



**ROYAL  
COLLEGE OF  
PHYSICIANS  
OF IRELAND**

**Position statement:  
Occasional smoking and its associated health risks**

RCPI Policy Group on Tobacco  
June 2018



---

## Introduction

The Royal College of Physicians of Ireland has a commitment to reducing health harms in order to protect the long-term health of the nation. RCPI's Trainees, Members and Fellows have a key leadership and advocacy role to play in supporting individuals and communities to take effective action for good health. Drawing on their knowledge and expertise, evidence-based policy has been developed in key areas of healthcare such as alcohol, healthcare-associated infection and sexual health. More recently RCPI has also established policy groups on Obesity and Tobacco, and advocates for national policy to address these issues. RCPI's Faculty of Public Health Medicine is specifically concerned with protecting and improving the health of the nation, and as such seeks to influence policy makers with a view to improving and protecting the health of all populations. The Faculty has engaged in action on smoking in numerous ways:

- Spokespersons from the Faculty have provided accurate evidence-based health information to the public on the health dangers of smoking.
- The Faculty has made pre-budget submissions to the Department of Finance recommending fiscal measures to reduce smoking rates.
- The Faculty has presented research and information on Tobacco harms at public meetings, Faculty Scientific Meetings and other RCPI events.
- The Faculty of Public Health Medicine and the HSE jointly established the Clinical Care Programme in the Prevention of Chronic Disease which includes smoking as one of the key risk factors for chronic disease.

---

## Background

Occasional smoking is a broad term that encapsulates a variety of smoking patterns. For the purposes of this position paper, occasional smoking is defined as any smoking which occurs on a less than daily basis. Social smoking is a sub-group of occasional smoking which is smoking primarily carried out in social contexts. Evidence from the US suggests that although daily smoking is decreasing, occasional is increasing in prevalence [1, 2]. The literature demonstrates that occasional smoking is associated with significant health risks including cardiovascular disease, lung cancer and fertility problems. Yet this group are rarely targeted in anti-tobacco public health campaigns.

### What's the problem?

- Occasional smoking is associated with significant health risks

### What's the solution?

- Health promotion campaigns on the dangers of any pattern of smoking and increased anti-smoking legislation will lead to decreased occasional smoking prevalence rates in Ireland

### What next?

- Raise awareness about the dangers of occasional smoking
- Ensure smoking history in routine clinical assessment enquiries specifically ask about occasional smoking
- Perform research into occasional smoking in order to identify the most effective tobacco cessation treatments for this particular group of smokers

### Recommendations

- Better awareness about the dangers of occasional smoking is needed amongst the general public and health care professionals
- Health promotion campaigns on the dangers of any pattern of smoking and stricter smoking bans need to be implemented in order to assist in decreasing the number of people who occasionally smoke
- Other lifestyle risk factors including occasional smoking and its associations with alcohol need to be addressed
- Improved understanding on why occasional smokers initiate and continue to smoke in this pattern is required
- The role of different smoking cessation techniques to address the behavioural patterns of occasional smokers need to be examined
- More research is needed on the long-term smoking patterns and health effects of occasional smoking

---

## **Characteristics of occasional smokers**

### Biological and psychological basis to occasional smoking behaviour

It is now widely accepted that any level of tobacco smoke exposure is dangerous for one's health. Regular smoking is known to be sustained by nicotine dependence. Regular smokers engage in tobacco smoking on a daily basis in order to maintain nicotine levels and avoid symptoms of nicotine withdrawal [3]. However, there are a significant number of smokers who do so in an occasional or less than daily pattern whose smoking pattern is not explained by nicotine addiction as daily smoking is. Research to date on this cohort of smokers demonstrates that occasional smokers are a heterogeneous group of smokers with varying smoking patterns.

### **Profile of occasional smokers**

In general, occasional smoking is more common in young adults who have a higher level of income and education when compared with daily smokers [4-6]. Occasional smokers are more likely to start smoking later, are more likely to be female [6] and to be from an ethnic minority [7]. This group of smokers often have significant difficulty quitting tobacco smoke with quit rates not that much higher than that of daily smokers [8]. Although daily smokers in general demonstrate tobacco dependence, some authors report that occasional smokers do also exhibit some features of tobacco dependence [9]. Other studies have found no such link using standard measures of nicotine dependence [6, 10].

