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Implants

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Overview: Contraceptive Implants

- What are implants?
- How to use
- Mechanism of action
- Side-effect profile
- Medical Eligibility Criteria
- Effectiveness
- Types/differences
- Service delivery requirements and models



Photo: PSI Mali

Implants: at a glance

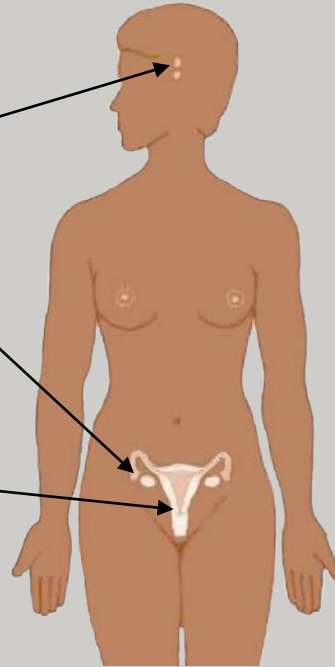


- 1-2 rod
- hormone-containing (progestin)
- inserted under the skin, in the arm
- not visible
- do/does not require daily action
- long-acting reversible contraceptive method (LARC)
- effective from up to 3-5 years

How do they work?

Prevents ovulation

Thickens cervical
mucus



Implant Types / Differences

	Levonplant	Jadelle	Implanon NXT
Manufacturer	Shanghai Dahua Pharmaceutical	Bayer	Merck
Formulation	150 mg levonorgestrel in 2 rods	150 mg levonorgestrel in 2 rods	68 mg etonogestrel in 1 rod
Labeled duration of product use	3 years*	5 years	3 years
Trocars	Disposable, separate	Disposable, separate	Pre-loaded, Disposable
WHO Prequalification	Yes (for 3 year duration)	Yes	Yes
Cost of implant (US\$)	\$7.50 - \$8.00	\$8.50	\$8.50
Product Cost per Year (if used for duration)	\$2.50 - \$2.67	\$1.70	\$2.80
CYP Conversion Factor	2.5	3.8	2.5

*Submission will be made to WHO prequalification for extended duration of product use to 4 years

Implant characteristics

- **Highly effective**
- **Most cost-effective hormonal contraceptive over time**
- **Popular when accessible and affordable**
- **Well accepted and tolerated**
- **Good fit with a range of reproductive intentions**



Common client experiences

Immediate post insertion:

- Insertion site irritation or infection

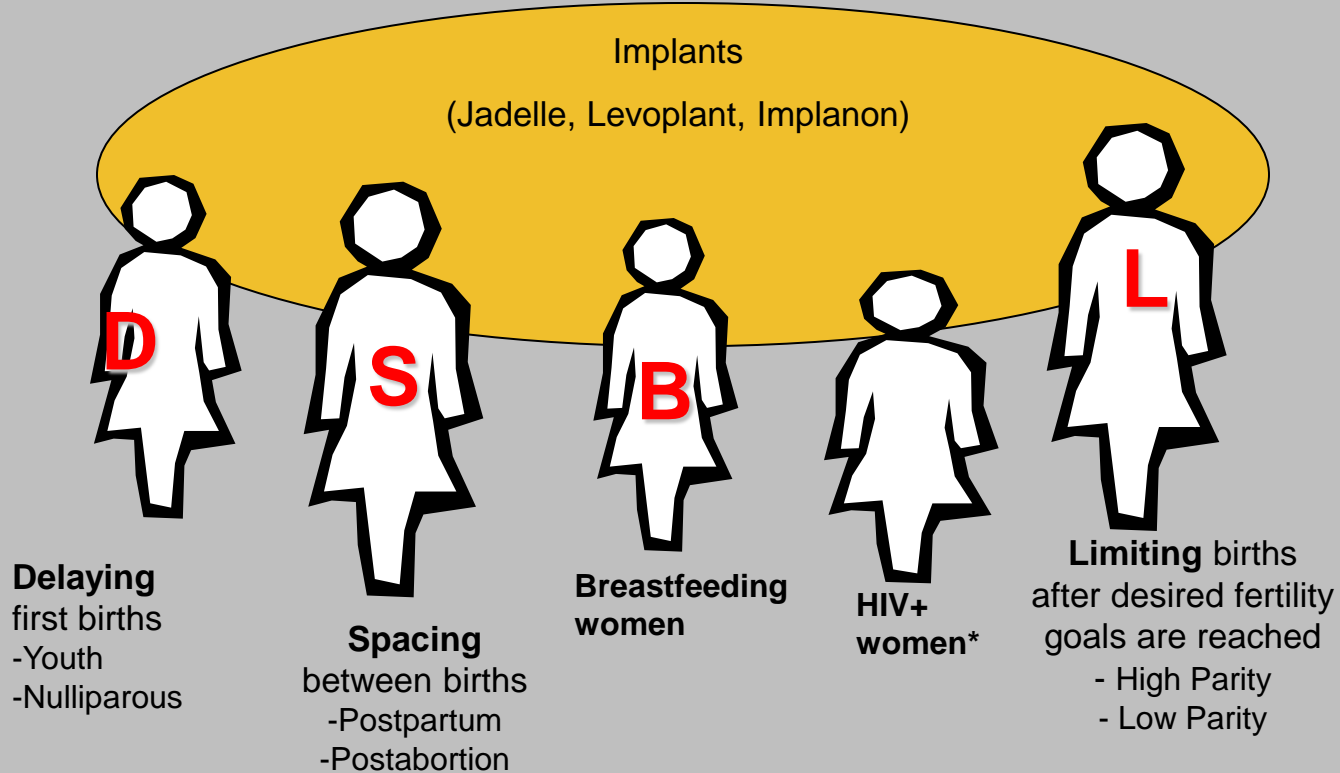
During

- **Changes in bleeding patterns**
- Mild headaches/abdominal pain
- Breast tenderness
- Nausea

