

Five-alpha-reductase inhibitors reduce the risk of prostate cancer

Clinical question	How effective are five-alpha-reductase inhibitors (5 ARIs) in preventing prostate cancer?
Bottom line	5 ARIs reduce the risk of prostate cancer in men who undergo routine prostate cancer screening* using prostate specific antigen (PSA) and digital rectal examination. However, 71 men aged 55 or older would need to be treated (NNT) with a 5 ARI for up to seven years in order to prevent one case of prostate cancer. Effects were consistent across age, family history and ethnicity but were limited to men with baseline PSA values < 4.0 ng/mL. The duration of studies ranged from 0.5 to 7 years, with three trials enrolling 24,969 men lasting 4 years or longer.
Caveat	5 ARIs appeared to increase the risk of high-grade prostate cancer (Gleason score of 7-10). Impaired sexual or erectile function (NNH* 25) or endocrine effects, such as gynaecomastia (NNH 50) and reduced libido (NNH 33), were more common with finasteride than placebo. Information was inadequate to assess the impact on mortality. The impact of 5 ARIs on absolute or relative rates of prostate cancer in men who are not being regularly screened is not clear. NNH = Number needed to treat to cause harm in on individual.
Context	Prostate cancer is the second most common cancer in terms of incidence and the third most common in terms of mortality among New Zealand men. ¹ 5 ARIs, such as finasteride and dutasteride, are frequently used to treat lower urinary tract symptoms associated with benign prostatic hypertrophy and androgenic alopecia. They have potential as chemopreventive agents.
Cochrane Systematic Review	Wilt TJ et al. Five-alpha-reductase inhibitors for prostate cancer prevention. Cochrane Reviews 2008, Issue 2. Art. No.: CD007091. DOI: 10.1002/14651858.CD007091. This review contains 13 trials involving 34,410

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participants.

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1. Ministry of Health (MOH). Cancer in New Zealand: Trends and projections. Wellington: Ministry of Health, 2002.

*Population-based screening of men for prostate cancer is not recommended in New Zealand.

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