

## LOWER HORMONE DOSAGE WITH IMPROVED CYCLE CONTROL

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Cycle control is a key factor that influences contraceptive acceptability, convenience and the probability of continued use of the method. In combined contraceptives, reducing the daily dose of ethinylestradiol (EE) can compromise cycle control, which can affect compliance and ultimately contraceptive efficacy. NuvaRing, the novel combined contraceptive vaginal ring, releases only 15 µg EE per day; however, recent studies show it has excellent cycle control.

A large, 1-year, multicenter study performed in Europe examined cycle control during NuvaRing use in 1182 women (equivalent to 12 109 cycles). Withdrawal bleeding during the 1-week ring-free period occurred in 98.8% of all cycles; early withdrawal bleeding was relatively uncommon (5.6% of cycles). In 24.2% of cycles withdrawal bleeding, comprising mainly spotting, extended into the next cycle. From cycle 1 onwards there was a low incidence of irregular bleeding during the 3 weeks of ring-use; on average irregular bleeding occurred in only 4.4% of cycles in the per protocol population and consisted mainly of spotting only. For withdrawal bleeding, the mean number of bleeding or spotting days ranged from 4.5–5.3 during cycles 1–13. For women starting the method, the mean number of bleeding or spotting days was slightly higher than for women switching from another type of hormonal contraceptive, which was in line with the normal duration of flow reported by the two subgroups at baseline.

In a pooled analysis, the cycle control achieved using NuvaRing (n=121) was compared with that of a standard COC containing 30 µg EE and 150 µg levonorgestrel (n=126) over 6 cycles. The cycle control data for NuvaRing in the pooled analysis are consistent with those from the large European multicenter study. Late withdrawal bleeding was more frequent with the COC in all cycles ( $p < 0.01$ ). Irregular bleeding occurred in <5% of all cycles with NuvaRing and between 5.4% and 38.8% per cycle with the COC. Significantly more women using NuvaRing experienced an ideal 'intended bleeding pattern' compared with COC users at every cycle ( $p < 0.01$ ).

Using NuvaRing results in excellent cycle control, significantly better than a standard COC for many parameters; this is possibly because of the continuous release of hormones from the ring. Such a predictable and manageable pattern of bleeding would be expected to improve convenience and produce a high level of compliance.