What is clear is that the sociodemographic and psychological drivers of occasional smoking are different from daily smoking. Smoking cessation techniques should be tailored to the smoking phenotype.

### **Long term patterns in occasional smoking**

Regarding the long-term smoking pattern of occasional smokers, a Swedish study demonstrated that 60% remain occasional smokers, 16% become daily smokers and 24% quit smoking at one year follow up [11]. Occasional smoking has been shown to be itself an established pattern of smoking and smokers can maintain this one pattern for many years [6]. Many studies examining the long term smoking pattern of occasional smokers were not longer than 1-2 years. A recent long term study from New Zealand followed up smokers with different smoking patterns over a 17 year period (from the age of 21 to 38 years) and demonstrated that 13% of occasional smokers progressed onto daily smoking whereas only 4% of non-smokers progressed onto daily smoking [12]. This study highlights that young adults who occasionally smoke are at a much higher risk of becoming daily smokers when compared with non-smokers.

### **Current perceptions of occasional smokers on their behaviour**

To date there has been some worrying evidence published on the harm perceptions of occasional smoking. Many perceive occasional smoking to be less addictive and significantly less harmful than daily smoking [1, 13, 14]. A recent US survey found that nearly one-quarter of all adolescents believe that occasional smoking will cause little or no harm [13]. The tobacco industry often falsely promote

---

light and flavoured brands as less dangerous options for smoking but these are myths propagated by an industry looking to foster nicotine dependence in youths. Many occasional smokers do not even consider themselves to be smokers [15]. Therefore, they often go under the radar of surveys and research studies examining smoking behaviours. This attitude also presents a significant challenge when attempting to assist occasional smokers with quitting. How do you get someone to quit something when they don't believe they are doing anything wrong?

### **Current evidence on occasional smoking and its impact on health**

Although occasional smoking demonstrate considerable day-to-day variability in tobacco consumption, there is evidence that occasional smokers maintain this smoking pattern over many years thus significantly increasing their long-term exposure to tobacco smoke [6]. A number of cohort studies have demonstrated that occasional smoking is associated with increased mortality. A recent Norwegian study reported a 38% increase in mortality in the occasional smoking group when compared with people who never smoked [16]. Occasional smokers carry nearly the same risk for cardiovascular disease as daily smokers [17]. A recent meta-analysis showed that smoking only about one cigarette per day carries almost half the risk of developing coronary heart disease and stroke when compared to smoking 20 cigarettes per day [18]. For those who smoke five cigarettes a day, this risk increases to 55-65% compared with those who smoke 20 cigarettes a day.

Regarding lung cancer, women between 35 and 49 years of age who smoke 1-4 cigarettes a day are five times more likely to develop lung cancer when compared with non-smokers. In men, the risk is three fold [19].

Other conditions associated with occasional smoking include protracted respiratory illnesses, cataracts, infertility, osteoporosis and pregnancy complications [17].

Overall heavier smoking is associated with greater health risks, but occasional smoking is associated with a significant increased risk of health problems when compared with non-smokers.

### **Alcohol and tobacco co-use in occasional smokers**

Research demonstrates that occasional smokers are more likely to smoke in certain situations when compared with daily smokers. Alcohol consumption, socialising and being around other smokers were the top three smoking situations found in a study from 2012 [6]. Alcohol and tobacco misuse have long been intertwined with each other and it is widely accepted that alcohol drinkers are more likely to smoke cigarettes [20-22]. Recent research on young adults demonstrates the devastating potentiating effects seen between the two as alcohol increases a craving for cigarettes while tobacco enhances the effects of alcohol [23, 24].

