

## [Smokers at twice risk of prostate cancer recurring after surgery](#)

**Embargo until: 21<sup>st</sup> March 2015 CET**

**Madrid 21 March:** Current smokers, and those who have quit smoking less than 10 years previously, have twice the risk of a recurrence of prostate cancer after surgery, according to new research presented at the European Association of Urology conference in Madrid.

[Prostate cancer](#) is the third most common male cancer in Europe, accounting for over 92,000 deaths in 2012 (9% of male deaths). Around 30% of all prostate cancer patients treated with radical prostatectomy experience biochemical recurrence (defined by an increase in PSA, prostate specific antigen) within 10 years after surgery

An international group of scientists and clinicians from the USA and Europe retrospectively looked at biochemical prostate cancer recurrence - in 7191 men who had had their prostate removed by radical prostatectomy. Of these men, roughly a third were never smokers (2513, or 34.9%), a third were former smokers (2269, or 31.6%) and a third were current smokers (3409, or 33.5%). These patients were followed up for an average of 28 months.

The results showed that after a median of 28 months, current smokers had around double (HR 2.26) the chance of the cancer recurring than did patients who had never smoked (see abstract below for full results). Even those who had quit smoking within the last 10 years still had a significantly higher risk of cancer recurrence, at about the same level (HR 2.03) as that for current smokers. It wasn't until 10 years after a patient had quit smoking that the risk of cancer recurrence dropped significantly.

According to lead researcher Dr Malte Rieken (University Hospital, Basel, Switzerland):

*"This is a new analysis, but it seems to confirm results we have seen in many other types of cancer: basically, smoking increases the risk of cancer recurrence after initial treatment. Prostate cancer mortality varies widely throughout Europe. The fact that cancer recurrence can vary so dramatically due to smoking is probably one of the factors which may contribute to differences in prostate cancer mortality. It's just another reason not to smoke at all, but the fact that the risk drops after 10 years means that anyone who has prostate cancer, would be well advised to quit immediately".*

Commenting former EAU Secretary-General, Per-Anders Abrahamsson (Malmo, Sweden) said:

*"Prostate cancer is a leading cause of cancer death for man in the western world. A number of studies have addressed how diet and environmental factors affect the risk of prostate cancer. This is the first report that clarifies that smoking increases the risk of prostate cancer recurring after surgery and, therefore, a major step forward to advise our patients to stop smoking when diagnosed with prostate cancer".*

ENDS

**Notes for editors**

PLEASE MENTION THE EUROPEAN ASSOCIATION OF UROLOGY CONGRESS IN ANY STORY  
RESULTING FROM THIS PRESS RELEASE

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**BACKGROUND**

European prostate cancer incidence and mortality statistics are available here:

<http://eco.iarc.fr/eucan/CancerOne.aspx?Cancer=29&Gender=1>

The 15<sup>th</sup> European Association of Urology conference takes place in Madrid from 20-24<sup>th</sup> March. This is the largest and most important urology congress in Europe, with up to 13,000 expected to attend. Conference website <http://eaumadrid2015.uroweb.org/>

**ABSTRACT**

Abstract Nr: 508 This abstract will be presented on 22<sup>nd</sup> March at 14.30 – this is different to the embargo time.

***Association of cigarette smoking and smoking cessation with biochemical recurrence in patients treated with radical prostatectomy for prostate cancer***

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***Introduction & Objectives***

*Cigarette smoking seems to be associated with prostate cancer (PCa) incidence and mortality. We aimed to elucidate the association of pretreatment smoking status, cumulative exposure, and time since smoking cessation on the risk of biochemical recurrence (BCR) of patients with clinically localized PCa treated with radical prostatectomy (RP).*

***Material & Methods***

*Retrospective analysis of 7191 patients treated with RP for PCa between 2000 and 2011. Clinicopathologic and smoking variables, including smoking status, number of cigarettes per day, duration in years, and time since smoking cessation were collected. Uni- and multivariable Cox regression analyses assessed the association of smoking with risk of BCR.*

***Results***

*Of 7191 patients, 2513 (34.9%), 2269 (31.6%) and 2409 (33.5%) were never, former and current smokers, respectively. Current smokers had a significantly higher percentage of patients harboring biopsy and RP Gleason-Score  $\geq 8$  tumors ( $p < 0.0001$ ). Seminal vesicle invasion was more frequently detected in current smokers compared to former or never smokers ( $p < 0.0001$ ). Median follow-up was 28 months (Interquartile range 14-42). In multivariable Cox regression analysis adjusted for standard clinicopathologic features, former smoking (HR 2.03, 95% CI 1.63-2.53,  $p < 0.0001$ ) and current smoking (HR 2.26, 95% CI 1.83-2.80,  $p < 0.0001$ ) were associated with increased risk of BCR compared with non-smokers.*

Smoking cessation was significantly associated with BCR in univariable analysis (Image). Smoking cessation  $\geq 10$  years mitigated the risk of BCR in multivariable analyses (HR 1.20, 95% CI 0.86-1.68,  $p=0.29$ ), whereas smoking cessation  $\leq 4$  years (HR 2.19, 95% CI 1.70-2.81,  $p<0.0001$ ) and between 5-9 years (HR 2.39, 95% CI 1.79-3.17,  $p<0.0001$ ) were associated with increased risk of BCR compared with non-smokers. In multivariable analysis, no significant association between cumulative exposure and risk of BCR could be detected.

**Conclusions**

Smoking is associated with increased risk of BCR after RP. The effect of smoking on BCR seems to be mitigated by  $\geq 10$  years of smoking cessation.

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