



The LARC (long-acting reversible contraception) Song: Is the etonogestrel implant a hit?

CLINICAL QUESTION

How does the etonogestrel implant (Nexplanon®) compare to other long-acting reversible contraception?

BOTTOM LINE

Etonogestrel implant (Nexplanon®) is effective with 0-0.34 pregnancies per 100 women per year. In one randomized controlled trial (RCT), the implant had a higher discontinuation rate (27% versus 20%), more amenorrhea (29% versus 9%) and lower patient satisfaction (66% versus 80%) than a low-dose levonorgestrel intrauterine device.

EVIDENCE

- No statistical analysis unless mentioned.
- One systematic review, 51 studies, only one RCT looking at etonogestrel implant versus other contraception.¹ 68mg etonogestrel implant (Nexplanon®) versus 13.5mg levonorgestrel intrauterine device (IUD) (Jaydess®) over 12 months (766 women).²
 - Pregnancies: 0 versus 3 (IUD).
 - Discontinuation: 27% versus 20% (IUD) (statistically different), mostly due to adverse events [examples increased bleeding 11% versus 3% (IUD), acne 5% versus 3% (IUD)].

- Patient satisfaction: 66% versus 80% (IUD) (statistically different).
- Amenorrhea: 29% versus 9% (IUD).
- Prolonged bleeding: 16% versus 5% (IUD).
- "Normal bleeding pattern": 4% versus 31% (IUD).
- Limitations:
 - IUD manufacturer funded.
 - Available IUDs in Canada are higher dose.
- Integrated analysis, 11 non-controlled trials assessed bioequivalent etonogestrel implant (Implanon®) over 2-4 years (942 women, 18-40 years old).³
 - Pregnancy in six women, conception presumed to be following implant extraction (0.34 pregnancies per 100 women per year).
 - Adverse events leading to discontinuation: Bleeding irregularities (11%), emotional lability (2%), weight gain (2%), headache (2%), acne (1%), and depression (1%).
 - Insertion and removal complications 1% and 2%, respectively.
 - Limitations: Industry funded, not a systematic review.
- Non-comparative trial of etonogestrel implant (Nexplanon®) for 3 years (301 women, mean age 28) found similar efficacy and adverse events.⁴
 - Average weight gain 1.4kg at 36 months.
- Similar efficacy⁵ and insertion/removal complications⁶ in observational studies.

CONTEXT

- Nexplanon® is a subcutaneous, radio-opaque, matchstick-sized flexible rod that lasts 3 years.^{7,8}
 - Costs ~\$310 versus ~\$370 for hormonal IUDs which last 5 years.⁷
- Training required for insertion and removal.⁸
- Cases of pulmonary migration, infections, barium allergic reactions, and insertion-related neuropathies have been reported.⁹ No effect observed on bone mineral density.^{10,11}

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AUTHORS

Nicolas Dugré, PharmD MSc
 BCACP, **Nidhi Choksi**, BSc
 Pharm, **Jessica Kirkwood**, MD
 CCFP (AM)

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