017061>

Note: Open Access. Full text PDF freely available from link immediately above.

Radiation and Smoking Effects on Lung Cancer Incidence by Histological Types Among Atomic Bomb Survivors

Radiat Res. 2012 Aug 3. [Epub ahead of print]

[Egawa H](#), [Furukawa K](#), [Preston D](#), [Funamoto S](#), [Yonehara S](#), [Matsuo T](#), [Tokuoka S](#), [Suyama A](#), [Ozasa K](#), [Kodama K](#), [Mabuchi T](#)

Abstract

While the risk of lung cancer associated separately with smoking and radiation exposure has been widely reported, it is not clear how smoking and radiation together contribute to the risk of specific lung cancer histological types. With individual smoking and radiation dose estimates, we characterized the joint effects of radiation and smoking on type-specific lung cancer rates :

the Life Span Study cohort of Japanese atomic bomb survivors. Among 105,404 cohort subjects followed between 1958 and 1,803 first primary lung cancer incident cases were diagnosed and classified by histological type. Poisson regression method used to estimate excess relative risks under several interaction models. Adenocarcinoma (636 cases), squamous-cell carcinoma (330) and small-cell carcinoma (194) made up 90% of the cases with known histology. Both smoking and radiation exposure significantly increased the risk of each major lung cancer histological type. Smoking-associated excess relative risks were significantly larger for small-cell and squamous-cell carcinomas than for adenocarcinoma. The gender-averaged excess relative risk per 1 Gy of radiation (for never-smokers at age 70 after radiation exposure at age 30) were estimated as 1.49 (95% confidence interval 0.1-4.6) for small-cell carcinoma, 0.75 (0.3-1.3) for adenocarcinoma, and 0.27 (0-1.5) for squamous-cell carcinoma. A model allowing radiation effects to vary with levels of smoking, the nature of the joint effect of smoking and radiation showed a pattern for different histological types in which the radiation-associated excess relative risk tended to be larger for moderate than for heavy smokers. However, in contrast to analyses of all lung cancers as a group, such complicated interactions did not describe the data significantly better than either simple additive or multiplicative interaction models for any of the type-specific analyses.

<http://www.bioone.org/loi/rare>

Arsenic exposure and tobacco consumption: Biomarkers and risk assessment

[Regul Toxicol Pharmacol.](#) 2012 Aug 1. [Epub ahead of print]

[Marano KM](#), [Naufal ZS](#), [Kathman SJ](#), [Bodnar JA](#), [Borgerding MF](#), [Wilson CL](#),
R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA.

Abstract

Arsenic is measurable in tobacco and cigarette mainstream smoke (MSS). Whether arsenic has an independent role in disease associated with tobacco consumption is not known. Epidemiology and biomonitoring data and probabilistic risk assessment methods were used to investigate this potential association. Analysis of data from the National Health and Nutrition Examination Survey (NHANES) showed that urine arsenic concentrations in tobacco consumers were not different or were lower than levels in non-consumers of tobacco. Additionally, urine arsenic levels from NHANES tobacco consumers were five-times or more lower than levels reported in epidemiology studies to be associated with adverse health effects. Results of PRA indicated that mean non-cancer hazard estimates and mean incremental lifetime cancer risk estimates were within accepted ranges. Taken together, these results suggest that arsenic may not be independently associated with tobacco consumption or diseases related to tobacco consumption.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

<http://www.sciencedirect.com/science/article/pii/S0273230012001456>

Note: Tobacco industry research.

Smoking and Early Pregnancy Thyroid Hormone and Anti-Thyroid Antibody Levels in Euthyroid Mothers of the Northern Finland Birth Cohort 1986

[Thyroid.](#) 2012 Aug 8. [Epub ahead of print]

[Männistö T](#), [Hartikainen AL](#), [Väärasmäki M](#), [Bloigu A](#), [Surcel HM](#), [Pouta A](#), [Järvelin MR](#), [Ruokonen A](#), [Suvanto E](#).

Abstract

Background: Smokers in the general population have lower thyrotropin (TSH) and higher free triiodothyronine (fT3) and free thyroxine (fT4) concentrations, but the results in pregnant population vary from no effect to a decrease in TSH and fT4 concentrations and an increase in fT3 levels. Our objective was to further evaluate the question of whether there is an association between smoking and during pregnancy, with maternal thyroid function during pregnancy and with the risk for subsequent hypothyroidism. **Methods:** Our study population was a prospective population-based cohort (N=9362), the Northern Finland Birth Cohort 1986, with extended data throughout gestation. The mothers underwent serum sampling in early pregnancy. The samples were assayed for TSH, thyroid-peroxidase antibodies (TPO-Ab), and thyroglobulin antibodies (TG-Abs) (N=5805). Mothers with thyroid dysfunction before or during pregnancy were excluded, leaving 4837 euthyroid mothers. The smoking status of mothers and fathers were requested by questionnaires during pregnancy. Subsequent maternal morbidity relating to hypothyroidism 20 years after the

