

(The Gender Centre advise that this article may not be current and as such certain content, including but not limited to persons, contact details and dates may not apply. Where legal authority or medical related matters are cited, responsibility lies with the reader to obtain the most current relevant legal authority and/or medical publication.)

# Hormone Withdrawal

## Flooding the Brain with Norepinephrine

by Bill Robertson

Article appeared in Polare magazine: October 1995 Last Update: October 2013 Last Reviewed: September 2015



... if anyone is considering ceasing hormones that they have been taking for a period of time, they should look at the possibility of a reduction regime as opposed to a 'stopping cold'.

Using drugs such as alcohol or heroin markedly affects the uptake of a brain chemical called norepinephrine. The drugs do this by decreasing brain cell receptor activity

Norepinephrine must

attach to these receptors to fulfil it's function of transmitting nerve messages in the brain. If an 'addicted person' were to stop suddenly taking alcohol or heroin, the brain would be flooded with norepinephrine because of increased receptor cell uptake and synthesis. This results in the familiar withdrawal symptoms such as anxiety, irritability, insomnia, hot and cold flushes, sweats, loss of appetite, muscle pain and so on.

Similar symptoms occur when ceasing hormones, although with far less intensity. It would seem to follow then, if anyone is considering ceasing hormones that they have been taking for a period of time, that they look at the

possibility of a reduction regime as opposed to 'stopping cold' to minimise the effects of doing so.

Kaskin and Kleber, two researchers connected to the Substance Abuse Centre and the Department of Psychiatry at Yale University's School of Medicine, have determined that both testosterone and oestrogen act in the brain as powerful anti-depressants. Major fluctuations of hormone levels either up or down, whether they be oestrogen or testosterone can have the ability to upset the delicate balance of enzyme and other chemical activity in the brain causing depression and other side-effects.

If you plan to undergo neo-vaginal surgery, you will be asked to stop taking hormones four to five weeks prior to the surgery. If you have been compliant with the recommended dosage there is little need for concern in this instance.

Conclusion: Due to the potential of withdrawal symptoms developing when considering hormone cessation, seriously consider all aspects of the decision including the possibility of a reduction regime.

Polare Magazine is published quarterly in Australia by The Gender Centre Inc., which is funded by the Department of Family & Community Services under the S.A.A.P. program and supported by the N.S.W. Health Department through the AIDS and Infectious Diseases Branch. Polare provides a forum for discussion and debate on gender issues. Unsolicited contributions are welcome, the editor reserves the right to edit such contributions without notification. Any submission which appears in Polare may be published on our internet site. Opinions expressed in this publication do not necessarily reflect those of the Editor, The Gender Centre Inc., the Department of Family & Community Services or the N.S.W. Department of Health.

The Gender Centre is committed to developing and providing services and activities, which enhance the ability of people with gender issues to make informed choices. We offer a wide range of services to people with gender issues, their partners, family members and friends in New South Wales. We are an accommodation service and also act as an education, support, training and referral resource centre to other organisations and service providers. The Gender Centre is committed to educating the public and service providers about the needs of people with gender issues. We specifically aim to provide a high quality service, which acknowledges human rights and ensures respect and confidentiality.