

# Female hormone showing medical promise for men

**Men may benefit from a treatment currently used almost exclusively for women.**

Estrogen, a hormone that occurs naturally in women, has been shown to have an effect on mental health as levels rise and fall. In recent years estrogen has been proven to bring about positive changes in women suffering from schizophrenia.

Now a new world-first research study is paving the way to men using estrogen as an adjunct treatment (along with the usual anti-psychotic medications).

Chief investigator Professor Jayashri Kulkarni, Director of Monash Alfred Psychiatry Research Centre at The Alfred, says estrogen therapy in men is still considered somewhat controversial, due to fears of feminising side effects, such as decreased libido, fluid retention and gynaecomastia (enlargement of male breast tissue).

"However, other studies have shown estrogen to be an effective therapy for men in treating prostate cancer, reducing bone density loss, enhancing cardiovascular function and improving aggression and psychosis in dementia or brain injury," Jayashri said.

"In many cases schizophrenia is a lifelong illness that significantly impacts on psychological, cognitive and social wellbeing. Many sufferers



*Prof Jayashri Kulkarni*

experience only limited success with current treatments so new therapies are needed.

"The severity of schizophrenia and level of disability is usually more severe for men and we know that estrogen can mimic the actions of some antipsychotics, such as decreasing circulating dopamine and serotonin," Jayashri added.

Her new trial: *Estrogens and men with schizophrenia: is there a case for adjunctive therapy* saw 53 men with schizophrenia participate in a 14 day trial, taking a low dose of estrogen orally.

Results demonstrated a more rapid reduction in general symptoms, such as depression, anxiety, concentration span and patient's insight into their disease, as oestrogen levels rose and testosterone levels dropped.

"Anxiety and distress can sustain or trigger psychotic relapse and greatly impact on quality of life, so these results are significant," Jayashri said.

"Although adding oral estrogen did not directly reduce positive or negative psychotic symptoms, we found that men with higher circulating estrogen levels and lower testosterone levels, had less severe psychotic symptoms. This strongly supports the hypothesis that higher estrogen levels are associated with improvement in schizophrenia.

"However, we believe the low dose of oral estrogen we used for safety reasons may not have produced the best treatment response in men. We are currently conducting research with a Selective Estrogen Receptor Modulator (commonly known as a "brain estrogen") which does not have feminising effects. This holds much promise for the future treatment of men with schizophrenia," she added.

"Therefore, estrogen therapy in schizophrenia may very well play an equally important role for men and women."