pregnancy was evaluated using national registers. Results: Euthyroid mothers who smoked before, or continued smoking during the first trimester of pregnancy, had higher serum fT3 ($p < 0.001$) and lower fT4 ($p = 0.023$) concentrations than nonsmokers. Smoking during the second trimester was associated with higher fT3 ($p < 0.001$) concentrations, but no difference in fT4 concentrations compared with nonsmokers. TG-Abs were less common among smoking than nonsmoking mothers (2.5% vs. 4.7%, $p < 0.001$), but the prevalence of TPO-Ab was similar. Paternal smoking had no independent effect on maternal early pregnancy thyroid hormone or antibody concentrations. The risk of subsequent maternal hypothyroidism after follow-up of 20 years was similar among prepregnancy smokers and nonsmokers. Conclusions: In euthyroid women, smoking during pregnancy was associated with higher fT3 levels and lower fT4 levels; possibly reflecting smoking-induced changes in peripheral metabolism of thyroid hormones. No differences were found in TSH concentrations between smokers and nonsmokers. Our results differ from those of the general population, which usually have shown smoking-induced thyrotoxicosis. Decreases in fT4 levels among smokers might predispose to hypothyroidism or hypothyroxinemia during pregnancy. Despite changes in thyroid function, smoking did not increase the woman's risk of subsequent hypothyroidism.

<http://online.liebertpub.com/doi/abs/10.1089/thy.2011.0377>

Current smoking status may be associated with overt albuminuria in female patients with type 1 diabetes mellitus: a cross-sectional study

Tobacco Induced Diseases 2012, 10:12 (10 August 2012)

Okada K, Osuga J, Kotani K, Yagyu H, Miyamoto M, Nagasaka S, Ishibashi S

Abstract

Background

There are very few clinical reports that have compared the association between cigarette smoking and microangiopathy in Asian patients with type 1 diabetes mellitus (T1DM). The objective of this study was to assess the relationships between urinary protein concentrations and smoking and gender-based risk factors among patients with T1DM.

Methods

A cross-sectional study of 259 patients with T1DM (men/women = 90/169; mean age, 50.7 years) who visited our hospital for more than 1 year between October 2010 and April 2011 was conducted. Participants completed a questionnaire about their smoking habits. Patient characteristics included gender, age, body mass index, blood pressure, hemoglobin A1c, lipid parameters, and microangiopathy. Diabetic nephropathy (DN) was categorized as normoalbuminuria (NA), microalbuminuria (MA), or overt albuminuria (OA) on the basis of the following urinary albumin/creatinine ratio (ACR) levels: NA, ACR levels less than 30 mg/g creatinine; MA, ACR levels between 30 and 299 mg/g Cr; and OA, ACR levels over 300 mg/g Cr.

Results

The percentages of current nonsmokers and current smokers with T1DM were 73.0% ($n = 189$) and 27.0% ($n = 70$), respectively. In addition, the percentage of males was higher than that of females (52.2% versus 13.6%) in the current smoking population. The percentage of DN was 61.8% ($n = 160$) in patients with NA, 21.6% ($n = 56$) in patients with MA, and 16.6% ($n = 29$) in patients with OA. The percentage of males among OA patients was also higher than that of females (24.4% versus 12.4%). However, current smoking status was associated with OA in females with T1DM only [unadjusted odds ratio (OR), 4.13; 95% confidence interval (CI), 1.45–11.73, $P < 0.01$; multivariate-adjusted OR, 5.41; 95% CI, 1.69–17.30, $P < 0.01$].

Conclusions

Based on our results in this cross-sectional study of Asian patients with T1DM, smoking might be a risk factor for OA among female patients. Further research is needed of these gender-specific results.

<http://www.tobaccoinduceddiseases.com/content/10/1/12/abstract>
<http://www.tobaccoinduceddiseases.com/content/pdf/1617-9625-10-12.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Smoking during pregnancy: a retrospective analysis of West Virginia adolescents

[W V Med J. 2012 Jul-Aug;108\(4\):28, 30-2, 34-6.](#)

[McCave EL, Shifflet A.](#)

Introduction

The issue of teen pregnancy is an ongoing national social problem, as is the issue of tobacco use during adolescence. There is clear evidence of negative economic and health outcomes associated with each of these issues.^{1,2} These two social problems warrant significant research and intervention. An area that is equally important is where these two social problems meet, that is the issue of pregnant teen smoking during pregnancy. This is one population that especially should be the focus of research and intervention work.

The percent of pregnant teens who report smoking tobacco varies, as do their reasons for smoking during pregnancy. Kaiser and Hays found that 27% (n = 145) of adolescent pregnant females between the ages of 15 and 18 smoked during pregnancy.³ In another study,⁴ mothers under the age of 20 reported smoking during their pregnancy compared to 15% of mothers who were between the ages of 30 and 39. One reason that more pregnant teens may smoke compared to adult pregnant women is because of their developmental stage. Peer connection and acceptance is extremely important to adolescents and those who are pregnant report trying to reduce weight gain during pregnancy to avoid criticism from friends and dating partners...

Conclusion

This data reveals that tobacco use among pregnant teens is a statewide concern in West Virginia. Important demographic and health characteristics of the West Virginian teens who gave birth during 2003-2008 were presented. Several ideas were discussed for future research and intervention efforts for better understanding the complexities involved for this population as well as how to address this social problem. Moving forward with evidence-based research and interventions to improve tobacco prevention and cessation is in line with the priorities of the West Virginia Department of Health and Human Services...

<http://www.wvsma.com/Portals/0/JulAug2012.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

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