76% of the Irish population drink alcohol, with 53% of drinkers doing so at least weekly. In regard to binge drinking, 39% of Irish people reported heavy episodic drinking in the past 30 days. This places Ireland just behind Austria at the top of the list out of 194 countries studied. One in five (21.1%) drinkers engage in binge drinking at least once a week. Ireland's alcohol problem is likely exacerbating our smoking rates. Binge drinkers are more likely to smoke than non-binge drinkers [25]. Addressing alcohol consumption, particularly in young adults, should form an important part of smoking cessation campaigns.

---

## **Irish perspective on occasional smoking**

Recent data from the Healthy Ireland survey provides important information on the prevalence rates and attitudes of occasional smoking in Ireland. Currently, the prevalence of regular smoking in Ireland stands at 19%. Nearly one-fifth (4%) of adult smokers engage in occasional smoking [26]. Four-out-of-five (81%) occasional smokers, smoke at least once a week. Similar to other reports, occasional smokers in Ireland are mainly young adults, well-educated and belong to higher/professional occupations. However, there is no gender difference in occasional smokers in Ireland as demonstrated elsewhere. There is a decreased desire to quit smoking seen in this cohort with just under half (49%) of occasional smokers reporting that they intend on quitting compared with two-thirds of daily smokers.

While the prevalence of smoking overall in Ireland is declining, there has been little change in the prevalence of occasional smoking. This prevalence pattern of both daily and occasional smoking is consistent with reports from other developed countries [16]. In some countries, such as the US, the prevalence of occasional smoking is actually increasing [1]. This pattern maybe attributable to many daily smokers falling into an occasional smoking pattern rather than being able to quit completely. This has implications for smoking cessation programmes as different techniques need to be adopted for people with different smoking patterns.

## **Conclusions**

- Occasional smoking is associated with significant health risks
- Young adults who smoke occasionally are at a higher risk of progressing to daily smoking than non-smokers
- Increased alcohol consumption is associated with increased craving and desire for cigarette smoking
- The number of occasional smokers in Ireland appears to be stable and demographics are similar to other countries

---

## Members of the RCPI Policy Group on Tobacco

Dr Des Cox (Chair)	Consultant in Paediatric Respiratory Medicine
Dr Linda Coate	Irish Society of Medical Oncology
Ms Siobhán Kelly	Irish College of Ophthalmologists
Dr Donal Murray	Irish Cardiac Society
Dr Siobhán Nicholson	Faculty of Pathology, RCPI
Dr Peter Noone	Faculty of Occupational Medicine, RCPI
Dr Anthony O'Regan	Irish Thoracic Society
Dr Colm O' Tuathaigh	Psychological Society of Ireland
Dr Ann O' Shaughnessy	Head of Education and Professional Development, RCPI
Dr Carmen Regan	Institute of Obstetricians & Gynaecologists, RCPI
Dr Paul Kavanagh	Faculty of Public Health Medicine, RCPI
Dr Naomi Petty-Saphon	Faculty of Public Health Medicine

