

Implanon and women with high body weight

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Objective: An upper weight limit has been suggested for the use of levonorgestrel (LNG) containing contraceptive implants because of the relatively large number of pregnancies observed in heavier women. Implanon is a single rod implant containing etonogestrel (ENG). Its contraceptive efficacy is mainly determined by the strong ovulation-inhibiting properties of ENG, rather than the thickening of the cervical mucus which is the major mechanism with the LNG containing implants. ENG serum levels during 3 complete years of use of the rod are always above levels known to inhibit ovulation. In this study, the effect of high body weight on the chance of pregnancy in Implanon users was investigated.

Design & Methods: We have reviewed the relevant pharmacodynamic and pharmacokinetic evidence based on current clinical and published data.

Results: Of the 2,300 women participating in the Implanon studies, 5% had a body weight of >75kg. In the third year of the studies, 53 women weighing >75kg still participated, of which 45% weighed \geq 80kg. No pregnancies occurred. Two ovulations were observed, both in women with a body weight <70 kg and with serum ENG levels in a range that normally inhibits ovulation, suggesting that high body weight did not contribute to the occurrence of the ovulations. In general, an inverse ENG serum level-body weight relationship was observed in the weight category between 50 and 70 kg. This inverse relationship was much less evident in the group of women with a body weight over 70 kg.

Conclusions: There is no absolute relationship between the serum ENG-levels and ovulation inhibition. It is highly unlikely that the contraceptive efficacy of Implanon is reduced in women with high body weight.