

# The Women's Health Research Program

Health Bulletin  
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New research findings presented at the North American Menopause Society Annual Meeting, Dallas, Texas October 2013.

## Transdermal Testosterone Therapy Improves Selective Serotonin Reuptake Inhibitor-associated Sexual Dysfunction in Women

A number of studies have investigated whether testosterone therapy improves libido in women. These studies have been conducted in premenopausal and postmenopausal women, but all have excluded women who have depressive symptoms and women using anti-depressant therapy. However, low libido, impaired arousal and inability to reach orgasm are common side effects of anti-depressants, especially the anti-depressants known as SSRIs and SNRIs. So we conducted a study of the effectiveness of testosterone compared with placebo to treat loss of sexual desire in women taking SSRI anti-depressant therapy.

To be eligible for the study the women had to have previously satisfactory sexual function and have developed sexual dysfunction in relation to their anti-depressant treatment.

45 women, aged 35-55 years, taking a stable dose of an SSRI/SNRI, participated in the study over 12 weeks and were randomly allocated to treatment with either a testosterone patch or a placebo patch. The patches were changed twice a week. After 12



*Ms Ensieh Fooladi (left) with supervisor Professor Susan Davis.*

weeks, the women treated with the testosterone patch had a significant increase in the number of sexual events that they reported as being satisfactory (recorded in a daily diary). Testosterone therapy was also associated with increased sexual interest and arousal. The testosterone treated women also experienced a reduction in distress associated with sexual dysfunction.

This study provides the first evidence that transdermal testosterone therapy

may be a treatment option for women with SSRI/SNRI-associated sexual dysfunction who need to remain on their antidepressant therapy.

The research was presented by Ms Ensieh Fooladi, PhD student in the Women's Health Research program. Ms Fooladi received a Young Investigator Award from the North American Menopause Society and was awarded a Travel Scholarship to attend the meeting in Texas to present her results.



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# NHMRC funding to investigate a novel approach to the prevention of uterine cancer

The Women's Health Research Program has received funding from the NHMRC to study uterine (endometrial) cancer. This study is a collaboration between the Women's Health Research Program, Prince Henry's Institute of Medical Research, Victorian Breast and Oncology Care, Camberwell and Central Ultrasound for Women, the Department of Physiology, Monash University and Northern Cancer Services.

Endometrial cancer affects approximately 3% of women. Obesity and oestrogen exposure are risk factors for this cancer. A novel approach to prevent endometrial cancer would be to oppose the effects of insulin and oestrogen on endometrial cell growth. This study will investigate whether metformin, commonly used to treat diabetes, blocks cellular pathways by

which oestrogen and insulin stimulate endometrial cell growth, and thus evaluate the possibility that metformin might be useful in preventing endometrial cancer. This study will involve women with breast cancer who are to commence treatment with tamoxifen, as tamoxifen is associated with an increased endometrial cancer risk.

1. We will also investigate the effects of metformin versus placebo after 12 months on: 1 the thickness of the uterine lining, using transvaginal ultrasound
2. the cellular make up of the endometrium
3. associations between the effects on the endometrium and clinical characteristics and biochemistry including fasting glucose, insulin, adiponectin and leptin

4. The association between ultrasound findings and endometrial pathology on biopsy.

This study will provide a strong basis for further research into the use of metformin to prevent and possibly treat endometrial thickening and endometrial cancer. It will also provide important clinical outcomes including the association between abnormal ultrasound findings and endometrial pathology and hence the sensitivity of ultrasound to screen for endometrial pathology for women on tamoxifen.

The study will commence in 2014.

## Change to Either a Non-Androgenic or Androgenic Progestin-Containing Oral Contraceptive Preparation is Associated with Improved Sexual Function in Women with Oral Contraceptive-Associated Sexual Dysfunction

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Combined oral contraceptive pills (COC) contain both an oestrogen and a progestin. Some contain a progestin that has testosterone-like action (androgenic) and others contain a progestin that acts as an anti-androgen. Pills with anti-androgen

progestins are often prescribed for women with acne or excess body hair, and are very often used for women with polycystic ovarian syndrome. It is generally believed that anti-androgen COCs impair sexual function. In this study we found this not to

be the case, but rather that there was no difference between the more androgenic COC and the anti-androgenic COC on sexual function. For more information go to the "latest research findings" section of the Women's Health Research program website.

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