Upon removal

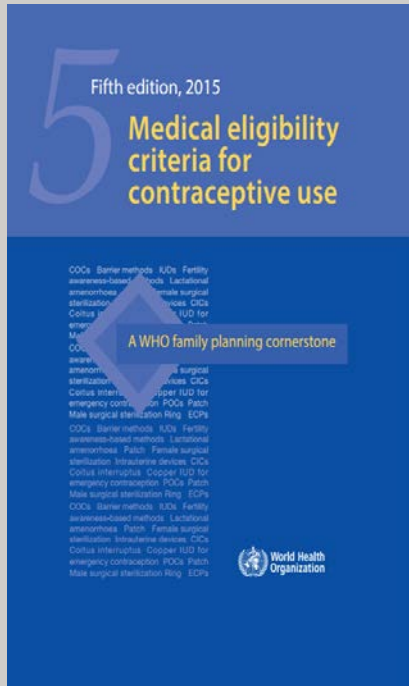
- Rapid return to fertility

Who can choose implants?



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Medical Eligibility Criteria



Category 1: No restriction on use

Category 2: Advantages generally outweigh theoretical or proven risks

Category 3: Theoretical or proven risks usually outweigh advantages

Category 4: Unacceptable health risk

Medical Eligibility Criteria for Use

CONDITION	Sub-condition	COC	DMPA	Implants	Cu-IUD	LNG-IUS
Pregnancy		NA	NA	NA		
Breastfeeding	Less than 6 weeks postpartum					
	≥ 6 weeks to < 6 months postpartum				See i.	See i.
	≥ 6 months postpartum					
Postpartum not breastfeeding VTE = venous thromboembolism	< 21 days					
	< 21 days with other risk factors for VTE*				See i.	See i.
	≥ 21 to 42 days with other risk factors for VTE*					
Postpartum timing of insertion	≥ 48 hours to less than 4 weeks	See i.	See i.	See i.		
	Puerperal sepsis					
Postabortion (immediate post-septic)						
Smoking	Age ≥ 35 years, < 15 cigarettes/day					
	Age ≥ 35 years, ≥ 15 cigarettes/day					
Multiple risk factors for cardiovascular disease						
Hypertension BP = blood pressure	History of (where BP cannot be evaluated)					
	BP is controlled and can be evaluated					
	Elevated BP (systolic 140-159 or diastolic 90-99)					
	Elevated BP (systolic ≥ 160 or diastolic ≥ 100)					
	Vascular disease					
Diabetes	Nephropathy/retinopathy/neuropathy					
	Diabetes for > 20 years					
AIDS	No antiretroviral (ARV) therapy	See ii.	See ii.	See ii.	I C	I C
	Not improved on ARV therapy				I C	I C
Drug interactions	Rifampicin or rifabutin					
	Anticonvulsant therapy **					

“Typical Use” Effectiveness

“Not all contraceptives are the same” [1]

Method	# of unintended pregnancies per 1,000 women in first year of typical use
Implant	0.5
Vasectomy	1.5
Female sterilization	5
IUD (Cu-T / LNG-IUS)	8 / 2
Injectable (Depo-Provera)	60
Pill	90
SDM	120
Male condom	180
Female condom	210
Withdrawal	220
No method	850

Implants are among the most effective of all contraceptive methods

[1] Source: modified from *The RESPOND Project, adapted from Trussell J. Contraceptive failure in the United States. Contraception 20 11; 83:397–404*

[Trussell, 20 11](#)

Implants: Service Requirements

- Requires insertion and removal
- Ensure voluntarism, informed choice
- Skilled, motivated, enabled providers
- Contraceptives, essential medical instruments, expendable medical supplies
- Suitable service setting



Implant Service Delivery Approaches

Trained providers in public or private facilities

- Task Sharing → nurses, health extension workers
- May be dedicated FP or LARC provider
- Integrated with MNCH, Nutrition, PMTCT, HIV

Mobile Clinical Outreach

May be single nurse or midwife or a team of providers

Special “event days”


Highly promoted, may be free to clients

Vouchers

May provide greater accessibility to private providers or reduced price for poor

CHW referrals

May be accompanied referrals to facilities



Provision skills are maintained through adequate client load

Summary: Implant advantages/challenges

Advantages

- Long acting
- Wide eligibility
- High effectiveness
- Minimal effort for client once initiated
- Cost-effective

Challenges

- Service delivery intensive
- Provider dependent
- High upfront costs
- Quality essential (e.g. counseling, insertion, removals)

Thank you!



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