Hormonal and intrauterine methods for contraception for women aged 25 years and younger

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An updated version of this systematic review has been published and can be found online at [www.cochrane.org](http://www.cochrane.org). We will soon update the below RHL summary to reflect the updated findings of the systematic review.

RHL Summary

**Findings of the review:** Adolescent and young women have high rates of contraceptive failure and method discontinuation. This review compared pregnancy and discontinuation rates of hormonal and intrauterine contraceptive methods in women less years 25 years old. Four randomized trials (468 women) were included in this review. The contraceptive methods (oral combined contraceptive vs. transdermal patch, levonorgestrel intrauterine system or vaginal ring? copper T380A intrauterine vs. levonorgestrel intrauterine system) compared were all different in each study so meta-analysis was not feasible. Small sample size in the included studies was the main methodological problem that prevented the review authors from inferring a conclusion.

**Implementation:** No practice recommendations can be drawn with the information available at the present time.

Cochrane review


Abstract
Women between the ages of 15 and 24 years have high rates of unintended pregnancy; over half of women in this age group want to avoid pregnancy. However, women under age 25 years have been found to have higher typical contraceptive failure rates within the first 12 months of use than older women. High discontinuation rates may also be a problem in this population. Concern that adolescents and young women will not find hormonal or intrauterine contraceptives acceptable or effective might deter healthcare providers from recommending these contraceptive methods.

This review examined randomized controlled trials of hormonal or intrauterine methods used for contraception in women aged 25 years and younger.

In February 2012, we searched the computerized databases Cochrane Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, POPLINE, CINAHL, and LILACS for randomized controlled trials that compared hormonal or intrauterine methods used for contraception in women aged 25 years and younger. We also searched for current trials via ClinicalTrials.gov and the World Health Organization International Clinical Trials Registry Platform (ICTRP).

We considered all randomized controlled trials in any language that reported the contraceptive failure rates for hormonal or intrauterine contraceptive methods, when compared to another contraceptive method, for women aged 25 years and younger. The other contraceptive method could be another intrauterine method, another hormonal method, or a non-hormonal method. Treatment duration must have been at least three months.

The first author extracted the data and entered the information into RevMan. Another author performed an independent data extraction and verified the initial entry. Because of disparate contraceptive exposures, we were not able to combine the studies in meta-analysis.

Four trials met the inclusion criteria. The trials compared the combined oral contraceptive versus the transdermal contraceptive patch, the combined oral contraceptive versus the vaginal contraceptive ring, the combined oral contraceptive versus the levonorgestrel intrauterine system, and the levonorgestrel intrauterine system versus the copper T380A intrauterine device. Because of small numbers of participants, the trials were not informative regarding contraceptive efficacy. Data on continuation rates were also limited. In one of these trials, the levonorgestrel intrauterine system was found to have a similar 12-month continuation rate as the combined oral contraceptive (odds ratio (OR) 1.48; 95% CI 0.76 to 2.89). In that trial, a higher proportion of women discontinued the levonorgestrel intrauterine system because of pain (OR 14.62; 95% CI 0.81 to 263.16), whereas a higher proportion of women discontinued the combined oral contraceptive for personal reasons (OR 0.27; 95% CI 0.09 to 0.85).

Current evidence is insufficient to compare contraceptive efficacy and continuation rates for hormonal and intrauterine methods in women aged 25 years and younger. Limited data suggests that the levonorgestrel intrauterine system may be an acceptable alternative to the combined oral contraceptive in this population.

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