Society of Family Planning

Science Says

Self-administered DMPA-SC is safe, feasible, and acceptable

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The Society of Family Planning, with critical leadership from Rouselinne Gomez, MD, MPH, and Kelsey Holt, ScD, compiled the following high-level summary of key evidence on the safety, feasibility, and acceptability of self-administered subcutaneous depot medroxyprogesterone acetate (DMPA-SC) to serve as a resource to members and advocates.

Self-administered DMPA-SC is safe.

- DMPA (also called "Depo-Provera" or "the shot") is a 3-month progestin-only injectable contraceptive that can be administered subcutaneously (SC) or intramuscularly (IM). DMPA-IM can only be administered by a trained provider, whereas DMPA-SC can be self-administered. DMPA-SC is equivalent to DMPA-IM in efficacy, safety, and immediacy of onset.[1–4] DMPA-SC is administered through a single-use, disposable Uniject™ system (not available in the US) or a prefilled syringe that contains 104 mg of medroxyprogesterone acetate.
- The World Health Organization, Centers for Disease Control and Prevention, and Society of Family Planning endorse the provision of self-administered DMPA-SC as part of the contraceptive method mix.[5–7]
- In a systematic review of three randomized controlled trials (RCTs) and three controlled cohort studies from the US, Malawi, Scotland, Uganda, and Senegal, researchers found no significant differences in the proportion of women reporting pregnancy or adverse events with self-administered DMPA-SC compared to provider-administered injection. Two controlled cohort studies found self-administration was associated with a slight rise in injection site response, but the review found no other differences in side effects.[8]

Self-administration of DMPA-SC is feasible.

- Research with teenagers in the US has shown that, with brief teaching, many are competent in self-administering DMPA-SC.[9] A recent survey of adolescents aged 14-19 years who had received a DMPA-SC prescription from an urban children's hospital found that 41% had self-injected, 45% had been injected by a family member or friend, and 31% had returned to a clinic for injection (multiple responses allowed); of all participants, 79% administered DMPA-SC on time.[10]
- An RCT of self-administered versus provider-administered DMPA-SC in the US used serum analysis to confirm similar DMPA levels across groups and therapeutic trough levels among all participants.[11]
- A prospective cohort study of women trained to self-inject by study nurses in Senegal found that 87% self-administered DMPA-SC at three months competently and 84% re-injected on time.[12]

People are satisfied with self-administered DMPA-SC.

- In a large RCT at three Planned Parenthood health centers in Texas and New Jersey, 97% of women using self-administered DMPA-SC reported that self-administration was very or somewhat easy and 87% said they would recommend it to a friend.[13]
- In a prospective case series study with 50 women in two Florida Planned Parenthood health centers, 87% reported self-injection to be "very easy" or "easy" after three at-home injections, while 7% found it "very difficult" or "difficult".[14]
- In low-resource settings, women also report high satisfaction with self-administration of DMPA-SC.[15–17] In a prospective cohort study in Senegal, 93% of women trained to self-inject by study nurses expressed a desire to continue using DMPA-SC.[12]

Continuation rates are higher among users of self-administered DMPA-SC.*

- A meta-analysis across several countries found higher rates of continuation with self-administered DMPA-SC compared with provider administration in three RCTs (RR: 1.27, 95% CI 1.16 to 1.39) and three controlled cohort studies (RR: 1.18, 95% CI 1.10 to 1.26).8 Two US-based studies were included:
  - An RCT with 401 women ages 15-44 at clinics in Texas and New Jersey found that one-year continuous use of DMPA-SC was 69% in the self-administration group compared to 54% in the clinic group (p=.005).[13]
  - An RCT with 132 women ages 20-32 in New York found that DMPA-SC use at one year was 71% for the self-administration group and 63% for the clinic group (p=0.47).[11]

*High rates of continuation suggest that self-administered DMPA-SC may enable people to use contraception for longer when they desire pregnancy prevention; however, it is important to note that continuation is not an inherently positive outcome for all people.[18,19]

People are interested in using self-administered DMPA-SC.

- In a RCT in Texas and New Jersey, 52% of people randomized to provider-administered DMPA-SC reported interest in self-administration in the future.[13]
- In a New York RCT, 63% of women approached for the trial were interested in trying self-administration.[11]
- In studies conducted in primary care clinics in Seattle, Washington, and San Francisco, California, a significant portion of DMPA-IM users showed interest in switching to self-administered DMPA-SC. In Seattle, over half of the patients (20 out of 38) were interested, and in San Francisco, among 70 eligible patients contacted, 37% expressed interest in DMPA-SC.[20,21]
- In a cross-sectional study at 13 family planning and six abortion clinics throughout the US, researchers found that:[22]
  - Women currently using DMPA (Adjusted Odds Ratio [AOR]=3.93, 95% CI: 2.37-6.53, p<.001) and women who previously used DMPA (AOR=1.71, 95% CI: 1.26-2.32, p<.001) were more likely to have an interest in self-administered DMPA-SC than those who never used it.
  - Women surveyed at abortion sites were more likely to report interest in self-administration than women surveyed at family planning sites (AOR=1.55, 95% CI: 1.05-2.30, p<.05).
  - Age and race and ethnicity were not significant predictors of interest in self-injection, though women with less education were more likely to be interested (AOR=1.60, p<.03).
  - Interest in self-administered DMPA-SC was primarily driven by a desire to eliminate unnecessary return visits to a facility for repeat injections.

Self-administration of DMPA-SC has the potential to promote individual autonomy and agency and reduce barriers to contraception.

- In a cross-sectional study at 13 family planning and six abortion clinics throughout the US, researchers found that women reporting difficulty obtaining or refilling a prescription were almost twice as likely to have interest in self-administered DMPA-SC as women who reported no difficulty (AOR=1.99, 95% CI: 1.43-2.77, p<.001).[22]
- In a qualitative study in New York with individuals using self-administered DMPA-SC during the COVID-19 pandemic, participants described self-administration as empowering. They appreciated not having to travel to and wait at the health center, being able to administer the medication on their own timeframe, feeling less exposed to COVID-19 risk, and generally having more contraceptive options.[23]
- Qualitative studies in sub-Saharan Africa with users and potential users of DMPA-SC show that self-injection has the potential to decrease barriers to contraception and promote contraceptive agency.[24–28]

Note: This document uses the term “women” when referencing existing publications that use this language.

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