Hormonal Implants: New, Improved, and Popular When Available

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- Hormonal implants are a highly effective, very safe, simple, convenient, and quickly reversible form of contraception that is provided easily in an outpatient setting.
- Implants are thin, flexible, matchstick-sized rods made of soft plastic. The rods contain progestin hormone and are surgically placed beneath the skin of a client's upper arm by a trained provider, who performs a minor surgical procedure under local anesthesia to insert or remove the rods.
- Three new implants, Jadelle® (a two-rod system labeled as effective for five years), Sino-Implant (II)® (a two-rod system labeled as effective for four years) and Implanon® (a one-rod system labeled as effective for three years), are even easier to insert and remove than the previously available implant, Norplant® (a six-capsule system no longer in production that was labeled as effective for seven years).
- Hormonal implants are an excellent contraceptive option for women at all phases of their reproductive lives, whether they want to delay, space, or limit births.
- Though implants are the most costly contraceptive method, their availability in programs can reduce demand on other health services because of their high effectiveness and continuation rates.

Method-Specific Characteristics and Considerations

Effectiveness: Hormonal implants are highly effective, comparable to IUDs, female sterilization, and vasectomy. The risk of failure (pregnancy) in the first year of use is 0.05% (i.e., for every 2,000 women using implants, 1,999 do not become pregnant in the first year). Overall, in five years of Jadelle use, one pregnancy occurs per 100 users. Sino-Implant (II) and Implanon have similar rates of effectiveness.

***Mechanism of Action*:** Implants release a small amount of progestin steadily into the blood. The hormone prevents pregnancy mainly by inhibiting ovulation and by increasing the thickness of cervical mucus, which makes sperm penetration more difficult.

***Convenience*:** Implants can be quickly inserted (in less than five minutes) and removed (in less than 10 minutes), without a pelvic exam and without any blood tests or other routine laboratory tests. They can be inserted at any time during a woman's menstrual cycle, so long as it is reasonably certain that she is not pregnant. No routine follow-up or other action by the client is needed once the implants are in place. Implants can be removed whenever a woman wishes to have them removed.

***Return to Fertility*:** There is no delay in return to fertility upon removal of implants, and implants have no impact upon long-term fertility.

Safety: Implants are very safe. Complications are uncommon, but may include infection at the insertion site (3–7% of insertions), expulsion (extremely rare), and difficult removal.

Side Effects: Changes in bleeding patterns are relatively common and may vary throughout the duration of use, although many bleeding disturbances diminish with continued use. Typical changes include lighter bleeding, fewer days of bleeding, irregular bleeding that lasts more than eight days, infrequent bleeding, and no monthly bleeding. Other minor symptoms that may arise (in fewer than 20–30% of clients) include headache, abdominal pain, acne, weight change, breast tenderness, dizziness, mood changes, and nausea. Alerting clients to these possible side effects and discussing their management is an important aspect of counseling (and of continuation of use).

***HIV/AIDS*:** Implants, like other hormonal contraceptives, do not protect against HIV (or other sexually transmitted infections). Women who are HIV-positive or who have AIDS, whether or not they are being treated with antiretroviral drugs, can use implants.

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***Eligibility*:** Nearly all women can use implants, including those of any age, those who have or have not had children, and those who are married or unmarried. Implants are suitable both for women who wish to space births and for those who wish to limit births. Implants can be inserted in women who have just had an abortion or a miscarriage, and in those who are breastfeeding (starting six weeks after childbirth). Implants can also be used by women who are anemic, smoke cigarettes, have high blood pressure, are infected with HIV, or have AIDS.

Service Program Considerations

***Availability and Use*:** Implants are approved for use in more than 80 countries. Because of their effectiveness and convenience, when implants are made available in family planning programs, they are popular, and demand for them appears high. More than 1% of women in union use implants in Burkina Faso, Ghana, Haiti, Indonesia, and Kenya, and in urban areas of Malawi, Nepal, Senegal, Uganda, and Zimbabwe.

Counseling and Continuation: Implant users discontinue use at much lower rates than do users of IUDs and injectables. Women who experience menstrual disturbances are more likely to discontinue implant use. Thus, effective counseling needs to focus on the practical management of side effects and on the provision of reassurance that common changes in bleeding patterns and that side effects such as headaches, abdominal pain, and breast tenderness are easily treated and usually transient. This is critical to ensuring that women make appropriate, informed choices and also helps enhance continued method use. It is important as well to assure a woman that although she does not *need* to come back, she can come back at any time she wants, for advice, treatment, or removal of the implant (e.g., if she has questions or problems of any kind, wants another method, thinks she might be pregnant, or wants to become pregnant).

***Cost*:** The one factor that limits more widespread use of implants in family planning programs is their relatively high commodity cost, though initial costs have been coming down. In programs supported by the U.S. Agency for International Development, the method costs around $21 per implant (for Jadelle); Sino-Implant (II) is expected to cost $5–$8 if it is approved for use beyond China and Indonesia. Also, cost has many dimensions, and the ability of implants to prevent unintended pregnancies is another important cost consideration for programs. A simulation model using data from Kenya estimated that if 100,000 users of oral contraceptives switched to using implants, 26,000 unintended pregnancies would be prevented over five years, reducing attendant program costs and workloads, and health risks to women.

Provider Cadres: A number of cadres of health professionals, including nurses, nurse-midwives, clinical officers, and physicians, can safely provide implants. After 600 nurses were trained in Ghana and commodities were made available, 88,000 women chose Norplant, and the prevalence of implant use rose more than 10-fold, from 0.1% in 1998 to 1.2% in 2006.

***Service Provision*:** Implants must be provided by well-trained and well-supervised providers in properly equipped and regularly supplied health facilities where attention is given to good surgical technique, infection prevention, and counseling. The fundamentals of care—safety, quality, and informed choice—must be ensured. There should be reliable access to both insertion and removal services, with no unjustified policy or practice barriers to provision (such as age and parity restrictions, marriage requirements, spousal or parental consent requirements, and/or provider bias), and no barriers to removal.

Sources

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