

# Circumcision and prostate cancer: a population-based case-control study in Montréal, Canada

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## Objectives

To investigate the possible association between circumcision and prostate cancer risk, to examine whether age at circumcision influences prostate cancer risk, and to determine whether race modifies the circumcision–prostate cancer relationship.

## Subjects and Methods

PROtEuS (Prostate Cancer and Environment Study), a population-based case-control study set amongst the mainly French-speaking population in Montréal, Canada, was used to address study objectives. The study included 1590 pathologically confirmed prostate cancer cases diagnosed in a Montréal French hospital between 2005 and 2009, and 1618

uncircumcised men (OR 0.89, 95% CI 0.76–1.04).

Circumcision was found to be protective in men circumcised aged  $\geq 36$  years (OR 0.55, 95% CI 0.30–0.98). A weaker protective effect was seen among men circumcised within 1 year of birth (OR 0.86, 95% CI 0.72–1.04). The strongest protective effect of circumcision was recorded in Black men (OR 0.40, 95% CI 0.19–0.86, *P*-value for interaction 0.02) but no association was found with other ancestral groups.

## Conclusion

Our findings provide novel evidence for a protective effect of circumcision against prostate cancer