

## **Abstract**

Pituitary reserve was assessed in women who had used depo-medroxyprogesterone acetate (DMPA) for 1, 5 and 10 years, and their responses were compared to 2 control groups--IUD users and noncontraceptive users. 100 ug GnRH and 200ug TRH were injected as a bolus and the Follicle Stimulating Hormone (FSH), Luteinizing Hormone (LH) and Prolactin (PRL) responses noted. The basal PRL levels were similar in all groups. The PRL response to stimulation was significantly greater among 5 and 10 year DMPA users and also IUD users. The mean basal levels of LH were within the normal follicular phase range in all groups. However, the response to stimulation was significantly higher among 1 and 5 year DMPA users when compared with noncontraceptive users. The basal serum FSH levels in both the study and control groups were comparable to those of normally cycling women in the follicular phase. The response to stimulation was greater in the 10 year DMPA users when compared to both the noncontraceptive users and IUD users. The study shows that basal levels of FSH, LH and PRL were similar in the study and control groups. The observed amplified response to stimulation among longterm DMPA users could be the result of failure of gonadotropin cyclic release, possibly resulting in increased pituitary reserves.