---

## References

1. Schane, R.E., S.A. Glantz, and P.M. Ling, *Nondaily and social smoking: an increasingly prevalent pattern*. Arch Intern Med, 2009. **169**(19): p. 1742-4.
2. Agaku, I.T., et al., *Current cigarette smoking among adults - United States, 2005-2012*. MMWR Morb Mortal Wkly Rep, 2014. **63**(2): p. 29-34.
3. Benowitz, N.L., *Nicotine addiction*. N Engl J Med, 2010. **362**(24): p. 2295-303.
4. Cooper, T.V., et al., *Differences between intermittentoccasional and light daily smokers in a population of U.S. military recruits*. Nicotine Tob Res, 2010. **12**(5): p. 465-73.
5. Hassmiller, K.M., et al., *Nondaily smokers: who are they?* Am J Public Health, 2003. **93**(8): p. 1321-7.
6. Shiffman, S., et al., *Characteristics and smoking patterns of intermittentoccasional smokers*. Exp Clin Psychopharmacol, 2012. **20**(4): p. 264-77.
7. Okuyemi, K.S., et al., *Light smokers: issues and recommendations*. Nicotine Tob Res, 2002. **4 Suppl 2**: p. S103-12.
8. Tindle, H.A. and S. Shiffman, *Smoking cessation behavior among intermittentoccasional smokers versus daily smokers*. Am J Public Health, 2011. **101**(7): p. e1-3.
9. Shiffman, S., et al., *Tobacco dependence among intermittentoccasional smokers*. Nicotine Tob Res, 2012. **14**(11): p. 1372-81.
10. Coggins, C.R., et al., *Light and intermittentoccasional cigarette smokers: a review (1989-2009)*. Psychopharmacology (Berl), 2009. **207**(3): p. 343-63.
11. Lindstrom, M., S.O. Isacsson, and G. Malmo Shoulder-Neck Study, *Long term and transitional intermittentoccasional smokers: a longitudinal study*. Tob Control, 2002. **11**(1): p. 61-7.
12. Robertson, L., et al., *Nondaily, Low-Rate Daily, and High-Rate Daily Smoking in Young Adults: A 17-Year Follow-Up*. Nicotine Tob Res, 2016. **18**(5): p. 943-9.
13. Amrock, S.M. and M. Weitzman, *Adolescents' perceptions of light and intermittentoccasional smoking in the United States*. Pediatrics, 2015. **135**(2): p. 246-54.
14. Weinstein, N.D., S.E. Marcus, and R.P. Moser, *Smokers' unrealistic optimism about their risk*. Tob Control, 2005. **14**(1): p. 55-9.
15. Levinson, A.H., et al., *Smoking, but not smokers: identity among college students who smoke cigarettes*. Nicotine Tob Res, 2007. **9**(8): p. 845-52.
16. Lochen, M.L., et al., *Association of occasional smoking with total mortality in the population-based Tromso study, 2001-2015*. BMJ Open, 2017. **7**(12): p. e019107.
17. Schane, R.E., P.M. Ling, and S.A. Glantz, *Health effects of light and intermittentoccasional smoking: a review*. Circulation, 2010. **121**(13): p. 1518-22.
18. Hackshaw, A., et al., *Low cigarette consumption and risk of coronary heart disease and stroke: meta-analysis of 141 cohort studies in 55 study reports*. BMJ, 2018. **360**: p. j5855.
19. Bjartveit, K. and A. Tverdal, *Health consequences of sustained smoking cessation*. Tob Control, 2009. **18**(3): p. 197-205.
20. Jiang, N., Y.O. Lee, and P.M. Ling, *Association between tobacco and alcohol use among young adult bar patrons: a cross-sectional study in three cities*. BMC Public Health, 2014. **14**: p. 500.
21. Rimm, E.B., et al., *Prospective study of cigarette smoking, alcohol use, and the risk of diabetes in men*. BMJ, 1995. **310**(6979): p. 555-9.
22. Rose, J.E., et al., *Psychopharmacological interactions between nicotine and ethanol*. Nicotine Tob Res, 2004. **6**(1): p. 133-44.
23. McKee, S.A., et al., *Survey of subjective effects of smoking while drinking among college students*. Nicotine Tob Res, 2004. **6**(1): p. 111-7.
24. Nichter, M., et al., *Smoking and drinking among college students: "it's a package deal"*. Drug Alcohol Depend, 2010. **106**(1): p. 16-20.
25. White, H.R., et al., *Transitions into and out of light and intermittentoccasional smoking during emerging adulthood*. Nicotine Tob Res, 2009. **11**(2): p. 211-9.
26. Wortley, P.M., et al., *Nondaily smokers: a descriptive analysis*. Nicotine Tob Res, 2003. **5**(5): p. 755-9.



**ROYAL  
COLLEGE OF  
PHYSICIANS  
OF IRELAND**

Frederick House,  
19 South Frederick Street,  
Dublin 2, Ireland

**Phone** +353 1 863 9700

**Fax** +353 1 672 4707

 [twitter.com/RCPI\\_news](https://twitter.com/RCPI_news)

 [facebook.com/RoyalCollegePhysiciansIreland](https://facebook.com/RoyalCollegePhysiciansIreland)

 [youtube.com/WatchRCPI](https://youtube.com/WatchRCPI)

[www.rcpi.ie](http://www.rcpi.ie)